What is the meaning of functional safety?

The malfunction of a technical system must not lead to any risks to any persons.

Manufacturers of technical products in the automotive and agricultural industry are obliged to develop their systems according to the latest scientific and technical knowledge – in all safety related aspects.

ISO 26262 / ISO 25119 define the demands in functional safety of electric and electronic systems. By application of these standards, a documentation of safety is created which records the fulfilment of their requirements.

Please do not hesitate to contact us with regard to this subject. We are very happy to support you with your projects.

Functional Safety

Services in functional safety according to ISO 26262 and ISO 25119 are tailored to our customer demands.

For all who are engaged in the safety of vehicles.
The publication of ISO 26262 "Road Vehicles – Functional Safety" and ISO 25119 "Tractors and machinery for agriculture and forestry – Safety-related parts of control systems" defines – for the first time – specific demands for the automotive industry and for agriculture technology, their development process and the finished product itself. These replace the IEC 61508 which had previously been the generic standard for functional safety. The target is to design vehicles with a greater regard for safety and with more reliability.

Who must observe the standards?

By the product liability act, manufacturers of technical products have a legislative provision to develop their technical systems according to the latest state of the art. In the event of failure, the burden of proof lies with the manufacturer. If the vehicle has been developed and manufactured at every level according to the safety standards, the vehicle manufacturer has a solid base for his argumentation and defence.

In which areas are the standards applied?

Manufacturers must not only consider individual parts of the system during its development stage, but they must observe the entire working unit within its life cycle. This covers the initial development stages to the decommissioning.

The entire system must fulfil the Automotive Safety Integrity Level (ASIL) or the Agricultural Performance Level (AgPL) of the safety target. All components (especially the software) which are integral to achieve the safety target will be inspected.

What can TÜV NORD offer?

ISO 26262 and ISO 25119 as before IEC 61508 make high demands on the responsibilities, processes, documentation and technologies when safety relevant systems are developed.

The members of staff of TÜV NORD were actively involved in the development of the new standards; they are willing and able to support your project with their knowledge and experience.

We can support you with:
- Consultation and implementations
- Customer specific workshops
- Assessment and certification

Overall Safety Lifecycle (Extract from ISO 26262)