

Synergy of A-SPICE, FuSa, and CS: lessons learned from a process transformation project

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Initial challenges

Service company working mainly with customer's tools and processes

A-SPICE

ISO 26262

ISO 21434



Engineering partner taking responsibility for the entire lifecycle



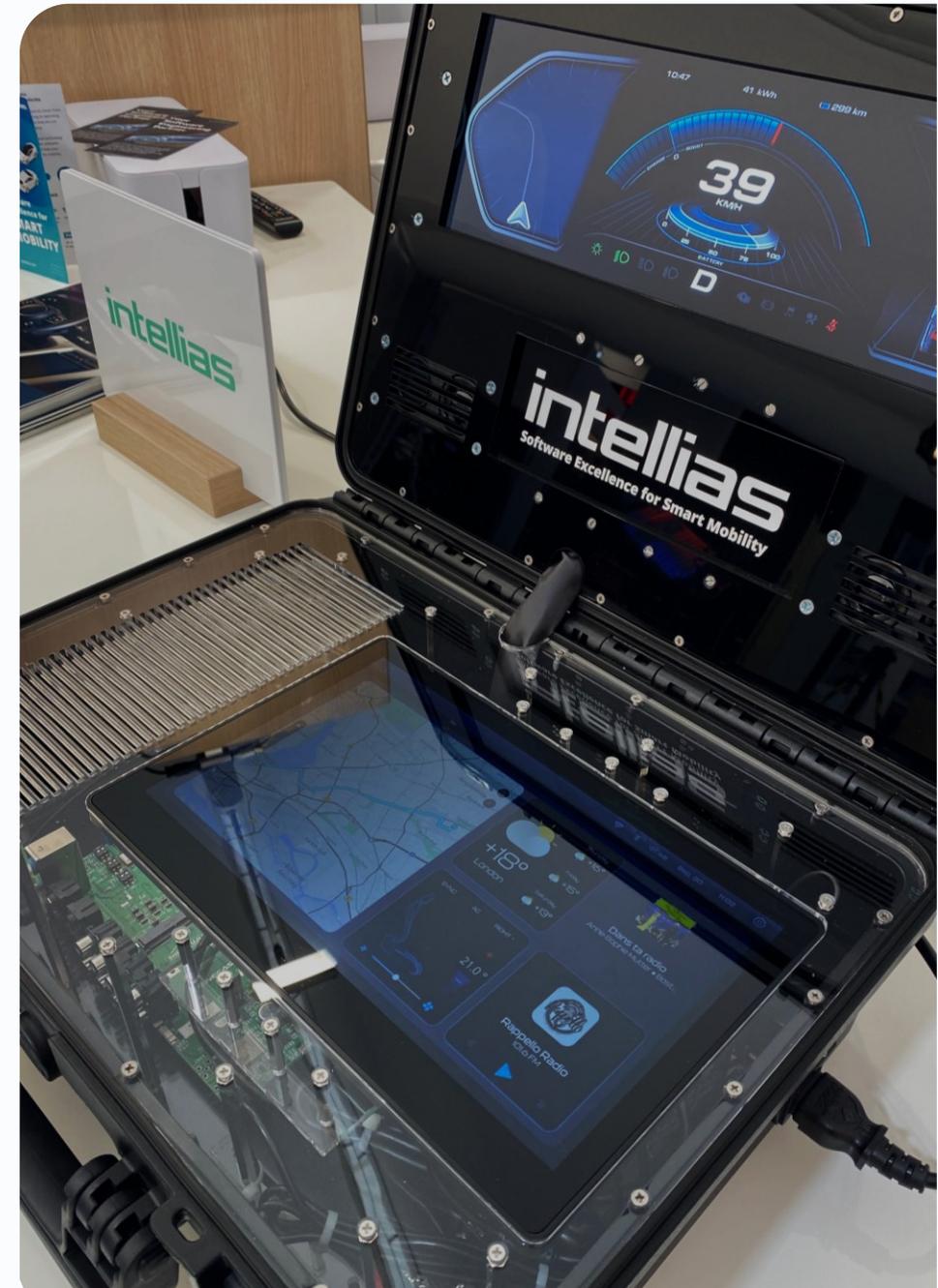
PURPOSE

- The **Intellias ECU Portable Kit** is designed to showcase Intellias' capabilities, shaped into fully functional digital cockpit, powered by industry-grade hardware, and equipped with all the features of a modern in-vehicle HMI system

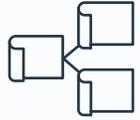


ECU

- Infineon AURIX™ TriCore™ TC375
- AUTOSAR Classic
- Mechanical switches, knobs, and buttons for CAN message control
- Real CAN communication with IC and IVI



What did we start with?



