

Talk im Park

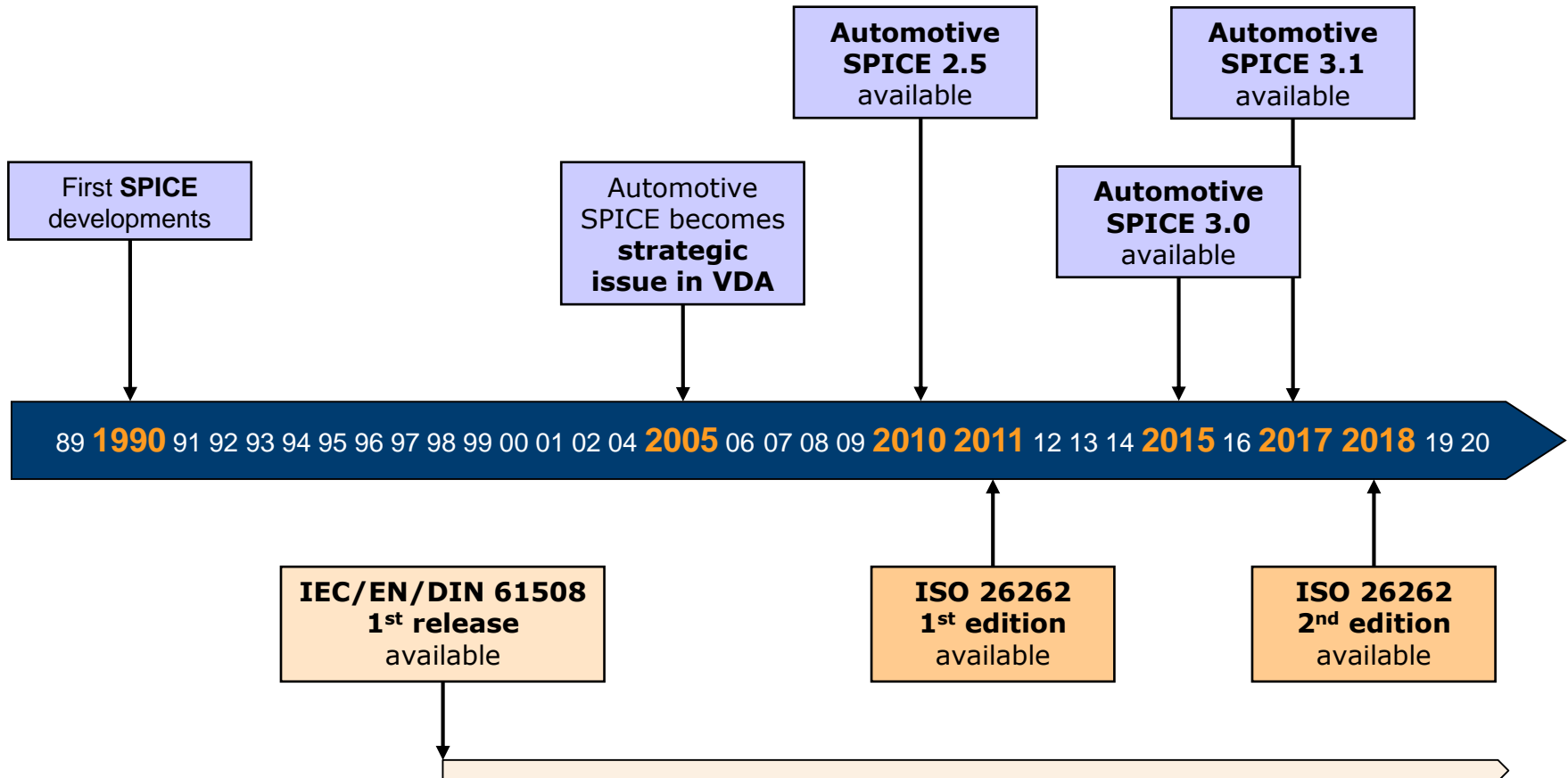
ISO 26262 - 2nd Amendment
alles bleibt neu?!



