



QA activities and ASPICE assessments optimization

2025



System and software
Quality Manager
Valeo BRAIN - Interior
Experience – Sense

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1.1 – Abstracts – SUP.1.RL.4

1.x 2.x 3.x 4.x 5.x

- Process audit using the ASPICE assessment itself as a reference is not accepted.

Refer PAM3.1 SUP.1.RL.6
PAM4.0 SUP.1.RL.4

[SUP.1.RL.4] If quality assurance of process activities is based on performing process assessments (either by a customer or internally) only, the indicator BP4 shall be down-rated.

➡ Can we use the process audit done on the project to get an A-SPICE rating?
(With a strategy adapted to the business needs)

OR

➡ Can we use the ASPICE assessment as the evidence of the process audit?
(under specific condition)

Source EUROSPI Aug-2022
(Valeo – Nidec)

**Performance Evaluation of ASPICE
Process Assessments and audits**

1.2 – Facts – Process audits vs ASPICE perspectives

1.x 2.x 3.x 4.x 5.x

- Automotive SPICE is required in automotive industry
=> It becomes a mandatory KPI “ASPICE CL” under focus by management
- PAM4.0 SUP.1 BP4 is the only practice that can be covered by process audits
=> Most of the time this KPI are generated by same people as the one doing Quality assurance.
- Quality Assurance engineer generally care about
 - Detect gaps in company process execution, **aligned with company** technologies, business needs, organization, project lifecycles
 - **Chasing risks/problem on the project (“Protect Customer & Valeo”)**
 - **Support** Project/R&D team with actions plans to solve the gaps and mitigate the risks
 - **Track** the issues to closure
- ASPICE assessment
 - Is contractual between OEM and tier 1 (For supplier selection or PPAP approval);
Or is a way to improve the process
 - **Efficiency depend on findings quality and tracking**, out of the assessment scope

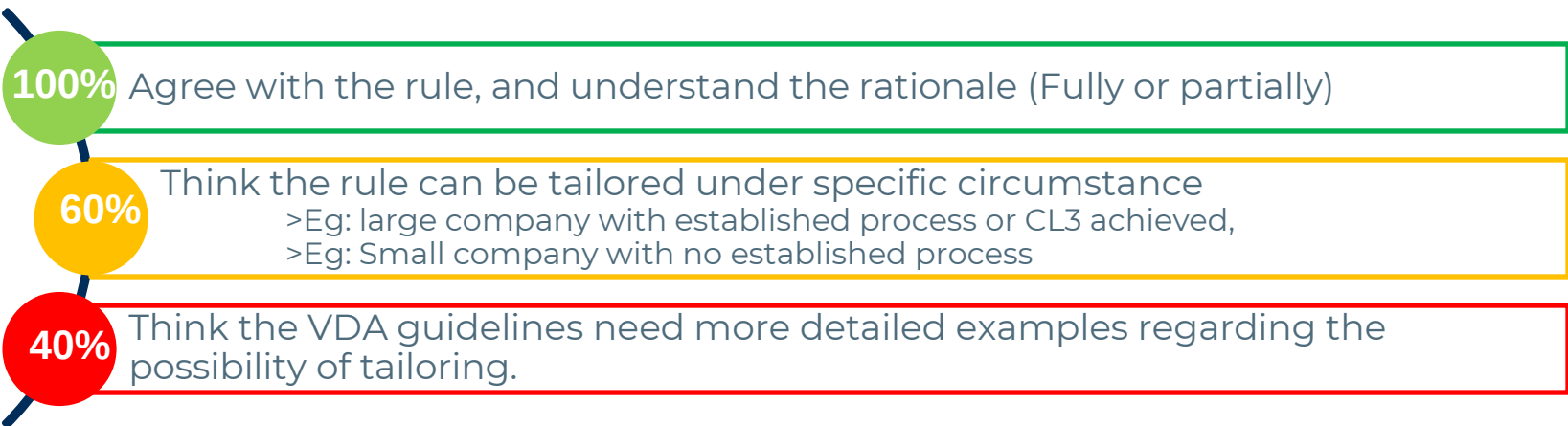
IF YOU DO
SOMETHING ONLY
FOR ASPICE,
YOU CAN SKIP IT

