



## Factor Human – Constructive management of human factors in safety assessment

Technical systems continuously become more sophisticated to better support users. Still up to 90 % of the critical events and accidents have to be attributed to human elements (human factors).

This equally applies to the sectors of vehicles, technical systems and aircraft as well as to other complex systems. Causes are often of various origin:

- Indistinct requirements with regards to the human system interface as well as human system interaction
- Increasing system complexity and information overflow
- Increasing degree of automation and decreasing system transparency
- Staff savings and accompanied efficiency pressure

System safety can thus only be reached when considering human factors. Safety standards such as IEC 61508 already demand this. Only if an understanding can be established of how humans, technology and organisations interact, hazards and risks can be determined and prevented.

### Sample standards and industries

#### ■ Industries

Defence, Automotive, Aeronautics, Space, Medical technology, System and process industry, Rail and railways

#### ■ Sample standards

MIL STD 882 • IEC 61508 • ISO 26262 • RTCA/DO-178 • RTCA/DO-254 • EN 50128/9 • EN 60601 • ISO 9241 • DIN EN 10075

We design and implement the introduction of risk reducing measures across the entire product life cycle: From integration of the human factors assessment, all the way to the development of a safety culture across the entire organisation. We hereby see the human element both as risk factor as well as safety instance. We also merge system safety approaches with the area of human factors thus providing a visible contribution to system safety.

# Our fields of activity Safety & Human factors along the product life cycle:

## CONCEPTUAL PHASE

- Identification of hazard potentials due to technical and human failure

## DEVELOPMENT

- Functional safety in design and realisation of reliable safety functions
- Development of your safety culture and appropriate safety consciousness
- Monitoring the establishment of and compliance with safety standards and objectives

## VALIDATION

- Examination of safety standards, work and health protection
- Evaluation of work conditions and hazards

## USE

- Integration of operational and personnel safety aspects in recruiting, training, qualification and work organisation

## MAINTENANCE

- Mechanical, electronical and software-related safety aspects

## DECOMMISSIONING

- Transfer of defaults of the utilisation phase for dismantling and decommissioning

## ACADEMY TRAINING AND QUALIFICATION

- Safety standard qualification and training across sectors
- Human factors safety training



**AUTOMOTIVE**



**INFOCOM**



**MOBILITY, ENERGY & ENVIRONMENT**



**AERONAUTICS**



**SPACE**



**DEFENCE & SECURITY**



## About IABG

We are a closely networked business group and offer integrated, future-oriented solutions in the sectors Automotive • InfoCom • Mobility, Energy & Environment • Aeronautics • Space • Defence & Security. We understand the requirements of our customers and support them independently and competently. We implement effectively, efficiently and with target orientation. We operate reliably and sustainably. Our international market presence and our success are based on technological excellence and a fair relationship to our customers and business partners.

## Centre of Competence Safety

IABG is one of the leading service companies in consulting and supporting numerous OEMs, suppliers, system integrators and solution providers. We guarantee the safety of systems and products in line with the state-of-the-art.

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