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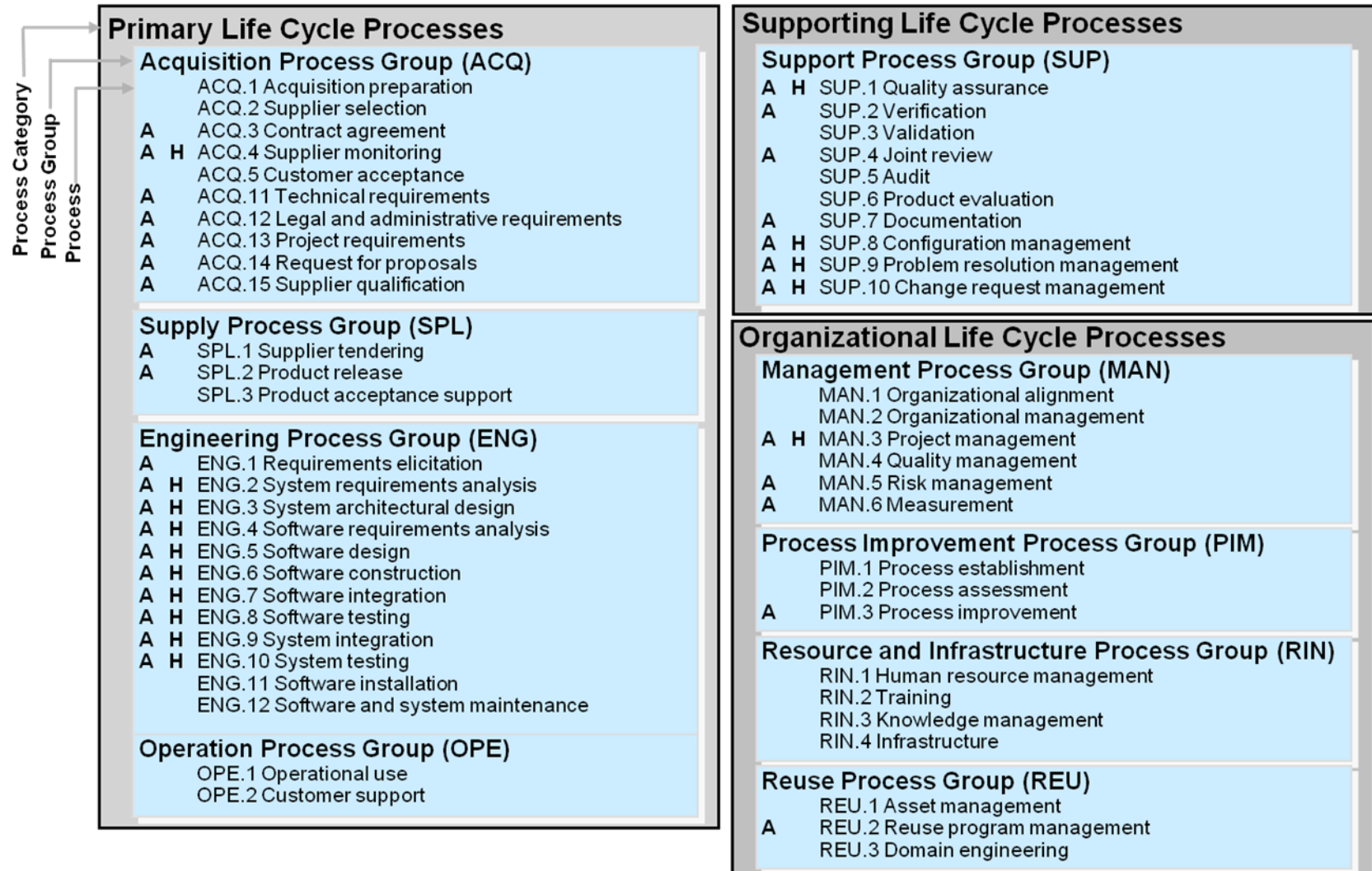
- **Historical Data**
- ASPICE v2.5 and ISO 26262:2011
- ASPICE v3.1 and ISO 26262:2018
- Major changes of the vocabulary of ISO 26262
- Major changes of the safety lifecycle of ISO 26262
- Summary