Ref VDA SYS conference
Berlin Jun-2025
“How to increase the value
of ASPICE assessment”

2.1 – Solution - Survey on SUP.1.RL.4 – Overview

1.x 2.x 3.x 4.x 5.x

- Understanding SUP.1.RL.4 – Survey main conclusion



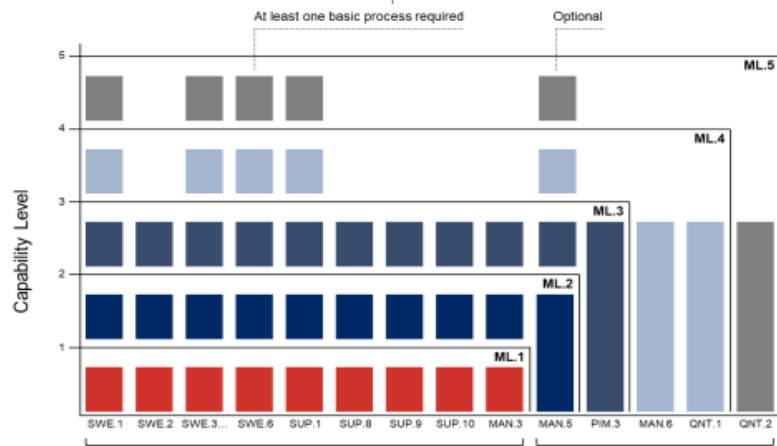
- Scenarii overview

- Valeo mixed approach
- #1 Qualify the processes vs. ASPICE & perform project process audits
 - #2 Rely only on ASPICE assessments for process quality
 - #3 Do not qualify the processes vs ASPICE and do not perform ASPICE assessments

2.2 – Solution – Scenario #1

1.x 2.x 3.x 4.x 5.x

Methodology	Qualify the processes vs. ASPICE & perform project process audits
Cost [saving]	Less costs only process audits which generate some process indicators Extra money for process qualification and train for process tailoring
Convenience	Only for large corporations which have mature processes in place
Preconditions	Organization should target capability level 3
Official tool availability	Available since Apr-2024: Organization SPICE PRM_PAM V3.0



● Maturity Level2

- SYS.1 Requirement elicitation
- SPL.2 Release management
- MAN.5 Risk management

● Maturity Level3

- PIM.1 Process establishment
- RIN.2 Skill development
- PIM.3 Process improvement
- REU.2 Reuse program mgt

Mandatory Valeo BRAIN

Mandatory	Valeo BRAIN
no	no
no	no
yes	yes (TBC)
no	no
no	yes
yes	yes
no	no

2.2 – Solution – Scenarii #2 #3

1.x 2.x 3.x 4.x 5.x

Methodology	#2 Rely only on ASPICE assessments for process quality
Cost [saving]	QA to conduct more work-product related checks with time saved on process audits
Convenience	Small companies or start-up where processes are not defined and full QA is not in place
Preconditions	Need independent assessors (NOT QA in the project) Organization Quality management systems is clearly mapped to ASPICE processes

Methodology	#3 Do not qualify the processes vs ASPICE and do not perform ASPICE assessments
Cost [saving]	No ASPICE assessment (Preparation, interviews) Frequent process audits are need to adapt project practices to ASPICE expectations
Convenience	Organization having short iterations in Agile frameworks (Scrum, SAFe) Companies with defined processes
Preconditions	Use process models and checklists that are specific to the organization (Focused on business needs, technology...) Use checklist that covers ASPICE implicitly

3.1 – Valeo BRAIN division approach – Facts and data

1.x 2.x 3.x 4.x 5.x

- Typology of customers requests?

