Discussion Forum

OSH in the future: where next?

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Abstract

Since 2002, when the Community Strategy on Health and Safety at Work called on the European Agency for Safety and Health at Work to set up a Risk Observatory, EU-OSHA has worked to address the challenges presented by the changing world of work. As our society evolves under the influence of new technology and shifting economic and social conditions, our workplaces, work practices and processes are constantly changing. These new situations bring with them new risks and challenges for workers and employers, which in turn demand political, administrative and technical approaches that ensure high levels of safety and health at work. Changes that are underway due to digitalisation, for example, affect not only the tasks that make up jobs, but also the nature of work in terms of how it is organised, and how it is managed and supervised. Digitalisation also provides important opportunities, whether through the automation of dangerous or monotonous tasks, or facilitating the work of the labour inspectorate. Europe benefits from a comprehensive body of OSH regulations, but if the OSH challenges posed by the new world of work are to be managed and the opportunities realised, it is essential that social dialogue should be at the centre of regulation, support and guidance, enforcement and monitoring.

Keywords: digitalisation, automation, future of work, platform work, artificial intelligence (AI), robotics, occupational safety and health (OSH)

The European Agency for Safety and Health at Work (EU-OSHA) located in Bilbao, Spain, was established in 1994 as a tripartite information agency. It contributes to improving the working environment, as regards the protection of the safety and health of workers, by increasing and disseminating knowledge in that area. In achieving its tasks, the agency works closely with universities and research institutes in Europe and beyond. As part of its 'Risk Observatory' activities, it has carried out a number of projects over the last ten years, focusing on the identification of new and emerging occupational safety and health (OSH) risks. This article

draws on that work, as well as presenting some of the thinking that underpins its current research projects, such as a foresight on OSH risks related to the circular economy, or a wide-ranging four-year activity on OSH and digitalisation.

Approaches to regulation and prevention of occupational safety and health (OSH) risks, and to promotion of workers' health and wellbeing, have adapted to major changes in the world of work since the first laws on child labour appeared over two hundred years ago. In recent years, the need to ensure that these approaches are 'fit for purpose' has become a widely recognised priority, due to the influence on the world of work of certain 'mega-trends'. These changes, such as the growth of global trade, supply chains and labour migration; the impact of ICT and other new technologies; changes in the composition of the labour market; and climate change; have been addressed in a number of initiatives with important impact at policy level.

In 2016, ILO launched the future of work centenary initiative, in order to understand and respond effectively to the ongoing changes in the world of work, and to be able to advance its mandate for social justice, including decent jobs for all. Similarly, the EU Strategic Framework on Health and Safety at Work 2014-2020 identified a number of major challenges, including new and emerging risks, such as those linked to application of new technology, organisational change driven by developments in ICT, and increasing workforce diversity and demographic change. More recently, the European Commission Communication 'A Strong Social Europe for Just Transitions' addresses the multiple challenges Europe is facing: climate action, digitalisation and demographic change. The Communication builds on the principles of the European Pillar of Social Rights (EPSR) in the pursuit of fair working conditions.

With the proclamation of the EPSR, the European Parliament, the Council and the Commission affirmed their strong commitment to the fundamental rights of workers, and to improved living and working conditions. Principle 5 of the EPSR underlines the need for quality working conditions, including innovative forms of work. Principle 10 of the pillar stresses workers' right to "a high level of protection of their health and safety at work" and to "a working environment adapted to their professional needs, and which enables them to prolong their participation in the labour market". In concrete terms, the European Commission has outlined actions on new forms of (precarious) employment, platform work, digitalisation, dangerous substances, work-related accidents, cancer and demographic change.

At more of a research level, a number of international initiatives are underway to address the impact on OSH of these challenges, and to highlight how OSH can contribute to their mitigation. One of the most important of these initiatives is the Global Coalition on OSH. This was proposed at the XXI World Congress in 2017 as a multi-stakeholder partnership, to promote the critical contribution that safe and healthy working environments make to decent work, global health and sustainable development. Within the Global Coalition, EU-OSHA leads

a thematic group that aims to map research activities related to OSH in the future. With this, the group hopes to:

- Foster collaboration and pooling of resources among the collaborating organisations
- Share knowledge from relevant research and data sources, as well as know-how regarding research methods and dissemination strategies
- Provide greater visibility for research and other types of initiative, and help achieve higher impact in terms of target group influence and awareness
- Identify gaps in knowledge with the aim of stimulating research initiatives and funding
- Avoid duplication of ongoing or completed work

These initiatives all aim to address challenges linked to the 'changing world of work', but what does this actually mean in reference to health and safety at work?