Historical data

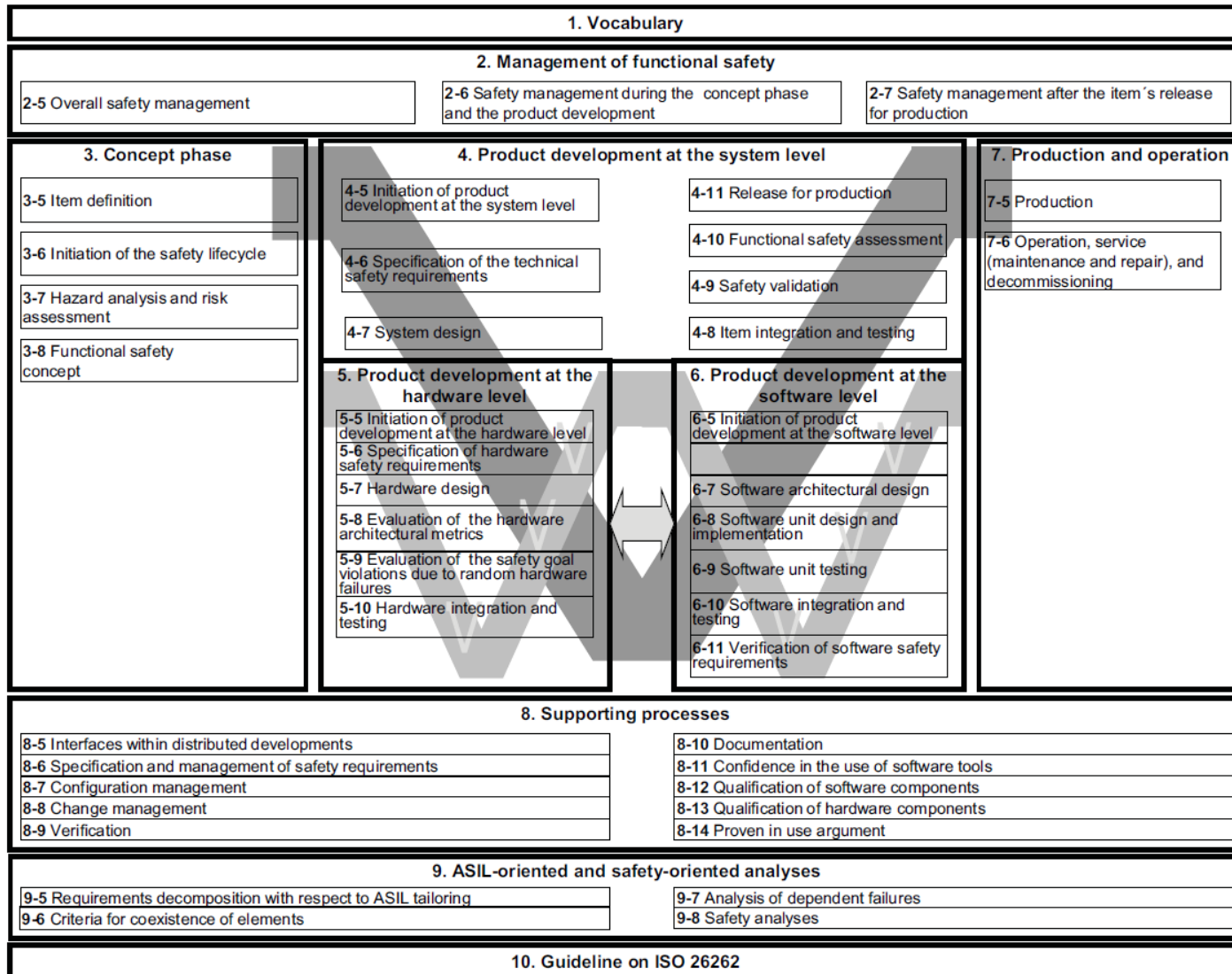


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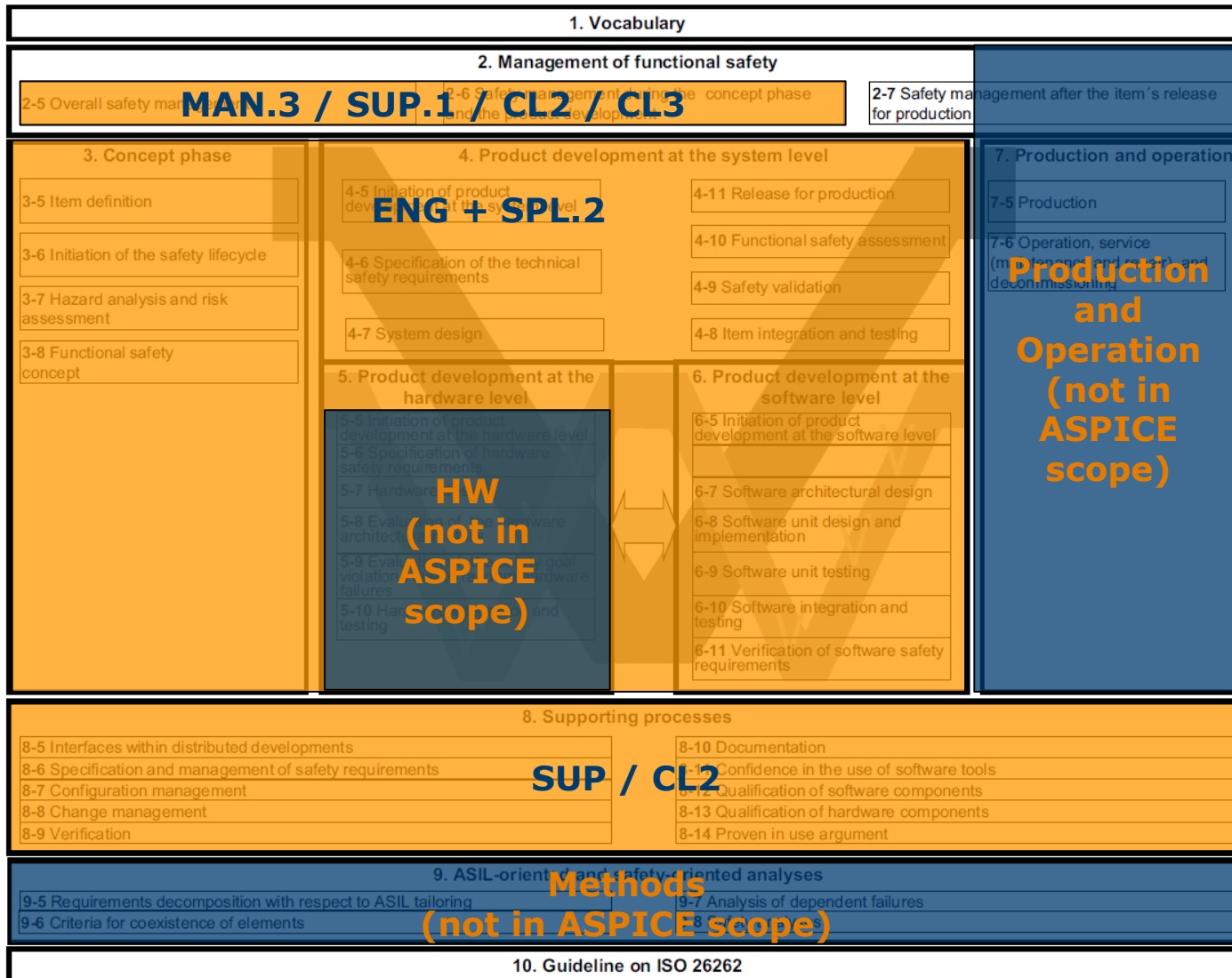


Structure of ISO 26262:2011



Source: ISO 26262:2011

ISO 26262:2011 and ASPICE v2.5



ASPICE provides no criteria to rate the **suitability** of methods or technical solutions regarding ASIL!