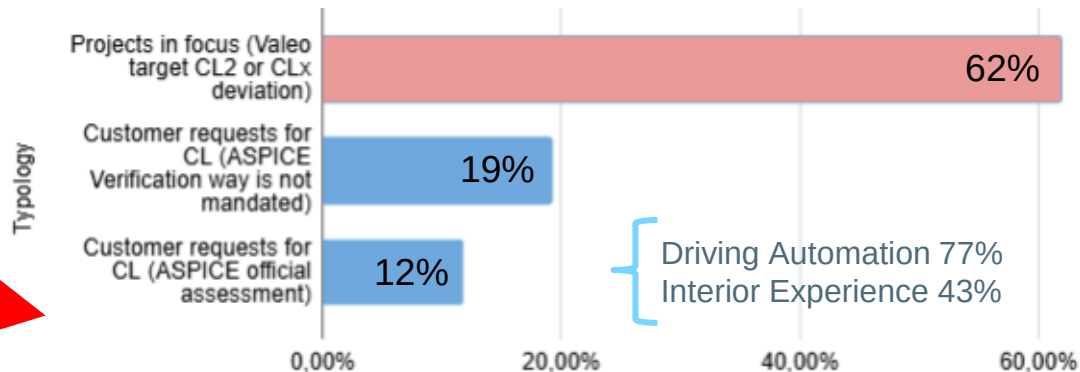
Request	ASPICE official assessment	Led by customer
		Led by external certified assessor (customer as co-assessor or not)
		Led by Valeo certified assessor (customer as co-assessor or not)
	ASPICE verification way is not mandated by Customer & accepting internal result	
No request		

- Valeo BRAIN division approach?

- **PROJECT IN FOCUS** : By default CL1 at Fundamental SW (FFV) and CL2 at Advanced SW (AFV)
- Other project not in focus (Legacy, maintenance)

- Current project figures?

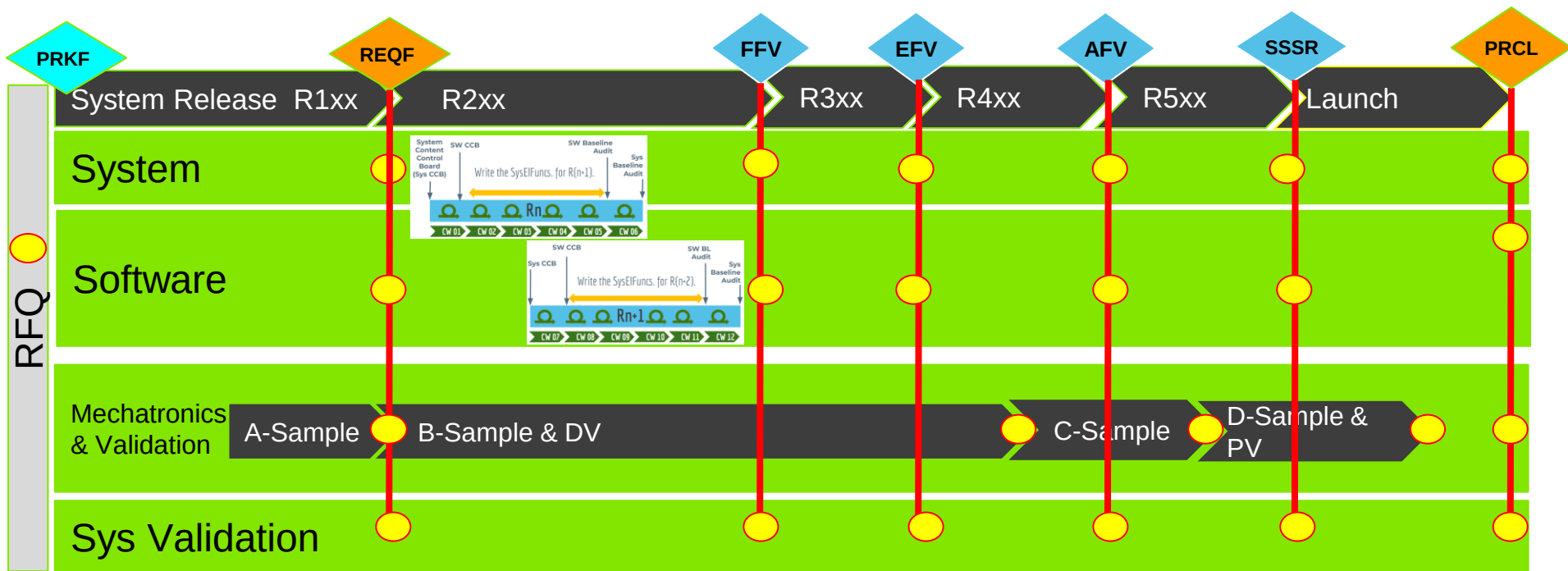
81% of projects with ASPICE target **does not** need official assessment