What do we mean by OSH in the future?

There are different ways that this question can be addressed, but a useful approach is to examine the so-called 'five Ws' or 'elements of circumstance'; the who, what, where, when and why.

WHO will be the worker of tomorrow? The workforce changes over time as society evolves, in terms of age, gender, health, level of skills and education. For example, there may be more or fewer migrant workers, or a greater or lower participation of persons having a physical or mental impairment.

WHAT will work consist of? Automation and digitalisation is changing the nature of work. Jobs change or disappear, as tasks are automated. At the same time, new jobs are created, taking advantage of technological developments. However, automation is an investment, and will not replace or substantially change jobs for which there is a ready supply of cheap labour. A so-called 'hollowing out' of the labour market may take place, resulting in a demand for workers with 'people skills', technical and scientific competence, but at the same time also for low-skilled workers to cover '3D jobs', those that are dirty, dangerous and dull, and which are not 'worth' automating.

WHERE will work be carried out? The trend in Europe over recent years is for workers to be less in a traditional workplace, such as the factory floor or office, and more likely to be working on the move, or from home, or in clients' premises, or in private homes. Again, these changes are driven largely by digitalisation, but they are also the result of the increase in service sector jobs and the greater participation of women in the labour market, with both men and women making greater use of telework. Indeed, many people have started to work from home for the

first time because of the COVID-19 pandemic, and this will likely lead to a long-term increase in systematic telework.

WHEN will work take place? Globalisation and digitalisation are driving growth in non-standard hours, as business takes place across time zones, and workers are able to be contacted through mobile devices that are always at hand. This may lead to an 'always-on' culture, blurring the distinction between work and family life. Europe is likely to see further increase in part-time work, and more flexibility in work hours. At the same time, there may also be an increase in the pace and intensity of work.

WHY and how will work evolve this way? As mentioned above, the main drivers of change are globalisation, climate change, demographics and digitalisation; however, some drivers are unforeseen, such as pandemics. Important changes affecting OSH in the future relate to the increasing use of atypical forms of employment (zero-hours contracts, online platform work, etc.), particularly when they result in false self-employment and lower levels of worker protection. The effectiveness of OSH policy and practice is also challenged by the growth in sub-contracting, as well as through supply chain effects and globalisation, and in some cases due to the pressure for (de)regulation. OSH has to adapt to advances in technology and increasing complexity in the world of work, while at the same time facing a weakening evidence base to support policy and practice, as longstanding sources of reliable data disappear or become inadequate.

Against this backdrop, EU-OSHA relies on its Anticipating Change activities to provide credible, good quality data on new and emerging risks to policy makers and researchers, so that they can take timely and effective action. In 2014, EU-OSHA carried out a scoping study that identified the impact of ICT and work location on OSH, and since 2016, EU-OSHA has been undertaking extensive research on digitalisation and OSH. Research to date includes a large-scale scenario-based foresight on OSH risks posed by changes in ICT, their use and their impact on the nature of work; expert discussion papers to stimulate debate on specific topics; and a study on regulatory and policy developments in the EU associated with the online platform economy and its potential impact on OSH. From 2020, an EU-OSHA 'OSH overview' builds on this work to provide further information for policy, prevention and practice on the challenges and opportunities for OSH as a result of digitalisation. This OSH overview will be followed by an EU-wide Healthy Workplaces Campaign commencing in 2023, dedicated to raising awareness of how to prevent work-related risks associated with digitalisation and OSH.

The main technology related challenges for OSH identified in EU-OSHA's work to date are summarised below.

What does digitalisation mean for occupational safety and health?

Digitalisation offers the potential for innovative and exciting developments in the workplace, that can improve working conditions, reduce OSH risks and make work accessible to persons that have been excluded because of physical or mental impairment. However, digitalisation also presents new challenges. By anticipating the potential challenges for OSH, we can maximise the benefits of such new technologies, while ensuring that working environments are safe and accessible.

The development of digital technologies, such as artificial intelligence (AI), advanced robotics, widespread connectivity, the internet of things and big data, wearables, mobile devices and online platforms, is changing the nature and location of work, who works and when, and how work is organised and managed. Digital technologies now provide essential services to all sectors of our economy and society. These developments can create new challenges for OSH and its management. The rate at which these developments are taking place is faster than ever before.

