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“ TOWARDS SAFE, HEALTHY AND
DECLARED WORK IN UKRAINE ”

OCCUPATIONAL SAFETY & HEALTH

On-line training series
International and EU Labour Standards
Background paper

July, 2020

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▶ EXECUTIVE SUMMARY

Work kills more people than wars (ILO, 2005:5).

From a global workforce of around 2.84 billion people, it is estimated that about 2.4 million people die annually due to accidents at work (between 350 and 360 thousand deaths in about 270 million accidents at work) and occupational diseases (about 2 million deaths).

In Ukraine, the incidence rates of fatal work-related accidents are particularly high, representing almost the triple of the average incidence rates in the EU.

Work-related accidents and occupational diseases have profoundly devastating consequences to their victims and respective families, especially at human level and financial level, as well as high direct and indirect costs to the employers and to the States, whose value can reach up to 4% of the Gross National Product.

The Ukrainian legal framework on OSH and labour inspection, on the other hand, presents several challenges that need to be addressed, in order to approximate it to the relevant International and European labour standards, as foreseen in the EU-Ukraine Association Agreement, and promote decent working conditions for all in Ukraine.

In this context, the present background paper, prepared under the scope of the EU funded and ILO implemented technical cooperation project “Towards safe, healthy and declared work in Ukraine”¹, is aimed at supporting the module “Occupational Safety and Health”, within the

¹ Additional information at: <https://ilo.org/shd4Ukraine> and <https://www.facebook.com/shd4Ukraine>.

framework of the projects' Summer Marathon of Online Trainings on International and EU Labour Standards.

It intends to provide project stakeholders, in particular policy decision makers and legal acts' drafting experts, with the necessary insights and technical advice and guidance on how to better align the Ukrainian legal framework with the relevant International and EU Labour Standards on OSH², fostering the improvement of working conditions in Ukraine.

It starts by discussing the work death's paradox and the consequences of occupational accidents and diseases.

It then addresses the main challenges of occupational safety and health in Ukraine, including the alignment of national OSH legislation with the applicable International and EU standards and the need to secure an effective system of labour inspection to promote and enforce such regulations.

It follows with the presentation of international and European architecture on OSH, along with the discussion, in more concrete terms, of the main international and EU labour standards on OSH.

It concludes with a synthesis and systematization of the main aspects that should be taken into consideration by the national policy decision makers and legal acts' drafting experts when approximating national legislation on OSH with the aforesaid standards. Besides the conceptual aspects, it also addresses the principles that should guide the formulation

² In particular, with: Occupational Safety and Health Convention, 1981 (No. 155); Protocol of 2002 to the Occupational Safety and Health Convention, 1981 (No. 155); Occupational Health Services Convention, 1985 (No. 161); Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187); and Council Directive 89/391/EEC, of 12 June 1989, concerning the introduction of measures to encourage improvements in the safety and health of workers at work.

and implementation of a national policy on OSH and the development of a national system for OSH, the required actions at national level, and the main characteristics of the OSH management system that should be established and maintained at the level of the undertakings.

It should not be seen, however, as an ILO code of practice or a set of official guidelines, nor as a replacement of the positions of the ILO supervisory bodies.

Kyiv, 26 July 2020

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“Towards safe, healthy and declared work in Ukraine”

ILO Office for Central and Eastern Europe

► OCCUPATIONAL SAFETY AND HEALTH (OSH)

The work death's paradox

The work plays a central role in the well-being and quality of life of people and their families, allowing means of subsistence and the strengthening of self-esteem, personal fulfilment and individual dignity, as well as the promotion of social cohesion and stability, peace and economic growth (Budd, 2011, 2013; Budd & Spencer, 2015; Danna & Griffin, 1999; Pontifical Council for Justice and Peace, 2004).

It is now widely recognized, moreover, that the professional and personal lives of people are not two separate entities, but rather areas interconnected and interrelated, with interactions between them (Caudron, 1997; Conrad, 1988; Zedeck & Mosier, 1990).

Paradoxically, and in clear contrast with the central role and importance commonly recognized to work, the International Labour Organization (ILO) holds that work kills more people than wars (ILO, 2005:5).

Indeed, and from a global workforce of around 2.84 billion people, it is estimated that about 2.4 million people die annually due to accidents at work (between 350 and 360 thousand deaths in about 270 million accidents at work) and occupational diseases (about 2 million deaths) (Hämäläinen et al., 2009; J. Takala et al., 2014; Jukka Takala, 2005).

Alli (2008) noted, in this connection, that in sub-Saharan Africa die annually 54 thousand employees of work-related causes and that there are approximately 42 million accidents at work per year resulting in at least 3 days of absence. He also observed that in Latin America and the Caribbean occur annually about 30 thousand deaths from work-related causes and approximately 22.6 million work accidents with absences of at least 3 days.

In the European Union (EU), according to the latest Eurostat (2020) European Statistics on Accidents at Work (ESAW), in 2017 occurred about 3.34 million work-related accidents with 4 or more days of absence (corresponding to an incidence rate of 1,556.86) and 3,552 fatal work-related accidents (incidence rate of 1.65).

In Ukraine, the incidence rates of fatal work-related accidents are substantially higher than the average incidence rates in the EU. Large-scale privatizations, creation of small and medium-sized enterprises, outdated and inappropriate OSH legal framework, as well as a high level of informality and undeclared work has created a number of challenges for preventing and recording work-related accidents and occupational diseases.

According to SLS's 2019 report³, 409 workers died in 2018 in work-related accidents. Ukraine had an average incidence rate of fatal work-related accidents⁴ of 3.8 in 2017 and of 4.5 in 2016. The latter is about 166% higher (around 2.7 times more) than the average incidence rate of fatal work-related accidents in the EU 28 in 2016 (1.69) and the former is about 130% higher (around 2.3 times more) than the average incidence rate of fatal work-related accidents in the EU 28 in 2017 (1.65)⁵. The economic activity sectors that have shown highest incidence rates of fatal work-related accidents in 2017 were: construction (21.0); mining and quarrying (13.6); agriculture, forestry and fishing (10.5); transportation and storage (8.71); water supply, sewage, waste management and remediation activities (8.6); and manufacturing (4.4)⁶.

³ Vide "Results of the SLS work in 2018 and objectives for further improvement of supervisory activities on compliance with the legislation on labour, employment, occupational health, labour protection and state mining supervision"

⁴ See ILOSTAT "Fatal occupational injuries incidence rates by economic activity in Ukraine", available at: http://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page27.jspx?subject=OSH&indicator=INJ_FATL_ECO_RT&datasetCode=A&collectionCode=YI&_afLoop=353695338693113&_afWindowMode=0&_afWindowId=19huznhaao_1081#!%40%40%3Findicator%3DINJ_FA.

⁵ Vide Eurostat "Fatal Accidents at work by NACE Rev. 2 activity" in the EU28, available at: <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>.

⁶ See ILOSTAT "Fatal occupational injuries per 100'000 workers by economic activity(%)", available at https://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page27.jspx?subject=OSH&indicator=INJ_FATL_ECO_RT&datasetCode=A&collectionCode=YI&_afLoop=3189463678716696&_afWindowMode=0&_afWindowId=1ca1unft5z_1#!%40%40%3Findicator%3DINJ_FATL_ECO_RT%26_afWindowId%3D1ca1unft5z_1%26subject%3DOSH%26_afLoop%3D3189463678716696%26datasetCode%3DA%26collectionCode%3DYI%26_afWindowMode%3D0%26_adf.ctrl-state%3D1ca1unft5z_57.

Consequences of occupational accidents and diseases

Work-related accidents and occupational diseases have profoundly devastating consequences to their victims and respective families, especially at human level (e.g. death, injuries, disabilities, decreased quality of life, pain, sorrow, suffering and self-esteem issues) and financial level (e.g. loss of earnings and earning capacity), as well as high direct and indirect costs to the employers and to the States, whose value can reach up to 4% of their Gross National Product (GNP) (Bird & Germain, 1966, 1986; EU-OSHA, 1998; Fabela & Sousa, 2012; Hämäläinen et al., 2009; HSE, 2015; Leigh, 2011; Richthofen, 2002; Roxo, 2004; J. Takala et al., 2014; Jukka Takala, 2005).

The direct costs include, among others, the ones related to health, emergency services, social security benefits, insurance premiums and compensation; costs with the rehabilitation and reintegration of the victims; costs of repairing the damages produced in plant, machinery, equipment, and raw materials; costs arising from possible civil and criminal liability, etc. The indirect costs comprise, *inter alia*, loss of tax revenue and social security contributions; damage to the reputation and image of organizations and countries; costs with the recruitment and training of replacements of the affected workers; impact on the motivation, absenteeism and presentism of the colleagues of the victim; reduction of production capacity and productivity; impact on the quality of goods and services and delivery times; diseconomies of scale and experience; opportunity costs; inspection and investigation costs; administrative costs; etc. (Bird & Germain, 1966, 1986; Fabela & Sousa, 2012; Freitas, 2004; Heinrich et al., 1980; HSE, 2015; Nunes, 2010; Richthofen, 2002; Roxo, 2004; Sérgio Miguel, 2010; J. Takala et al., 2014).

Several studies have been devoted to quantifying the direct and indirect costs arising from occupational accidents and diseases to State, employers and victims.

Miller (1997) estimated them at about US\$155 billion for the United States (USA) employers, while Leigh (2011), as noted Takala et al. (2014), estimated

that the national cost of occupational injuries and diseases in the United States (USA) amounted to US\$250 billion (1.8% of the USA Gross Domestic Product — GDP).

Richthofen (2002) situated the respective direct costs in the EU at about EUR€26 billion and the ILO calculated that the annual costs of accidents at work and occupational diseases reach the amount of US\$1200 billion, representing about 4% of global GNP (Hämäläinen et al., 2009; J. Takala et al., 2014; Jukka Takala, 2005).

The European Agency for Safety and Health at Work (EU-OSHA), on the basis of the data collected from Member States of the EU, estimated the costs associated with accidents at work and occupational diseases in EU countries between 0.4% and 4% of the respective GNP, whereas about 0.4% of GNP in Ireland and in Portugal; 0.6% in France; 1.4% in Austria; between 1.3% and 2.5% of the GNP in Luxembourg; 2.3% in Belgium; 2.6% in the Netherlands; 2.7% in Denmark; about 3% in Spain; 3.2% in Italy; 3.8% in Finland; and 4% in Sweden) (EU-OSHA, 1998).

The Health and Safety Executive (HSE), on the other hand, estimated the total costs arising from accidents at work and occupational diseases occurring in the United Kingdom between 2013 and 2014 (including not only the associated financial costs but also the human costs) at about EUR€18.1 billion (HSE, 2015).

OSH challenges in Ukraine

Following the EU-Ukraine Association Agreement, Ukraine is undergoing considerable efforts to align national legislation with the European and International Labour Standards on OSH.

These efforts recently resulted, for example, in the adoption by the Cabinet of Ministers of Ukraine (CMU), in 2018, of the Concept of OSH management system reform in Ukraine⁷, which lays down the basis for the reform and

⁷ Through the CMU Resolution No. 989-p, of 12 December 2018, available at: <https://www.kmu.gov.ua/ua/npas/pro-shvalennya-koncepciyi-reformuvannya-sistemi-upravlinnya-ohoronoyu-praci-v-ukrayini-ta-zatverdzhennya-planu-zahodiv-shchodo-yiyi-realizaciyi>

alignment of the national OSH system with the EU and ILO standards⁸ and approves its implementation plan.

In addition, EU OSH Directives 2009/104/EC, of 16 September 2009, concerning the minimum safety and health requirements for the use of work equipment by workers at work (European Parliament & European Council, 2009a) and 89/656/EEC, of 30 November 1989, on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace (European Council, 1989c), have been transposed to national legislation, through orders⁹ of the Ministry of Social Policy of Ukraine (MSP).

The high incidence rates of work-related accidents and occupational diseases, however, indicate that a lot still remains to be done in Ukraine, when it comes to the prevention of occupational risks and the promotion of the safety, health and well-being of workers.

In order to improve working conditions in Ukraine and ensure the quality, sustainability and success of the process of approximation of national legislation with the International and EU Labour Standards, some important challenges still need to be properly addressed. They include, inter alia, the following¹⁰:

1. Downstream approach to OSH, focused on protection (rather than on prevention) and safety (instead of a more holistic approach, also including occupational health and hygiene). This approach assumes that risks are inevitable and focuses therefore on reparation and correction, instead of risk management and prevention, and on the improvement of safety and health of workers.

⁸ Vide, in this regard, the contributions of EU-ILO Project “Enhancing the Labour Administration Capacity to Improve Working Conditions and Tackle Undeclared Work” in the report “Guidelines and Recommendations to the Concept on the Reform of the National System for Occupational Risk Prevention and Promotion of OSH” (ILO, 2017), available at: https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---lab_admin/documents/projectdocumentation/wcms_618934.pdf.

⁹ See, respectively, MSP Orders Nos. 2017 (of 28/12/2017) and 1804 (of 29/11/2018).

¹⁰ For more details, see section “Summary of the Key Gaps of the OSH Legal Framework in Ukraine”, of the EU-ILO project report “EU Directives and Reform of OSH and Labour Relations’ Legislation - White Paper”, available at: https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-budapest/documents/publication/wcms_689355.pdf.

