



# ISSA-Section Machine and System Safety

## *Activities and Projects*

Dietrich Warmbier  
ROSS CONTROLS  
Global Safety Product Manager

## ISSA: International Social Security Association

- founded in 1927
- more than 320 member institutions in over 160 countries
- international organization bringing together institutions and organizations of all fields of social security
- target: supporting the social security in a globalized world by promoting high standards in social safety and health
- headquarters of the ISSA-Secretariat is Geneva
- [www.issa.int](http://www.issa.int)

## ISSA: International Social Security Association



The world's  
leading  
international  
organization  
for social security  
administration



Founded  
**1927**



**320+**  
members

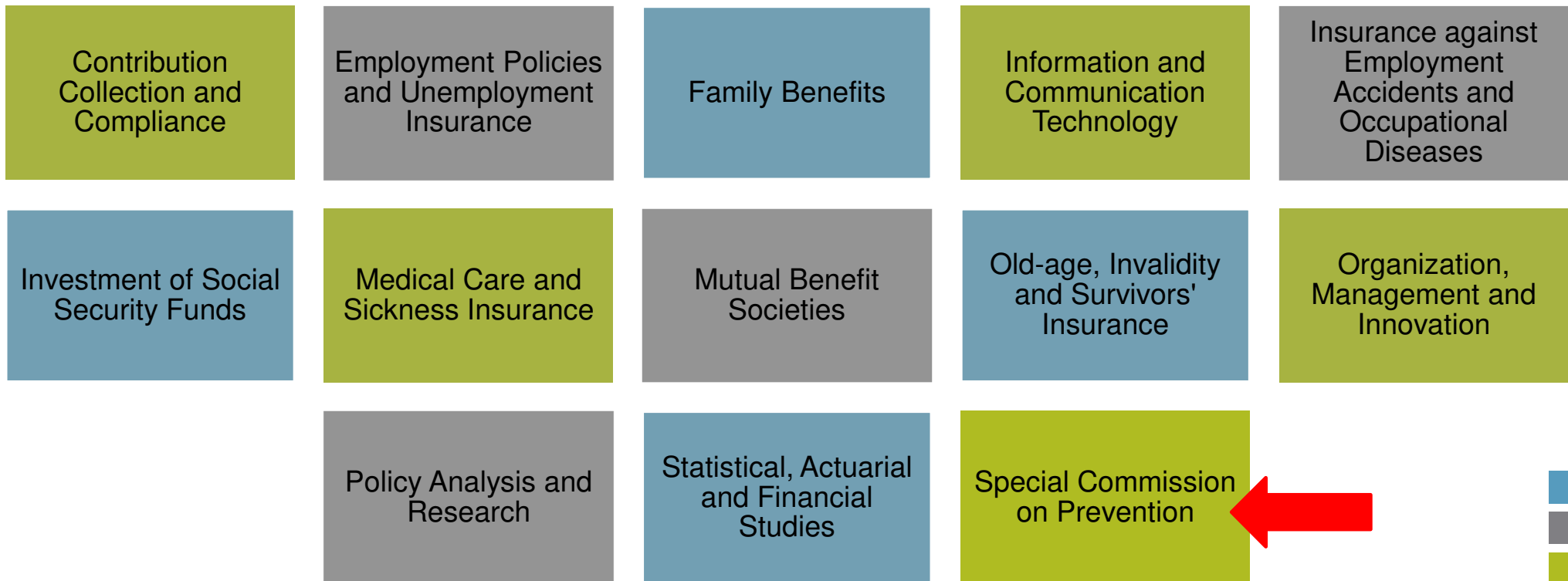


**160+**  
Countries

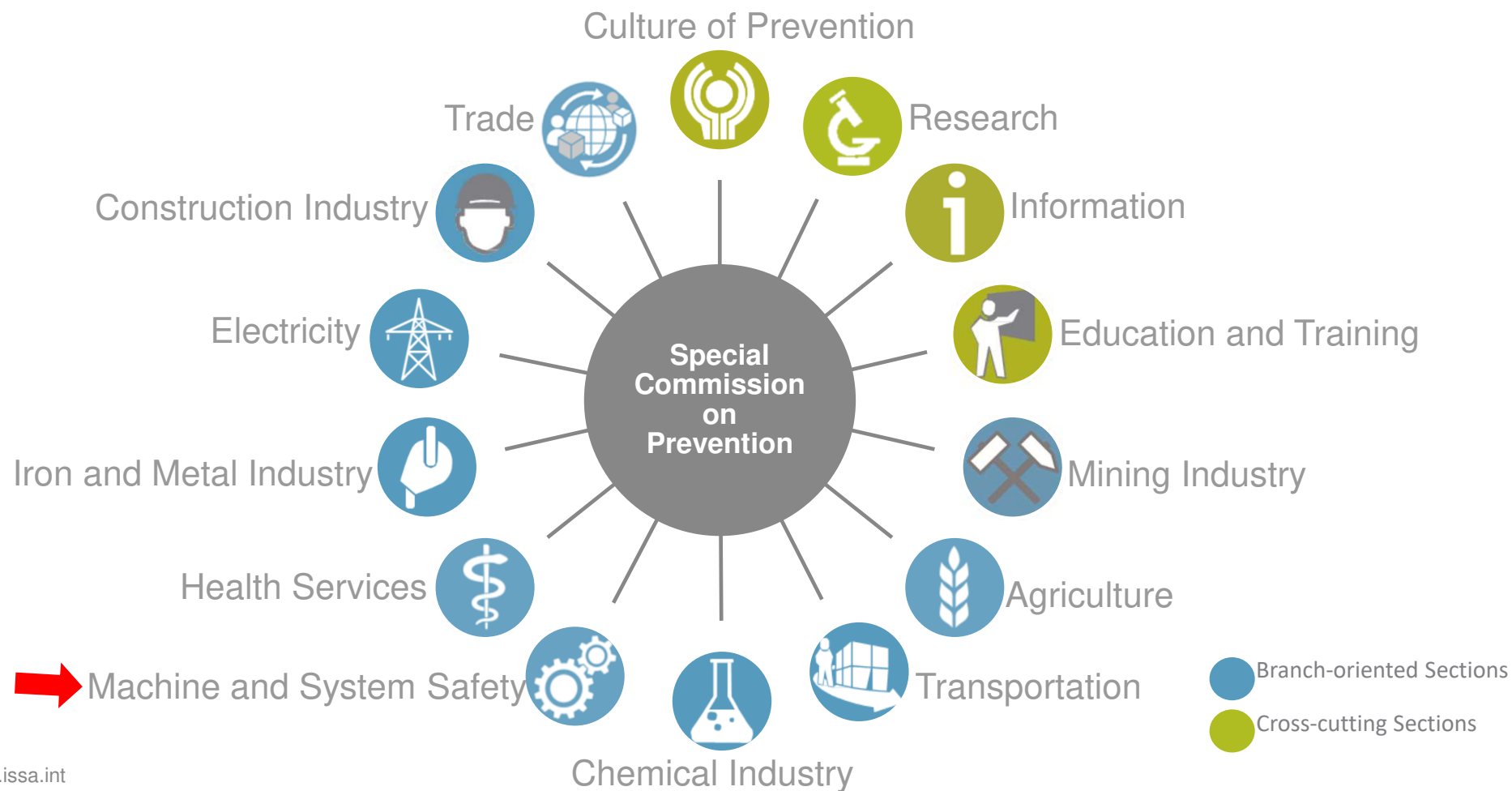


Headquarter  
s in Geneva

