

WHY NOW?

## TECHNOLOGY DEVELOPMENTS

- Advances in, and convergence of, digitally enabled technologies (e.g. IoT, AI, advanced robotics)
- Sharp rise in software content in processes and products; increased number of systems acting autonomously
- Many more sensors, actuators, machines and products connected among themselves and to the internet



## EFFECTS ON INDUSTRY

- New forms of work organisation involving more intensive interaction between humans and machines
- Exponential increase in interdependencies and access points
- More extended networks and higher volumes of safety-critical data exchange
- Lack of transparency and understanding of AI algorithms



OPPORTUNITIES &  
CHALLENGES



## NEW SAFETY RISKS

- New sources of potential physical risks (mechanical, electrical, thermal; hazards from interaction with cobots)
- Psychosocial risks from new sources of work-related stress (performance pressures; constant oversight; reduced human contact)
- Long-term health risks from exposure to new hazardous substances or radiation (e.g. new materials used in digital production techniques)



## NEW SAFETY SOLUTIONS

- New safety products, services and solutions enabled by new technologies and continuously generated data
- Applications in safety-critical industries and infrastructure, as well as traditional industries
- Growing global market of “safety tech” products



### UPHOLD THE HUMAN RIGHT TO SAFE WORKING CONDITIONS

This principle sets out an overarching expectation that the global industrial community should embrace a renewed commitment to deliver a safe and healthy working environment as a fundamental human right, in line with recent international agreements and technological developments.



### ENSURE THAT SAFETY IS CENTRAL TO TECHNOLOGY DECISIONS

This principle builds on the ambition to place safety at the core of our thinking about developing and deploying technology. In a world where global safety needs are rapidly evolving, this principle ensures that companies and stakeholders take steps to identify and respond to new risks associated with novel technologies and their applications.



### EXPLOIT NEW TECHNOLOGY-ENABLED SAFETY SOLUTIONS

This principle recognises that while new technologies present new potential sources of safety risk, they can also provide unique solutions. Existing technology solutions – from high-altitude inspection drones to real-time safety-monitoring and intelligent protective equipment – need to be deployed globally. In addition, industry needs to collaborate with innovators to develop new safety approaches and solutions using emerging technologies.



### SHARE, MONITOR AND PROMOTE SAFETY LESSONS

This principle requires the development of a data-sharing and monitoring culture. It builds on UNIDO's call to share knowledge, experiences, innovative approaches and technological solutions to help one another secure industrial safety globally. Organisations should commit to building safety knowledge by sharing lessons learned, near misses and best practices and resources across firms, supply chains, sectors and countries.



### SUPPORT SAFETY IMPROVEMENTS IN DEVELOPING COUNTRIES

This principle sets the expectation that no one should be left behind in the vision of a safer world enabled by technology. While the safety challenge is universal, developing countries are disproportionately affected by safety issues and occupational accidents. This principle envisages a community of people, associations, companies, countries and stakeholders joining efforts to continuously and systematically support safety efforts in developing countries.

## THE CALL FOR ACTION - SUPPORT THE MANIFESTO

We invite you to support the Manifesto for Global Industrial Safety. By doing so, you will join a global movement to promote the safe integration of technology into new industrial processes and the use of technology-driven safety solutions. By digitally endorsing the manifesto, you agree to your organisation being listed as a supporter on the manifesto website. This is not in any way a binding commitment but signals that you believe in the potential of technology-enabled industrial safety and share our vision for using technology to address emerging and long-standing safety risks affecting workers across the globe.

## WHY YOU SHOULD JOIN US

- Advocate worker safety
- Contribute to global impact
- Align with a shared vision
- Gain visibility and recognition
- Join a global community of practice

[www.industrialsafetyinitiative.com](http://www.industrialsafetyinitiative.com)