2. Too detailed, complex and outdated OSH legal framework, composed of an excessive number of laws/regulations, some of which are contradictory.
3. Contra productive legal provisions, for example:
 - a. legal provisions concerning workers engaged in heavy work, work with harmful or hazardous working conditions, according to which these workers are entitled to earn higher wages and additional benefits. In addition to encouraging workers to perform this type of works (instead of safer and healthier works), it also disclaims and discourage employers from their obligation to ensure safe and healthy working conditions.
 - b. legal provisions establishing that employers have to spend a minimum amount of funds on OSH activities and measures (at least 0.5 percent of the wage fund for the previous year). This provision demotivates employers that have already state of the art OSH conditions (as, in spite of their good working conditions, they still have to continue spending money on OSH), and dismisses employers that have bad OSH conditions to improve them, if they already met the given threshold. Moreover, the obligation of the employers to ensure the safety and health of the workers should be an obligation of result, not of means. In addition, the “List of the Labour Protection Activities and Means Expenses on the Implementation and Procurement Whereof are Incorporated in Costs”, as well as the nature of the labour protection services foreseen in the law “On Labour Protection”, do not include several widely acknowledged relevant OSH services activities foreseen, for example, in Occupational Health Services Convention, 1985 (No. 161) (ILO, 1985).
4. National OSH legal framework does not provide for the employers’ non-transferable responsibility for ensuring the safety and health of workers in every aspects related to work.

5. National OSH legislation does not foresee the employers' obligation to take, and continually adjust to changing circumstances, the necessary measures for ensuring the safety and health of workers, including assessment and prevention of occupational risks, consultation and participation of workers, health surveillance, provision of information, training and the necessary organization and means, with observance of the sequential and hierarchical General Principles of Prevention.
6. National OSH legislation does not apply neither to all economic sectors nor to all employers¹¹ and workers¹².
7. The national statistics on occupational accidents and diseases are unreliable and present inconsistencies and high levels of underreporting. It should be considered to develop and implement an effective national policy and system to ensure the adequate recording, notification and investigation of work-related accidents, occupational diseases, commuting accidents, and dangerous occurrences and incidents, as well as to compile analysis and publication of statistics on such accidents, diseases and occurrences, according to the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases (ILO, 1996), the ILO Protocol No. 155 (ILO, 2002), the ILO Resolution on statistics of occupational injuries (ILO, 1998), and the Eurostat ESAW methodology (Eurostat, 2001).

In addition, the system of labour inspection in Ukraine, which duties include the promotion, provision of technical information and advice

¹¹ Including not for profit legal persons and self-employed with one or more workers.

¹² Including self-employed workers; practitioner, apprentice, trainee and other situations that should be considered as vocational training; administrator, director, manager or treated as such, without an employment contract but paid for this activity; to situations in which one person works for another without a formal worker-employer relationship, when the provider of work should be considered in the economic dependence of the activity's beneficiary; as well as to workers that have an employment relationship but do not have a formal or written labour contract, such as the total undeclared workers or the partially undeclared workers (e.g., bogus self-employed, bogus service providers or the ones that have the so-called "civil contracts"). Moreover, several employers' general OSH obligations are restricted to some type of workers (e.g., engaged in work with harmful and hazardous working conditions or connected with contamination or adverse weather conditions) and are not applied to all workers.

and enforcement of compliance with OSH regulations¹³, is not adequate and appropriate, as it is not in conformity with the provisions of Articles 4, 6, 7, 10, 11, 12 (1) (a) and (b), 16 and 17 of the ILO Convention No. 81 and with Articles 7, 8, 9, 14, 15, 16 (1) (a) and (b), 21 and 22 of the ILO Convention No. 129, as observed, in 2019, by the Committee of Experts on the Application of Conventions and Recommendations (CEACR), regarding the application of Conventions 81 and 129 in Ukraine (ILO, 2019b). This is particularly worrying considering that, without proper implementation and enforcement, international, EU and national legislation are mere pieces of paper (Anderson, 2007; ILO, 2007; Jensen, 2004; Richthofen, 2002; Suard, 2016).

In fact, Ukrainian labour inspectors lack several of the basic powers foreseen in the aforesaid ILO Conventions Nos. 81 and 129, which they need to effectively discharge their duties. In particular, Ukrainian labour inspectors cannot:

1. Perform inspection visits by their own initiative, without the prior issuance of the respective order, issuance of the correspondent certificate and register of the inspection visit in the information system;
2. Widen the inspection visit scope beyond the authorization included in such documents, or duration of the inspection visit, even when the facts seen at the workplace so justify;
3. Perform inspection visits at any time of the day or night to any workplace without prior notice;
4. Perform inspection visits when the employer or his representative is not present;
5. Make inspection visits with the duration, frequency and depth which they understand as necessary;

¹³ As foreseen in Article 3 of the Labour Inspection Convention, 1947 (No. 81) (ILO, 1947), Article 6 of the Labour Inspection (Agriculture) Convention, 1969 (No. 129) (ILO, 1969), Article 9 of the Occupational Safety and Health Convention, 1981 (No. 155) (ILO, 2002) and Article 4 of the Council Directive No. 89/391/EEC, of 12 June 1989, concerning the introduction of measures to encourage improvements in the safety and health of workers at work (European Council, 1989a).

6. Impose sanctions regarding observed infractions, if the employer, once notified, corrects the infringements;
7. Promote and enforce compliance of unregistered employers (which usually show higher non-compliance);
8. Suspend works, even in the event of imminent danger to the health, safety, or life of workers.

Other challenges faced by the labour inspection system in Ukraine, with negative impacts on its ability to promote and enforce OSH regulations include, *inter alia*:

1. A very wide mandate of the State Labour Service of Ukraine, which compromises the discharge of labour inspection primary duties and prejudice the authority and impartiality of labour inspectors;
2. Recurrent imposition of moratoria on inspection visits;
3. Inception and continuous training of labour inspectors;
4. Working conditions and means of labour inspectors to perform their duties;
5. Ongoing process of decentralization (delegation of labour inspection functions to local self-government bodies), in particular in what concerns:
 - a. local self-government bodies are not under the control and supervision of a central authority;
 - b. local self-government bodies' labour inspectors do not have the status of civil servants;
 - c. qualifications, selection, recruitment, training and working conditions of self-government bodies' labour inspectors.

Furthermore, the current approximation process is focused on implementing individual directives, instead of transposing the overall architecture of the EU legal framework on OSH, starting with the alignment

with the umbrella OSH Framework Directive 89/391/EEC¹⁴ and, only then, with the individual directives.

Finally, the nature of the national legal acts that are being used to transpose the EU OSH directives (MSP Orders, instead of Parliament Laws or CMU Decrees) are inadequate, as they do not have enough legal power to ensure their effectiveness and sustainability.

Additional OSH challenges can be found in some recent ILO reports regarding OSH in Ukraine, in particular:

- ▶ “Guidelines and recommendations to the concept on the reform of the national system for occupational risk prevention and promotion of occupational safety and health in Ukraine”¹⁵ (ILO, 2017);
- ▶ “National Occupational Safety and Health Profile of Ukraine”¹⁶ (ILO, 2018b);
- ▶ “EU Directives and Reform of OSH and Labour Relation’s Legislation —White Paper”¹⁷ (ILO, 2019a);
- ▶ “Brief notes on the main aspects of the alignment between Ukrainian national legislation and selected EU directives”¹⁸ (ILO, 2018a).

¹⁴ Which applies to all sectors of activity (both public and private) and to all the areas covered by the individual Directives, without prejudice to more stringent and/or specific provisions contained in these individual Directives and without prejudice to existing or future national and Community provisions which are more favourable to protection of the safety and health of workers at work.

¹⁵ Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---lab_admin/documents/project-documentation/wcms_618934.pdf.

¹⁶ Retrieval from: https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-budapest/documents/meetingdocument/wcms_627038.pdf.

¹⁷ Accessible through: https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-budapest/documents/publication/wcms_689355.pdf.

¹⁸ Available at: https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-budapest/documents/meetingdocument/wcms_633189.pdf.

► MAIN INTERNATIONAL AND EU LABOUR STANDARDS ON OSH

OSH legal architecture

The consequences of the work-related accidents and occupational diseases, discussed above, have encouraged policy makers around the globe to take action in order to promote the improvement of safety and health conditions at work and to prevent the occurrence of work-related accidents and occupational diseases.

As a result, international community has been involved in joint efforts at international, regional, national and local levels, in order to promote safety and health at work and, in this way, prevent the occurrence of accidents at work and occupational diseases.

Those efforts are long being carried out both within the main reference organizations in the field in which they are integrated, such as the United Nations (UN), the ILO, the World Health Organization (WHO), the Organization for Economic Co-operation and Development (OECD) and the EU, and through bilateral, multilateral and tripartite processes of negotiation and consultation between the various stakeholders (in particular among Governments, employers' and workers' representative associations and civil society representatives).

These international efforts, moreover, have been fleshing out in international guidelines, norms and standards, mainly in the form of international treaties, covenants, declarations, charters, conventions and protocols, and community directives, implementation of which is understood as likely to contribute to the improvement of health and safety in the workplaces and, consequently, to the reduction of accidents at work and occupational diseases (Alli, 2008; European Council, 1989a; European Parliament, 2015; ILO, 1981, 2006, 2007).

They reflect the understanding that poor working conditions, in terms of safety and health at work, decrease productivity and competitiveness, as accidents at work and occupational diseases have direct and indirect adverse consequences on the lives of workers, their families and employers; whereas safe and healthy work, on the contrary, have significant positive impacts on the productivity and competitiveness of companies and countries themselves (European Parliament, 2015; ILO, 2007).

They also reveal the belief that the absence of high levels of protection of safety and health of workers may result in absenteeism due to the occurrence of accidents at work and occupational diseases, leading to permanent disabilities which, from the point of view of the social and economic costs, often supported by the respective social security systems and public finances, foreshadows considerable impact on Member States (European Parliament, 2015).

It is worth to mention, in this connection, the preamble of ILO's Constitution of 1919, embodying the ILO's mandate to protect workers against sickness, diseases and injuries at work (ILO, 1919), and the articles 100 and 118 of the Treaty of Rome (establishing the European Economic Community), which provide for Community intervention at the level of safety and health at work and the adoption of policies on employment, working conditions and protection against accidents and occupational diseases, giving the Commission the role of ensuring cooperation between Member States in these fields (EEC, 1957).

Regarding international covenants, it should be noted, for example, the article 7 of the International Covenant on Economic, Social and Cultural Rights, which provides for the right of all people to enjoy just and favorable working conditions that ensure, in particular, safer and healthy working conditions (UN, 1966).

As far as the international declarations are concerned, it is important to highlight, among others:

- ▶ The Universal Declaration of Human Rights, which foresees, in articles 23 and 24, the rights of all people *to work, to just and favorable conditions of work, to just and favorable remuneration supplemented, if necessary, by other means of social protection and to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay* (UN, 1948); and
- ▶ The ILO Declaration of Philadelphia¹⁹, in which the ILO assumes the obligation of supporting the implementation of programs aiming *to achieve an adequate protection of the life and health of workers in all occupations* (ILO, 1944:paragraph III-g).

Moreover, and concerning international charters, the Charter of Fundamental Rights of the European Union assumes special relevance, as it provides for, in its article 31, the right of all workers *to fair and just working conditions, namely to working conditions which respect worker's health, safety and dignity and to limitation of maximum working hours, as well as to daily and weekly rest* (EU, 2000).

It is also important to mention, in this regard, the Community Charter of Fundamental Social Rights of Workers, which sets out, in point 19, the right of all workers to benefit from *satisfactory health and safety conditions in his working environment* and the need for the adoption of appropriate measures to ensure it, which must take into account the necessary *training, information, consultation and balanced participation of workers as regards the risks incurred and the steps taken to eliminate or reduce them* (EU, 1989).

With regard to international conventions and protocols, and besides the Convention of the League of Nations relating to slavery, adopted at Geneva on 25 September 1926 (LN, 1926), it also assumes special prominence, within the international and European OSH legal architecture, the international labour standards set by the Occupational Safety and Health Convention, 1981 (No. 155) and its complementing Protocol of 2002 to the Occupational Safety and Health Convention, 1981 (No. 155), the Occupa-

¹⁹ Declaration Concerning the Aims and Purposes of the ILO, adopted at its 26th session General Conference, in May 10, 1944.

tional Health Services Convention, 1985 (No. 161) and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) (ILO, 1981, 1985, 2002, 2006).

The ILO Convention No. 155, sets out the basic principles for a national and enterprise level policy and strategy for the implementation of OSH preventive and protective measures, understood as needed to prevent the occurrence of work-related accidents and health hazards arising from work (ILO, 1981). The strategy advocated by the Convention calls for action on the formulation, implementation and periodical review of a national OSH policy; the full participation at all levels of employers, workers, and their respective organizations, as well as other stakeholders; the definition of national institutional roles and responsibilities; a national system of recording and notification of occupational accidents and diseases; the implementation of OSH at the workplace level, employers' responsibilities, and rights of workers and their representatives; and requirements regarding information, education, and training.

It also defines the actions to be undertaken at national level (e.g. implementation of a system to supervise and enforce the application of the law on safety and health at work; definition of work processes that should be forbidden or conditioned; establishment, where necessary, rules relating to the design, construction, organization, exploitation and transformation of companies and materials used; and provision of the legal obligation of notification, full inquiry and annual publication of statistical data on occupational accidents and diseases).

It also recognizes the need to ensure the enforcement of OSH legislation through an appropriate and sufficient inspection system (which should provide for the application of penalties in case of non-compliance with the legal provisions) and to provide advice to employers and workers in order to assist them in fulfilling their legal obligations.

This Convention No. 155 is complemented by the ILO Protocol No. 155, of 2002, which incorporates further provisions on the establishment and periodic review of requirements and procedures for the recording and

notification of occupational accidents and diseases, as well as for the publication of related annual statistics.

Convention No. 161, on the other hand, recognizes the paramount importance of promoting and maintain the highest degree of physical, mental and social well-being of workers in all occupations all over the world.