## ISSA: Technical Commissions



# A strong network: the Special Commission on Prevention





## Section Machine and System Safety

- founded in 1975
- aim is to improve safety and health at work in the field of machine and system safety worldwide
- 16 members from 8 countries





## Section Machine and System Safety

### Board:

- **President: Jürgen Schulin, BGN Mannheim (Germany)**
  
- **Vice Presidents:**
  - **Corrado Delle Site, INAIL Rome (Italy)**
  - **Georg Effenberger, AUVA Vienna (Austria)**
  - **Olivier Favre, Suva Lausanne (Switzerland)**
  - **Marc Wittlich, IFA Sankt Augustin (Germany)**
  
- **Secretary General: Andrea Weimar, BGN Mannheim (Germany)**

**<https://www.safe-machines-at-work.org/>**

## Current project groups

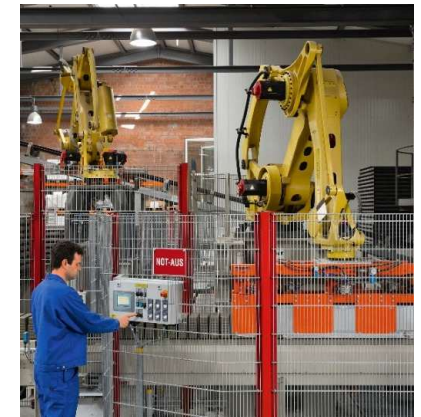
work on specific topics considering system complexity and interaction between system components. New developments may create the need for additional project groups.

