

Focus on IFA's work

Issue: 12/2024

Risk Observatory and trend portal: Early detection of trends for occupational safety and health

Problem

Work is constantly undergoing change. New political, social, technical, ecological, and economic developments are changing the world of work and education rapidly, and in some cases disruptively. This dynamic is currently being driven by issues such as climate change, demographic change, the shortage of personnel and skilled workers, the rising use of artificial intelligence and the ongoing digital transformation. In this context, the resulting new risks to the safety and health of insured persons at work and in the world of education raise the question of how prevention activity in occupational safety and health can address and cope with these changes.

Activities

The Risk Observatory of the German Social Accident Insurance (DGUV) is an early detection system for top trends, i.e. trends with a particularly strong impact on the world of work and the safety and health of employees in the near future. The Risk Observatory is essentially based on a survey of researchers and experts in occupational safety and health (OSH). It was founded in 2011 and its current, third survey round has been in progress since the end of 2022. The task now is to evaluate the latest results and identify new priorities for prevention activity and issues to be addressed in order to ensure that work can continue to be made safe and healthy in the future.

The Risk Observatory monitors, prioritises and analyses trends, taking a methodical approach. First, the researchers at the Risk Observatory identify and record current

trends. When the surveys were launched in the spring of 2023, this collection of trends comprised 117 trends, assigned to ten different trend categories:

- Digital transformation and connectivity
- New technologies
- Globalization
- The economy
- New Work
- Climate change, nature and resource conservation, the low-carbon economy
- Infrastructure
- Mobility
- Demographic developments and diversity
- Social affairs and health

The trends collected in this way were then evaluated by experts in two forms of survey: the future relevance surveys and the sectoral relevance survey. Ten different future relevance surveys – corresponding in number to the trend categories – were conducted to assess the influence of the trends in each category on the world of work. Altogether 1,332 selected experts from the research community together with prevention experts from the statutory accident insurance system, were asked for their assessments. The response rate was 16.4%. Statistical analyses were then used to identify top trends.

In the sectoral relevance survey, 252 sector experts from the statutory accident insurance system evaluated all 117 trends for their respective sector, i.e. they estimated the influence of each trend on the occupational safety and health of insured persons in the sector. The survey covered 57 sectors in total. The top trends in this survey were

Digital transformation and connectivity <ul style="list-style-type: none"> Artificial intelligence Networked automation Cloud computing Robotization Big Data Cybercrime 	New technologies <ul style="list-style-type: none"> Digital models for visualization <u>New battery types (rechargeable and non-rechargeable)</u> Sensors and (ultra-sensitive) detectors Lightweight construction 	Globalization <ul style="list-style-type: none"> Global migration Changing world order and international relations National self interest and protectionism in Europe 	The economy <ul style="list-style-type: none"> Monopolization Platform economy Logistics and delivery services 	New Work <ul style="list-style-type: none"> Flexibilization of working hours and place of work New office concepts
Climate change <ul style="list-style-type: none"> <u>Renewable energies</u> <u>Energy efficiency</u> Sustainability <u>Recycling and the circular economy</u> Climate change Natural disasters and extreme weather Alternative fuels 	Infrastructure <ul style="list-style-type: none"> <u>Insecurity of supply</u> Expansion of the communication network Upgrading and expansion of the electricity grids <u>Modernization, renovation, maintenance and refurbishment backlogs</u> 	Mobility <ul style="list-style-type: none"> Sustainable mobility Networked mobility <u>Driver assistance systems</u> Modified or innovative means of transport, including autonomous transport 	Demographic developments and diversity <ul style="list-style-type: none"> <u>Shortage of personnel and skilled workers</u> <u>Demographic change and imbalanced age structure</u> 	Social affairs and health <ul style="list-style-type: none"> Physical inactivity Unhealthy diet Self-optimization New pharmaceuticals, vaccines and therapies

39 top trends (ranked by trend category): results of the surveys on future relevance and the sectoral relevance survey. Significance of formatting: Top trend = from the future relevance surveys; *Top trend* = only from the sectoral relevance survey; Top trend = from the future relevance surveys and the sectoral relevance survey

determined numerically. Where a trend had a major influence in at least 30 percent of all sectors, it was considered to be of high sectoral relevance, and thus a top trend.

The Risk Observatory then performed extensive searches to analyse the impacts of the identified top trends on occupational safety and health. The researchers in the Risk Observatory summarised the results of the top trend analyses in trend descriptions.

Results and use

Evaluation of the survey results revealed 39 top trends for occupational safety and health (see image). Besides explaining the trend, the descriptions of the top trends particularly describe risks and opportunities with regard to the occupational safety and health of employees and summarise findings and perspectives for occupational safety and health. They are published on the Risk Observatory's trend portal.

The evaluations conducted by the Risk Observatory also provide information on the need for research, common

challenges, and meaningful cooperation within the German Social Accident Insurance and with third parties.

User group

German Social Accident Insurance, occupational safety and health experts, companies, institutions, the general public

Literature enquiries

- IFA, Department "Interdisciplinary Services"

Further information

- IFA – Technical information: the trend portal of the Risk Observatory (dguv.de)
<https://www.dguv.de/ifa/fachinfos/work-4-0/risikoobservatorium/trendportal/index-2.jsp>

Published by:

Deutsche Gesetzliche Unfallversicherung e. V. (DGUV)
 Glinkastrasse 40 · 10117 Berlin
 ISSN (Internet): 2190-006X

Subscription:

www.dguv.de/publikationen Webcode: p022713

Edited by:

Angelika Hauke
 Institute for Occupational Safety and Health
 of the German Social Accident Insurance (IFA)
 Alte Heerstrasse 111, 53757 Sankt Augustin, Germany
 Tel. +49 30 13001-0 · Fax: -38001
 Email: ifa@dguv.de
 Internet: www.dguv.de/ifa