It provides for the establishment of occupational health services at national and enterprise levels, designated to ensure the implementation of the OSH policy and relevant preventive and control measures, including health surveillance and emergency response. Occupational health services are entrusted with essentially preventive functions and are responsible for establishing and maintaining a safe and healthy working environment which will facilitate optimal physical and mental health and for the adaptation of work to the capabilities of workers. Such services should be multidisciplinary and shall enjoy full professional independence from employers, workers, and their respective representatives, in relation to their functions.

It results from the understanding of the universal need to increase the coverage of workers by occupational health services throughout the world, in face of the unevenly distribution of occupational health services all around the globe. Its rationale also derives from the circumstance that, notwithstanding the fact that occupational diseases kill six times as many people each year as work-related accidents, they remain largely invisible in comparison to the latter.

The ILO Convention No. 187 and its accompanying Recommendation (No. 197) complement the previous core standards and strengthen the requirements for a national structure, relevant stakeholders responsible for implementing a national and enterprise level policy for safe and healthy working environments; as well as the steps to be taken to build and maintain a preventive safety and health culture at the national level. Governments, in consultation with the most representative organizations of employers and workers, must undertake active steps towards achieving

and maintaining a safe and healthy working environment by the elaboration or updating of national policy; the development or upgrade of a national system; and the implementation of national programmes on OSH. This process must also take into account other ILO relevant instruments for ensuring safe and healthy working conditions²⁰, as listed in the Annex to Recommendation No. 197.

This Convention No. 187 is aimed at establishing a coherent, systematic and continuous improvement system to promote OSH, in order to prevent occupational injuries, diseases and deaths (ILO, 2006).

The foreseen framework, that should be adopted by the ILO constituents, consists of the combination of a national policy to promote safer and healthier working environments with a national system (composed by laws, regulations, responsible authorities, technical information, advice, training, education, OSH services, research and collection of data on accidents and diseases) and national OSH programs (which should define priorities, time frames, means of action and performance assessment procedures).

Regarding the European OSH legal framework, it assumes special prominence the European Council Directive No. 89/391/EEC, of 12 June 1989, concerning the introduction of measures to encourage improvements in the safety and health of workers at work (European Council, 1989a) and its subsequent individual and special directives, as well as the EU

²⁰ These include, inter alia: Labour Inspection Convention, 1947 (No. 81); Labour Inspection Recommendation, 1947 (No. 81); Protocol of 1995 to the Labour Inspection Convention, 1947; Labour Inspection (Mining and Transport) Recommendation, 1947 (No. 82); Protection of Workers' Health Recommendation, 1953 (No. 97); Welfare Facilities Recommendation, 1956 (No. 102); Radiation Protection Convention, 1960 (No. 115); Radiation Protection Recommendation, 1960 (No. 114); Workers' Housing Recommendation, 1961 (No. 115); Hygiene (Commerce and Offices) Convention, 1964 (No. 120); Hygiene (Commerce and Offices) Recommendation, 1964 (No. 120); Employment Injury Benefits Convention, 1964 (No.121); Employment Injury Benefits Recommendation, 1964 (No. 121); Labour Inspection (Agriculture) Convention, 1969 (No. 129); Labour Inspection (Agriculture) Recommendation, 1969 (No. 133); Occupational Cancer Convention, 1974 (No. 139); Occupational Cancer Recommendation, 1974 (No. 147); Working Environment (Air Pollution, Noise and Vibration) Convention, 1977 (No. 148); Working Environment (Air Pollution, Noise and Vibration) Recommendation, 1977 (No. 156); Occupational Safety and Health (Dock Work) Convention, 1979 (No. 152); Occupational Safety and Health (Dock Work) Recommendation, 1979 (No. 160); Occupational Safety and Health Convention, 1981 (No. 155); Occupational Safety and Health Recommendation, 1981 (No. 164); Protocol of 2002 to the Occupational Safety and Health Convention, 1981; Occupational Health Services Convention, 1985 (No. 161); Occupational Health Services Recommendation, 1985 (No. 171) and Asbestos Convention, 1986 (No. 162).

Strategic Framework on Health and Safety at Work 2014–2020 (European Commission, 2014).

The EU directives in the field of OSH, are intended essentially to harmonize the conditions of health and safety at work at EU level, in order to ensure the proper compatibility between economic and social progress, avoiding that competition within the EU can be done at the expense of workers' safety and health, through the establishment of minimum safety and health at work requirements (European Council, 1989a).

The European Council Directive No. 89/391/EEC, establishes the European legal framework for the promotion of OSH at workplaces, which is often understood as a mandatory OSHMS for EU Member Countries (European Council, 1989a; Karageorgiou et al., 2000; Walters, 2002).

Based on the understanding that the workers can be exposed to dangerous environmental factors at the workplace and that the incidence of accidents at work and occupational diseases were still too high, the Council had considered that preventive measures should be taken in order to safeguard the safety and health of workers and ensure a higher degree of protection, through the implementation of OSH minimum requirements across the EU.

In essence, it defines the principles regarding the prevention of occupational risks, the protection of safety and health, the elimination of risk and accident factors, the practices of informing, training, consulting and ensuring the participation of workers, as well as the employers and workers obligations in respect to the implementation of those principles.

The general principles of prevention, as laid down in paragraph 2 of article 6 of the framework Directive, include, according to the following hierarchical order: to avoid risks; to evaluate the risks which cannot be avoided; to combat the risks at source; to adapt the work to the individual; to adapt to technical progress; to replace the dangerous by the non-dangerous or the less dangerous; to develop a coherent overall prevention policy which covers technology, organization of work, working conditions, social relationships and the influence of factors related to the working environment; to give collective protective measures priority over

the individual ones; and to give appropriate instructions to the workers (European Council, 1989a).

The worker's obligations involve essentially taking care of his own safety and health and that of other persons affected by their actions or omissions, to make correct use of work equipment and personal protective equipment and to cooperate with the employer and other workers.

Regarding the employers, and besides the non-transferability of their responsibility for the safety and health of their workers in every aspect related to the work, their obligations include, *inter alia*: risk's assessment and prevention; provision of information and training; provision of the necessary internal or external OSH services organization and means; to take the necessary measures for first aid, fire-fighting and evacuation of premises; to consult workers; and to ensure that workers receive appropriate health surveillance (European Council, 1989a).

In addition to the framework Directive No. 89/391/EEC, the EU OSH acquis also comprises around 30 individual directives, focusing on specific aspects of OSH and tailoring the principles of that framework directive to specific tasks (e.g. manual handling of loads), specific hazards at work (e.g. exposure to dangerous substances or physical agents), specific workplaces and sectors (e.g. temporary work sites, extractive industries, fishing vessels), specific groups of workers (e.g. pregnant women, young workers, workers with a fixed duration employment contract) and certain work-related aspects (e.g. organization of working time)²¹.

²¹ Among these individual directives, it is worth to highlight the following: 89/654/EEC, on workplace requirements; 89/656/EEC, on personal protective equipment; 90/269/EEC, on manual handling of loads; 90/270/EEC, on work with display screen equipment; 91/322/EEC, 98/24/EC and 2000/39/EC, on exposure to chemical agents; 91/383/EEC, on fixed-duration or temporary employment relationship; 92/29/EEC, on medical treatment on board vessels; 92/57/EEC, on temporary or mobile construction sites; 92/58/EEC, on safety and/or health signs; 92/85/EEC, on pregnant workers; 92/91/EEC, on mineral-extracting industries (drilling); 92/104/EEC, on mineral-extracting industries; 93/103/EC, on work on board fishing vessels; 94/33/EC, on young workers; 1999/92/EC, on the risks from explosive atmospheres; 2000/39/EC, 2006/15/EC and 2009/161/EU, on indicative occupational exposure limit values; 2000/54/EC, on the exposure to biological agents at work; 2002/44/EC, on exposure to mechanical vibration; 2003/10/EC, on exposure to noise; 2004/37/EC, on carcinogens or mutagens at work; 2006/25/EC, on exposure to artificial optical radiation; 2009/104/EC, on the use of work equipment; 2009/148/EC, on exposure to asbestos at work; 2010/32/EU, on prevention from sharp injuries in the hospital and healthcare sector; 2013/35/EU, on exposure to electromagnetic fields; and 2013/59/Euratom, on protection against ionizing radiation (European Commission, 1991, 2000, 2006a, 2006b; European Council, 1992e, 1992f, 1992a, 1992b, 1992c, 1993, 1994, 1998, 2010, 2014, 1989c, 1989b, 1990a, 1990b, 1991, 1992d; European Parliament & European Council, 2000a, 2000b, 2002, 2003, 2004, 2009a, 2009b, 2013a, 2013b).

In this context, it is also worth mentioning the EU Strategic Framework on Health and Safety at Work 2014–2020 (European Commission, 2014). This strategy addresses the following three major health and safety at work challenges in EU: to increase the implementation of existing health and safety rules, mainly in micro enterprises and SMEs; to improve the prevention of work-related diseases; and to tackle the ageing of the EU's workforce.

These main challenges, in turn, are expected to be addressed mainly through: the strengthening of national OSH strategies; the provision of practical support to micro enterprises and SMEs; the improvement of the EU legislation enforcement (e.g. by evaluating the performance of national labour inspectorates); the simplification of existing legislation; the consideration of the trend towards the ageing of EU workforce; the progress on statistical data collection; and the reinforcement of the coordination between the EU institutions and other international organizations (e.g., the ILO, the WHO and the OECD) and partners, in order to reduce work-related accidents and occupational diseases (European Commission, 2014).

Occupational Safety and Health Convention, 1981 (No. 155)

This ILO Convention, which was ratified by Ukraine on January 4th, 2012, provides for the adoption of a coherent national occupational safety and health²² policy, as well as action to be taken by governments and within enterprises to promote occupational safety and health and to improve working conditions.

It applies to all branches of economic activity, including public services, and to all workers²³ employed in them (Articles 1 and 2).

According to this Convention, in order to prevent accidents and injury to health arising out of, linked with or occurring in the course of work,

²² The term “health”, in relation to work, indicates not merely the absence of disease or infirmity, but also includes the physical and mental elements affecting health which are directly related to safety and hygiene at work [Art. 3(e)].

²³ The term “workers” refers to all employed persons, including public employees [Art. 3(b)].

ILO constituents should formulate, implement and periodically review a coherent national policy on occupational safety, occupational health and the working environment²⁴ addressing, in particular (Arts. 4 and 5):

1. Design, testing, choice, substitution, installation, arrangement, use and maintenance of the material components of work²⁵;
2. Relationships between the material components of work and the persons who carry out or supervise the work, and adaptation of machinery, equipment, working time, organisation of work and work processes to the physical and mental capacities of the workers;
3. Training, including necessary further training, qualifications and motivations of persons involved in the achievement of adequate levels of safety and health;
4. Communication and co-operation at the levels of the working group and the undertaking and at all other appropriate levels up to and including the national level;
5. The protection of workers and their representatives from disciplinary measures as a result of actions properly taken by them in conformity with this national policy.

With a view to give effect to such national policy, each ILO Member should implement a series of actions at national level, to ensure that:

1. In consultation with the representative organisations of employers and workers, and through laws or regulations, ILO constituents implement the above national OSH policy (Art. 8);
2. Enforcement of laws and regulations concerning OSH are secured by an adequate and appropriate system of inspection and provided with adequate penalties for their violation (Art. 9);

²⁴ Which should indicate the respective functions and responsibilities on OSH of public authorities, employers, workers and others, taking into account the complementary nature of such responsibilities and the national conditions and practice (Art. 6).

²⁵ The concept of “material components of work” include, among others: workplaces, working environment, tools, machinery and equipment, chemical, physical and biological substances and agents and work processes [Art. 5(a)].

3. Guidance to employers and workers, to help them to comply with legal obligations, is provided (Art. 10);
4. The following functions are progressively carried out (Art. 11):
 - a. determination, where the nature and degree of hazards so require, of conditions governing the design, construction and layout of undertakings, the commencement of their operations, major alterations affecting them and changes in their purposes, the safety of technical equipment used at work, as well as the application of procedures defined by the competent authorities;
 - b. determination of work processes and of substances and agents the exposure to which is to be prohibited, limited or made subject to authorisation or control by the competent authority or authorities, with due consideration to health hazards resulting from the simultaneous exposure to several substances or agents;
 - c. establishment and application of procedures for the notification of occupational accidents and diseases, by employers and, when appropriate, insurance institutions and others directly concerned, and the production of annual statistics on occupational accidents and diseases;
 - d. holding of inquiries, where cases of occupational accidents, occupational diseases or any other injuries to health which arise in the course of or in connection with work appear to reflect situations which are serious;
 - e. publication, annually, of information on measures taken in pursuance of the above national OSH policy and on occupational accidents, occupational diseases and other injuries to health which arise in the course of or in connection with work;
 - f. introduction or extension of systems, taking into account national conditions and possibilities, to examine chemical, physical and biological agents in respect of the risk to the health of workers.

6. Those who design, manufacture, import, provide or transfer machinery, equipment or substances for occupational use (Art. 12):
 - a. satisfy themselves that, so far as is reasonably practicable, the machinery, equipment or substance does not entail dangers for the safety and health of those using it correctly;
 - b. make available information concerning the correct installation and use of machinery and equipment and the correct use of substances, and information on hazards of machinery and equipment and dangerous properties of chemical substances and physical and biological agents or products, as well as instructions on how known hazards are to be avoided;
 - c. undertake studies and research or otherwise keep abreast of the scientific and technical knowledge necessary to comply with the two preceding paragraphs.
7. A worker who has removed himself from a work situation which he has reasonable justification to believe presents an imminent and serious danger to his life or health shall be protected from undue consequences (Art. 13);
8. Subjects regarding OSH are included at all levels of education and training, including higher technical, medical and professional education (Art. 14);
9. The national policy and the measures taken to implement it are coherent, namely through the necessary coordination between the various authorities and bodies called upon to give effect to it which, if so required, may include the establishment of a central body (Art. 15).

