



International
Labour
Organization

ILO Curriculum on Building Modern and Effective Labour Inspection Systems

Module

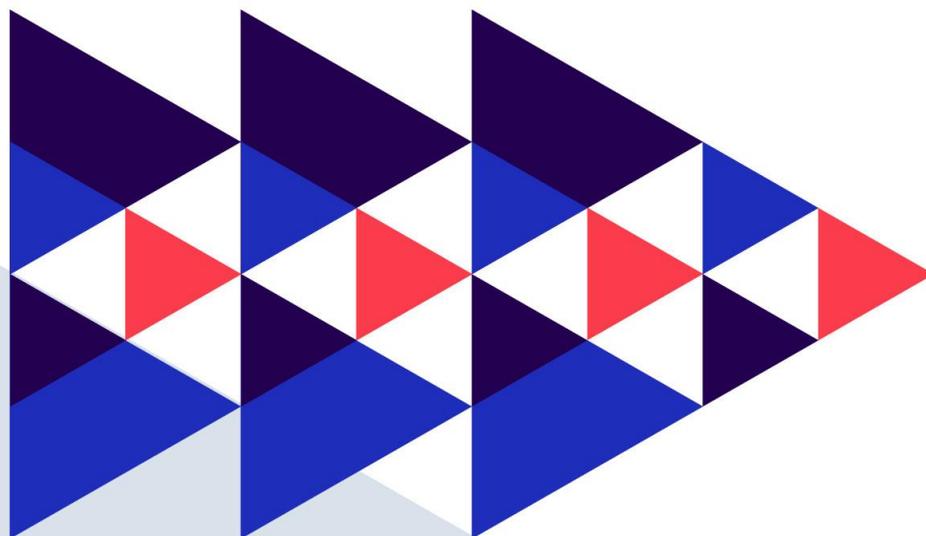
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► Occupational safety and health

ILO Curriculum on Building Modern and
Effective Labour Inspection Systems

▶ Module **8**

Occupational safety and health





▶ What this module is about

This module presents an overview of the main concepts and principles of occupational safety and health (OSH) based on the international labour standards.



▶ Objectives

The aim of this module is to give trainees an overview of the importance of preventing occupational accidents and ill-health, how best to prevent them, and how to promote OSH in general. At the end of this module, participants will be able to:

- ▶ describe the human and economic impact of accidents and diseases at work, and the benefits of promoting OSH;
- ▶ examine the main duties and rights of different stakeholders with respect to promoting OSH and the key international labour standards that relate to them;
- ▶ analyse the impact of the changes of the OSH regulations and other initiatives on the role of labour inspection;
- ▶ explain the principles of effective OSH management systems and of risk management.

For information on the investigation of occupational accidents and diseases, see the ILO guide [Investigation of occupational accidents and diseases – A practical guide for labour inspectors](#)

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▶ 1. Introduction

▶▶ “... Safety and health of workers is a part and parcel of human security. As the lead United Nations agency for the protection of workers’ rights, the ILO has been at the forefront of advocacy and activism in promoting safety and health at work. Safe Work is not only sound economic policy; it is a basic human right ...”

▶ **Kofi Annan**, former Secretary-General, United Nations¹

Occupational safety and health (OSH) brings together many disciplines to ensure safe workplaces, thereby preventing accidents and diseases. However, *OSH is about more than just avoiding injury*; it is also about actively promoting safety and health at work, and introducing a safety culture that cascades further than the workspace. “Safety” and “health” have been variously defined, but perhaps the best-known definition is that of the World Health Organization, which in its Constitution states that health is “*a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*”.² Thus, OSH involves:

- ▶ the prevention of harm and adverse effects on workers’ health caused by their working conditions, whatever their employment sector, and regardless of their employment status, gender, racial or ethnic background;
- ▶ the adaptation of working environments so that they best suit the physical and mental needs of workers;
- ▶ the availability of adequate occupational safety and health services to promote and maintain the well-being of workers;
- ▶ the effective management of occupational safety and health by employers and workers, putting the subject on the same footing as other business requirements.

¹ Introductory report “Decent work – Safe work”, XVI World Congress on Safety and Health at Work, 2002.

² [The World Health Organization Constitution](#).