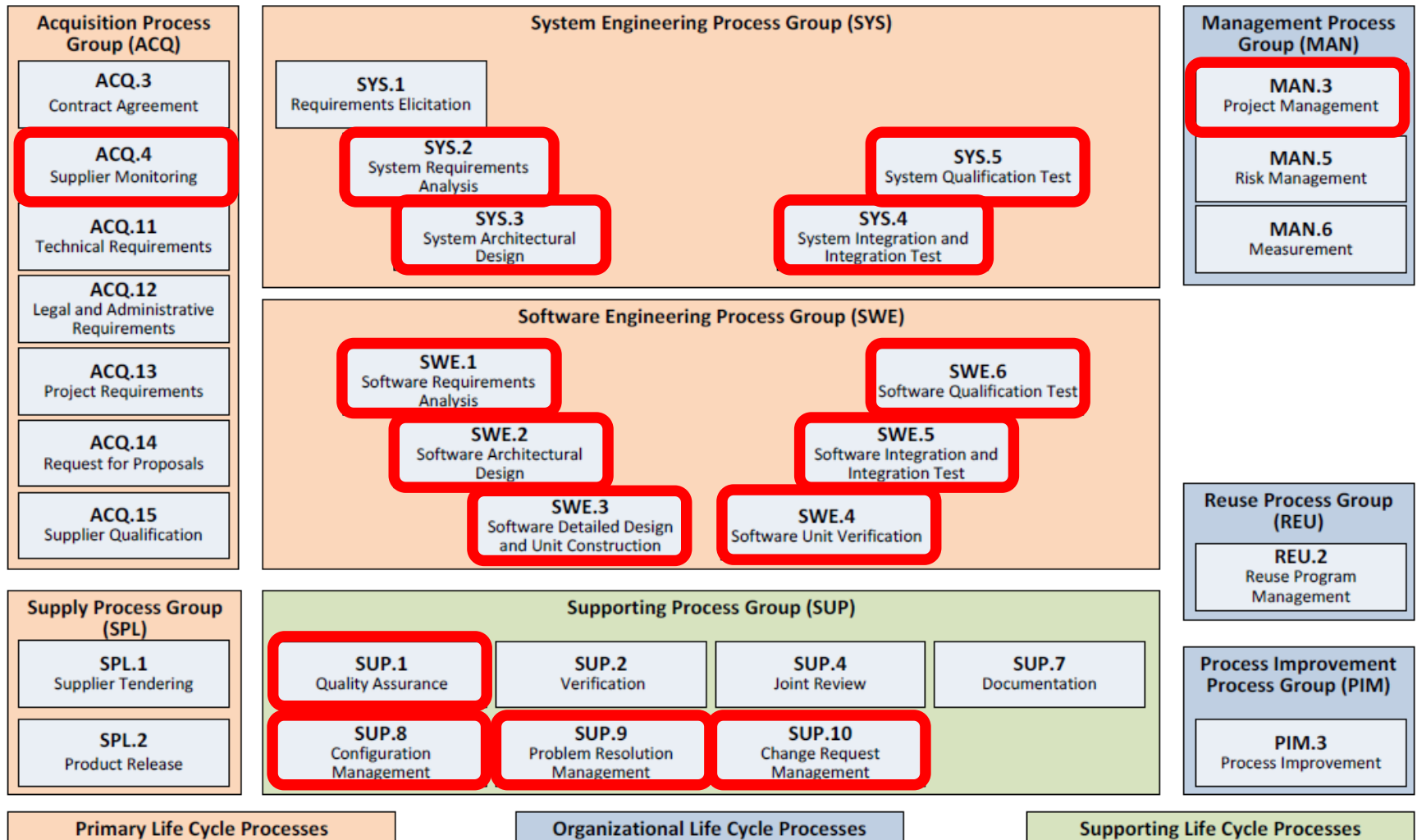
Source: ISO 26262:2011

A close-up, slightly blurred photograph of a spiral-bound notebook with a silver metal spiral binding and a dark cover, resting on a white surface.

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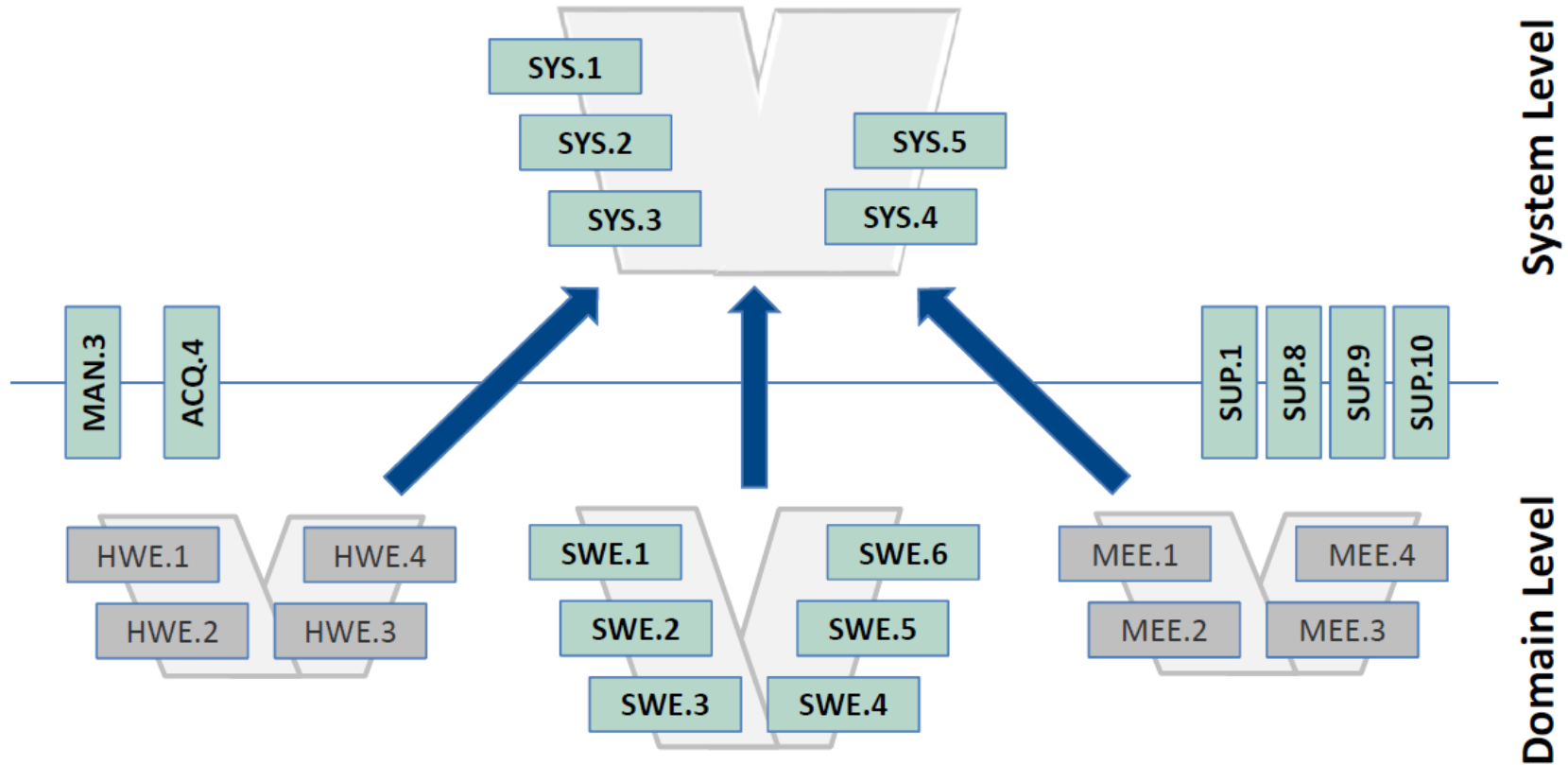
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Automotive SPICE® 3.1 PRM