ILO Convention No. 155 also foresees the actions to be taken and the level of the undertaking, in order to ensure the application of such national OSH policy. It establishes the general principle of the responsibility of the employers for securing the safety and health of the workers and their main obligations on OSH, along with the key obligations and rights of the workers.

It also recognizes, as an essential element of organizational and other measures to be taken at undertaking level, the cooperation between management and workers and/or their representatives (Art. 20) and establishes the principle that OSH measures shall not involve any expenditure for the workers (Art. 21).

According to Articles 16 to 19, the employers' main obligations on OSH include the following:

1. To ensure that the workplaces²⁶, machinery, equipment and processes under their control are safe and without risk to health;
2. To ensure that the chemical, physical and biological substances and agents under their control are without risk to health when the appropriate measures of protection are taken;
3. To provide, where necessary, adequate protective clothing and protective equipment to prevent risk of accidents or their adverse effects on health;
4. To ensure that, whenever two or more undertakings engage in activities simultaneously at one workplace, they collaborate in applying the OSH legal provisions;
5. To provide, where necessary, for measures to deal with emergencies and accidents, including adequate first aid arrangements;
6. Provide representatives of workers in the undertaking with adequate information on measures taken to secure OSH;
7. To provide appropriate training on OSH to workers and their representatives in the undertaking;
8. To satisfy enquires from, and consult with, workers or their representatives and, as the case may be, their representative organisations in the undertaking, on all aspects of OSH associated with their work;

²⁶ The term "workplace" defines all places where workers need to be or to go by reason of their work and which are under the direct or indirect control of the employer [Art. 3(c)].

9. To abstain from requiring workers to return to a work situation where there is continuing imminent and serious danger to life or health.

On the other hand, the main rights on OSH of workers and their representatives, include (Arts. 16 to 19):

1. To enjoy safe and healthy working conditions, provided by the employer;
2. To enquire employer and to be consulted by the employer on OSH matters related to their work;
3. To be provided with information on measures taken by the employer to secure OSH;
4. To receive training on OSH;
5. To consult their representative organizations about the information on measures taken by the employer to secure OSH (provided they do not disclose commercial secrets);
6. To be provided with adequate protective clothing and protective equipment;
7. Not to return to a reported work situation where there is imminent and serious danger to life or health.

As for the main obligations on OSH of workers and their representatives, they include (Art. 19):

1. To cooperate with the employer in the fulfilment of its obligations;
2. To cooperate with the employer in the field of OSH;
3. To report forthwith to their immediate supervisor any situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health;
4. Not to disclose commercial secrets.

Protocol of 2002 to the Occupational Safety and Health Convention, 1981 (No. 155)

The ILO, considering the need to strengthen recording and notification procedures for occupational accidents and diseases and to promote the harmonization of recording and notification systems with the aim of identifying their causes and establishing preventive measures adopted, in 2002, the Protocol No. 155.

It complements paragraphs (c) and (e) of Article 11 of the ILO Convention No. 155 and calls for the establishment and the periodic review of the requirements and procedures for the recording and notification of occupational accidents and diseases, and for the publication of respective annual statistics.

According to Article 2 of the Protocol, the competent national authority, in consultation with the most representative organizations of employers and workers should, by law or regulations, establish and periodically review the requirements and procedures for the recording and notification of occupational accidents²⁷, occupational diseases²⁸ and, as appropriate, dangerous occurrences²⁹, commuting accidents³⁰ and suspected cases of occupational diseases.

As for the recording, the Protocol establishes that such requirements and procedures should provide for (Art. 3):

1. Employers' responsibility to:
 - a. record occupational accidents, occupational diseases and, as appropriate, dangerous occurrences, commuting accidents and suspected cases of occupational diseases;

²⁷ The term "occupational accident" refers to an occurrence arising out of, or in the course of, work which results in fatal or non-fatal injury [Art. 1(a)].

²⁸ The notion "occupational disease" covers any disease contracted as a result of an exposure to risk factors arising from work activity" [Art. 1(b)].

²⁹ The concept "dangerous occurrence" defines a readily identifiable event with potential to cause an injury or disease to persons at work or to the public [Art. 1(c)].

³⁰ The expression "commuting accident" refers to an accident resulting in death or personal injury occurring on the direct way between the place of work and: the worker's principal or secondary residence; or the place where the worker usually takes a meal; or the place where the worker usually receives his or her remuneration [Art. 1(d)].

- b. provide appropriate information to workers and their representatives concerning the recording system;
 - c. ensure appropriate maintenance of these records and their use for the establishment of preventive measures; and
 - d. refrain from instituting retaliatory or disciplinary measures against a worker for reporting an occupational accident, occupational disease, dangerous occurrence, commuting accident or suspected case of occupational disease.
2. The information to be recorded;
 3. The duration for maintaining these records; and
 4. Measures to ensure the confidentiality of personal and medical data in the employer's possession.

Concerning the requirements and procedures for notification³¹, Article 4 of the Protocol foresees that they should provide for:

1. Employers' responsibility to notify the competent authorities (or other designated bodies) of occupational accidents, occupational diseases and, as appropriate, dangerous occurrences, commuting accidents and suspected cases of occupational diseases, and to provide appropriate information to workers and their representatives concerning the notified cases;
2. Arrangements for the notification of occupational accidents and occupational diseases by insurance institutions, occupational health services, medical practitioners and other bodies directly concerned;
3. The criteria according to which occupational accidents, occupational diseases and, as appropriate, dangerous occurrences, commuting accidents and suspected cases of occupational diseases are to be notified; and

³¹ According to Article 5, notification should include data on: the enterprise, establishment and employer; the injured persons and the nature of the injuries or disease; and the workplace, the circumstances of the accident or the dangerous occurrence and, in the case of an occupational disease, the circumstances of the exposure to health hazards.

4. The time limits for such notification.

Finally, the Protocol foresees that ILO Members should publish annually statistics³² on occupational accidents, occupational diseases and, as appropriate, dangerous occurrences and commuting accidents, as well as the analyses thereof.

Ukraine has not ratified this Protocol yet.

Occupational Health Services Convention, 1985 (No. 161)

ILO Convention No. 161, provides for a comprehensive regulatory approach to OSH services, foreseeing, within the scope of the functions of OSH services, all factors likely to affect workers' mental and physical health (namely surveillance, inspection and improvement of occupational health conditions, and advice on the planning and organisation of work).

It defines occupational health services as services dedicated to essentially preventive functions and responsible for advising employers, workers and their representatives at the undertaking on the requirements for establishing and maintaining a safe and healthy working environment that will optimize physical and mental health in relation to work and on the adaptation of work to the capabilities of workers, taking into consideration their state of physical and mental health (Article 1).

This Convention establishes that each Member State should formulate, implement and periodically review a coherent national policy on occupational health services and ensure the development of occupational health services for all workers in all branches of economic activity and all undertakings, which should be adequate and appropriate to the specific risks of such undertakings (Articles 2 and 3).

³² This statistics, moreover, according to Article 7, should follow classification schemes that are compatible with the latest relevant international schemes established under the auspices of the ILO or other competent international organizations [e.g., Eurostat (2001) European Statistics on Accidents at Work (ESAW) methodology].

The establishment of such occupational health services should be provided for by laws, regulations or collective agreements³³ (Art. 6) and should have, considering the occupational risks of the undertakings, the following functions (Art. 5):

1. Identification and assessment of the risks from health hazards in the workplace;
2. Surveillance of the factors in the working environment and working practices which may affect workers' health;
3. Advice on planning and organization of work, including the design of workplaces, on the choice, maintenance and condition of machinery and other equipment and on substances used in work;
4. Participation in the development of programmes for the improvement of working practices as well as testing and evaluation of health aspects of new equipment;
5. Advice on occupational health, safety and hygiene and on ergonomics and individual and collective protective equipment;
6. Surveillance of workers' health in relation to work;
7. Promoting the adaptation of work to the worker;
8. Contribution to measures of vocational rehabilitation;
9. Collaboration in providing information, training and education in the fields of occupational health and hygiene and ergonomics;
10. Organizing of first aid and emergency treatment;
11. Participation in analysis of occupational accidents and occupational diseases.

³³ Or as otherwise agreed upon by the employers and workers concerned, or in any other manner approved by the competent authority after consultation with the representative organisations of employers and workers concerned.

This occupational health services, moreover, and according to Article 7, may be organized as a service for a single undertaking or as a service common to a number of undertakings and may be organized by the undertaking(s) concerned, by public authorities or official services, by social security institutions, by any other bodies authorised by the competent authority or by a combination of any of the above.

In addition, and as foreseen in Article 8, the employer, workers and their representatives should cooperate and participate in the implementation of the organizational and other measures relating to occupational health services on an equitable basis.

As for the functioning of such occupational health services, the following should be ensured (Articles 9 to 11 and 14 to 16):

1. They should be multidisciplinary and their personnel should: be determined by the nature of the duties to be performed; enjoy full professional independence from employers, workers, and their representatives when performing their duties; and should have the qualifications determined by the competent authority;
2. Their functions should be carried out in co-operation with the other services in the undertaking;
3. Adequate cooperation and coordination between this services and other bodies concerned with the provision of health services;
4. Occupational health services shall be informed:
 - a. by the employer and workers, about any known factors and any suspected factors in the working environment which may affect the workers' health;
 - b. of occurrences of ill health amongst workers and absence from work for health reasons.
5. National laws or regulations should designate the authority or authorities responsible both for supervising the operation of and for advising occupational health services once they have been established;

6. Finally, this Convention provides that all workers shall be informed of health hazards involved in their work (Art. 13) and the surveillance of their health in relation to work should involve no loss of earnings for them, should be free of charge and should take place, as far as possible, during working hours (Art. 12).

Ukraine ratified the Occupational Health Services Convention, 1985 (No. 161), on June 17th, 2010.

Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)

The Promotional Framework for Occupational Safety and Health Convention establishes a framework which promotes the development of a “national preventive safety and health culture”³⁴.

As a promotional framework Convention, ILO Convention No. 187 is designed to provide a coherent and systematic treatment of occupational safety and health and to promote the recognition of existing conventions on OSH, including the Occupational Safety and Health Convention of 1981 (No. 155).

It is aimed, as foreseen in its Article 2, at ensuring that each ratifying Member:

1. Promotes the continuous improvement of OSH, to prevent occupational injuries, diseases and deaths, through the development, in consultation with the most representative organizations of employers and workers, of a national policy³⁵, a national system³⁶ and a national programme³⁷; and

³⁴ The term “national preventive safety and health culture” refers to a culture in which the right to a safe and healthy working environment is respected at all levels, where government, employers and workers actively participate in securing a safe and healthy working environment through a system of defined rights, responsibilities and duties, and where the principle of prevention is accorded the highest priority [Art. 1(d)].

³⁵ The expression “national policy” refers to the national policy on OSH developed in accordance with the principles of Article 4 of the Occupational Safety and Health Convention, 1981 (No. 155) [Art. 1(a)].

³⁶ The term “national system for OSH” (or simply “national system”) refers to the infrastructure which provides the main framework for implementing the national policy and national programmes on OSH [Art. 1(b)].

³⁷ The notion “national programme on OSH” (or “national programme”) refers to any national programme that includes objectives to be achieved in a predetermined time frame, priorities and means of action formulated to improve OSH, and means to assess progress [Art. 1(c)].

2. Takes active steps towards achieving a safe and healthy working environment, through a national system and national programmes on OSH, by taking into account the principles set out in other ILO relevant instruments for ensuring safe and healthy working conditions³⁸ and by ratifying other relevant ILO occupational safety and health Conventions.

As for the above mentioned national policy, ILO Constituents are required, according to Article 3, to promote a safe and healthy working environment (by formulating a national policy, which upholds basic principles of prevention such as: assessing occupational risks or hazards; combating occupational risks or hazards at source; and developing a national preventive safety and health culture that includes information, consultation and training) and to advance, at all relevant levels, the right of workers to a safe and healthy working environment.

Regarding the aforesaid national system, ILO constituents are required to establish, maintain, progressively develop and periodically review a national system for OSH, which includes, among others (Art. 4):

1. Laws and regulations, collective agreements and other relevant instruments on OSH;
2. One or more authorities or bodies, responsible OSH;
3. Mechanisms for ensuring compliance with national laws and regulations, including systems of inspection;
4. Arrangements to promote, at the level of the undertaking, cooperation between management, workers and their representatives as an essential element of workplace-related prevention measures;
5. A national tripartite advisory body (or bodies), on OSH issues;
6. Information and advisory services on OSH;
7. Provision of OSH training;

³⁸ Especially the ones already mentioned and as listed in the Annex to ILO Recommendation No. 197.

8. Occupational health services;
9. Research on OSH;
10. A mechanism for the collection and analysis of data on occupational injuries and diseases;
11. Provisions for collaboration with relevant insurance or social security schemes covering occupational injuries and diseases; and
12. Support mechanisms for a progressive improvement of OSH conditions in micro-enterprises, small and medium-sized enterprises and in the informal economy.

Finally, each ratifying Member is expected, according to Article 5, to formulate, implement, monitor, evaluate and periodically review a national programme on OSH, which:

1. Promotes the development of a national preventative safety and health culture;
2. Contributes to the protection of workers, by eliminating or minimizing work-related hazards and risks, in order to prevent occupational injuries, diseases and deaths and promotes safety and health in the workplace;
3. Is formulated and reviewed on the basis of analysis of the national situation regarding OSH, including analysis of the national system for OSH;
4. Include objectives, targets and indicators of progress; and
5. Is supported by other complementary national programmes and plans which will assist in achieving progressively a safe and healthy working environment.