1.1. The human and economic impact of occupational accidents and diseases

The human and social impact

Globally, millions of workers and their families are affected by occupational accidents and diseases every year, and available statistics (which are far from exhaustive) show that both the human and the economic burdens of such accidents and diseases are vast. The ILO updates its global estimates of numbers of occupational accidents and diseases regularly and in 2017³ announced figures of 2.78 million fatal work-related injuries and illnesses each year, with 2.4 million due to work-related diseases.

Occupational accidents and diseases have other serious consequences for the lives of workers and their families, many of which are not reflected in the statistics.

What can be done to address this toll?

The Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) (discussed in more detail below) requires Member States to apply a system-based approach and ensure the continuous improvement of OSH by developing (i) a national policy; (ii) a national system; and (iii) a strategic national programme on OSH.

There are many factors that will influence these national programmes, in particular:

- ▶ Legal, regulatory and adjudicative frameworks that address and integrate OSH, including core OSH laws and technical regulations
- ▶ Enforcement of and compliance with OSH legislation in workplaces
- ▶ Employer and worker competencies necessary to improve OSH at enterprise levels
- ▶ Social dialogue that supports OSH
- ▶ Public and private financial resources for investment in OSH
- ▶ Occupational health services delivered by public and private health services
- ▶ Employment injury insurance programmes that support prevention of workplace fatalities, injuries and illnesses
- ▶ OSH professionals, institutions and networks
- ▶ OSH indicators and the implementation of effective mechanisms for OSH data collection
- ▶ Demand for the safety and health of workers and workplaces.

From the above it is evident that, while the labour inspection service has an important role to play, many stakeholders are required to be involved in developing and implementing national programmes on OSH.

³ Snapshots: ILO and occupational safety and health (OSH), the ILO at the XXI Congress on Safety and Health at Work, 2017.

The economic and business impact

This human suffering also carries with it a significant economic cost. The latest global estimate (2017) of the economic cost of work-related fatal and non-fatal injuries and illnesses amounts to 3.94 per cent of global GDP. It is clear that the costs of occupational accidents and diseases are in fact much greater than was previously estimated, because of the indirect – as well as the direct – costs involved. For enterprises, this may mean higher insurance premiums, damage to business image and reputation, management time spent investigating accidents and other disadvantages. For countries, it means slower economic development, greater burdens on the labour inspectorate and other authorities, increased social security and national health care costs, and so on.

In terms of global impact, as mentioned earlier, the ILO has estimated that the total costs of occupational accidents and diseases amounts to approximately 4 per cent of the world's GDP — a colossal figure that is over 20 times greater than official development assistance.⁴ Occupational accidents and diseases therefore seriously endanger economic development, especially in countries where poverty is greatest, where employment is often hazardous in certain sectors, and where, unfortunately, labour inspection services tend to be weakest.

Conversely, improving OSH can be good for business productivity, as well as workers' health and happiness, as several recent studies have shown. The ILO Governing Body paper referenced below discusses some of these studies, including the one discussed in the following box.

⁴ Occupational safety and health: Synergies between security and productivity, ILO Governing Body paper, March 2006.



▶ The business benefits of OSH

Many large and small enterprises report that paying attention to OSH is actually good for business. For example, the UK Health and Safety Executive cites many large companies and SMEs (small and medium-sized enterprises) which report that the costs of preventive measures have been far outweighed by the economic and social benefits.⁵ In summary, the business benefits from paying attention to OSH include many, if not all, of the following, depending on circumstances:

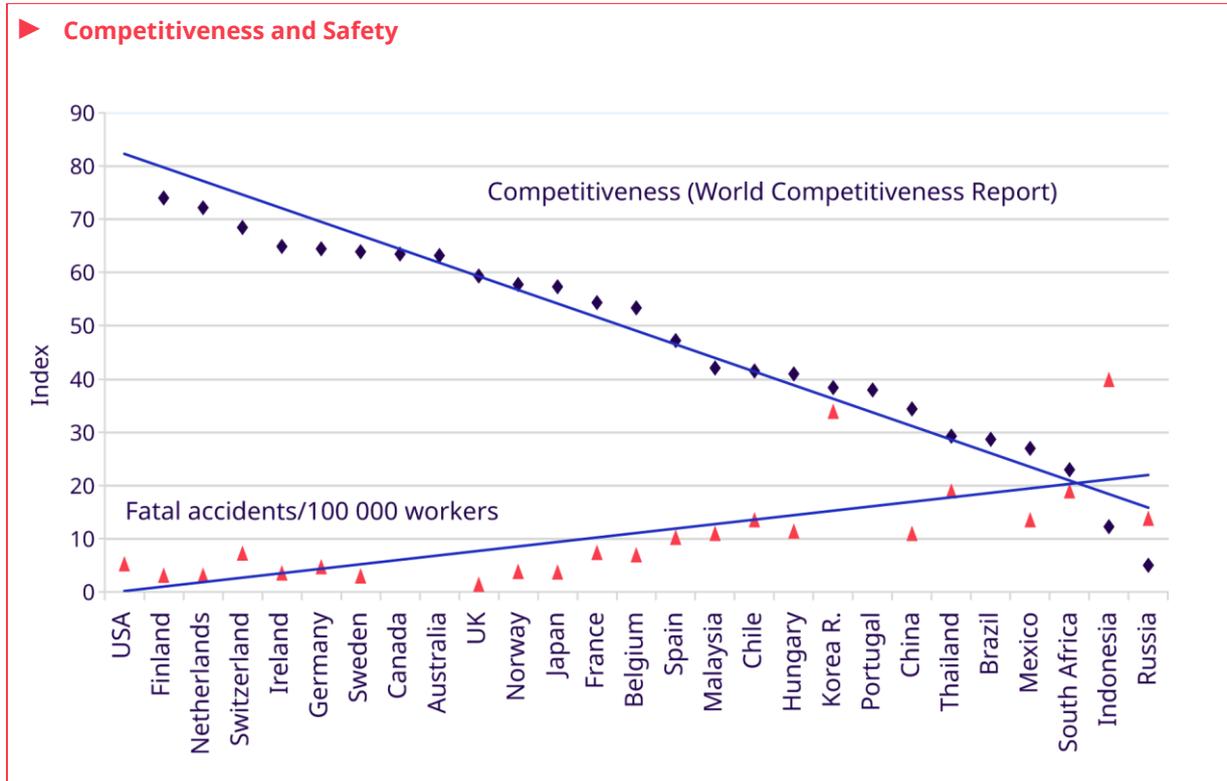
- ▶ Absenteeism rates are very greatly reduced.
- ▶ Employees are happier, with higher levels of morale, motivation and concentration at work.
- ▶ Employee retention is improved.
- ▶ Productivity and competitiveness are improved, sometimes markedly.
- ▶ Significant sums of money are saved as a result of better plant maintenance.
- ▶ Compensation claims and insurance costs are reduced, sometimes considerably.
- ▶ Client and supplier relations are improved.
- ▶ Company “image” and reputation are enhanced.
- ▶ Contract pre-qualification scores are increased.
- ▶ Substantial savings (and job security) are made as a result of the above.

These are important arguments for promoting OSH, in addition to the humanitarian and legal ones. Moreover, if such benefits can be extended to the national level, national economic development also stands to benefit and be made more sustainable.

An often-heard argument is that developing countries cannot afford high standards of OSH; this is a benefit that only industrialized countries can enjoy. However, there is no reason why the recent evidence quoted above (which admittedly comes from enterprises in industrialized countries) should not be globally applicable. Indeed, there is some evidence from developing countries that the same principles do indeed hold good there too,⁶ and that “good safety and health is good business”. The view that high standards of OSH are directly related to national economic development is also borne out in a study by the World Economic Forum and the Lausanne Institute of Management. This study shows that the most competitive countries also tend to have the best safety records; the study’s results are summarized graphically below.

⁵ [Business Benefits webpage and related case studies](#), Health and Safety Executive, UK.

⁶ Several examples are quoted in “Occupational safety and health: Synergies between security and productivity”, ILO Governing Body paper, March 2006.