Processes of the VDA Scope

“Plug-In” Concept of ASPICE 3.x



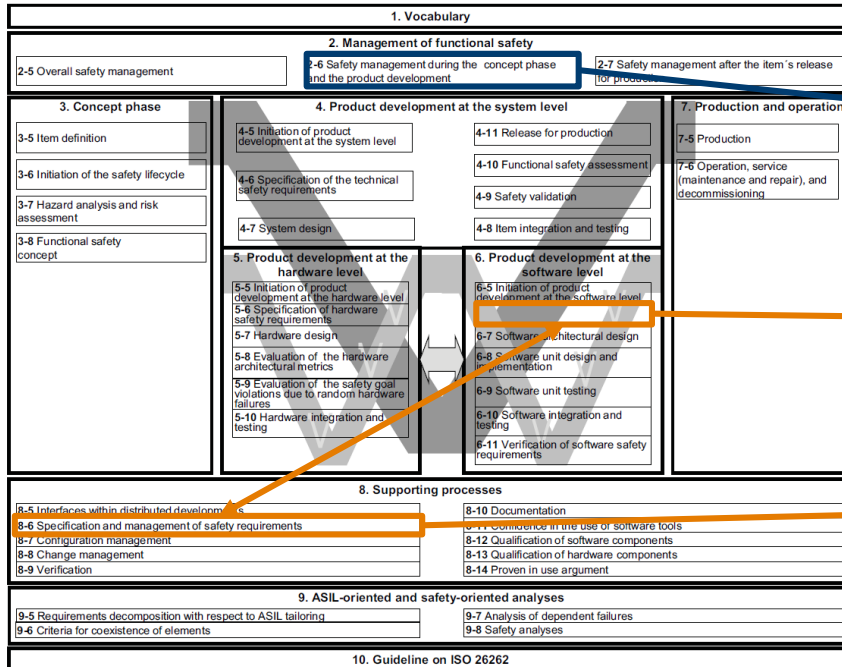
SYS = System Engineering
 SWE = Software Engineering
 HWE = Hardware Engineering
 MEE = Mechanical Engineering

= developed by VDA, part of Automotive SPICE® 3.0
 = not developed by VDA, not part of Automotive SPICE® 3.0
 (but by intacs™ Working Groups)