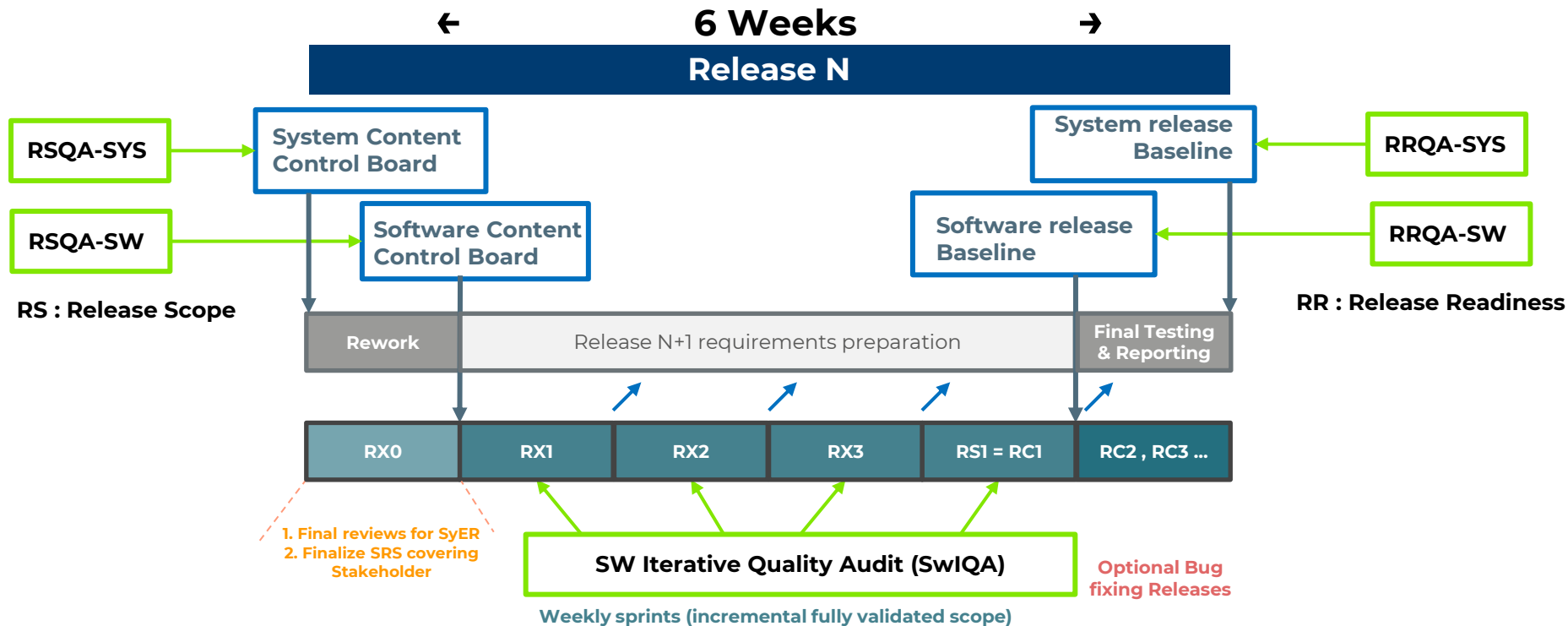
3.2 – Valeo BRAIN approach - Project lifecycles

1.x 2.x 3.x 4.x 5.x

- Iterative development : Simple project routines
 - Basics of the automotive : A/B/C/D Samples at the center
 - 6 weeks iteration mapped to Valeo milestones and customer expectations



4.1 – QA strategy – Process audit & WP review iteration based on 1.x 2.x 3.x 4.x 5.x