Robots are becoming mobile, smart and collaborative. Intelligent machines are taking over a wide range of not just manual but also cognitive tasks, previously done by humans. Workers are increasingly overseen by monitoring technologies and algorithms, to the extent that in the future they could be managed by 'intelligent machines'. The 24/7 globally interconnected economy requires ever more flexible work organisation, and has given rise to new forms of work, such as online platform work. In this context, psychosocial and organisational risk factors deserve particular attention, as they may give rise to higher levels of work-related stress and poor mental health. New safety and ergonomic challenges are emerging as well, including risks of functional safety associated with cybersecurity. Last, but not least, digital technologies and new forms of work present challenges for the application of OSH regulations.

Most of the discussion around digitalisation is about the quantity of jobs, but it should also be about job quality, and OSH is an important aspect of this. EU-OSHA's work aims to support a smart, sustainable, productive and inclusive economy, including safer and healthier workplaces for all in the digital world of work, by minimising the possible negative impacts of digitalisation on workers' safety and health, and by maximising the prevention opportunities offered by digital technologies. This has become more relevant than ever, as the digitalisation of the economy and society is now a widely stated priority of the European Union.

While digitalisation offers great opportunities to reduce occupational risks, such as by automating dangerous tasks, it is important to recognise that investment in new technology is required, usually on the part of the employer. Under certain conditions, these investments are unlikely, for example, where cheap labour is readily available, competition is high and profit margins are low. Unless governments foster appropriate conditions for such investments, ensuring decent minimum working conditions, it is likely that there will be a

polarisation of jobs, with high-quality skilled jobs at one end of the spectrum and low-skilled, 'dirty, dangerous and dull': so-called '3D jobs', at the other.

How is digitalisation shaping our working lives and workers' safety and health?

Advanced robotics and artificial intelligence

Advances in digital technologies are inevitably shaping our future. From increasingly sophisticated robots that replace workers in customer-facing roles, to additive manufacturing technologies (3D printing) that produce human organs, the potential of innovations in digitalisation to meet growing demand and increase productivity is vast. However, increased levels of automation, and the constant monitoring of workers by digital technologies, will in many cases reduce person-to-person contact, and increase performance pressure, with potentially detrimental effects on workers' mental health.

Smart cobots

Collaborative and smart robots, so-called cobots, will become a familiar presence in the workplace as highly developed sensors make it possible for people and robots to work together. Amazon already has 100,000 AI-augmented cobots supporting its distribution activities. Most cobots are equipped with self-optimising algorithms, allowing them to learn from their human colleagues. With the increasing use of AI, robots will be able to carry out not only physical tasks, but increasingly cognitive tasks also. Robots are already able to perform a variety of cognitive tasks autonomously, such as supporting legal casework or medical diagnoses, and will also become commonplace in customer-facing jobs. This means that the use of smart robots is expected in many different sectors and settings, such as in the care sector, hospitality, agriculture, manufacturing, industry, transport and services.

Robotics allows us to remove workers from hazardous situations, and improve the quality of work by handing repetitive tasks to fast, accurate and tireless machines. Cobots can also facilitate access to work for many people who are currently excluded, for example by supporting disabled people or ageing workers in the workplace.

However, the growing proportion of mobile, smart robots in the workplace may increase the risk of accidents, as injury could occur from direct contact with robots. As smart robots are constantly learning, although efforts are made to factor in all possible scenarios in their design, they may behave in unanticipated ways. Workers having to keep up with the pace and level of work of a smart cobot may be placed under a high level of performance pressure. This may have negative impacts on workers' safety and health, particularly mental health. Increased working with robots will also significantly reduce contact with human peers and social support, which is also detrimental to workers' mental health.

'Flippy', an autonomous robotic kitchen assistant that can learn from its surroundings and acquire new skills over time. Shown at work in a kitchen alongside 'co-workers' helping to fulfil customers' orders (Courtesy to "Miso Robotics").