Sources: World Competitiveness Report, Lausanne; ILO/SafeWork

Poor OSH conditions detract from productivity because work-related accidents and diseases are very costly and have many serious direct and indirect effects on the lives of workers, their families and employers. These costs are summarized in the following table:



▶ **Examples of direct and indirect costs of occupational accidents and ill-health at the enterprise level⁷**

Direct costs

- ▶ Disruption to business and ongoing lost production from worker absence
- ▶ Worker's lost wages and possible costs of retraining for a different job
- ▶ First aid, medical and rehabilitation costs
- ▶ Insurance costs and possibly higher future premiums
- ▶ Costs of compensation
- ▶ Any fines or legal proceedings following the accident/case of ill-health
- ▶ Replacing or repairing any damaged equipment

Indirect costs

- ▶ Management time in subsequent investigation, perhaps jointly with the enforcing authority (e.g. labour inspectorate) and other administrations
- ▶ Costs of retraining someone else for the job, and possible recruitment of replacement worker
- ▶ Poorer long-term worker employability because of injury
- ▶ "Human costs" – loss of quality of life and general welfare
- ▶ Lower motivation to work and workforce morale, increased absenteeism
- ▶ Poorer enterprise reputation and client and public relations
- ▶ Damage to the environment (e.g. from chemical incidents)

1.2 Prevention of occupational accidents and diseases

Prevention is the central concept of occupational safety and health, to such an extent that the concept of "prevention of occupational risks" is often used as an equivalent to "occupational safety and health". Sometimes it is simply defined in terms of the preferred approach to occupational safety and health: all the steps or measures taken or planned at all stages of work in undertaking to prevent or reduce occupational risks. Prevention is also an attitude on the part of individuals and organizations in the way they deal with OSH challenges. The concept of prevention is associated with other relevant principles and considerations:

- ▶ The principle of prevention, which asserts that avoiding harm is much better than trying to remediate that harm.
- ▶ The principle of precaution: when an activity threatens to harm the environment or human health, precautionary measures should be taken, even if some cause-and-effect relationships are not fully established scientifically.

⁷ Ibid.

- ▶ Most hazardous conditions at work are preventable. The development and maturation of OSH as a discipline, discovering cause-effect relationships and the best control measures, and progress in reducing occupational injuries and diseases, has increased confidence in prevention.
- ▶ Occupational accidents and diseases can be managed. The realization that many of the principles and procedures applied to industrial production and labour organization can also be applied to accident prevention was an important step. Managers have also discovered that efficient production, quality and safety are closely related.
- ▶ Although the compensation, medical care and rehabilitation of sick and injured workers will continue to be very important issues, the main focus of OSH should be on the prevention of accidents and illness in the workplace, as this is the most cost-effective strategy for eliminating / reducing accidents and disease.
- ▶ Prevention is preferred to protection. Protection implies the presence of hazards⁸ and risks⁹ in the workplace. Protection measures are intended to reduce risk by preventing a worker from coming into contact with a hazard. Although protection measures may prevent occupational accidents and diseases, the “preventive approach” implies the elimination of occupational risks by acting directly on the hazards, following a hierarchy for risk control (discussed later).
- ▶ Proactive approaches are preferred to reactive ones. Reactive measures are triggered by events (injuries, accidents, incidents, complaints, losses, etc.). A proactive approach is based on the collection of data on health and safety performance and measures before an accident, incident or case of ill-health occurs. In general terms, this means collecting data and taking all reasonable measures and precautions to avoid occupational diseases and injuries at the earliest stage (i.e. in the planning and design of a workplace/system of work).

1.3 International labour standards for OSH

Since 1919, over 60 Conventions and Recommendations have been adopted that seek to promote safety and health at work, ranging from reasonable working hours and the reduction of exposure to lead in paint to risks from major hazards and improved labour inspection services. Occupational safety and health standards broadly fall into four categories:

- ▶ Guiding policies for action.
- ▶ Protection in given branches of economic activity, e.g. the construction industry, mining, commerce and offices, and dock work.

⁸ Hazard: The inherent potential to cause injury or damage to people’s health.

⁹ Risk: A combination of the likelihood of an occurrence of a hazardous event and the severity of injury or damage to the health of people caused by this event.

- ▶ Protection against specific risks, e.g. ionizing radiation, benzene, asbestos, the guarding of machinery.
- ▶ Measures of protection, e.g. medical examination of young workers, maximum weight of loads to be transported by a single worker, prevention of occupational accidents on board ship, prevention of occupational cancer, prevention of air pollution, noise and vibration in the working environment.