Ukraine has not ratified yet the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187).

Council Directive 89/391/EEC

The aim of this EU OSH framework Directive is to introduce measures to encourage improvements in the safety and health of workers at work. It applies to all sectors of activity, both public and private (industrial, agricultural, commercial, administrative, service, educational, cultural, leisure, etc.), except for certain specific public service activities, such as the armed forces, the police or certain civil protection services³⁹ (Articles 1 and 2).

It is of fundamental importance as it the basic safety and health legal act which lays down general principles concerning the prevention and protection of workers against occupational accidents and diseases and general guidelines for the implementation of these principles. It contains principles concerning the prevention⁴⁰ of risks, the protection of safety and health, the assessment of risks, the elimination of risks and accident factors, the informing, consultation and balanced participation and training of workers and their representatives (Art. 1).

On the basis of this “Framework Directive”, a series of individual directives (covering specific risks, specific sectors of economic activity or specific types of workers) were adopted. The Framework Directive, however, with its general principles, continues to apply in full to all the areas covered by the individual Directives, without prejudice to more stringent and/or specific provisions contained in these individual Directives [Art. 16(3)]. Its application is also without prejudice to existing or future national and Community provisions which are more favourable to protection of the safety and health of workers at work [Art. 1(3)].

The Framework Directive contains basic obligations for employers⁴¹ and workers⁴². Nevertheless, the workers’ obligations shall not affect

³⁹ But even in the latter case, the safety and health of the concerned workers must be ensured as far as possible in the light of the objectives of this Directive [Art. 2(2)].

⁴⁰ The term “prevention” should here be understood as all the steps or measures taken or planned at all stages of work in the undertaking to prevent or reduce occupational risks [Art. 3(d)].

⁴¹ For the purposes of this Directive, “employer” means any natural or legal person who has an employment relationship with the worker and has responsibility for the undertaking and/or establishment [Art. 3(b)].

⁴² The concept of “worker” means, in this context, any person employed by an employer, including trainees and apprentices but excluding domestic servants [Art. 3(a)].

the principle of the non-transferable responsibility of the employer [Art. 5(3)]. Similarly, where an employer enlists competent external services or persons to carry out activities related to the protection and prevention of occupational risks for the undertaking and/or establishment, this shall not discharge him from his responsibilities in this area [Art. 5(2)].

Employers have the non-transferable obligation to ensure the safety and health of workers in every aspect related to work (Art. 5) and, most especially, according to Articles 6 to 12, to take, and continuously adjust to changing circumstances, the necessary measures to ensure the protection of the safety and health of workers, including prevention and assessment of occupational risks, provision of information and training to workers, ensuring workers' consultation, participation and health surveillance and providing the necessary organization and means, with strict observance of the following sequential and hierarchical General Principles of Prevention (GPP):

1. To avoid risks;
2. To evaluate the risks which cannot be avoided;
3. To combat the risks at source;
4. To adapt the work to the individual, especially as regards the design of work places, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work rate and to reducing their effect on health;
5. To adapt to technical progress;
6. To replace the dangerous with the non-dangerous or the less dangerous;
7. To develop a coherent overall prevention policy which covers technology, organization of work, working conditions, social relationships and the influence of factors related to the working environment;

8. To give collective protective measures priority over individual protective measures;
9. To give appropriate instructions to the workers.

In addition, according to this Directive, employers must:

1. Assess all the risks to the safety and health of workers, inter alia in the choice of work equipment, the chemical substances or preparations used, and the fitting-out of work places [Art. 6(3)(a)];
2. Following the risk assessment, implement the resulting measures to assure the improvement in the level of protection afforded to workers, which should be integrated into all the activities of the undertaking and/or establishment at all hierarchical levels [Art. 6(3)(a)];
3. Take into consideration the worker's capabilities as regards health and safety when he entrusts tasks to workers [Art. 6(3)(b)];
4. Consult workers on introduction of new technologies [Art. 6(3)(c)];
5. Ensure that only workers who have received adequate instructions may have access to areas where there is serious and specific danger [Art. 6(3)(d)];
6. Where several undertakings share a work place, the employers have to cooperate in implementing the safety, health and occupational hygiene provisions and, taking into account the nature of the activities, have to coordinate their actions in matters of the protection and prevention of occupational risks, and have to inform one another and their respective workers and/or workers' representatives of these risks [Art. 6(4)];
7. Designate one or more workers to carry out activities related to the protection and prevention of occupational risks for the undertaking and/or establishment or enlist competent external services or persons (Art. 7);
8. Take the necessary measures for first aid, fire-fighting, evacuation of workers, including arranging the necessary contacts with external

services, designation of the workers required to implement such measures, the action required in the event of serious and imminent danger and the provision of information and instructions to workers (Art. 8);

9. Inform all workers who are, or may be, exposed to serious and imminent danger of the risk involved and of the steps taken or to be taken as regards protection [Art. 8(3)(a)];
10. Take action and give instructions to enable workers in the event of serious, imminent and unavoidable danger to stop work and/or immediately to leave the work place and proceed to a place of safety [Art. 8(3)(b)];
11. Refrain from asking workers to resume work in a working situation where there is still a serious and imminent danger [Art. 8(3)(c)];
12. Ensure that all workers are able, in the event of serious and imminent danger to their own safety and/or that of other persons, and where the immediate superior responsible cannot be contacted, to take the appropriate steps in the light of their knowledge and the technical means at their disposal, to avoid the consequences of such danger [Art. 8(4)];
13. Be in possession of an assessment of the risks to safety and health at work, including those facing groups of workers exposed to particular risks [Art. 9(1)(a)];
14. Decide on the protective measures to be taken and, if necessary, the protective equipment to be used [Art. 9(1)(b)];
15. Keep a list of occupational accidents resulting in a worker being unfit for work for more than three working days [Art. 9(1)(c)];
16. Draw up, for the responsible authorities, reports on occupational accidents suffered by his workers [Art. 9(1)(d)];
17. Provide workers and their representatives with information on OSH, including about the safety and health risks and protective and

preventive measures and activities in respect of both the undertaking and/or establishment in general and each type of workstation and/or job, as well as concerning the measures taken regarding first aid, fire-fighting, evacuation of workers (Art. 10);

18. Consult workers and allow them to take part in discussions on all questions relating to safety and health at work (Art. 11);
19. Ensure that each worker receives adequate safety and health training, in particular in the form of information and instructions specific to his workstation or job (which should be adapted to take account of new or changed risks, and repeated periodically if necessary), at least on recruitment, in the event of a transfer or a change of job, in the event of the introduction of new work equipment or a change in equipment, and in the event of the introduction of any new technology (Art. 12);
20. Ensure that workers receive health surveillance appropriate to the health and safety risks they incur at work, allowing worker, if he so wishes, to receive health surveillance at regular intervals (Art. 14).

The workers, on the other hand, have the following obligations, in accordance with their training and the instructions given by the employer (Art. 13):

1. To take care, as far as possible, of his own safety and health and that of other persons affected by his acts or omissions at work;
2. Make correct use of machinery, apparatus, tools, dangerous substances, transport equipment and other means of production;
3. Make correct use of the personal protective equipment supplied to them and, after use, return it to its proper place;
4. Refrain from disconnecting, changing or removing arbitrarily safety devices fitted, e.g. to machinery, apparatus, tools, plant and buildings, and use such safety devices correctly;
5. Immediately inform the employer and/or the workers with specific responsibility for the safety and health of workers of any work

situation they have reasonable grounds for considering represents a serious and immediate danger to safety and health and of any shortcomings in the protection arrangements;

6. Cooperate with the employer and/or workers with specific responsibility for the safety and health of workers, for as long as may be necessary to enable any tasks or requirements imposed by the competent authority to protect the safety and health of workers at work to be carried out;
7. Cooperate with the employer and/or workers with specific responsibility for the safety and health of workers, for as long as may be necessary to enable the employer to ensure that the working environment and working conditions are safe and pose no risk to safety and health within their field of activity.

In addition to the general right of workers to safe and healthy working conditions provided by the employer and related rights (e.g., to be informed, trained, consulted, etc.), workers are also granted with some supplementary rights according to this Directive, in particular the ones especially foreseen in the following provisions:

1. Measures related to safety, hygiene and health at work may in no circumstances involve the workers in financial cost [Art. 6(5)];
2. Designated workers to carry out activities related to the protection and prevention of occupational risks for the undertaking and/or establishment may not be placed at any disadvantage because of their activities related to the protection and prevention of occupational risks and shall be allowed adequate time to enable them to fulfil their obligations [Art. 7(1) and (2)];
3. Workers who, in the event of serious, imminent and unavoidable danger, leave their workstation and/or a dangerous area may not be placed at any disadvantage because of their action and must be protected against any harmful and unjustified consequences [Art. 8(4)];

4. Workers who have taken the appropriate steps (in the light of their knowledge and the technical means at their disposal) to avoid the consequences of a serious and imminent danger to their own safety and/or that of other persons when the immediate superior responsible could not be contacted, should not be placed at any disadvantage⁴³ [Art. 8(5)];
5. Workers' representatives with specific responsibility for the safety and health of workers⁴⁴ have the right to ask the employer to take appropriate measures and to submit proposals to him to that end to mitigate hazards for workers and/or to remove sources of danger [Art. 11(3)];
6. Workers, workers designated to implement the measures for first aid, fire-fighting, evacuation of workers, and the workers' representatives with specific responsibility for the safety and health of workers may not be placed at a disadvantage because of their respective activities [Art. 11(4)];
7. Workers' representatives with specific responsibility for the safety and health of workers should be granted with adequate time off work, without loss of pay, and provided with the necessary means to enable such representatives to exercise their rights and functions regarding OSH [Art. 11(5)];
8. Workers and/or their representatives are entitled to appeal to the authority responsible for safety and health protection at work if they consider that the measures taken and the means employed by the employer are inadequate for the purposes of ensuring safety and health at work and workers' representatives must be given the opportunity to submit their observations during the competent authority inspection visits [Art. 11(6)];

⁴³ Unless they acted carelessly or there was negligence on their part.

⁴⁴ The expression "workers' representatives with specific responsibility for the safety and health of workers" means, in the context of this Directive, any person elected, chosen or designated in accordance with national laws and/or practices to represent workers where problems arise relating to the safety and health protection of workers at work [Art. 3(c)].

9. The OSH training to which workers are entitled to should be provided during working hours [Art. 12(4)];
10. Particularly sensitive risk groups must be protected against the dangers which specifically affect them (Art. 15).

Finally, it is important to highlight that, according to Article 4 of the Directive, Member States have to ensure that employers, workers and workers' representatives are subject to the legal provisions necessary for the implementation of this Directive and, in particular, that adequate controls and supervision regarding their application are in place.

According to Article 424 and Annex XL to Chapter 21 of the EU-Ukraine Association Agreement, Ukraine undertook to gradually approximate its legislation to Council Directive 97/81/EC until 31 August 2020.

▶ **IMPLICATIONS FOR POLICY DECISION-MAKERS AND LEGAL ACTS' DRAFTING EXPERTS**

The following sections are aimed at synthesizing and systematizing the main aspects of a legal framework on OSH, in the light of the International and EU labour standards discussed above. Policy decision makers and legal acts' drafting experts should consider them, when legislating on occupational safety and health at both national and undertaking levels.

Concepts

Worker

Any natural person who undertakes, by way of remuneration, to provide its intellectual or manual activity to another, under his direction, supervision, control and authority, as well as trainees, apprentices and self-employed workers which, according to legislation, should be considered economically dependent from the beneficiary of the activity.

Employer

Any natural or legal person who has an employment relationship with the worker, as well as who hosts trainees and apprentices, who benefits from the activity of an economically dependent self-employed worker, or, when foreseen in legislation, who has the responsibility for the undertaking and/or establishment where the work is being carried out.

Workers' representatives in the undertaking

Means persons who are recognised as such under national law or practice.

Workers' representative with specific responsibility for the safety and health of workers

Any person elected, chosen or designated in accordance with national laws and/or practices to represent workers in relation to safety and health protection of workers at work.

Prevention

All the steps or measures taken or planned at all stages of work in the undertaking to prevent or reduce occupational risks.

Workplace

All places where workers need to be or to go by reason of their work and which are under the direct or indirect control of the employer.

Material components of work

This term include: workplaces, working environment, tools, machinery and equipment, chemical, physical and biological substances and agents and work processes.

Health

This term, in relation to work, indicates not merely the absence of disease or infirmity, but also includes the physical and mental elements affecting health which are directly related to safety and hygiene at work.

Occupational health services

Means services entrusted with essentially preventive functions and responsible for advising the employer, the workers and their representatives in the undertaking on the requirements for establishing and maintaining a safe and healthy working environment which will facilitate optimal physical and mental health in relation to work and on the adaptation of work to the capabilities of workers in the light of their state of physical and mental health.

Occupational accident

Also called work-related accident or accident at work, means an occurrence arising out of, or in the course of, work which results in fatal or non-fatal Injury.

Occupational disease

Means any disease contracted as a result of an exposure to risk factors arising from work activity.

Dangerous occurrence

Means a readily identifiable event as defined under national laws and regulations, with potential to cause an injury or disease to persons at work or to the public.

Commuting accident

Also called accident *in itinere*, means an accident resulting in death or personal injury occurring on the direct way between the place of work and: the worker's principal or secondary residence; or the place where the worker usually takes a meal; or the place where the worker usually receives his or her remuneration.

National policy on OSH

It refers to the national policy on occupational safety and health and the working environment

developed in accordance with the principles set in Article 4 of the Occupational Safety and Health Convention, 1981 (No. 155).