- **Control Devices**
- **Digital Manufacturing**
- **Explosion Protection**
- **Human Factors, Ergonomics and Safe Machines**
- **Stop Defeating of Protective Devices on Machines**



## Project Group „Control Devices“

- deals with developments in the field of control devices concerning safety and security of machines and promote qualified discussion between interested persons
- considers control devices as an important element of machines
- elaborates practical guidelines to raise awareness for safety and security describing types and application of control devices
- works on the topic of remote control systems / remote maintenance



## Project Group „Control Devices“

### Current topics

- Software requirements presented at an example from EN 13849
- Changing environments of machines and workplaces (mobile machines, machines used in public areas)

More information:

<https://www.safe-machines-at-work.org/control-devices>

## Project Group „Control Devices“

### Seminars on functional safety and validation

- give an overview of international standards for machinery safety and their application for the design and use of safe machinery.
- impart the participants the basic knowledge of these standards and their use in the industrial area
- show practical application examples.
- The speakers give information as experts involved in the standardization of machinery safety.

Next seminars Sept. 25<sup>th</sup> – 29<sup>th</sup>, 2023 in India

**More information soon under:**

**<https://www.safe-machines-at-work.org/control-devices>**

## Project Group „Digital Manufacturing“

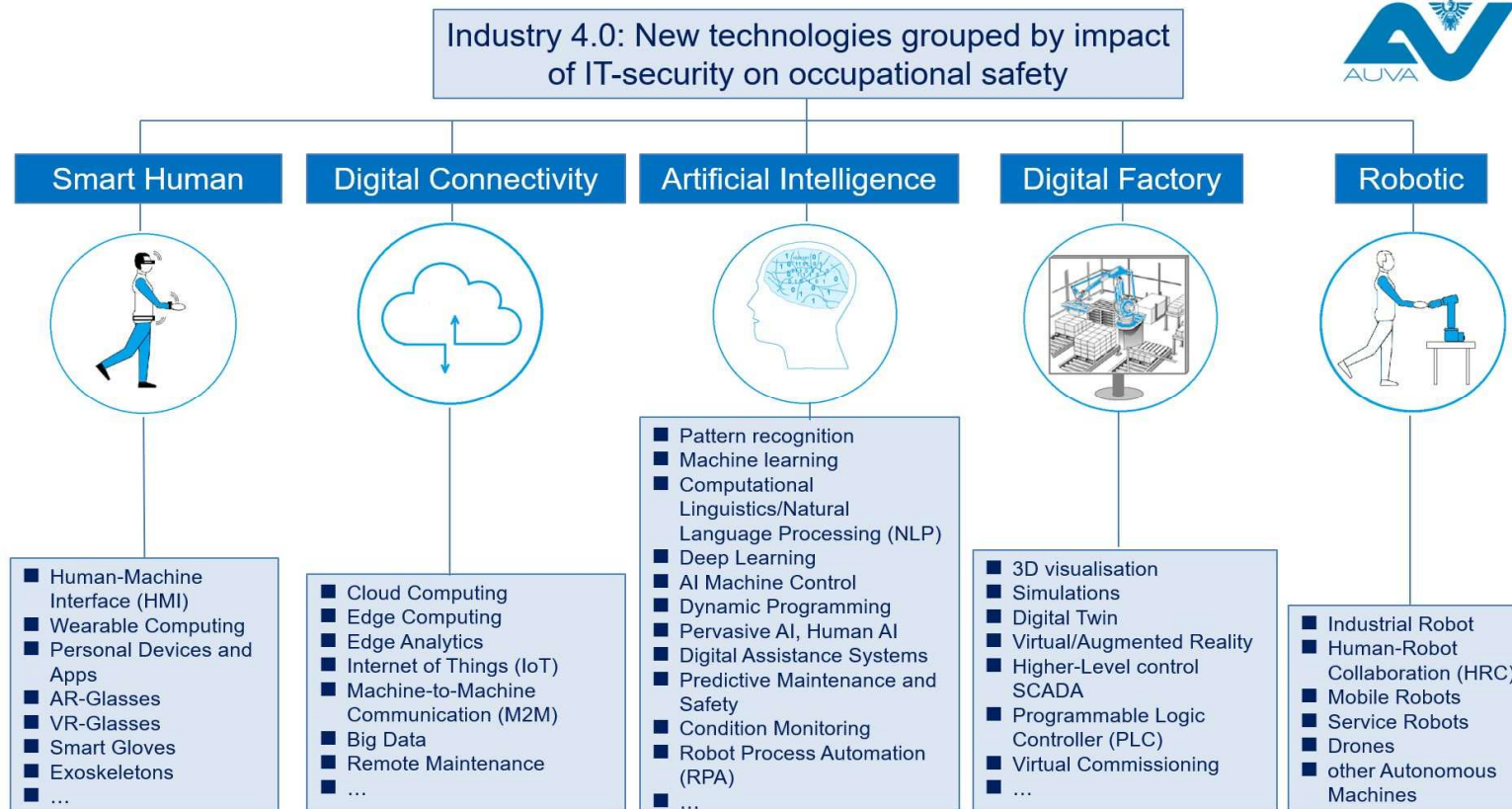
"Digitalization is the business process of using digitization everywhere. The result of digitalization could lead to digital transformation."