The international labour standards with widest application are:

The [Occupational Safety and Health Convention, 1981 \(No. 155\)](#) and its accompanying [Recommendation \(No. 164\)](#). These standards have a very broad scope: they apply to all branches of economic activity, to all workers and cover all workplace risks. They set out broad requirements for action at the national level (e.g. for setting national OSH policy), as well as action at the enterprise level. The latter details actions that can be taken at the level of the undertaking to ensure that workplaces are safe and without risks to health “so far as is reasonably practicable”. Arrangements should be made whereby workers cooperate with their employers and take reasonable care of themselves and of others.

Under Convention No. 155, there should also be an “adequate and appropriate system of inspection” to ensure the enforcement of OSH laws. Recommendation 164 states that such systems of inspection should be guided by the provisions of the [Labour Inspection Convention, 1947 \(No. 81\)](#) and the [Labour Inspection \(Agriculture\) Convention, 1969 \(No. 129\)](#).

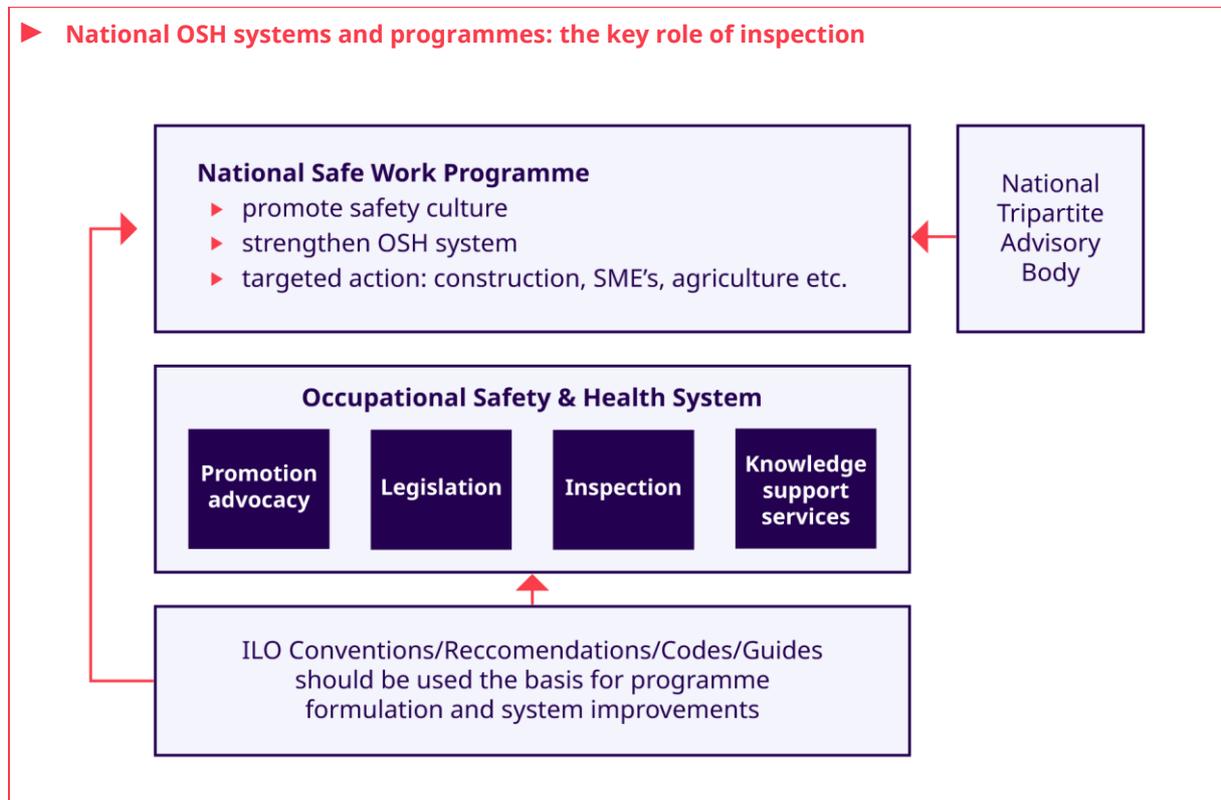
The [Occupational Health Services Convention, 1985 \(No. 161\)](#) and its accompanying [Recommendation \(No. 171\)](#). The scope of these standards is also very broad and deals with the need for a coherent national policy on occupational health services. The functions of such services should be appropriate to the risks associated with specific enterprises and include such matters as identifying and assessing risks, surveillance of the working environment, giving advice and otherwise promoting health at work. The competent authority should consult representative organizations of employers and workers on the measures necessary to give effect to the provisions of the Convention.