PROCESS LIBRARY

Automotive IDEABook
Created by Kateryna Makarenko, last modified just a moment ago

System engineering process group (SYS)					
SYS.1 Requirements elicitation					
	SYS.2 System requirements analysis		SYS.5 System qualification test		
	SYS.3 System architectural design	SYS.4 System integration and integration test			
System engineering process group (SYS)					
SWE.1 Software Requirements analysis		SWE.6 Software qualification test			
	SWE.2 Software architectural design		SWE.5 Software integration and integration test		
	SWE.3 Software detailed design and unit construction	SWE.4 Software Unit verification			
Management process group (MAN)		Supporting process group (SUP)		Supply process group (SPL)	
MAN.3 Project management	MAN.5 Risk management	SUP.1 Quality assurance	SUP.8 Configuration management	SPL.2 Product release	
		SUP.9 Problem resolution management	SUP.10 Change request management		



TEAM

21
Professionals

55%
Senior+
professionals

2
ISO 26262 certified
professionals

10
ISO 21434 certified
professionals

Evolving QM role



CONTROLLING ROLE

- Focus on A-SPICE assessments and formal evaluations
- Providing process improvement recommendations after identifying issues
- Implementation and compliance status checks
- Periodic engagement during assessment cycles
- Quality Manager as external evaluator and authority