### Activities

- extend the classical risk assessment including security risks
- develop practical examples from industry => industry guides for integrating industrial security and occupational safety and health
- create fact sheets on special topics of industrial security
- develop webinars for engineers, employees, prevention and IT-experts



## Project Group „Digital Manufacturing“



More information: <https://www.safe-machines-at-work.org/digital-manufacturing>

## Project Group „Digital Manufacturing“

### Current topics

- EU-OSHA campaign on digitalization: participation Christian Werner in the workshop April 25<sup>th</sup>, 2023
  - official presentation
  - organize webinars on cyber security
- Fact sheets on
  - remote control => in cooperation with PG Control Devices
  - cloud services => Malisa and Stein
  - security.txt => Werner and Stein (Standardised contact information for IT security disclosures:  
<https://www.dguv.de/ifa/fachinfos/industrial-security/kontaktstandard-security.txt/index-2.jsp>

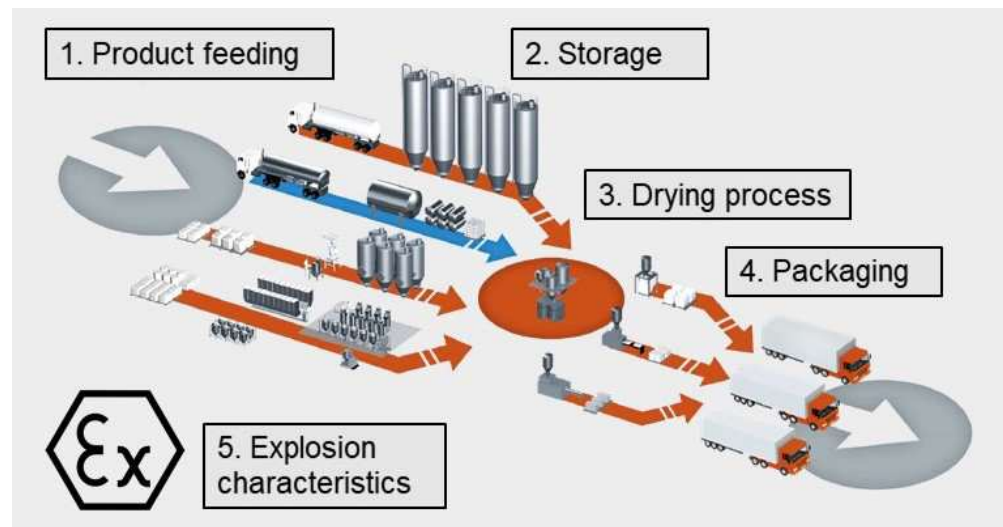
## Project Group „Explosion Protection“

- works on case studies which are based on plants, e.g. prevent dust explosion in a mill – similar process steps are found in many plants
- considers new technologies and trends like IoT with impact on sensor technologies
- collects examples and knowledge about explosion incidents.



## Project Group „Explosion Protection“

- a new approach to consider individual modules and process steps of complex manufacturing systems



