



Recent EU Health and Safety at Work Policy Developments in the Context of AI and Robotics

Robotics and AI-based systems for automation of tasks - OSH considerations

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New EU Strategic Framework on OSH



- Communication COM(2021) 323 final of 28 June 2021 on a “EU strategic framework on health and safety at work 2021-2027 - Occupational safety and health in a changing world of work”
- Significant progress: Reduction of fatal accidents at work by 70% between 1994 and 2018, but ca. 3.300 fatal accidents at work and ca. 200.000 persons die from work-related illnesses every year
- Annual cost of OSH risks in EU: over 3.3% of GDP (460 billion EUR)
- 3 crosscutting key objectives:
 - Anticipate and manage change in relation to green, digital and demographic transitions
 - Improve prevention of work-related diseases and accidents, incl. Vision Zero of work-related deaths, actions on hazardous substances, cancer, circulatory diseases, by analysing causes, increasing awareness, improving data, strengthen enforcement...
 - Increase preparedness for potential future health crises

New EU Strategic Framework on OSH – Some general approaches and digitalisation

- Digital technologies can provide workers, including with disabilities or older, with digital solutions to support their health, wellbeing and work-life balance. *This could include AI technologies*
- Robotisation, the use of artificial intelligence, and the greater prevalence of remote work reduce the risks of dangerous tasks, such as those in highly contaminated areas like mines, wastewater systems, landfills, or agriculture (pesticides etc.).
- Commission has proposed to revise the Machinery Directive and the first legal framework on AI, addressing risks of high-risk AI systems

New EU Strategic Framework on OSH – Psychosocial and ergonomic risks (1)

European

- Already before COVID, mental health problems affected about 84 million people in the EU. stress contributes to ca. half of all lost working days.
- During COVID, ca. 40% of workers work remotely, and together with increased use of ICT, this leads to a potential lack of social interaction, and rise to new psychosocial and ergonomic risks.
- The Commission will:
 - Modernise OSH legislation related to digitalisation by 2023 (Workplaces Directive, Display Screen Equipment Directive)
 - “EU-OSHA healthy workplaces campaign” 2023-25 on a safe and healthy digital future covering psychosocial and ergonomic risks
 - Prepare non-legislative EU-level initiative for mental health of workers including guidance for action before the end of 2022
 - Develop e-tools and guidance for risk assessments on green and digital jobs and processes, incl. psychosocial and ergonomic risks

New EU Strategic Framework on OSH – Psychosocial and ergonomic risks (2)

- The Commission calls on the Member States to:
 - Update their national legal frameworks, in consultation with social partners, to address OSH risks and opportunities related to the green and digital transitions.
 - Host 'peer reviews' addressing occupational psychosocial and ergonomic issues
 - Strengthen monitoring and data collection on the situation of mental and psychosocial risks across sectors
- The Commission invites the social partners to:
 - Update agreements at cross-industry and sectoral level to address new OSH issues related to the digital labour market, particularly psychosocial and ergonomic risks, by 2023
 - Find commonly agreed solutions to address the challenges raised by telework, digitalisation, right to disconnect, building on the European Social Partners Framework Agreement on digitalization

COM Proposal for Artificial Intelligence

- Commission Proposal COM(2021) 206 final of 21 April 2021 for a Regulation laying down harmonised rules on artificial intelligence
- **General aim:** Improve functioning of internal market, free cross-border movement of AI-based goods and services, and (ii) high level of protection of health, safety and fundamental rights.
- **Article 8:** 1. High-risk AI systems shall comply with the requirements established in Chapter 2 of the proposed AI Regulation
- **Article 6:** AI systems are classified as high-risk if they: (a) are used as safety components or products, covered by legislation in Annex II (e.g. machinery, lifts, motor vehicles); and (b) have to undergo a third-party conformity assessment; or are listed in Annex III (e.g. biometric identification; management of critical infrastructure; education and vocational training; employment, workers management and access to self-employment; law enforcement etc.).

COM Proposal for a Machinery Regulation

- Commission Proposal COM(2021) 202 final of 21 April 2021 for a Regulation on Machinery Products (MR)
- ACSH opinion of December 2020
- Aims: (i) free movement of machinery in the single market, and (ii) high level of protection for users of machinery
- 'New approach': combination of mandatory essential health and safety requirements (EHSR) and voluntary harmonised standards
- Digital technologies (AI, IoT, robotics), human-robot collaboration, IT connected machinery, software updates etc.
- Update the list of high risk machines (Annex I), adding i.a. 'Software ensuring safety functions, including AI systems', and 'machinery embedding AI systems ensuring safety function'
- The AI system definition and third party for conformity assessment in MR proposal is the same as in the AI proposal

Selected new EHSR – Annex III – General principles

- Manufacturer shall ensure that a risk assessment is carried out to determine the health and safety risks of the machinery.
- The machinery product shall then be designed and constructed to prevent and minimise all relevant risks, taking into account the results of the risk assessment.
- The risk assessment shall identify the hazards, incl. foreseeable hazards during the lifecycle of machinery, as an intended evolution of its evolving behaviour or logic.
- If the machinery has an artificial intelligence system, the machinery risk assessment shall consider the risk assessment for that artificial intelligence system according to the future EU AI Regulation rules;

Selected new EHSR – Annex III – Other topics

- **1.1.6. Ergonomics**
 - (...) discomfort, fatigue and physical and psychological stress of operator shall be reduced to the minimum possible (...)
 - avoiding a machine-determined work rate;
 - adapting human-machinery interface to foreseeable characteristics of the operators, including for machinery products with intended fully or partially evolving behaviour or logic designed to operate with varying levels of autonomy;
 - adapting a machinery product (...) with varying levels of autonomy to respond to people adequately and appropriately (through words, gestures, facial expressions or body movement) and to communicate its planned actions (...) in a comprehensible manner. (see also 1.3.7)
- **1.2.1 Safety and reliability of control systems**
- **1.2.3. Starting** and **1.2.4. Stopping**
- **3. Supplementary EHSR for mobility of machinery**

Thank you for your attention



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