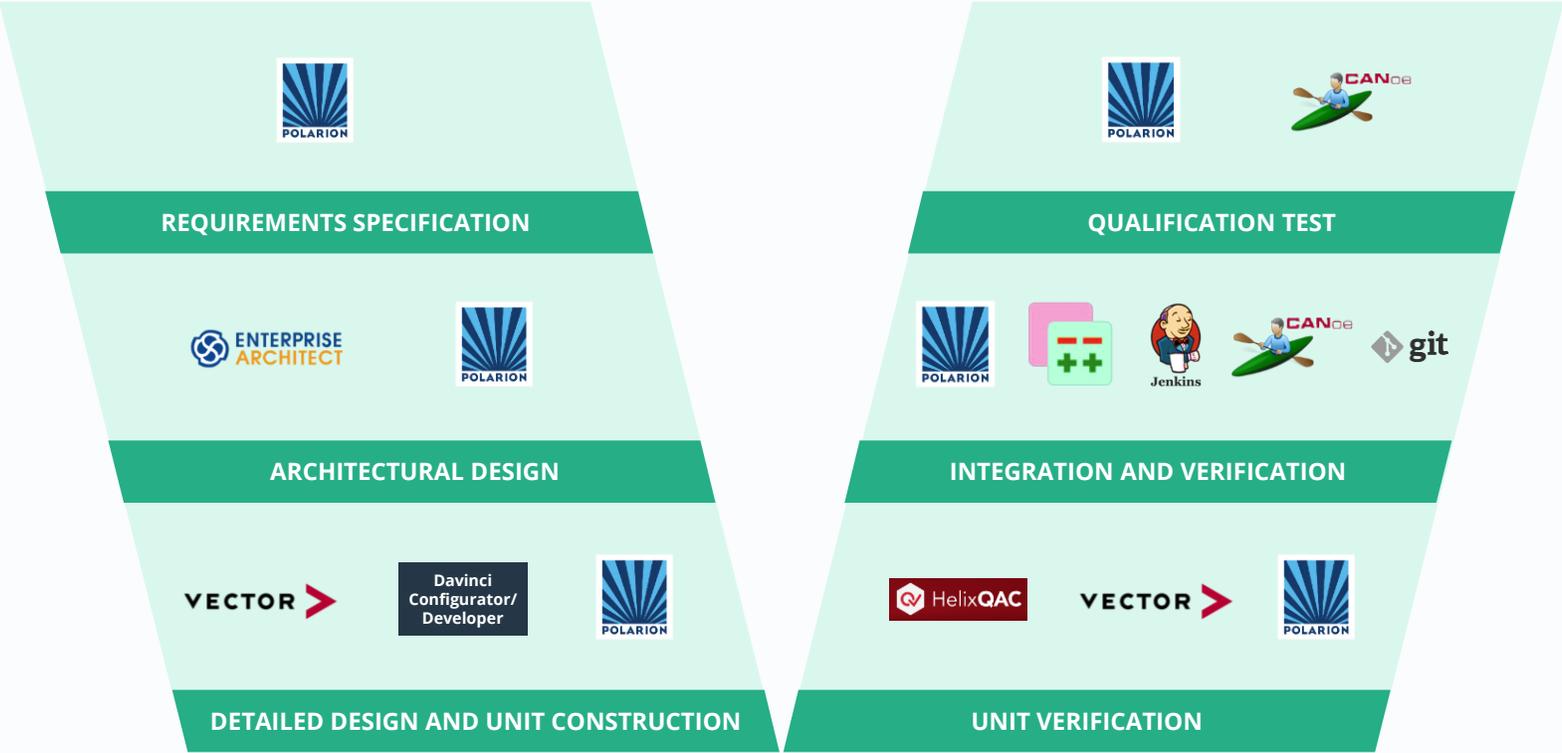


PARTNERSHIP ROLE

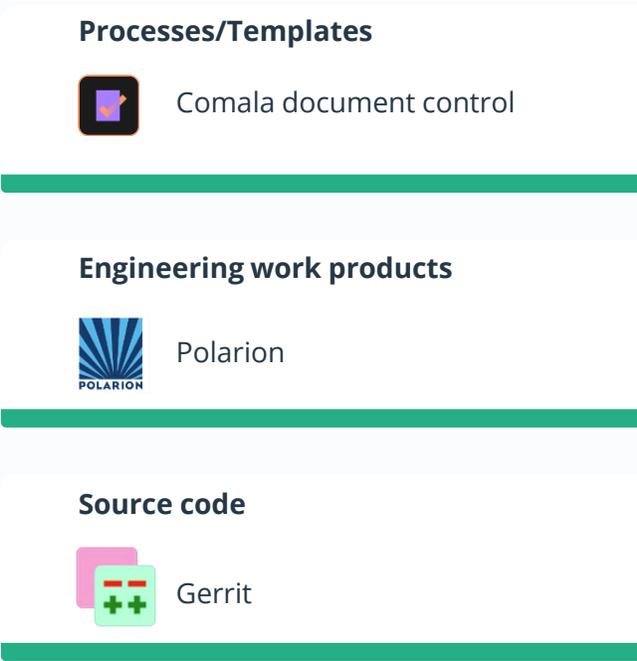
- Daily involvement in team decisions and activities
- More than only support and consulting
- Collaborative tool configuration and process design
- Real-time verification and immediate feedback
- Continuous partnership throughout development
- Quality Manager as trusted and embedded team partner

Tool selection and configuration

ENGINEERING PROCESSES



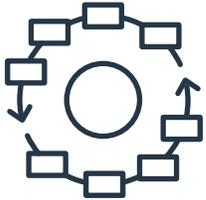
REVIEW APPROACH



SUPPORTING PROCESSES



Challenges & lessons learned



**Work item
properties and
workflows**



**Baselines and
merging strategy
for documents**

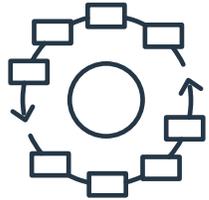


**Naming
conventions**



Traceability

Challenges & lessons learned



**Work item
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Planned for:
Release 1

Modified In:
Release 8



Baselines and
merging strategy
for documents

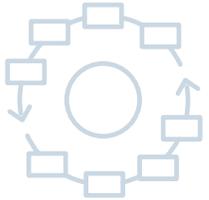


Naming
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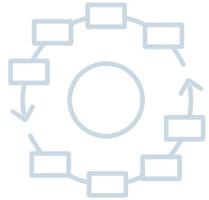


