safeHAD SOTIF

How safe is safe enough?

Highly Automated and Autonomous Driving

The IABG **safeHAD** method makes the SOTIF standard usable in practice and delivers reliable information to prove the safety of highly automated driving functions – customer-specific and efficient.

Safe highly automated driving (HAD) is a key challenge for manufacturers

The verification of functions for highly automated driving is the central focus of all manufacturers and suppliers. The effort involved for the proof of safety is enormous. Current concepts require hundreds of thousands of scenarios and hundreds of millions of test kilometres.

Current verification methods – virtual or real – are extremely limited with regard to completeness, represent-ativeness, reproducibility, especially in critical situations. Furthermore, current standards, e.g. for functional safety (ISO 26262) and cyber security (ISO/SAE 21434), do not fully cover the industry requirements for safeguarding highly automated driving functions.

We have made the SOTIF standard usable for real-world use

- The resulting SOTIF standard for the intended function safety (ISO/DIS 21448) complements the current standards and addresses additional safety risks that arise additionally from the complexity of the application environment.
- With **safeHAD** we have developed a method that makes the SOTIF standard usable in practice in your development process.
- **safeHAD** determines probabilities of occurrence of accidents of various degrees of severity - from roughly in the concept phase to precisely in the release procedure.
- In early phases, design alternatives can be compared, analysed and evaluated in order to identify system weaknesses early in time and avoid wrong decisions.
- In the later phases of product development, **safeHAD** provides a robust safety assessment for the release of the function and approval of the system.
- The method can be applied both to subsystems and to the overall system.

How you benefit from applying the safeHAD method

- You save time and money by using **safeHAD** to identify weak points in good time and avoid costly and time-consuming error correction at a later date.
- You improve the quality and competitiveness of your products by identifying and verifying requirements for the function and system components at an early stage.

- With **safeHAD** you can evaluate your systems in compliance with the SOTIF standard and thus provide reliable proof of safety within the scope of type approval.
- Save your resources: we advise, guide you through the process and handle application of the method - tailored to your function and your system components.

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