

Conceptual development of a modular and scalable safety concept including a prototypical implementation for the example of an electronic power distributor

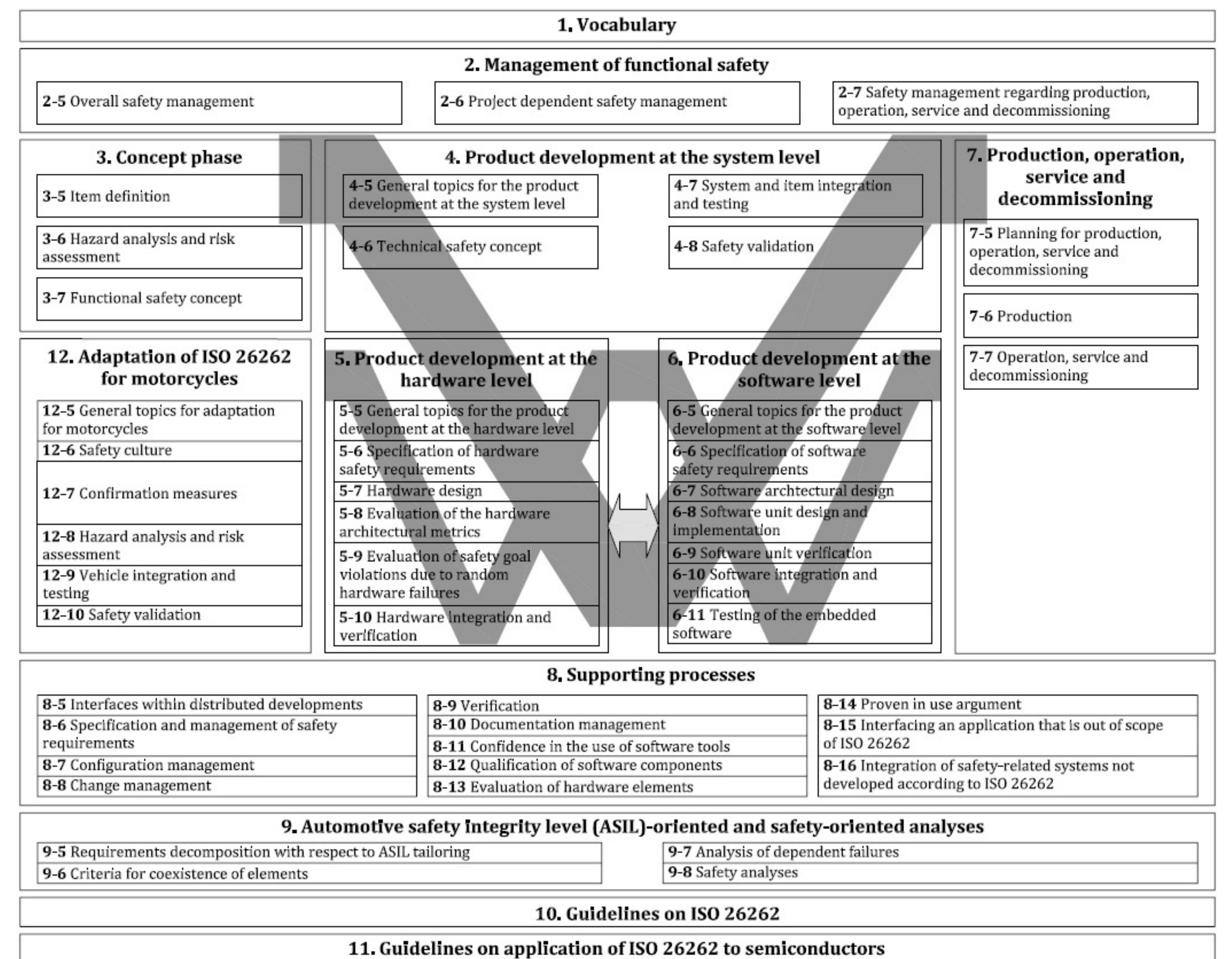
Functional safety in the power supply domain

The relevance of functional safety in the automotive industry is increasing – especially driven by the megatrends automation, electrification and connectivity. A safe power supply is the basic foundation for innovative functions. To address different usecases and be able to react dynamically on changing requirements, the corresponding safety concepts shall be structured in a modular and scalable manner.



Hardware-Architectures in context of ISO 26262

Because the evaluation of different hardware-architecture is very time consuming and error prone, we want to investigate an automated approach based on fault injection to evaluate hardware building blocks in a modular way. The fault injection shall be based on generic fault models to enable automation and increase objectivity.



ISO 26262-3:2018(E), "Road vehicles – Functional safety – Part 3: Concept Phase," 2018

Safe power supply @ BOSCH

We do research on components to ensure a safe power supply in close collaboration with several OEMs worldwide. To do so, we develop innovative approaches to automatically derive efficient safety concepts including their validation and verification based on artificial intelligence and/or optimization algorithms.