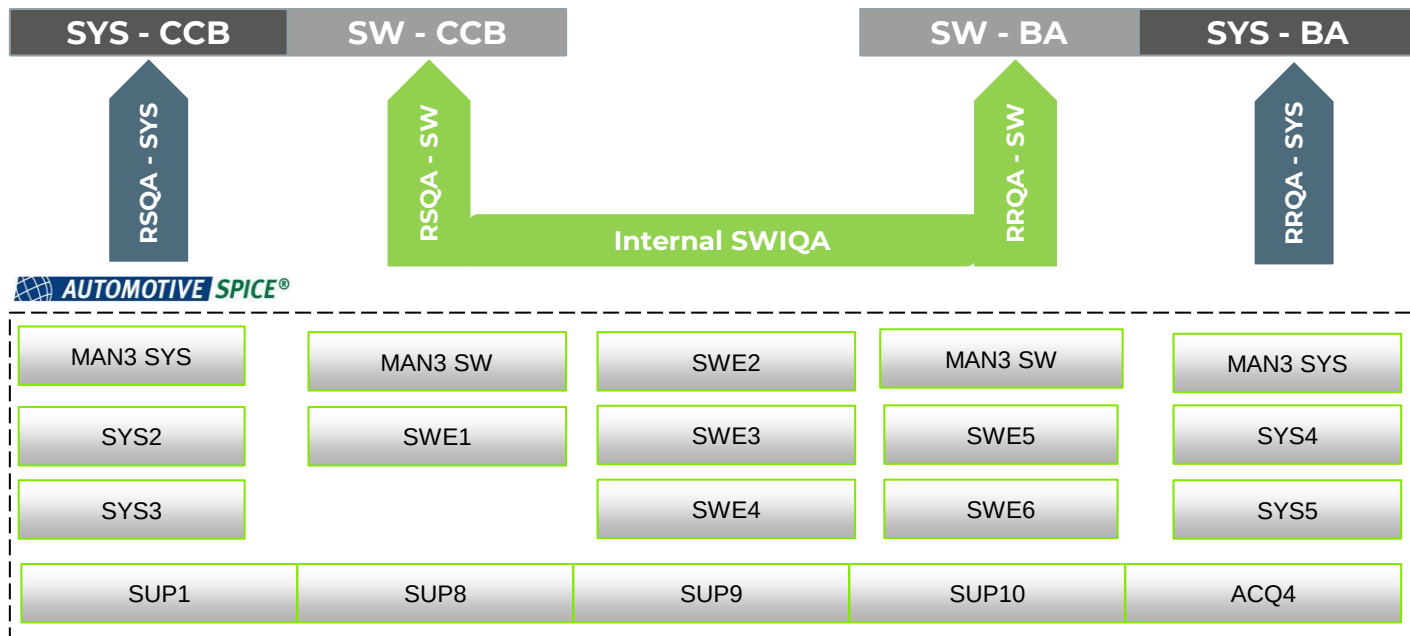
SYS-SW Release (6-Weeks)

Begin & End Constant Checks with Integrated QA Activities

4.2 – QA strategy – Process audit ASPICE mapping

1.x 2.x 3.x 4.x 5.x

- Evaluate Quality of Releases → Release ASPICE Compliance



**NO MORE
ASPICE Self-
Assessment**

**Monthly reporting
Project/
Management**

**Dedicated ASPICE
Assessment **ONLY**
for OEMs**

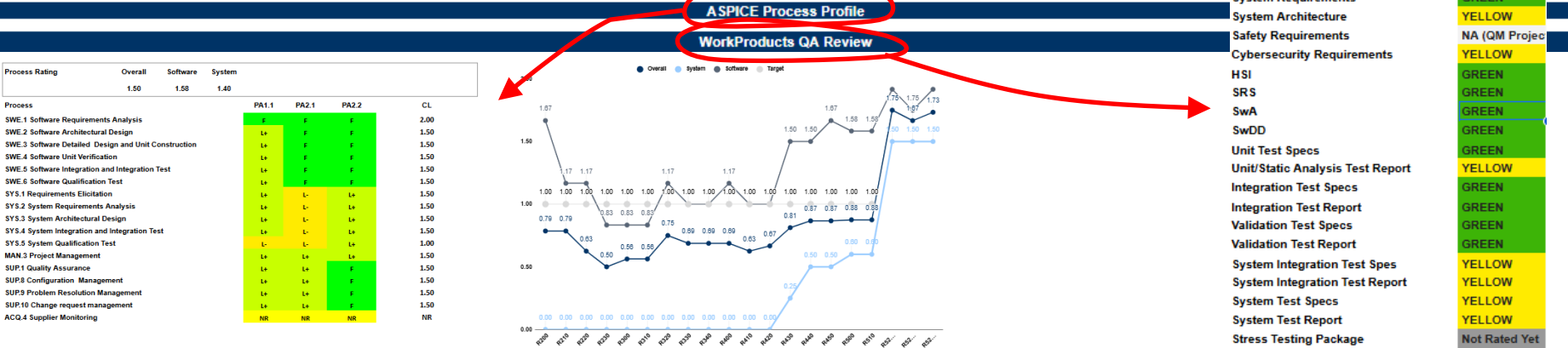
SYS-SW QA Release-Based Audits + Verifying Valeo Brain Processes Compliance with ASPICE CL2 Embedded
Increase QA EFFECTIVENESS & Enhance EFFICIENCY