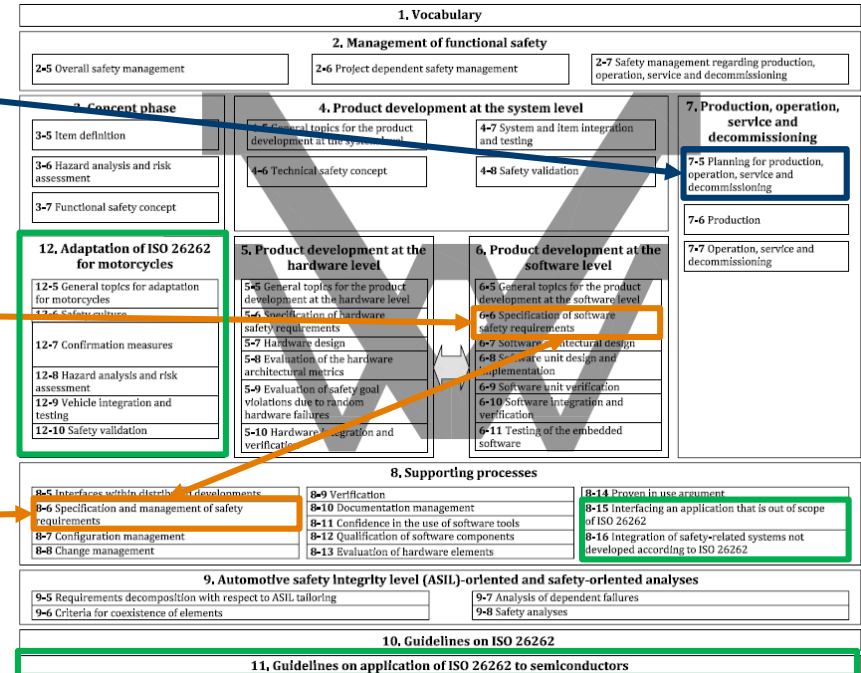
Major Changes of ISO 26262

1st Edition: 2011

2nd Edition: 2018



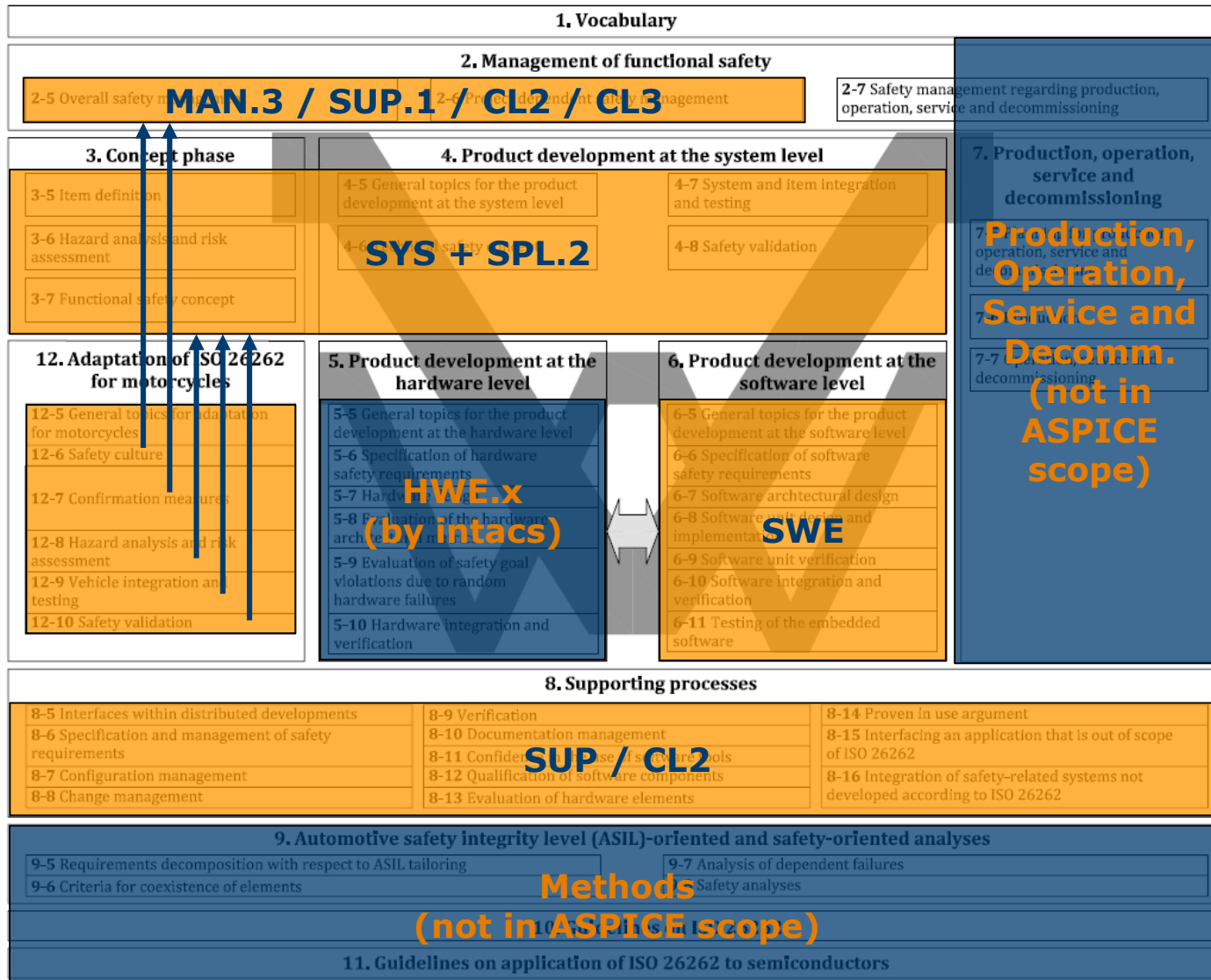
Source: ISO 26262:2011



Source: ISO 26262:2018

- Green: new
- Blue: refinement but not really new (out of scope of Automotive SPICE®)
- Orange: refinement but not really new (in scope of Automotive SPICE®)

Structure of ISO 26262:2018



ASPICE provides no criteria to rate the suitability of engineering methods or technical solutions regarding ASIL!

Source: ISO 26262:2018

A close-up, slightly blurred photograph of a spiral-bound notebook with a silver metal spiral binding and a dark cover, resting on a white surface.

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1st Edition:2011

2nd Edition:2018

Safety manager

Safety manager

Role filled by the person
responsible for the functional
safety management during the
item development

Person or organization
responsible for overseeing and
ensuring the execution of
activities necessary to achieve
functional safety

**Check of role (F)SM
necessary**

1st Edition:2011

2nd Edition:2018

Availability

Capability of a product to be in a state to execute the function required under given conditions, at a certain time or in a given period, **supposing the required external resources are available**

Availability

Capability of a product to **provide a stated function if demanded**, under given conditions over its defined lifetime

Prepare for availability concepts!