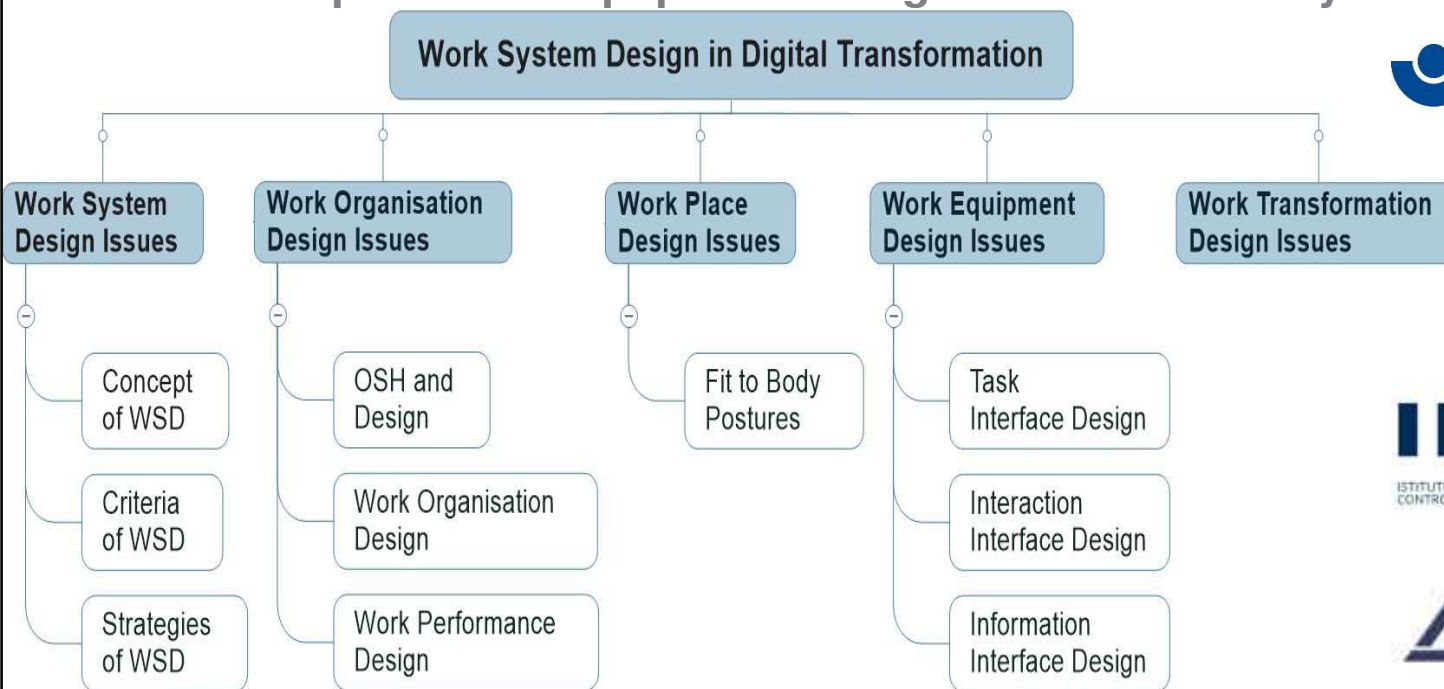
- already published: explosion safety of bulk material plants - modules "raw material reception" and "storage":

<https://www.safe-machines-at-work.org/explosion-protection>



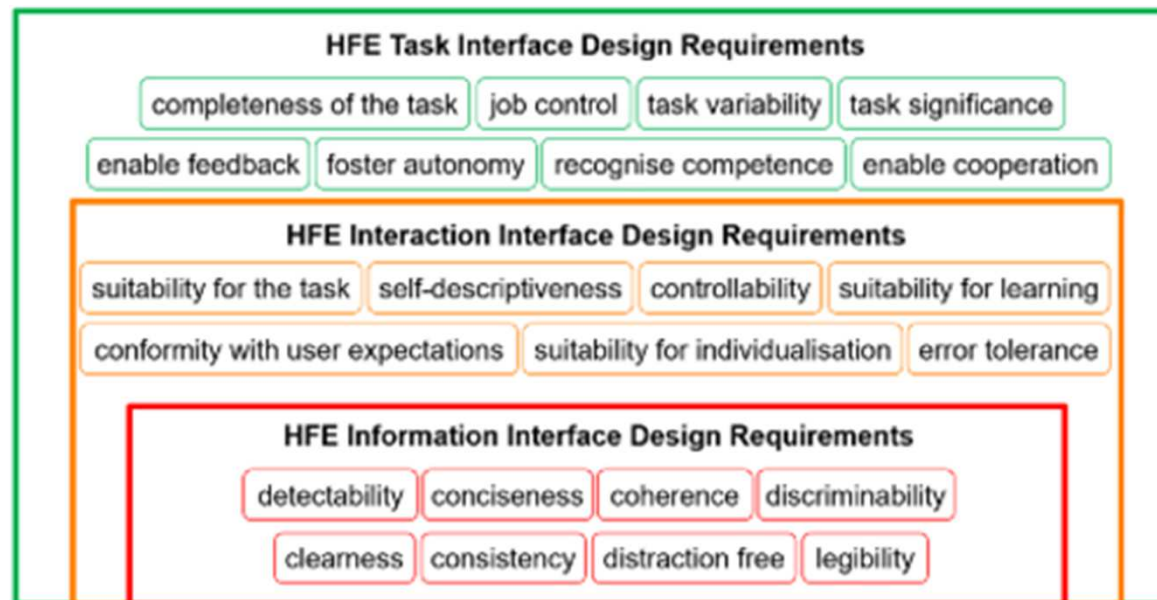
## Project Group “Human Factors, Ergonomics and Safe Machines“