4.3 – QA strategy – Process audit checklist outcomes

1.x 2.x 3.x 4.x 5.x

SYSTEM / SOFTWARE QA Checklist							
Current Milestone	Release Name	Last Release in Milestone	Customer Release	Project Have Supplier?	ENG GATE QA Review	Supplier Release	SYS/SW Activity
AFV	R520	YES	YES	NO	YES	NO	RRQA_SYS
SYS/SW QA Activity		Audit Result	ENG Gate QA Indicator		SiPH Adherence %	ASPICE Compliance	Observations
RSQA_SYS		Red	Red		78.71%	1.50	
RSQA_SW		Green					
SwQA		Green					
RRQA_SW		Green					
RRQA_SYS		Yellow					

SYS/SW QA Activity Gaps Summary	Overall	ENG GATE	# Review Trackers
# OK Checkpoints	5	1	-
# NOK Checkpoints with Critical gaps	2	0	2
# NOK Checkpoints with Major gaps	12	3	12
# NOK Checkpoints with Minor gaps	4	1	4



4.3 – QA strategy – Process audit checklist mechanism

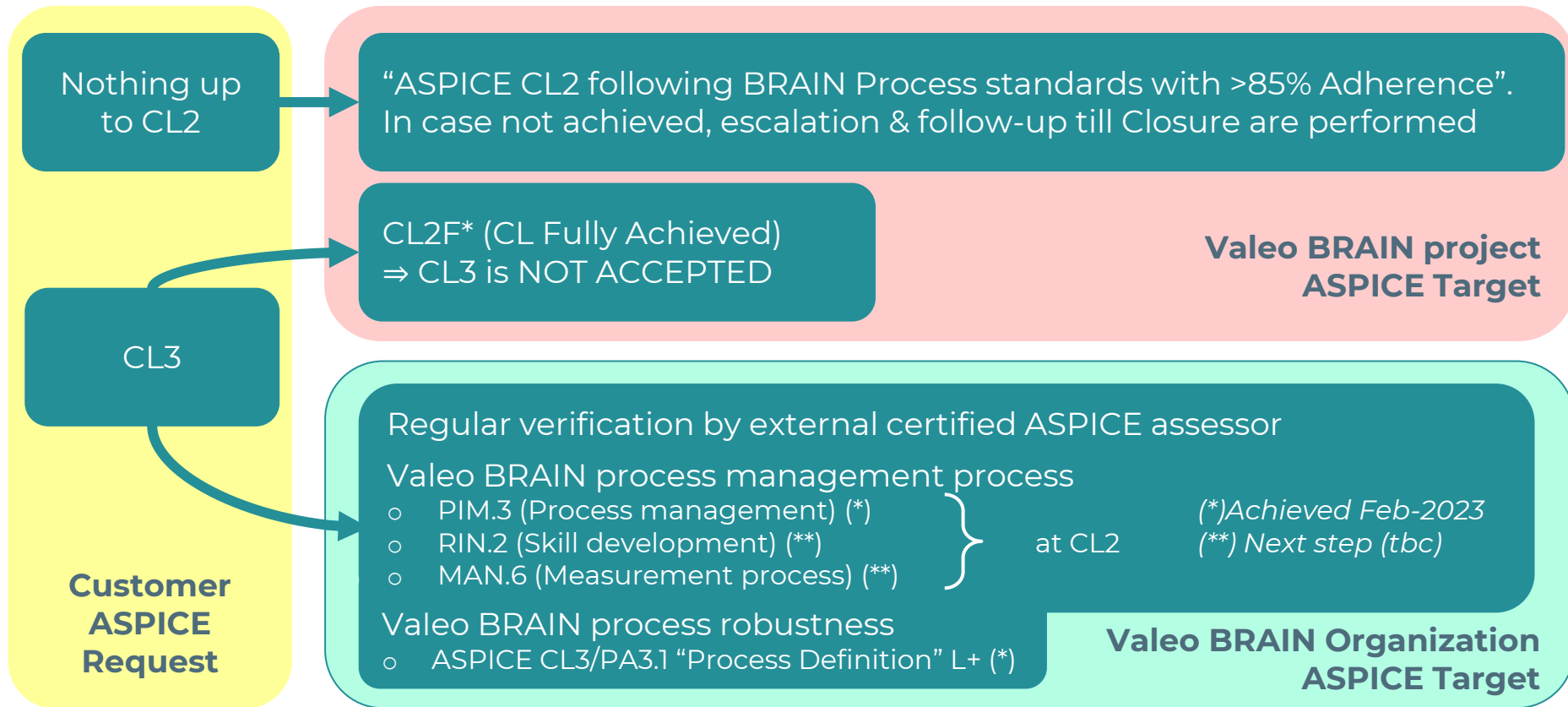
1.x 2.x 3.x 4.x 5.x

- Based on Valeo Brain process QA checklist question
 - No questions dedicated to ASPICE
 - Automatic ASPICE BP rating by aggregation of mapped questions rating
 - Possibility to supersede generated rating manually (Release risk versus ASPICE rating/guideline)

ID	Checkpoints	Acceptance Criteria	OK/NOK	Severity	Rating	Comments	ASPICE Mapping
29_WP/PA	Is the delivery scope identified? Process methods check	- Feature trackers are opened on CoreALM under release planning folder (L2) Mapping to Feature release plan -(If release is mapping to Engineering gate to check Feature planning Maturity based on Gate definition) -Are Functions definition planned per milestone - Feature Release Plan Identified with Mapping to Clean Milestones and Customer Deliveries - Change requests to be implemented are recorded according to the strategy analyzed and approved (ACRs) - Testing loops scope is defined (Integration and validation) -Risk management strategy is defined? It shall include the treatment of risks detected in SW FVS and SW CAA init Preliminary risk evaluation	NOK	Minor	L+	Gaps severity / NPLF rating	MAN.3.BP1 MAN.5.BP2 SWE.5.BP5 SWE.6.BP3 SYS.1.BP5 SPL.2.BP1 SPL.2.BP11 SUP.10.BP2 SUP.10.BP3 SUP.10.BP4 SUP.10.BP5
30_PA	Are Project Plans Consistently Synchronized ? Are risks continuously updated?	- L1 plan Synced with SW Delivery Dates and SW Milestones - Feature Release Plan Identified with Mapping to Clean Milestones and Customer Deliveries - Feature Release Plan is Containing Current Release Feature Maturity Grades Needs to be Achieved -Risks in SLI/R shall be updated based on verification activities result (FMEA, Tests, TR, EngGate QA audits...), scheduling, resource allocation	OK	None	F	ASPICE BP/GP mapping	MAN.3.BP2 MAN.3.BP9 SPL.2.BP1 MAN.5.BP3