1st Edition:2011

2nd Edition:2018

Technical safety concept

Technical safety concept

Specification of the technical safety requirements and their allocation to system elements **for implementation by the system design**

Specification of the technical safety requirements and their allocation to system elements **with associated information providing a rationale for functional safety at the system level**

Check of requirements and architecture processes necessary

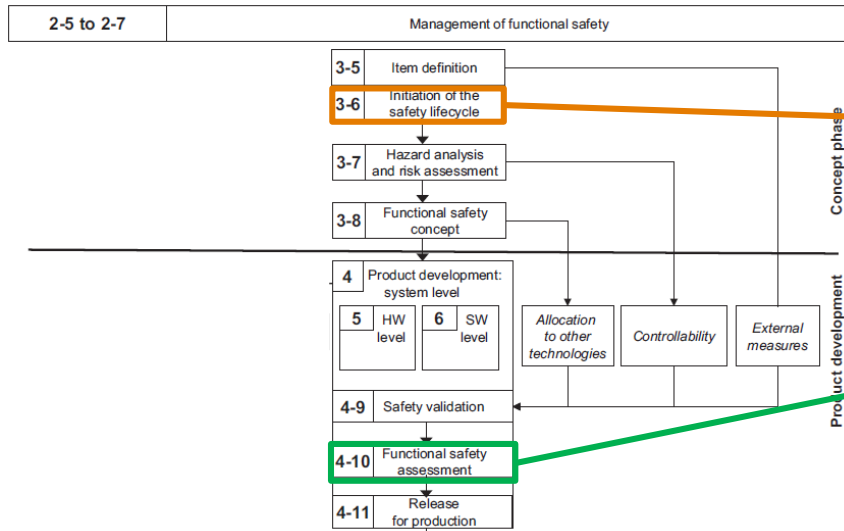
A close-up, shallow depth-of-field photograph of a silver spiral-bound notebook. The spiral binding is in the foreground, and the pages are slightly blurred in the background.

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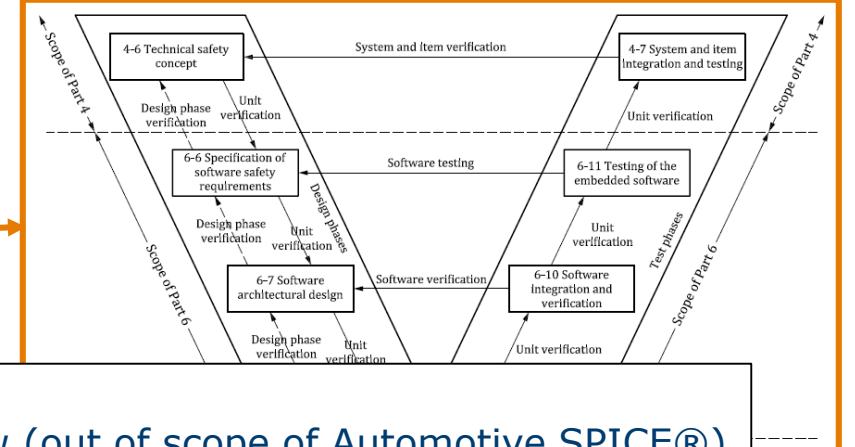
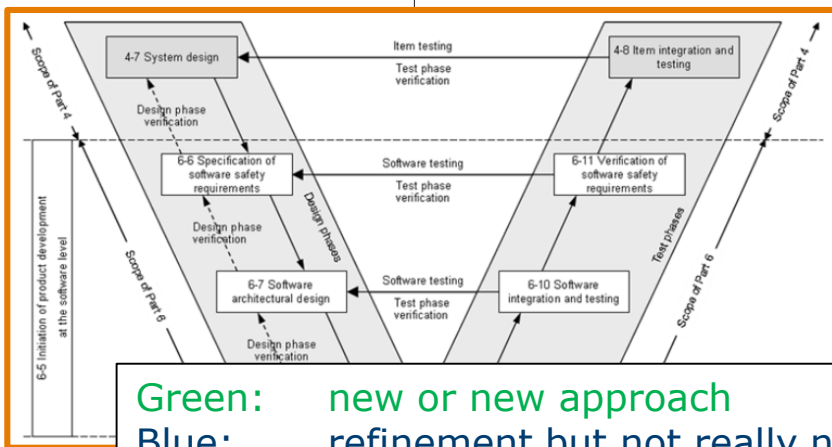
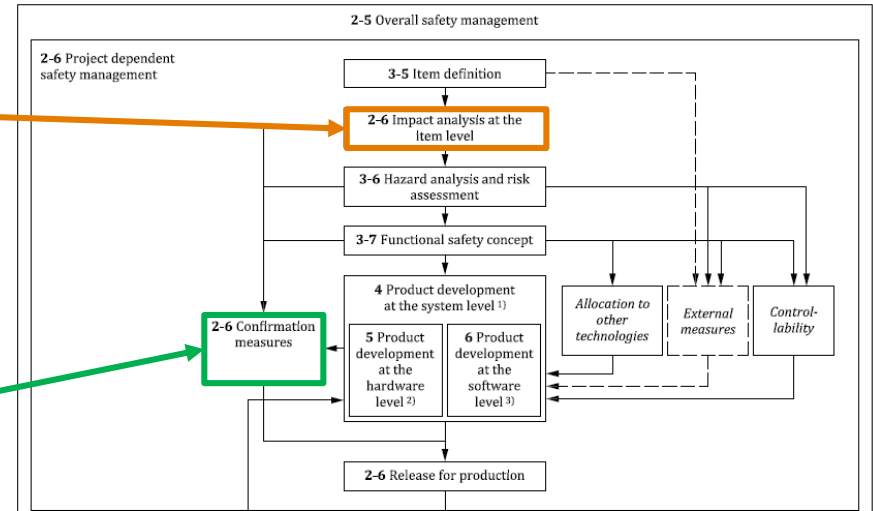
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Major Changes of the Safety Lifecycle

1st Edition:2011



2nd Edition:2018



Green: new or new approach
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Project dependent Safety Management

Confirmation Measure	Definition
Confirmation reviews	Judgement whether the key work products provide sufficient and convincing evidence of their contribution to the achievement of functional safety.
Functional safety audit	Judgement of the implementation of the processes required for functional safety.