- works on design requirements and recommendations according to occupational safety and health as well as human factors and ergonomics.
- integrates human factors and ergonomics into machinery construction, in workplace and equipment design and in human-system interaction in practice.



## Project Group “Human Factors, Ergonomics and Safe Machines“

- new contents on work equipment design issues: visual, auditory, tactile displays
- different interfaces for human-system interaction



More information: <https://www.safe-machines-at-work.org/human-factors>

## Project Group „Stop Defeating of Protective Devices on Machines“

<https://stop-defeating.org/>

- specific information for the parties involved in this topic: manufacturers, suppliers and users of machinery
- best practice examples
- useful tools like checklists for the purchase of new machinery or apps to determine the incentive for defeating protective devices



## Project Group „Stop Defeating of Protective Devices on Machines“

### Topics:

- new challenges from „smart manufacturing“
- machinery in a smart manufacturing plant
- security affects machine safety

Stefan Bommer follows Leonhard Blümcke now



More information:

<https://www.safe-machines-at-work.org/stop-defeating>

## Other activities of the Section

- OSH-Talk series with ISSA Electricity and ISSA Transportation

„Let´s talk about OSH... have you ever had a near miss?“  
...have you ever been nudged?“

More information: <https://ww1.issa.int/events/webinar-2023-02-07>

Aug. 22nd, 2023      ...have you ever used smart glasses?“

## Participation in the 36th congresso nazionale ANMA (Associazione Nazionale del Medico Competente e d'Azienda)



Il turismo in Europa: l'esempio della  
Germania. Il ruolo del BGN per la  
Salute e Sicurezza del Lavoro nel  
settore

Andrea Weimar

Lecce, 10 giugno 2023

### LAVORATORI DEL TURISMO, SICUREZZA E SALUTE DI UN COMPARTO CHE CAMBIA

Moderatori: Massimo Muratore, Danilo Bontadi

- **Il panorama dei lavoratori del Turismo in Italia**  
Giorgio Palmucci
- **Rischi organizzativi e rischi psicosociali**  
Giovanni Costa
- **L'osservatorio Inail nel Comparto Turismo**  
Rossella Attimonelli
- **Il turismo in Europa: l'esempio della Germania. Il ruolo del BGN per la Salute e Sicurezza del Lavoro nel settore**  
Andrea Weimar
- **Le attività di formazione di Lavoratori, Dirigenti, Datori di Lavoro. Le attività di Medicina del Lavoro**  
Bettina Hunger





## 23<sup>rd</sup> World Congress on Safety and Health at Work, Sydney

- Forum for exchange of knowledge and best practice
- Target: promotion of safe and healthy work worldwide through cooperation
- International platform for innovations and research
- Headline „Shaping change – collaborating for a healthier and safer world of work “
  - Collaborating for a better future
  - A changing world of work
  - Future proofing against ongoing and reemerging risks

<https://safety2023sydney.com/>



NO	Session Title	ORGANIZER	Description	Topics
T1	Assuring Safety, Health, and Wellbeing and Social Standards along Global Supply Chains”	ISSA Trade, ISSA Agriculture and ISSA Mining with the support of ISSA Research	In this session the results of the ISSA joint project “Safety Health and Wellbeing (SHW) along supply chains by VISION ZERO” will be presented.	Environmental, Social & Governance; Application of OSH regulations; New Generation of OSH leaders; Vision Zero; Wellbeing
T2	Collaboration is Key: Success Factors for a Cultural SHW Change at Global Workplaces by VISION ZERO	ISSA VZ Steering Committee, ISSA Information, IALI	This session will demonstrate different approaches on how to implement VISION ZERO at Workplaces by better collaboration of all stakeholders and show new models, tools and successful case studies	Environmental, Social & Governance; Vision Zero; New Generation of OSH leaders