31_PA	Are the FVS Analysis available and associated TRs Action Plan Closed or Result is Green ? Are risks identified from Software Component List and FVS Analysis and SW CAA init Preliminary Risk Evaluation?	-Feasibility study done during CAAV and Defined in Project Plans -TR SW CAAV Action Plan (Init and follow-up) are closed or result is green -Any FOSS Component has been defined in FVS -Are risks identified transferred in SLI/R with correct attributes (Type, Description, responsible network, PRAC family)? -Are risks Identified in Software Development plan §6.6?	NOK	Major	L-		MAN.3.BP3 MAN.5.BP1 MAN.5.BP3
32_PA	Is the scope of delivery feasible? PA : Process WP : work-Product	- Software Engineering activities have been estimated including Configuration management, change request and problem resolution management , QA Findings Fixation & validated by R&D, - In case of missing resources, there is an action plan established as per the SW CCB - Risks Log Sheet is updated and Feasibility Risks are Documented and Tracked - Stress Testing environments for [Alpha , Beta , Gamma] up and running with no blocking issues [Checked at REQF] - Check in last release in current milestone that All requirements related to the next Customer Release or next Engineering Gate defined and accepted by SW metier - Check the project is on Clockwork server and configured as per unit construction and verification method / SDP for any project specifics - Check the CI deployment as defined in the integration method & strategy; ensure that at least [ML1/ML2] is up and running before the 1st release - CI Criteria is correctly configured "For All CI Stages "Build , Static analysis , unit test , Foss , Intg & Validation" as per CI/CD guidelines and Methods - Same Repos & branches are used in project deliveries are consistent with the Integration Plan "Branching Strategy is respected" - Make sure that the test environments are available for Software Integration Test / Validation Test - Make sure customer needed support for each releases associated activities are planned as appropriate - Risk treatment action are identified in the release scope	NOK	Critical	P+		MAN.3.BP3 MAN.3.BP5 SPL.2.BP6 MAN.5.BP5