Exoskeletons

Body-worn assistive devices, so-called exoskeletons, have been introduced in some workplaces to support workers carrying out manual handling tasks, while reducing the load on the muscular system. While the extent of their broader deployment is still unclear, exoskeletons have already proven to be beneficial in specific settings, such as for military applications or in medical care settings. Although the potential benefits of exoskeletons to support workers with physical impairments, or to prevent work-related musculoskeletal disorders, could be of value, it is also necessary to take into account that such assistive devices give rise to new concerns in relation to OSH. The long-term effects of exoskeleton use on physiological, biomechanical and psychosocial parameters are unknown. Moreover, according to the hierarchy of control measures, collective technical and organisational prevention measures should always be considered first, and individual technical prevention measures such as equipping a worker with an exoskeleton are seen as the last resort.

Big data, artificial intelligence and algorithms

Mobile, wearable or embedded (in the clothes or body) digital monitoring technologies are increasingly used to monitor workers in real time. Work is increasingly overseen and co-ordinated by algorithms and AI based on big data, tracking data on workers' productivity, location, vital signs, stress indicators, micro-facial expressions and even tone and sentiment analysis. About 40% of human resources (HR) departments in international companies now use AI applications, and 70% consider this a high priority for their organisation. According to a survey of senior executives in a number of sectors and industries around the world, more

than seven out of 10 think that it will be common to use AI to evaluate workers' performance and set rewards in the next 10 years. Interestingly, however, four out of five would not want an intelligent machine managing them.

Pervasive monitoring allowed by AI-supported digital monitoring technologies can have a negative impact in particular on workers' mental health. Workers may feel that they will lose control over work content, pace and scheduling, and the way they do their work, that they are unable to interact socially or take breaks when they want to, and that their privacy is invaded. The use of data for example to reward, penalise or even exclude workers could lead to feelings of insecurity and stress. To prevent this, it is important to ensure transparency and consent in relation to the collection and use of such data. New types of smart monitoring tools may also provide an opportunity to improve OSH surveillance, support evidence-based prevention and increase the efficiency of inspections.

Smart personal protective equipment

Mobile miniaturised monitoring devices embedded in personal protective equipment (PPE) allow real-time monitoring of hazards, and can be used to provide early warnings of harmful exposures, stress, health problems and fatigue. Real-time advice tailored to the individual can be provided to influence worker behaviour and improve safety and health. Information could also be collated to help predict potential OSH problems, and spot where OSH interventions at organisational level are required. However, effective strategies and systems and ethical decisions are needed in the context of handling the large quantity of sensitive personal data that could be generated. A malfunction, or the generation of incorrect data or advice, could also cause injury or ill health.

Virtual reality and augmented reality

Virtual reality (VR) and augmented reality (AR) offer the advantage of removing many workers from hazardous environments, as they can be used for example to support maintenance tasks and for immersive training. AR could also provide contextual information on hidden hazards, such as the presence of asbestos, electricity cables or gas pipelines. However, the reliability of AR is dependent on maintaining access to sources of relevant, high-quality information and on whether or not it is up to date. VR and AR devices may also be a source of risks because of distraction, information overload, disorientation, motion sickness and eyestrain.

Additive manufacturing

The use of 3D printing will become more commonplace. Bio-printing is increasingly being used to produce biological products or organs. Advances in 3D printing capabilities will create great opportunities, with the addition of a fourth dimension expected to enable the production of materials that can change with time. All this comes with incredible potential, but possible new risks to workers' safety and health as a different population of workers is

exposed to manufacturing hazards and dangerous substances, including dust, in decentralised, small, even micro, companies. As items produced by additive manufacturing are often one-offs, OSH standards are also difficult to define or enforce.

Flexible work

Digital mobile technologies and widespread connectivity offer the opportunity for increased flexibility and a better work-life balance. However, they could also mean an increase in the demand for permanent availability, irregular working hours, blurred boundaries between work and private lives, and precarious forms of work.

Mobile digital devices

The global reach of mobile digital technologies is a key driver of the 24/7 economy. People no longer need to be in the same location, to communicate and exchange information. Flexible working environments are increasingly becoming the norm, facilitating a high degree of flexibility in working hours. Although this presents attractive possibilities for workers and the economy, there are potential safety and health risks. The balance mainly depends on whether the flexibility permitted by mobile working offers a real opportunity for workers, or is imposed by the employers for their own benefit.

The main OSH concerns are associated with the fact that workers are likely to experience an increased workload, excessive working hours, and an unhealthy work-life balance. Lone working and the feeling of isolation, the lack of collective support and problems related to reduced support from the organisation are also issues.