National system for OSH

The term “national system for occupational safety and health” or “national system” refers to the infrastructure which provides the main framework for implementing the national policy and national programmes on occupational safety and health.

National programme on OSH

It refers to any national programme that includes objectives to be achieved in a predetermined time frame, priorities and means of action formulated to improve occupational safety and health, and means to assess progress.

National preventive safety and health culture

Refers to a culture in which the right to a safe and healthy working environment is respected at all levels, where government, employers and workers actively participate in securing a safe and healthy working environment through a system of defined rights, responsibilities and duties, and where the principle of prevention is accorded the highest priority.

National policy on OSH

A national policy on occupational safety and health should be aimed at promoting the continuous improvement of OSH and the development of a national preventive safety and health culture that includes the observance of the General Principles of Prevention, information, consultation and training, in order to prevent occupational injuries, diseases and deaths, advance worker's well-being and minimize, as far as practically possible, occupational risks.

Such a policy should be formulated, implemented and regularly reviewed in consultation with the most representative organizations of employers and employees, and should be guided by and incorporate the following principles:

1. The worker is entitled to perform the work in conditions that respect his safety and health, ensured by the employer or, in the situations identified in the law, by the natural or legal person who manages the premises in which the activity is undertaken.
2. The prevention of occupational risks must be based on a correct and constant risk assessment and be developed according to the

principles, policies, standards and programmes that ensure, in particular:

- a. the design and implementation of the National Strategy for Occupational Safety and Health;
- b. the definition of the technical conditions governing the design, manufacture, import, sale, assignment, installation, organization, use and processing of the material components of the work according to the nature and degree of the risks, as well as the obligations of the persons responsible for such. The latter should take into account the relationships between the material components of work and the persons who carry out or supervise the work, and adaptation of machinery, equipment, working time, organisation of work and work processes to the physical and mental capacities of the workers;
- c. the definition of substances, agents or processes that should be prohibited, limited or subject to authorization or the supervision of the competent authority, as well as the definition of worker exposure limits to chemical, physical and biological agents and the technical standards for the sampling, measurement and evaluation of results;
- d. the promotion and monitoring of the health of the workers;
- e. the increase of the technical and scientific research applied in the field of occupational safety and health, with particular reference to the emergence of new risk factors;
- f. education, training and information for promoting improvements in occupational safety and health;
- g. communication and cooperation at the levels of the undertaking and at all other appropriate levels, including the national level;
- h. the protection of workers and their representatives from disciplinary measures as a result of actions properly taken by them in conformity with this national policy;

- i. raising the awareness of society in order to create a genuine national preventive safety and health culture;
- j. the efficiency and effectiveness of the system of labour inspection in the promotion and enforcement of the compliance with the law and regulations on OSH.

National system for OSH

The national system for occupational safety and health should be aimed at implementing the right to occupational safety and health, by safeguarding the consistency of measures and the effectiveness of the intervention of public, private or cooperative entities conducting, in that context, duties in the areas of:

- ▶ Regulation;
- ▶ Licensing;
- ▶ Certification;
- ▶ Standardisation;
- ▶ Research;
- ▶ Training;
- ▶ Information;
- ▶ Consultation and participation;
- ▶ Technical services of prevention;
- ▶ Health surveillance and;
- ▶ Inspection.

Such system should be based on a national network for the prevention of occupational risks in the above action areas which should include, among others:

1. Laws and regulations, collective agreements and other relevant instruments on OSH;

2. One or more authorities responsible for OSH and for ensuring compliance with national laws and regulations, including systems of inspection;
3. Arrangements to promote, at the level of the undertaking, cooperation between management, workers and their representatives;
4. A national tripartite advisory body (or bodies) on OSH issues;
5. Information and advisory services on OSH;
6. Provision of OSH services and training on OSH;
7. Research on OSH;
8. A system for collection, analysis and publication of data on occupational injuries and diseases;
9. Provisions for collaboration with relevant insurance or social security schemes covering occupational injuries and diseases; and
10. Support mechanisms for a progressive improvement of OSH conditions in micro-enterprises, small and medium-sized enterprises and in the informal economy.

Such system should be guided by and incorporate the following principles:

1. The State may support and enter into agreements with private entities or cooperatives with technical capacity for carrying out actions in the field of OSH.
2. In the OSH field, cooperation between the State and the representative organisations of workers and employers should be developed and also at the employer, establishment or service level, between the employer and the representatives of workers and employers.
3. Notwithstanding an integrated and coherent vision, the ministries responsible for the labour and health areas should propose the definition of the policy for the promotion and inspection of OSH, developing the complementarities and interdependencies between

the domains of occupational safety and health and the social security system, the national health service, the protection of the environment and the national quality system.

4. Public services responsible for licensing, certification or other authorization for the undertaking of an activity or the assigning of an asset to such undertaking should perform their duties in order to promote OSH.
5. Coordination of the implementation of the policy measures and the evaluation of results, in particular those relating to the inspection activity, should be responsibility of the competent bodies of the ministry responsible for the labour area.
6. The policy measures adopted and the evaluation of the results of those policies and of inspections undertaken in the OSH field as well as the statistical information on occupational accidents and occupational diseases should be annually published and adequately disclosed. The statistical information should allow the description of occupational accidents and diseases in order to contribute to epidemiological studies, enabling the adoption of appropriate criteria and methodologies to design nationwide and sector-specific prevention programmes and measures and the periodic control of results.

Actions at national level

The nationwide implementation of the above policy and system in the field of occupational health and safety, moreover, requires the adoption, in consultation and participation of the most representative organizations of employers and workers, of a set of measures at national level, to ensure that:

1. Occupational health and safety contents are included in school curricula at the various levels of the education system and in vocational education and training initiatives.
2. Training and information initiatives aimed at employers and workers, as well as public information and explanation sessions in matters of OSH are promoted.

3. Conditions that promote knowledge and research in the area of OSH, focus predominantly on the improvement of occupational risk prevention and protecting workers' health are developed.
4. Technical standards and specifications in the area of OSH approved under the national quality system and by International Organization for Standardization (ISO), as well as the practical guidelines developed by the ILO and by the World Health Organization (WHO), are indispensable references to be taken into account in procedures and measures adopted in compliance with legislation on OSH as well as in the production of goods and equipment.
5. Legislation on licensing and operating permits contains the specifications appropriate to occupational risk prevention and health protection.
6. All natural or legal persons that manufacture machinery, apparatus, tools, plant and other equipment for professional use perform the investigations and operations required so that and as far as possible, at the design stage and during manufacturing, any risks such products might pose to the safety and health of persons are eliminated or reduced to a minimum and ensure, by appropriate certification, before launch on the market, compliance with the applicable safety and health requirements.
7. All natural or legal persons that import, sell, rent, assign in any form or place in exhibition machines, appliances or tools for professional use must:
 - a. carry out or commission the necessary checks and tests to ensure that the construction and state of such work equipment do not pose a risk to the safety and health of workers, provided such equipment is used correctly and as intended, except when such equipment is duly certified;
 - b. take the necessary measures to ensure that instructions are attached to machinery, appliances, tools or facilities for professional use, in Ukrainian, regarding their installation, use, preservation and repair, stating, in particular, how the workers re-

sponsible for carrying out these tasks shall proceed in order to prevent risks to their safety and health and that of other people.

8. All natural or legal persons that assemble, place, repair or adapt machines, apparatus, tools or facilities for professional use ensure, to the extent possible, that as a result of those operations, such equipment does not pose a risk to the safety and health of persons, provided that they are used correctly.
9. The machines, apparatus, tools or systems for professional use are only supplied or made operational provided they contain the safety marking, the name and address of the manufacturer or the importer as well as other information that may allow them to be clearly identified and prevent the risks in their use.
10. In the case of fairs, demonstrations and exhibitions, when the machines, apparatus, tools and systems for professional use are without the normal safety protections, the safety precautions must be visible and clearly indicated, as well as the impossibility of acquiring the equipment without them.
11. The competent authorities periodically publish the specifications to be complied with in the area of occupational safety, in order to ensure prevention in the design phase and facilitate the relevant administrative procedures.
12. Competent authorities, in close cooperation and collaboration with the most representative associations of workers and employers, periodically launch information and awareness-raising campaigns on matters of occupational safety and health, in order to promote the development of a genuine national preventive safety and health culture.
13. The body with inspection authority of the ministry responsible for labour area controls and enforces the legislation concerning occupational safety and health and applies the corresponding penalties for the breach thereof, without prejudice to the specific duties of other entities.

14. The body referred to in the preceding paragraph is also responsible for conducting inquiries of fatal occupational accidents, accidents demonstrating a particularly serious situation in terms of OSH and occupational diseases or other health damages occurred during work or related thereto, without prejudice to the legal competences of the competent bodies of the ministry responsible for the health area and of the ministry responsible for the social security for conducting the inquiry in case of occupational diseases or other health damages occurred during work or related thereto.
15. Workers' representatives may submit their comments to the competent body of the ministry responsible for the labour inspection area or to any other competent authority, on the occasion of a visit or an inspection to the respective employer or establishment.
16. Workers' representatives may request the intervention of the competent inspection body of the ministry responsible for the labour area whenever it is found that the measures adopted and the means provided by the employer are insufficient to ensure the workers' occupational safety and health.
17. The system of labour inspection is, in law and in practice, in conformity with the relevant International labour standards, in particular with ILO Conventions 81 and 129 on labour inspections, especially in what regards its placement under the control and supervision of a central authority and on the frequency and deepness of inspections, as well as concerning the qualifications, recruitment, status, working conditions, training and powers of labour inspectors to effectively discharge their duties.

OSH at the level of the undertaking

Objective and scope

National legislation aimed at introducing measures to encourage improvements in the safety and health of workers at work should apply to all employers and workers of sectors of activity, both public and private.

General principles

The general principles that should guide the regulation, at the level of the undertaking, the prevention and protection of workers against occupational risks and the improvement of their safety and health at work include:

1. The employer's non-transferable obligation to ensure the safety and health of workers in every aspect related to work;
2. Prevention of occupational risks, in accordance with the following sequential and hierarchical General Principles of Prevention (GPP):
 - a. to avoid risks;
 - b. to evaluate the risks which cannot be avoided;
 - c. to combat the risks at source;
 - d. to adapt the work to the individual, especially as regards the design of work places, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work rate and to reducing their effect on health;
 - e. to adapt to technical progress;
 - f. to replace the dangerous with the non-dangerous or the less dangerous;
 - g. to develop a coherent overall prevention policy which covers technology, organization of work, working conditions, social relationships and the influence of factors related to the working environment;
 - h. to give collective protective measures priority over individual protective measures;
 - i. to give appropriate instructions to the workers.
3. Elimination of risk and accident factors;
4. Protection of safety and health of the workers;

5. Organization and functioning of OSH services for workers;
6. Provision of information and training to workers;
7. Workers' consultation and participation of OSH matters;
8. Workers' health surveillance.

Employers' obligations

Employers have the non-transferable obligation to ensure the safety and health of workers in every aspect related to work, taking, and continuously adjusting to changing circumstances, the necessary preventive and protective measures to ensure the safety and health of workers, including prevention and assessment of occupational risks, provision of information and training, ensuring workers' consultation, participation and health surveillance, and providing the necessary organization and means, with strict observance of the above GPP.

Main employers' obligations in ensuring safe and healthy working conditions in every aspect related to work include, *inter alia*, the following:

Risk management

Regarding risk assessment and implementation of the most appropriate preventive and protective safety and health measures, employers should be required to:

1. Assess all the risks to the safety and health of workers, including in the choice of work equipment, chemical substances or preparations used, and the fitting-out of work places;
2. Following the risk assessment, implement the resulting preventive and protective measures to assure the improvement of the level of protection afforded to workers, which should be integrated into all the activities of the undertaking and/or establishment at all hierarchical levels;
3. Be in possession of an assessment of the risks to safety and health at work, including those facing groups of workers exposed to particular risks;

4. Take into consideration the worker's capabilities as regards health and safety when he entrusting them tasks;
5. Where several undertakings share a work place, cooperate in implementing the safety, health and occupational hygiene provisions and, taking into account the nature of the activities, coordinate their actions in matters of the protection and prevention of occupational risks, and inform one another and their respective workers and/or workers' representatives of these risks;
6. Decide on the preventive and protective safety and health measures to be taken and, if necessary, the protective equipment to be used.

Preventive and protective OSH Services

As for the organization and functioning of preventive and protective OSH services at the level of the undertaking, employer should have the obligation to:

1. Designate one or more workers to carry out activities related to the prevention of and protection against occupational risks for the undertaking and/or establishment or enlist competent external services or persons⁴⁵;
2. Ensure that preventive and protective OSH services are the responsibility of one or more workers, of one service or of separate services whether from inside or outside the undertaking and/or establishment. In the latter case, however, the worker(s) and/or external services or persons must work together whenever necessary;
3. Ensure that the workers designated and the external services or persons consulted are able to deal with the organization of protective and preventive measures, taking into account the size of the undertaking and/or establishment and/or the hazards to which

⁴⁵ If such preventive and protective measures cannot be organized for lack of competent personnel in the undertaking and/or establishment.

the workers are exposed and their distribution throughout the entire undertaking and/or establishment and, in particular:

- a. the workers designated must have the necessary capabilities and the necessary means;
 - b. the external services or persons consulted must have the necessary aptitudes and the necessary personal and professional means; and
 - c. must be sufficient in number.
4. Ensure that when such services or persons are enlisted, they are duly informed about the factors known to affect, or suspected of affecting, the safety and health of the workers and that they have access to the safety and health risks and protective and preventive measures and activities in respect of both the undertaking and/or establishment in general and each type of workstation and/or job as well as regarding the measures taken concerning first aid, fire-fighting, evacuation of workers and serious and imminent danger;
5. Ensure that this preventive and protective OSH services, as required by the nature of the undertaking and the occupational risks to which workers are or might be exposed to, are able to perform, at least, the following activities and tasks:
- a. identification and assessment of the risks from health hazards in the workplace;
 - b. surveillance of the factors in the working environment and working practices which may affect workers' health;
 - c. advice on planning and organization of work, including the design of workplaces, on the choice, maintenance and condition of machinery and other equipment and on substances used in work;
 - d. participation in the development of programmes for the improvement of working practices as well as testing and evaluation of health aspects of new equipment;

- e. advice on occupational health, safety and hygiene and on ergonomics and individual and collective protective equipment;
- f. surveillance of workers' health in relation to work;
- g. promoting the adaptation of work to the worker;
- h. contribution to measures of vocational rehabilitation;
- i. collaboration in providing information, training and education in the fields of occupational health and hygiene and ergonomics;
- j. organizing of first aid and emergency treatment;
- k. participation in analysis of occupational accidents and occupational diseases.