# 4 Symposia organized by ISSA



Section Machine and System Safety

NO	Session Title	ORGANIZER	Description	Topics
S1	Vision Zero at Mobile Workplaces	ISSA Transportation ISSA Health	This symposium will highlight challenges and solutions for strengthening worker health protection and creating a safety culture at non-stationary workplaces. (Escape Room?)	Vision Zero; Future of Work (safety tech in 5 years); Technology-driven change (Non-mainstream tech); transport; OSH high risk industries
S2	Digital transformation and the human factor to reduce accidents - opportunities and risks	ISSA Research and ISSA Machine and System Safety	Digitalization plays an ever-growing role, in all industries and production processes, also with effects on occupational safety, health and well-being. Cyber security, the IoT, AI, machine learning, virtual and augmented reality, robotics and co-bots, and BIM all are 'tools' being constantly stronger applied.	Vision Zero; Safety tech in 5 years; Accessible tech; Non-mainstream tech
S3	Vision Zero in the Construction Sector	ISSA Construction		Vision Zero; OSH high-risk industries; Workplace environmental exposure
S4	Education and Training towards a culture of Zero Harm	ISSA Education	Education and Training towards a culture of Zero Harm' –to emphasise Vision Zero as a movement rather than an absolute; inward investment, access to capital; Golden rules and case studies.	Enabling OSH for business New generation of OSH leaders OSH professionals

# 4 Symposia, jointly organized



Section Machine and System Safety

NO	Session Title	ORGANIZER	Description	Topics
S5	Culture of Prevention	ISSA Prevention Culture	a journey looking back at the developments of Prevention culture during the last ten years and taking a look into the future	<b>Topics:</b> Environmental, Social & Governance; Safety culture
S6	Leveraging Communication Lessons Post Pandemic Breakout	ISSA Information Section	This symposium will discuss how communication has changed during the pandemic //challenges/ opportunities	<b>Topics:</b> Crisis prevention; OSH professionals
S7	“The Mining Splits: The Weakest Workers in a High-Risk Sector”	ISSA Mining and ICOH MinOSH	The symposium will describe the situation of miners, being exposed to the highest risks not having access to training, safety equipment and safe and healthy processes. The essential elements for a change shall be offered.	<b>Topics:</b> OSH High-risk industry; Workplace environmental exposure; OSH professionals; Accessible tech
S8	1) skin cancer prevention programme in Switzerland 2) ergonomics of medical devices in healthcare facilities 3) Safe Handling of hazardous substances in healthcare settings	ISSA Health	Any of these proposals can be offered	<b>Topics:</b> Workplace stressors; Workplace environmental exposure (biological hazards)  <b>Other possible topics :</b> MSDs; burnout, mental health



## **Symposium S2 "Digital transformation and the human factor in machine and system safety – opportunities and risks"**

- **Joint session of the sections MSS and Research**
- **Moderator: Andrea Weimar, 30.11.2023, 9.00 - 10.30 Uhr**
- **Topics:**
  - Marc Malenfer, INRS: Trustworthiness AI and machine learning
  - Andrea Rowe, Australia: Humans and robots – the evolution of risk assessment
  - Nakabo Yoshihiro, AIST, Digital Twins for new manufacturing system
  - Diana Gagliardi, INAIL, Keeping humans at the centre of technological innovation
  - Klaus-Dieter Becker, BG ETEM: Functional safety and validation
  - Dr. Jonas Stein, IFA, Cyber security and functional safety
  - Frank Göller, BG ETEM,



The screenshot shows the homepage of the website. At the top, there is a search bar and navigation links for Home, Sitemap, Contact, and Imprint. Below this is a main menu with links for Home, Sectors, Topics, Target Groups, Toolbox, FAQ, News, and About us. The main content area features a large banner with the text "SAFETY & WORK Health and safety: the keys to success in small enterprises" and several smaller images. Below the banner, there is a section titled "Health and Safety KEYS TO SUCCESS" with a sub-section "Health and Safety: the 'Keys to Success' TEST YOUR COMPANY HERE!". This section includes a self-evaluation tool and a "To the self evaluation" button. At the bottom, there is an "About us" section and a list of partner organizations including BGN, BGHM, BG ETEM, Assurance Maladie, INRS, ISSA, and the British Safety Council. A copyright notice "© 2011 by BGN" is visible at the bottom of the page.

## Website for small and medium-sized enterprises

[www.safety-work.org](http://www.safety-work.org)

- established 2011 within the working program for SMEs of the Special Commission on Prevention
- under the lead of the Section MSS



# VISION ZERO

Safety.Health.Wellbeing.