Source: ISO 26262-2:2018

Independent work product and process checks are required in

- SUP.1 “Quality Assurance”, and
- PA 2.2 “Work Product management”

Check of QA strategy necessary

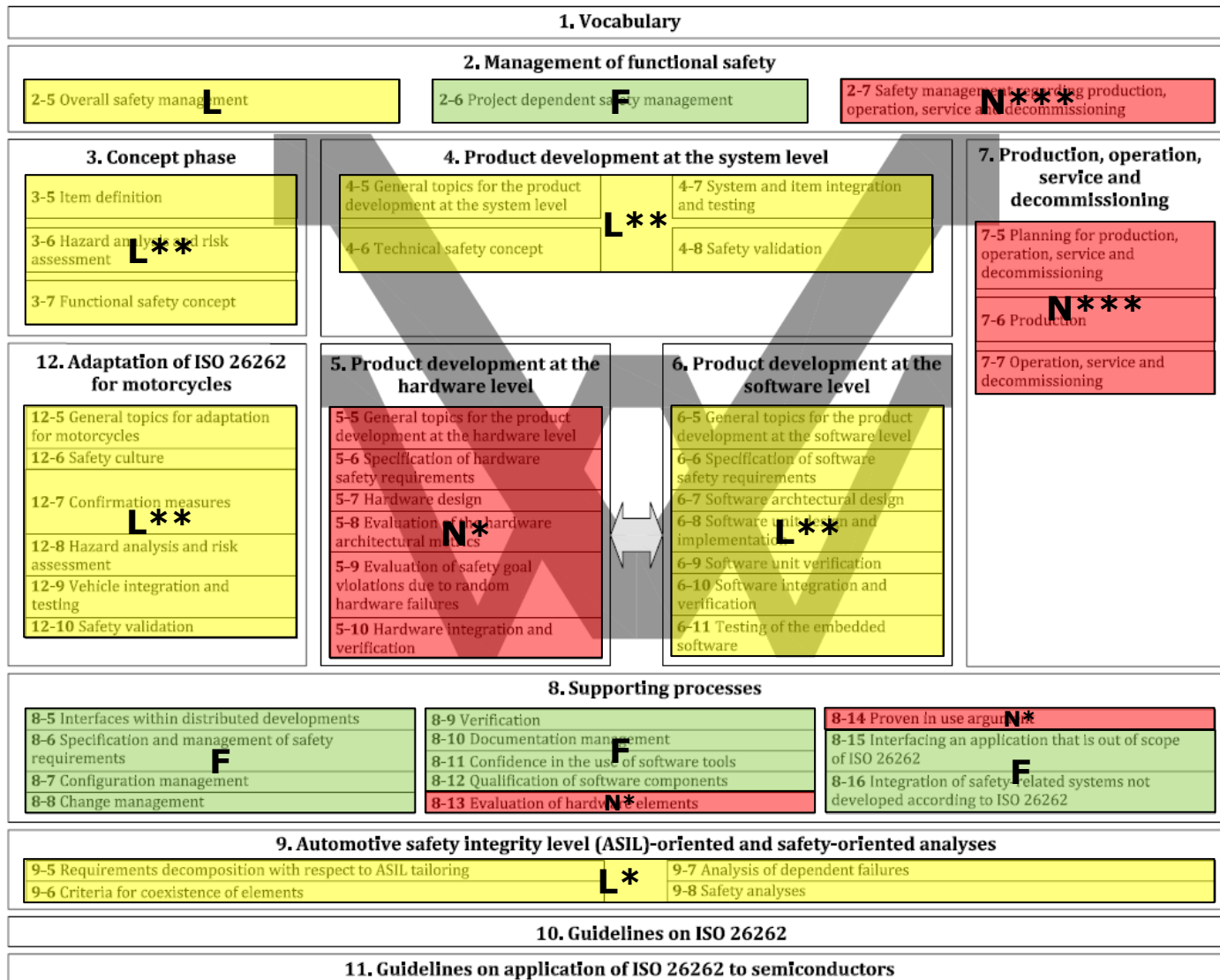
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Major Changes of ISO 26262

Topic	1st edition 2011	2nd edition 2018
Functional Safety Management	Primary a task of the Functional Safety Manager (FSM)	Addressed to the entire organization
Safety Concepts	Focused on failsafe concepts	Focuses fail operational concepts as well
Functional Safety Audit	Check of compliance to ISO 26262 requirements	Check of achievement of ISO 26262 objectives
Functional Safety Assessment	Final check , if Functional Safety was achieved	Iterative approach combined with Confirmation Reviews
Recommendations of methods	Set of tables and guidelines established	Tables and guidelines extended and updated
Motorcycles, Trucks & Busses	-	new
Supporting processes	Set of required supporting processes established	Supporting processes extended about Trucks & Busses specific topics

Summary ISO 26262 and ASPICE



ASPICE provides no criteria to rate the **suitability of methods or technical solutions** regarding ASIL!

* missing aspects covered by intacs™ HW-PAM

** missing aspects covered by functional safety assessment

*** missing aspects coverable by VDA 6.3 process audit

Thank you for your kind
attention!