First aid, fire-fighting, evacuation of workers and serious and imminent danger

Concerning the implementation of the necessary arrangements for first aid, fire-fighting, evacuation of workers, as well as for situations of serious and imminent danger, employers' obligations should include:

1. Take the necessary measures for first aid, fire-fighting, evacuation of workers, including arranging the necessary contacts with external services, designation of the workers required to implement such measures, the action required in the event of serious and imminent danger and the provision of the related information and instructions to workers⁴⁶;
2. Inform all workers who are, or may be, exposed to serious and imminent danger of the risk involved and of the steps taken or to be taken as regards protection;
3. Take action and give instructions to enable workers in the event of serious, imminent and unavoidable danger to stop work and/or immediately to leave the work place and proceed to a place of safety;

⁴⁶ The number of such workers, their training and the equipment available to them must be adequate, taking account of the size and/or specific hazards of the undertaking and/or establishment.

4. Refrain from asking workers to resume work in a working situation where there is still a serious and imminent danger;
5. Ensure that all workers are able, in the event of serious and imminent danger to their own safety and/or that of other persons, and where the immediate superior responsible cannot be contacted, to take the appropriate steps in the light of their knowledge and the technical means at their disposal, to avoid the consequences of such danger.

Occupational accidents and diseases

As for the employers' obligations on recording and notifying occupational accidents, occupational diseases, dangerous occurrences, commuting accidents and suspected cases of occupational diseases, they should include, *inter alia*:

1. Record and notify the competent authorities (or other designated bodies), within the time limits established by legislation, occupational accidents, occupational diseases and, as appropriate, dangerous occurrences, commuting accidents and suspected cases of occupational diseases, and maintain those records during the period of time prescribed by legislation;
2. Provide appropriate information to workers and their representatives concerning the recording system and notified cases;
3. Ensure appropriate maintenance of these records and their use for the establishment of preventive measures;
4. Refrain from instituting retaliatory or disciplinary measures against a worker for reporting an occupational accident, occupational disease, dangerous occurrence, commuting accident or suspected case of occupational disease;
5. Ensure the confidentiality of personal and medical data of the workers in its possession;
6. Keep a list of occupational accidents resulting in a worker being unfit for work for more than three working days;

7. Draw up, for the responsible authorities, reports on occupational accidents suffered by his workers.

Information of workers

The employers' obligations regarding the provision of information on OSH should include:

1. Provide workers and their representatives with information on OSH, including about the safety and health risks and protective and preventive measures and activities in respect of both the undertaking and/or establishment in general and each type of workstation and/or job, as well as concerning the measures taken regarding first aid, fire-fighting, evacuation of workers;
2. Ensure that only workers who have received adequate instructions may have access to areas where there is serious and specific danger;
3. Where several undertakings share a workplace, to inform one another and their respective workers and/or workers' representatives about the occupational risks to which they are or may be exposed, the most adequate preventive and protective measures, as well as about the arrangements for first aid, fire-fighting, evacuation of workers;
4. Ensure that workers with specific functions in protecting the safety and health of workers, or workers' representatives with specific responsibility for the safety and health of workers, have access to:
 - a. The risk assessment and resulting preventive and protective measures to be implemented;
 - b. The list and reports on occupational accidents and diseases;
 - c. The information yielded by protective and preventive measures, inspection agencies and bodies responsible for safety and health.

Consultation and participation of workers

In what regards ensuring the consultation and participation of workers in the decisions regarding OSH, employers should be required to:

1. Consult workers and/or their representatives and allow them to take part in the discussions on all questions relating to safety and health at work, including allowing them to make proposals and to have a balanced participation on such discussions and decisions;
2. Ensure that workers or workers' representatives with specific responsibility for the safety and health of workers take part in a balanced way, or are consulted in advance and in good time with regard to:
 - a. any measure which may substantially affect safety and health;
 - b. the designation of workers to carry out activities related to the protection and prevention of occupational risks for the undertaking and/or establishment and to implement the measures concerning first aid, fire-fighting and evacuation of workers;
 - c. risk assessment, preventive and protective measures to be taken, and list and reports on occupational accidents and diseases;
 - d. where appropriate, the enlistment of the competent services or persons outside the undertaking and/or establishment to ensure the provision of the preventive and protective OSH services at the undertaking;
 - e. the planning and organization of the training of workers on OSH;
 - f. introduction of new technologies.

Training of workers

As for the training of workers on OSH, employers should have the obligation to ensure that:

1. Each worker receives adequate safety and health training, in particular in the form of information and instructions specific to his workstation or job (which should be adapted to take account of new or changed risks, and repeated periodically if necessary), at least on recruitment, in the event of a transfer or a change of job, in the event of the introduction of new work equipment or a

change in equipment, and in the event of the introduction of any new technology;

2. Workers from outside undertakings and/or establishments engaged in work in his undertaking and/or establishment have in fact received appropriate instructions regarding OSH risks during their activities in his undertaking and/or establishment;
3. Workers' representatives with a specific role in protecting the safety and health of workers have appropriate training.

Workers' health surveillance

In what concerns the surveillance of worker's health, employers should ensure that:

1. Workers receive health surveillance appropriate to the OSH risks they are exposed to;
2. Workers receive health surveillance at regular intervals, if they so wish.

Workers' obligations

The workers, in accordance with their training and the instructions given by the employer, should have the following obligations:

1. To take care, as far as possible, of their own safety and health and that of other persons affected by their acts or omissions at work;
2. Make correct use of machinery, apparatus, tools, dangerous substances, transport equipment and other means of production;
3. Make correct use of the personal protective equipment supplied to them and, after use, return it to its proper place;
4. Refrain from disconnecting, changing or removing arbitrarily safety devices fitted, e.g. to machinery, apparatus, tools, plant and buildings, and use such safety devices correctly;
5. Immediately inform the employer and/or the workers with specific responsibility for the safety and health of workers of any work

situation they have reasonable grounds for considering represents a serious and immediate danger to safety and health and of any shortcomings in the protection arrangements;

6. Cooperate with the employer and/or workers with specific responsibility for the safety and health of workers, for as long as may be necessary to enable any tasks or requirements imposed by the competent authority to protect the safety and health of workers at work to be carried out;
7. Cooperate with the employer and/or workers with specific responsibility for the safety and health of workers, for as long as may be necessary to enable the employer to ensure that the working environment and working conditions are safe and pose no risk to safety and health within their field of activity.

Workers' rights

In addition to the general right of workers to safe and healthy working conditions provided by the employer and related rights (e.g., to be informed, trained, consulted, etc.), workers should also be granted with some supplementary rights, in particular:

1. Not to be involved in any financial costs related to safety and health at work measures;
2. Not to be placed at any disadvantage if designated to perform activities related to the prevention of and protection against occupational risks for the undertaking and/or establishment, and be allowed adequate time to perform such activities;
3. Not to be placed at any disadvantage, if designated to implement the measures for first aid, fire-fighting and evacuation of workers;
4. Not to be placed at any disadvantage and be protected against any harmful and unjustified consequences if, in the event of serious, imminent and unavoidable danger, they leave their workstation and/or a dangerous area;

5. Not to be placed at any disadvantage if, to avoid the consequences of a serious and imminent danger to their own safety and/or that of other persons and when the immediate superior responsible could not be contacted, workers have taken the appropriate steps, in the light of their knowledge and the technical means at their disposal;
6. To ask employer to take appropriate measures and to submit proposals to that end and to mitigate hazards for workers and/or to remove sources of danger, in case of workers' representatives with specific responsibility for the safety and health of workers;
7. Be protected against undue retaliatory or disciplinary measures, for having reported an occupational accident, occupational disease, dangerous occurrence, commuting accident or suspected case of occupational disease;
8. Be granted with adequate time off work, without loss of pay, and provided with the necessary means in case of a workers' representative with specific responsibility for the safety and health of workers;
9. To appeal to the authority responsible for safety and health protection at work if they consider that the measures taken and the means employed by the employer are inadequate to ensure safety and health at work;
10. To submit observations during the competent authority inspection visits, in case of workers' representatives;
11. The OSH training to which workers are entitled to should be provided during working hours;
12. Particularly sensitive risk groups should be protected against the dangers which specifically affect them.

► REFERENCES

Alli, B. O. (2008). Fundamental principles of occupational health and safety (2nd ed.). International Labour Office. http://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_093550.pdf

Anderson, J. M. (2007). Health and safety — matching legislation and enforcement. Proceedings of the Institution of Civil Engineers — Management, Procurement and Law, Issue MP1, 11–12.

Bird, F. E., & Germain, G. L. (1966). Damage Control — a new horizon in accident prevention and cost improvement. American Management Association.

Bird, F. E., & Germain, G. L. (1986). Practical loss control leadership. Institute Publishing.

Budd, J. W. (2011). The Thought of Work. In Cornell University Press. Cornell University Press.

Budd, J. W. (2013). The Thought of Work in Employment Relations. Employee Responsibilities and Rights Journal, 25(1), 61–65. <https://doi.org/10.1007/s10672-013-9212-3>

Budd, J. W., & Spencer, D. A. (2015). Worker well-being and the importance of work: Bridging the gap. European Journal of Industrial Relations, 21(2), 181–196. <https://doi.org/10.1177/0959680114535312>

Caudron, S. (1997). Surveys illustrate the business case for work/life programs. Workforce (Workforce Tools Supplement), 76(9), 1–2. http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=eds_gcl.20044330&site=eds-live

Conrad, P. (1988). Health and fitness at work: A participants' perspective. Social Science & Medicine, 26(5), 545–550. [https://doi.org/10.1016/0277-9536\(88\)90387-5](https://doi.org/10.1016/0277-9536(88)90387-5)

Danna, K., & Griffin, R. W. (1999). Health and Well-Being in the Workplace: A Review and Synthesis of the Literature. *Journal of Management*, 25(3), 357–384. <http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=2011869&site=eds-live>

EEC. (1957). Treaty establishing the European Economic Community. <http://eur-lex.europa.eu/legal-content/FR/TXT/PDF/?uri=CELEX:11957E/TXT&from=EN>

EU-OSHA. (1998). Economic Impact of Occupational Safety and Health in the Member States of the European Union (Vol. 16, Issue 2). European Agency for Safety and Health at Work. <https://osha.europa.eu/en/tools-and-publications/publications/reports/302>

EU. (1989). Community Charter of the Fundamental Social Rights of Workers. <http://www.eesc.europa.eu/resources/docs/community-charter-en.pdf>

EU. (2000). Charter of Fundamental Rights of the European Union. *Official Journal of the European Communities*, 364(1), 364/01-364/22. http://www.europarl.europa.eu/charter/pdf/text_en.pdf

European Commission. (1991). Directive No. 91/322/EEC, of 29 May 1991, on establishing indicative limit values by implementing Council Directive 80/1107/EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work. *Official Journal of the European Communities*, L 177, 177/22-177/24. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31991L0322&from=EN>

European Commission. (2000). Directive No. 2000/39/EC, of 8 June 2000, establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical a. *Official Journal of the European Communities*, L 142, 142/47-142/50. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32000L0039&from=EN>

European Commission. (2006a). Directive No. 2006/15/EC, of 7 February 2006, establishing a second list of indicative occupational exposure limit

values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC. Official Journal of the European Union, L 38, 38/36-38/39. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006L0015&from=en>

European Commission. (2006b). Directive No. 2009/161/EU, of 17 December 2009, establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC. Official Journal of the European Union, L 338, 338/87-338/89. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:338:0087:0089:EN:PDF>

European Commission. (2014). Communication COM(2014) 332 final, from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, of 6 June 2014, on a EU Strategic Framework on Health and Safety at Work 2014-2020. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0332>

European Council. (1989a). Directive No. 89/391/EEC, of 12 June 1989, concerning the introduction of measures to encourage improvements in the safety and health of workers at work. Official Journal of the European Communities, L391, 183/1-183/8. <http://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=CELEX:01989L0391-20081211&from=EN>

European Council. (1989b). Directive No. 89/654/EEC, of 30 November 1989, concerning the minimum safety and health requirements for the workplace. Official Journal of the European Communities, L 393, 393/1-393/12. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31989L0654&from=en>

European Council. (1989c). Directive No. 89/656/EEC, of 30 November 1989, on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace. Official Journal of the European Communities, L 393, 393/18-393/28. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31989L0656&from=EN>

European Council. (1990a). Directive No. 90/269/EEC, of 29 May 1990, on the minimum health and safety requirements for the manual handling of

loads where there is a risk particularly of back injury to workers. Official Journal of the European Communities, L 156, 156/9-156/13. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31990L0269&from=EN>

