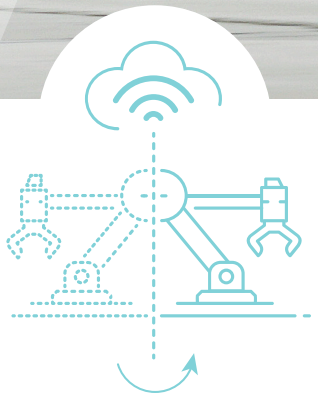
DESIGN & OPTIMISATION

FUNCTIONAL SAFETY ANALYSIS

Functional safety aims to avoid risks, damage or physical injuries when working with a piece of equipment. By implementing various (functional) safety measures, we protect the (end) user when handling the product. Flanders Make offers expertise in understanding the impact of safety standards on the product design and support in developing safety-critical systems.



Companies must often submit safety evidence as part of a certification process, for instance in the automotive, agricultural or machinery industry. We help you to understand and implement functional safety measures. More specifically, we provide:

- maturity assessment of functional safety processes;
- training:
  - standard-based general functional safety approach
  - technical safety analysis (HARA, FMEA, FTA, RBD)
- product design guidance:
  - risk analysis
  - specification of functional safety requirements
  - specification of architectural functional safety solutions
- evaluation:
  - ISO2626 HW metrics evaluation
  - quantitative FTA & FMEA
  - estimation of reliability failure over time

We use various unique software tools in this process:

- **FLAME:** in-house process tool to guide the engineer in the design of safety-critical products
- **Enterprise architect:** functional safety system engineering modelling
- **Dedicated HARA tool:** cross-domain hazard analysis and risk assessment

www.flandersmake.be

For more information, please contact
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FLANDERS MAKE

BLUWAYS JABIL inalfa roof systems Melexis INSPIRED ENGINEERING

SUCCESS STORY

Flanders Make Functional Safety Academy

PROBLEM

Customers request evidence of the safety integrity of their products:

- Do their functional safety processes comply with the current state of the art?
- Is the product demonstrating functionally safe behaviour?

SOLUTION

Flanders Make created the Flanders Make Functional Safety Academy (Flanders Make-FSA), with the following objectives:

- Supporting the industry with FuSa engineering
- Developing methods and approaches to comply with FuSa
- Grouping experts in view of sharing knowhow

CUSTOMER VALUE

- Fast introduction into domain-related FuSa processes & implementation into product development processes
- Design of functional safety mechanism:
  - Specification of FuSa mechanisms for electric powertrain, BMS, fault-tolerant lateral controller, autonomous control system within automotive industry and agriculture, etc.
- Technical Safety Analysis:
  - Hazard Analysis and Risk Assessment
  - FMEA and FTA to assess the safety integrity level
  - Reliable Failure Analysis