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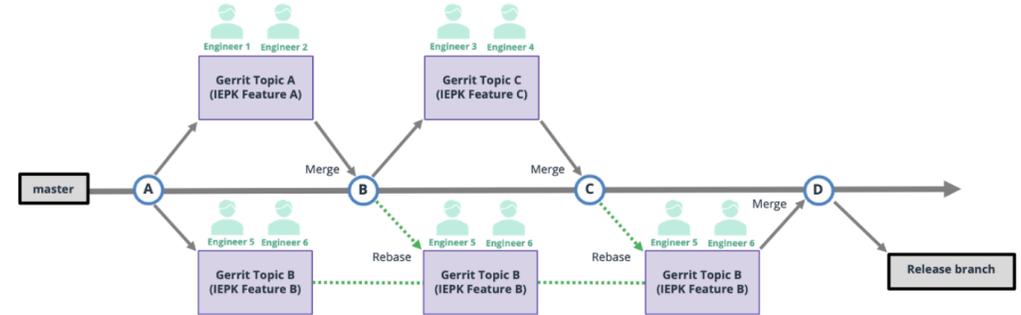


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Challenges & lessons learned



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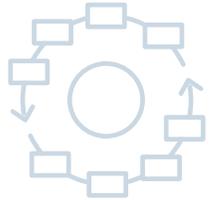


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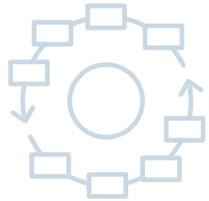


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IEPK-100

[FGS] Feature (Golden Sample)

IEPK-82 IEPK-5717

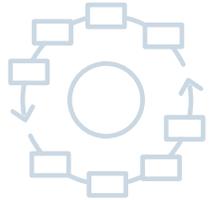
IEPK-100 - The IEPK Shall check state of Start Engine ...

IEPK-322 IEPK-1151 IEPK-1196 IEPK-380 IEPK-387



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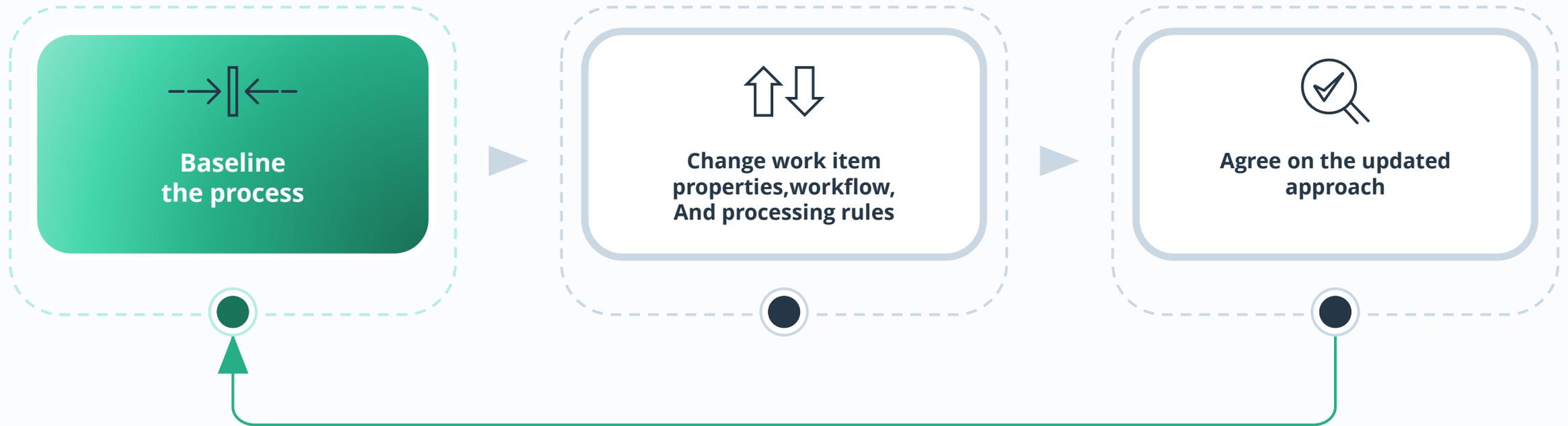


Naming
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Process improvement



IEPK SWE.5 - Software Integration Strategy

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Document Activity

User	Action	State	Comment	Date	Version
 Document Management	Changed state to Approved	● Approved		September 23rd 2025 at 2:28:00 PM	v. 204



0 response submitted

Do you keep your A-SPICE, FuSa and CS processes separated or integrated?