European Council. (1990b). Directive No. 90/270/EEC, of 29 May 1990, on the minimum safety and health requirements for work with display screen equipment. Official Journal of the European Communities, L 156, 156/14-156/18. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31990L0270&from=PT>

European Council. (1991). Directive No. 91/383/EEC, of 25 June 1991, supplementing the measures to encourage improvements in the safety and health at work of workers with a fixed-duration employment relationship or a temporary employment relationship. Official Journal of the European Communities, L 206, 206/19-206/21. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31991L0383&from=EN>

European Council. (1992a). Directive 92/91/EEC, of 3 November 1992, concerning the minimum requirements for improving the safety and health protection of workers in the mineral-extracting industries through drilling. Official Journal of the European Communities, L 348, 348/9-348/24. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0091&from=hu>

European Council. (1992b). Directive No. 92/104/EEC, of 3 December 1992, on the minimum requirements for improving the safety and health protection of workers in surface and underground mineral-extracting industries. Official Journal of the European Communities, L 404, 404/10-404/25. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0104&from=EN>

European Council. (1992c). Directive No. 92/29/EEC, of 31 March 1992, on the minimum safety and health requirements for improved medical treatment on board vessels. Official Journal of the European Communities, L 113, 113/19-113/36. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0029&from=EN>

European Council. (1992d). Directive No. 92/57/EEC, of 24 June 1992, on the implementation of minimum safety and health requirements at

temporary or mobile constructions sites. Official Journal of the European Communities, L 245, 245/6-245/22. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0057&from=EN>

European Council. (1992e). Directive No. 92/58/EEC, of 24 June 1992, on the minimum requirements for the provision of safety and/or health signs at work. Official Journal of the European Communities, L 245, 245/23-245/42. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0058&from=EN>

European Council. (1992f). Directive No. 92/85/EEC, of 19 October 1992, on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding. Official Journal of the European Communities, L 348, 348/1-348/7. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0085&from=PT>

European Council. (1993). Directive No. 93/103/EEC, of 23 November 1993, concerning the minimum safety and health requirements for work on board fishing vessels. Official Journal of the European Communities , L 307, 307/1-307/17. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31993L0103&from=EN>

European Council. (1994). Directive No. 94/33/EC, of 22 June 1994, on the protection of young people at work. Official Journal of the European Communities, L 216, 216/12-216/20. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31994L0033&from=EN>

European Council. (1998). Directive No. 98/24/EC, of 7 April 1998, on the protection of the health and safety of workers from the risks related to chemical agents at work. Official Journal of the European Communities, L 131, 131/11-131/23. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31998L0024&from=PT>

European Council. (2010). Directive No. 2010/32/EU, of 10 May 2010, implementing the Framework Agreement on prevention from sharp injuries in the hospital and healthcare sector concluded by HOSPEEM

and EPSU. Official Journal of the European Union, L 134, 134/66-134/72. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010L0032&from=PT>

European Council. (2014). Directive No. 2013/59/Euratom, of 5 December 2013, laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation. Official Journal of the European Union, L 13, 13/1-13/73. <https://ec.europa.eu/energy/sites/ener/files/documents/CELEX-32013L0059-EN-TXT.pdf>

European Parliament. (2015). Resolution No. 2015/2107(INI), of 25 November 2015, on the EU Strategic Framework on Health and Safety at Work 2014–2020.

European Parliament, & European Council. (2000a). Directive No. 1999/92/EC, of 16 December 1999, on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres. Official Journal of the European Communities, L 23, 23/57-23/64. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31999L0092&from=en>

European Parliament, & European Council. (2000b). Directive No. 2000/54/EC, of 18 September 2000, on the protection of workers from risks related to exposure to biological agents at work. Official Journal of the European Communities, L 262, 262/21-262/45. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32000L0054&from=PT>

European Parliament, & European Council. (2002). Directive No. 2002/44/EC, of 25 June 2002, on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration). Official Journal of the European Communities, L 177, 177/13–177/19. http://eur-lex.europa.eu/resource.html?uri=cellar:546a09c0-3ad1-4c07-bcd5-9c3dae6b1668.0004.02/DOC_1&format=PDF

European Parliament, & European Council. (2003). Directive No. 2003/10/EC, of 6 February 2003, on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical

agents (noise). Official Journal of the European Union, L 42, 42/38-42/44. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003L0010&from=PT>

European Parliament, & European Council. (2004). Directive No. 2004/37/EC, of 29 April 2004, on the protection of workers from the risks related to exposure to carcinogens or mutagens at work. Official Journal of the European Union, L 229, 229/23-229/34. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:229:0023:0034:EN:PDF>

European Parliament, & European Council. (2009a). Directive No. 2009/104/EC, of 16 September 2009, concerning the minimum safety and health requirements for the use of work equipment by workers at work. Official Journal of the European Union, L 260, 260/5-260/19. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0104&from=EN>

European Parliament, & European Council. (2009b). Directive No. 2009/148/EC, of 30 November 2009, on the protection of workers from the risks related to exposure to asbestos at work. Official Journal of the European Union, L 330, 330/28-330/36. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:330:0028:0036:EN:PDF>

European Parliament, & European Council. (2013a). Directive No. 2006/25/EC, of 5 April 2006, on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation). Official Journal of the European Union, L 114, 114/38-114/59. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02006L0025-20140101&qid=1493489735707&from=pt>

European Parliament, & European Council. (2013b). Directive No. 2013/35/EU, of 26 June 2013, on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields). Official Journal of the European Union, L 179, 179/1-179/21. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013L0035&from=PT>

Eurostat. (2001). European Statistics on Accidents at Work (ESAW) — Methodology — 2001 Edition. http://ec.europa.eu/eurostat/ramon/statmanuals/files/ESAW_2001_EN.pdf

Eurostat. (2020). European statistics on fatal and non-fatal accidents at work in the EU 28 in 2017. ESAW. <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>

Fabela, S., & Sousa, J. (2012). Os impactes socioeconómicos no âmbito dos acidentes de trabalho. Representações, práticas e desafios à gestão das organizações de trabalho. In H. V. Neto, J. Areosa, & P. Arezes (Eds.), *Impacto social dos acidentes de trabalho* (pp. 99–129). Civeri Publishing.

Freitas, L. C. (2004). *Gestão da Segurança e Saúde no Trabalho - Vol. 1*. Edições Universitárias Lusófonas.

Hämäläinen, P., Leena Saarela, K., & Takala, J. (2009). Global trend according to estimated number of occupational accidents and fatal work-related diseases at region and country level. *Journal of Safety Research*, 40(2), 125–139. <https://doi.org/10.1016/j.jsr.2008.12.010>

Heinrich, H. W., Petersen, D., & Roos, N. (1980). *Industrial accident prevention: a safety management approach* (5th ed.). McGraw-Hill.

HSE. (2015). *Costs to Britain of workplace fatalities and self-reported injuries and ill health, 2013/2014*. Health and Safety Executive. <http://www.hse.gov.uk/statistics/pdf/cost-to-britain.pdf>

ILO. (1919). ILO Constitution. http://www.ilo.org/dyn/normlex/en/f?p=1000:62:0::NO:62:P62_LIST_ENTRIE_ID:2453907:NO

ILO. (1944). *Declaration concerning the aims and purposes of the International Labour Organization (Declaration of Philadelphia)*. http://www.ilo.org/dyn/normlex/en/f?p=1000:62:0::NO:62:P62_LIST_ENTRIE_ID:2453907:NO#declaration

ILO. (1947). *Convention No. 81, concerning labour inspection in industry and commerce — Labour Inspection Convention*. Adopted in the 30th ILC

session, 11 July 1947. http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312226:NO

ILO. (1969). Convention No. 129, concerning labour inspection in agriculture - Labour Inspection (Agriculture) Convention. Adopted in the 53rd ILC session, 25 June 1969. http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO:12100:P12100_INSTRUMENT_ID:312274

ILO. (1981). Convention No. 155, concerning occupational safety and health and the working environment. Adopted in the 67th ILC session, 22 June 1981. http://www.ilo.org/public/portugue/region/eurpro/lisbon/pdf/conv_155.pdf

ILO. (1985). Convention No. 161, concerning Occupational Health Services. http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312306:NO

ILO. (1996). Recording and notification of occupational accidents and diseases- An ILO Codes of Practice. International Labour Office. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/normativeinstrument/wcms_107800.pdf

ILO. (1998). Resolution concerning statistics of occupational injuries (resulting from occupational accidents), adopted by the Sixteenth International Conference of Labour Statisticians (Issue October). International Labour Office. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_087528.pdf

ILO. (2002). Protocol No. 155, of 2002, to the Occupational Safety and Health Convention. http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312338:NO

ILO. (2005). C 81 Labour Inspection Convention and C 129 Labour Inspection (Agriculture) Convention (International Labour Organization (Ed.)). International Labour Office. http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_108570.pdf

ILO. (2006). Convention No. 187, concerning the promotional framework for occupational safety and health. Adopted in the 95th ILC session,

15 June 2006. http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312332:NO

ILO. (2007). Safe and healthy workplaces - Making decent work a reality. International Labour Office. http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_108634.pdf

ILO. (2017). Guidelines and recommendations to the concept on the reform of the national system for occupational risk prevention and promotion of occupational safety and health in Ukraine (Issue November). International Labour Office. http://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---lab_admin/documents/projectdocumentation/wcms_618934.pdf

ILO. (2018a). Brief notes on the main aspects of the alignment between Ukrainian national legislation and selected EU directives. https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-budapest/documents/meetingdocument/wcms_633189.pdf

ILO. (2018b). National Occupational Safety and Health Profile of Ukraine. https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-budapest/documents/meetingdocument/wcms_627038.pdf

ILO. (2019a). EU Directives and Reform of OSH and Labour Relation's Legislation — White Paper. https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-budapest/documents/publication/wcms_689355.pdf

ILO. (2019b). Observation (CEACR), concerning application of Conventions 81 and 129 in Ukraine — adopted 2019, published 109th ILC session (2020). https://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:4024791:NO

Jensen, C. B. (2004). Inspecting the Inspectors: Overseeing Labor Inspectorates in Parliamentary Democracies. *Governance*, 17(3), 335–360. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=13209448&site=eds-live>

Karageorgiou, A., Jensen, P. L., Walters, D., & Wilthagen, T. (2000). Risk assessment in four Member States of the European Union. In K. Frick,

P. L. Jensen, M. Quinlan, & T. Wilthagen (Eds.), Systematic occupational safety and health management: perspectives on an international development. Pergamon.

Leigh, J. P. (2011). Economic burden of occupational injury and illness in the United States. *The Milbank Quarterly*, 89(4), 728–772. <https://doi.org/10.1111/j.1468-0009.2011.00648.x>

LN. (1926). Slavery Convention. <http://www.ohchr.org/Documents/ProfessionalInterest/slavery.pdf>

Miller, T. R. (1997). Estimating the costs of injury to U.S. employers. *Journal of Safety Research*, 28(1), 1–13. http://ac.els-cdn.com/S0022437596000291/1-s2.0-S0022437596000291-main.pdf?_tid=0d48792a-1df7-11e6-a175-00000aacb360&acdnat=1463685940_460f862a38a2f8ea9fdd33869947010d

Nunes, F. M. D. O. (2010). *Segurança e Higiene do Trabalho — Manual Técnico* (3.a). Edições Gustave Eiffel.

Pontifical Council for Justice and Peace. (2004). *Compendium of the Social Doctrine of the Church*. Libreria Editrice Vaticana. http://www.vatican.va/roman_curia/pontifical_councils/justpeace/documents/rc_pc_justpeace_doc_20060526_compendio-dott-soc_en.html

Richthofen, W. Von. (2002). *Labour Inspection: a guide to the profession*. International Labour Office. http://www.ilo.org/wcmstp5/groups/public/@ed_protect/@protrav/@safework/documents/publication/wcms_108665.pdf

Roxo, M. M. (2004). *Segurança e Saúde do Trabalho — Avaliação e Controlo de Riscos* (2.a). Livraria Almedina.

Sérgio Miguel, A. (2010). *Manual de Higiene e Segurança do Trabalho* (11.a). Porto Editora.

Suard, L. M. (2016). Prevention as an instrument for proper and safe work. International Congress on Safety and Labour Market. <http://www.icslm.com/geral.php?id=7&lang=PT>

Takala, J., Hämäläinen, P., Saarela, K. L., Yun, L. Y., Manickam, K., Jin, T. W., Heng, P., Tjong, C., Kheng, L. G., Lim, S., & Lin, G. S. (2014). Global estimates of the burden of injury and illness at work in 2012. *Journal of Occupational and Environmental Hygiene*, 11(5), 326–337. <https://doi.org/10.1080/15459624.2013.863131>

Takala, Jukka. (2005). Introductory Report: Decent Work – Safe Work. International Labour Office. http://www.ilo.org/wcmsp5/groups/public/--europe/---ro-geneva/---sro-moscow/documents/genericdocument/wcms_312093.pdf

UN. (1948). Universal Declaration of Human Rights. [http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/217\(III\)](http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/217(III))

UN. (1966). International Covenant on Economic, Social and Cultural Rights. [https://treaties.un.org/doc/Publication/UNTS/Volume 993/v993.pdf](https://treaties.un.org/doc/Publication/UNTS/Volume%20993/v993.pdf)

Walters, D. (Ed.). (2002). *Regulating Health and Safety Management in the European Union — A Study of the Dynamics of Change*. Presses Interuniversitaires Européennes.

Zedeck, S., & Mosier, K. L. (1990). Work in the family and employing organization. *American Psychologist*, 45(2), 240–251. <https://doi.org/10.1037/0003-066X.45.2.240>