5.1 – ASPICE strategy – Valeo Brain Approach

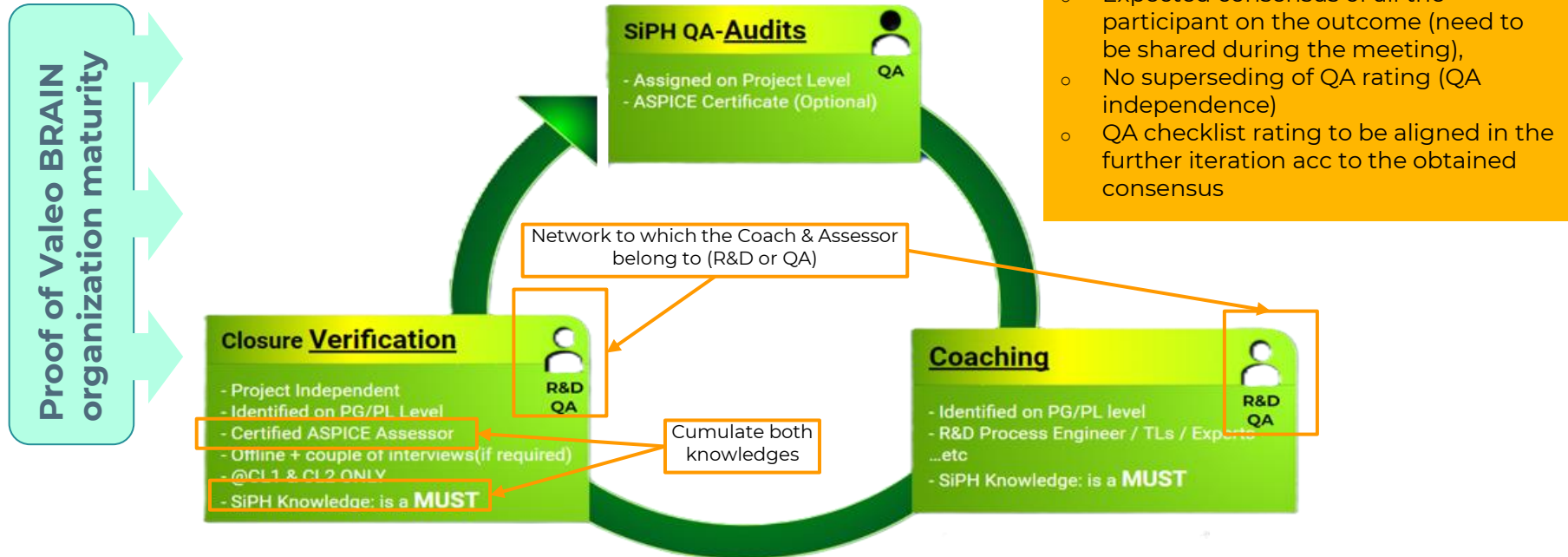
1.x 2.x 3.x 4.x 5.x



5.2 – ASPICE strategy – ASPICE estimator check

1.x 2.x 3.x 4.x 5.x

- Valeo BRAIN process SiPH closure/coaching
 - Schedule : At FFV and AFV committed date
 - Participant : At minimum Sys&SwQA engineer/lead





SMART TECHNOLOGY
FOR SMARTER MOBILITY