Musculoskeletal disorders may also become more likely, as flexible working environments and mobile digital technologies become commonplace. This presents a significant challenge for OSH, as many such environments are not ergonomically suitable, but employers have little control over them. Health problems such as obesity, type-2 diabetes and cancer may also become more prevalent as digitalisation increases sedentary working.

As workers become more dispersed and diverse, with 24/7 flexible working becoming the norm, overseeing and regulating OSH could become more challenging. With business hierarchies changing, and many workers either managing themselves or being managed remotely or by AI, there is likely to be a loss of clarity about who is responsible for OSH, and how it should be overseen and regulated.

Online platforms

Online platforms create new business models, by matching demand for labour with its supply, or allocating tasks to workers with minimal transaction costs. They can facilitate labour market access for vulnerable groups, and provide a regulatory opportunity to address undeclared work. Online platform work comprises a variety of working arrangements: generally 'atypical'

in some way, different types of jobs and many forms of non-standard employment, from high-skilled work carried out online to service work carried out in people's homes or other premises, and managed via web-based applications.

Consequently, working conditions also vary significantly, and so do the OSH risks, as they depend on the various specific work activities themselves. However, OSH risks can be aggravated by the specific features of online platform work. These include work requests issued at short notice, penalisation for not being available, the fragmentation of jobs into tasks with narrower job content, and subject to continuous evaluation and performance rating. There may be further pressures from increased competition, as the online labour market becomes global and accessible to more workers. Other potential risk factors include irregular working hours, blurred boundaries between work and private lives, unclear employment status, insecure income, poor training opportunities, no social entitlements such as sick pay and holiday pay, poor worker representation, and lack of clarity in terms of who is responsible for OSH.

Online platform work offers the benefits of flexibility, in terms of working time and place of work, but, in many cases, this flexibility is imposed on the worker. Workers in non-standard, poor-quality forms of work tend to have poorer physical and mental health. Where platform work results in false self-employment, it creates new challenges for labour protection and OSH management, and there are key questions around the responsibility for and regulation of OSH. In most Member States, the application of OSH legislation depends on an employment relationship, which is more difficult to establish in the context of specific features of online platforms, such as the triangular relationship of the parties involved, and the temporariness, informality, autonomy and mobility of the work.

How can we address the challenges and maximise the opportunities for safety and health at work?

As described above, digitalisation will bring new and emerging OSH challenges, but also opportunities. Swaying the balance towards the opportunities will depend on how the technology is implemented, managed and regulated. Digital technology in itself is neither good nor bad. Maintaining a balance, between the challenges and the opportunities presented by digitalisation, depends on the proper application of technologies, and how they are managed and regulated in the context of social, political and economic trends, such as workforce demographics, the state of the economy, social attitudes, governance and skills. Measures that could help to mitigate the OSH challenges presented by digitalisation include:

- the development of an ethical framework for digitalisation, codes of conduct and proper governance.

- a strong 'prevention through design' approach that integrates human factors and worker-centred design.
- the involvement of workers in the design and implementation of any digitalisation strategies.
- collaboration between academics, industry, social partners and governments on research and innovation in digital technologies to properly take account of the human aspects.
- a regulatory framework to clarify OSH liabilities and responsibilities in relation to new systems and new ways of working.
- an adapted education system and training for workers.

More generally, if the OSH challenges posed by digitalisation are to be managed effectively, and the opportunities it offers realised, it is essential that social dialogue be at the centre of Regulation, Support and Guidance, Enforcement and Monitoring.

Figure 1. European toolbox for a better working environment
Source: EU-OSHA

This approach, which may be described as the 'European toolbox for a better working environment', needs to respond to the challenges identified earlier in this article. In this regard, the goal-setting approach of the EU Framework Directive on OSH and its 23 related directives has proved remarkably resilient to the changes of the last thirty years. Although recently evaluated, and found broadly fit for purpose, the EU OSH acquis faces fresh challenges. It has to provide adequate protection to workers who may be working remotely, who may be managed by algorithm, who may be mixing work with private life, or who may be outside the traditional employment relationship, working as false self-employed.

What is EU-OSHA doing?