**“We believe that every accident and every occupational disease is preventable.”**

[www.visionzero.global](http://www.visionzero.global)

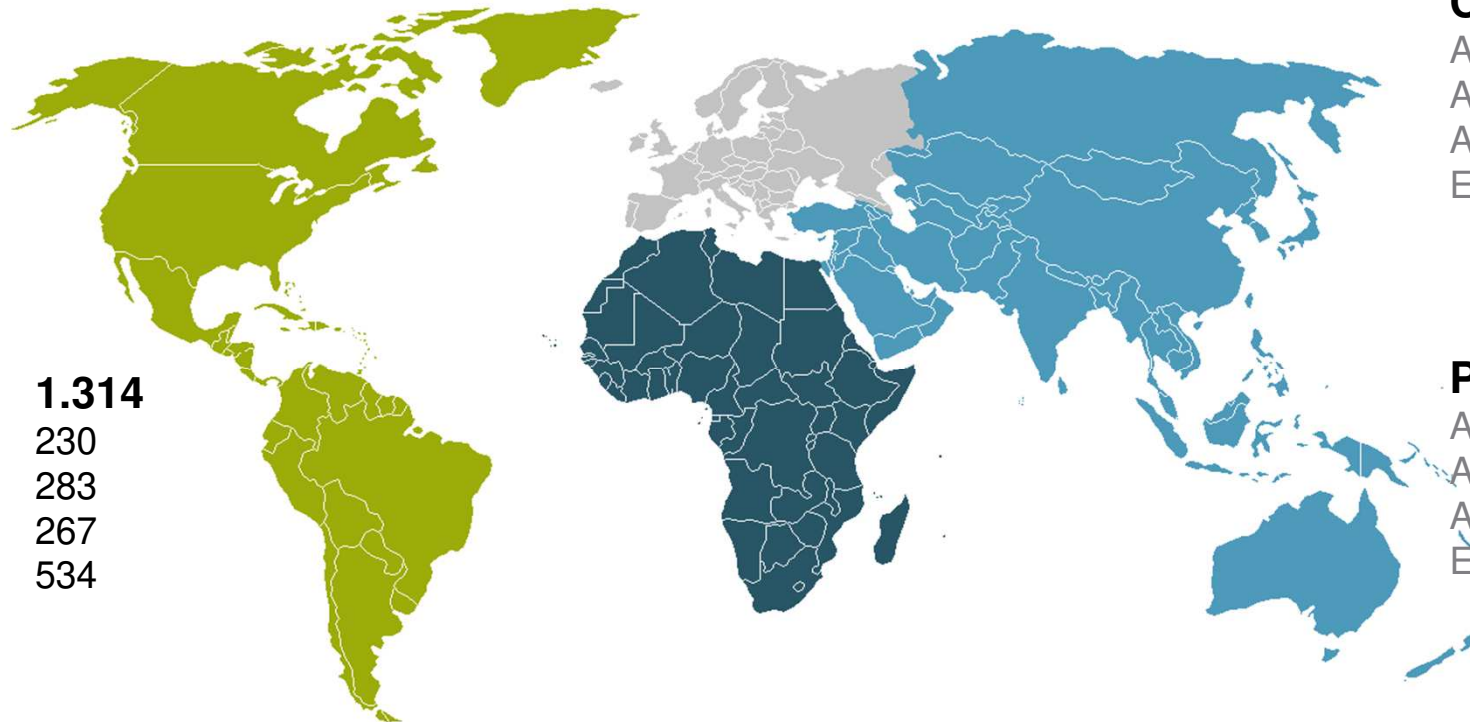
[www.issa.int](http://www.issa.int)





# 15.608

## Companies, Partners and Trainers



<b>Companies:</b>	<b>10.687</b>
Africa:	575
Americas:	538
Asia & Pacific:	894
Europe:	8.680

<b>Trainers:</b>	<b>1.314</b>
Africa:	230
Americas:	283
Asia & Pacific:	267
Europe:	534

<b>Partners:</b>	<b>3.607</b>
Africa:	170
Americas:	174
Asia & Pacific:	204
Europe:	3.059





**Interested in cooperation? Questions?**

**Please contact:**

Secretariat General of the ISSA Section Machine and System Safety

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More information: <https://www.safe-machines-at-work.org/>

**issa**

INTERNATIONAL SOCIAL SECURITY ASSOCIATION

*Section on Machine and System Safety*

August 2023