Scan the QR or use link to join



<https://forms.office.com/r/5SfYgXE3aZ>

 Copy link

Separated

Integrated

Depends on the project

Treemap

Bar



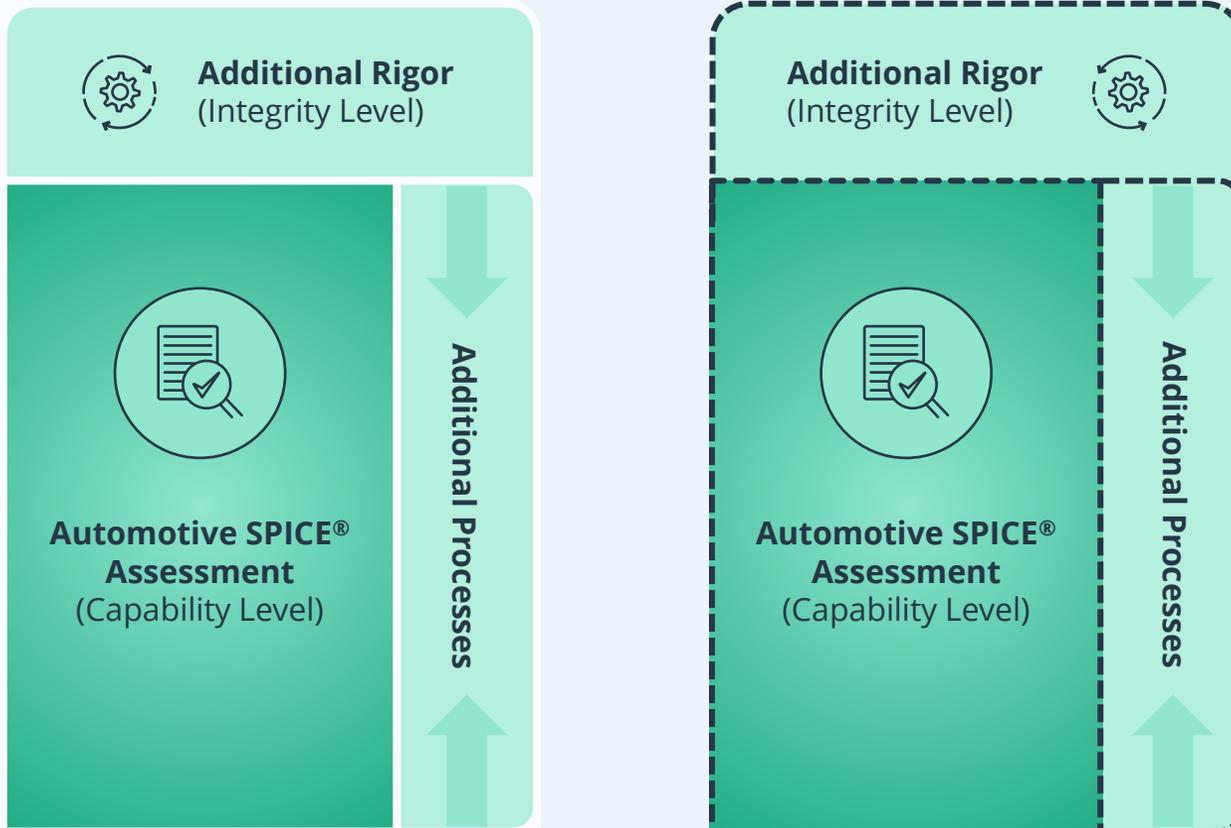
1 of 1



Process evaluation

intacs.info
International Assessor Certification Scheme

Functional Safety Audit



The process was evaluated in a combined approach for A-SPICE and Functional Safety

The basis for the evaluation was the assessment model from A-SPICE

This was extended with the proprietary audit model from UL Solutions

By establishing a cross reference between A-SPICE and Functional Safety in the assessment tool, the effort for the evaluation could be reduced by 30%.

- The typical engineering and supporting processes are evaluated based on A-SPICE and only additional requirements from Functional Safety are added.
- Only for a few artefacts additional meetings were needed, e.g. process for functional safety management, confidence in the use of SW tools, safety analysis.

In the end, two reports were created

Outcomes



A-SPIICE
Assessment
Report



ISO 26262 Audit
Report



ISO/SAE 21434
Certificate



Reusable tool-
specific process
library and tool
configuration



Reusable DevOps
code base



Case study-based
engineering
training program



Solid basis for
future Proof-of-
Concept Projects

intellias

Thank you!

We look forward to building
a long-lasting and
successful partnership!



Learn more about [Intellias](#)