EU-OSHA makes available an extensive body of work on digitalisation and OSH, from in-depth foresight reports and discussion papers, and a major overview of research, policy and practices carried out between 2020 and 2022, to its Healthy Workplaces Campaign starting in 2023. There is also a dedicated web section with links to further information, which allows you to stay informed of the latest developments in the field. [1]

Foresight on new and emerging OSH challenges associated with digitalisation

This foresight study identifies key trends and drivers of change that will significantly transform workplaces by 2025 and explores the possible impacts of digitalisation on OSH using four scenarios of working life in 2025. As we cannot predict the future, the scenarios aim to aid strategic discussions, so that the potential OSH challenges can be anticipated and managed effectively. One of EU-OSHA's key objectives is to provide policymakers and researchers with the reliable information they need to take timely and effective action, and shape the safe and healthy workplaces of tomorrow.

Discussion papers

Our expert discussion papers aim to inform and stimulate debate on specific topics related to digitalisation, such as crowdsourcing, robotics, performance-enhancing drugs, 3-D printing, monitoring technologies and the e-retail sector.

Study on regulatory and policy developments in the EU associated with the online platform economy and its potential impact on OSH

This report describes the OSH risks that may result from online platform work, discusses the challenges that the online economy presents in relation to regulatory approaches to OSH, and offers examples of policies and regulatory efforts that are in place, or being developed. to address these risks and challenges.

Overview on digitalisation and OSH, 2020-2022

Between 2020 and 2022, EU-OSHA is running an 'OSH overview' project to provide information for policy, prevention and practice in relation to the challenges and opportunities of digitalisation in the context of OSH, as described in this document.
This OSH overview follows up on the foresight study on digitalisation and OSH, and incorporates the results of the third edition of EU-OSHA's European Survey of Enterprises on New and Emerging Risks (ESENER 2019[2]) on digitalisation in EU workplaces. The OSH

[1] EU-OSHA emerging risks web section: https://osha.europa.eu/en/emerging-risks/developments-ict-and-digitalisation-work
[2] EU-OSHA ESENER website: http://www.esener.eu

overview comprises a number of projects implemented through a combination of literature reviews, surveys, interviews, case studies, and reviews of policies and practices. It focuses on the following areas:

- advanced robotics and the automation of tasks and more specifically:
- the impact of the automation of tasks and changed job contents on OSH
- smart collaborative robotics (cobots)
- the monitoring of workers and OSH
- including new forms of managing workers facilitated by AI or algorithms, such as the gamification of work
- online platform work, with an update of EU-OSHA's regulatory and policy developments, as well as qualitative and quantitative research on OSH and online platform workers
- case studies of good OSH practices in the digital world of world:
- including in relation to technologies such VR, AR and smart PPE, to inform the Healthy Workplaces Campaign on digitalisation.

Upcoming Healthy Workplaces Campaign on digitalisation

The Healthy Workplaces Campaign commencing in 2023 focuses on digitalisation, which will raise awareness about practical resources on digitalisation and OSH.

This article has attempted to describe not only the important challenges facing occupational safety and health due to changes in the world of work, but also to identify opportunities. The changes are rapid, so the abovementioned 'European toolbox for a better working environment' will have to respond quickly, and effectively, adapting its key components to the five 'elements of circumstance' described earlier.

Fortunately, across the EU Member States, there is a wealth of expertise in occupational risk prevention, as well as experience of applying a broad diversity of approaches under a common regulatory framework. Although one of the smallest EU agencies, EU-OSHA is able to help exploit this expertise and experience through its research and its awareness raising work. In large part, it can do so because it is a tripartite network-based agency; the governments and social partners are central to all of the agency's activities, and they are replicated in its key network of national Focal Points. EU-OSHA's success also rests on its collaboration with Europe's leading researchers in OSH, whether in national institutes, in academia or in private business.

The agency seeks to use its limited resources in the most efficient way possible; forging links between the main players, identifying and sharing the best policies and practices, fostering research on the key issues, and raising awareness through the largest international campaigns on OSH. Collaboration with other key international organisations is also essential,

and EU-OSHA works closely with the ILO and WHO, with the other members of the Global Coalition on OSH and with other EU Agencies.

While the challenges may be more or less significant, and the opportunities more or less promising, what is certain is that our chances of successfully navigating the future will be far higher if all of those with an interest in OSH work together.

About the author

William Cockburn, Head of the Prevention and Research Unit, European Agency for Safety and Health at Work (EU-OSHA). He was born in the UK, and trained as a lawyer and then as an ergonomist. The EU-OSHA's Prevention and Research Unit develops the OSH content for the agency, including the European Risk Observatory, and contributes to the European dialogue on healthy workplaces.