The [Promotional Framework for Occupational Safety and Health Convention, 2006 \(No. 187\)](#) and its accompanying [Recommendation \(No. 197\)](#). These standards are likewise very broad in scope and build on the above Conventions and Recommendations and others. Convention No. 187 is based on the concepts that OSH needs to be effectively managed at the national and enterprise levels, and the need for a national preventative safety and health culture. The Convention and Recommendation seek specifically to promote:

- ▶ national OSH policies, amplifying the provisions of Convention No. 155 and calling for the formulation and review of such policies;
- ▶ national OSH systems, which have a number of essential elements, including national OSH authorities and systems of inspection;
- ▶ national OSH programmes, which are strategic and time-bound, focusing on specific national priorities for OSH. Such programmes should engage a wide range of

stakeholders, including of course the labour inspectorates, which have an important supporting role to play.

The role of inspection within the OSH system as whole can be shown diagrammatically:



For more information on the Occupational Safety and Health Convention, 1981 (No. 155), its 2002 Protocol and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187), see the ILO leaflet "[Building a Preventive Safety and Health Culture](#)".

▶ 2. Promoting compliance with OSH standards

2.1 Main duties and rights of stakeholders

The development of national regulatory frameworks and the definition of the rights and duties of the main stakeholders have been fundamental steps in the progress of OSH. International labour standards, as described above, establish the framework of relationships, accountabilities and liabilities, and lay obligations on the main stakeholders for improving OSH.

Employers

Employers are primarily responsible for implementing OSH legislation. Their overriding obligation is their duty of care for their employees, which means that they should take reasonable care of their worker's safety and health. In some OSH legislation, the employer's duty of care applies not only to employees, but also to other people who might have good reason for being present in the workplace, such as visitors, contractors or the general public, ensuring that reasonable protection from hazards arising from work activities is afforded to everyone who might be affected by them.

Under national OSH legislation, the duties of employers are often set forth in some detail, as in Australia,¹⁰ whose OHS legislation is summarized below:

¹⁰ Occupational Health and Safety (Commonwealth Employment) Act 1991 Section 16.



▶ OSH legislation in Australia

The current legislation requires the employer to take all reasonably practicable steps to:

- ▶ provide a safe plant;
- ▶ provide safe systems of work;
- ▶ provide adequate facilities for the welfare of employees at work;
- ▶ ensure that commonwealth workplaces are safe and without risks to health;
- ▶ ensure that persons can enter and leave commonwealth workplaces safely and without risks to their health;
- ▶ ensure that employees are safe when they use, handle, store or transport plant or substances;
- ▶ ensure that employees are provided with the necessary information, instruction, training and supervision, and in the appropriate languages;
- ▶ consult with unions and other persons to develop an occupational health and safety policy that will enable effective co-operation between the employer and employees in promoting, developing and reviewing measures to ensure its employee's health, safety and welfare at work;
- ▶ make an agreement with unions to provide appropriate mechanisms for continuing consultation and other occupational health and safety matters;
- ▶ monitor employees' health and safety at work, and the conditions of the workplaces under the employer's control;
- ▶ maintain appropriate information and records relating to its employees' health and safety;
- ▶ provide appropriate medical and first aid services for the employees.

To a large extent, this legislation reflects the requirements of Convention No. 155, and similar requirements are laid down in most countries, where employers are held legally responsible for ensuring their workers' safety and health.

In order to comply with the relevant legislation, employers will need to manage safety and health issues. Whatever the industry, the size or nature of the organization, the keys to effective OSH management are:

- ▶ leadership and management (including appropriate business processes);
- ▶ a trained/skilled workforce;
- ▶ an environment where people are trusted and involved.

These elements must be underpinned by an understanding of the profile of risks the organization creates or faces. This links back to wider risk management and is pictured in the following diagram.



Managing for health and safety. Health and Safety Executive, UK, 2013.

Workers

"In the Trade Union world of today, there is no subject on which workers [...] of all shades of opinion, and all varieties of occupation, are so unanimous and so ready to take combined action as the prevention of accidents and the provision of healthy workplaces."¹¹

As this quote indicates, the subject of accident prevention (and thus OSH) has been an important issue for workers for over 100 years, for obvious reasons. Although other considerations may be equally important, OSH is still an important subject.

However, ensuring workers' safety and health requires their cooperation and, for this reason, many countries have placed legal duties on workers to cooperate with their employers in protecting their own and others' safety and health.

¹¹ Sidney and Beatrice Webb, *Industrial Democracy*, 1902.



▶ Workers' obligations in the European Union¹²

1. It shall be the responsibility of each worker to take care as far as possible of his own safety and health and that of other persons affected by his acts or Commissions at work in accordance with his training and the instructions given by his employer.
2. To this end, workers must in particular, in accordance with their training and the instructions given by their employer:
 - (a) make correct use of machinery, apparatus, tools, dangerous substances, transport equipment and other means of production;
 - (b) make correct use of the personal protective equipment supplied to them and, after use, return it to its proper place;
 - (c) 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;
 - (d) 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;
 - (e) cooperate, in accordance with national practice, 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;
 - (f) cooperate, in accordance with national practice, 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' duties are often accompanied by corresponding rights, for example the right to:

- ▶ receive training and information on the risks involved in their jobs and the preventive measures to be adopted;
- ▶ leave their workplace in the event of serious and imminent risk;
- ▶ be subject to health surveillance (where necessary) and be informed of the results;
- ▶ be represented in respect of OSH matters and be able to participate in such.

¹² The EU "Framework Directive" 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work, Article 13.

The importance of consulting workers also needs to be emphasized, since effective and substantial progress on OSH cannot be made without workers' consultation and engagement. Workers can contribute to prevention programmes, as they have first-hand knowledge and experience of the systems of work adopted, including any short-cuts or doubtful practices. This is also true at the national level, where OSH legislation, policies, and technical and other guidance require the input of workers through their national trades unions or other organizations.

A large majority of ILO Member States require that structures be established for cooperation between management, workers and their representatives (OSH committees and OSH worker representatives, appointed by trades unions or otherwise), and define the nature and composition of such structures according to the size (in terms of number of employees) and functions of the enterprise.

In general, employers will make available the time and resources needed to have this training provided by specialized government or private institutions, including organizations of employers and workers.

Enforcement of this legislation, and provision of advice to OSH committees and OSH representatives, by labour inspectors is one of the key strategies for promoting OSH in the workplace.

Manufacturers and suppliers

It is one of the principles of OSH that risks are best dealt with at the design or manufacturing stage, thus reducing risks for workers when using equipment. Thus, workplace machinery should be made safer and quieter, with fewer vibrations and so on, as a result of better design, and information/instructions on the safe storage and use of substances should be provided to prevent health risks to workers. Consequently, many countries have passed OSH legislation or guidelines regarding the duties of designers, manufacturers and suppliers. For example, a number of European Directives dealing with product safety are now generally in force in the EU and have had an important impact in reducing occupational accidents and diseases.

Legislation or guidance of this kind may relate to such products as machinery, lifts or pressure vessels, to ensure that they are designed, made, tested and supplied with adequate safeguards, for the benefit of the workers who use them. Alternatively, such legislation may relate to the supply of dangerous substances, with the aim of ensuring that suppliers provide adequate information¹³ regarding safety and health, again for the benefit of users.

Some labour inspectorates have been given responsibility for enforcing such legislation, which is a relatively new departure for many of them. So-called "market surveillance" requires inspectors to assess products and substances for compliance with relevant "supply legislation", in much the same way as they would assess normal workplace legislation. Consequently, as well as dealing

¹³ ICSC database: International Chemical Safety Cards (ICSCs) (ilo.org).

with employers and/or workers, inspectors will be required to deal with manufacturers or, if products are from other countries, with the suppliers or importers.

Inspectors have one clear advantage in undertaking this market surveillance of workplace products: they know how they are likely to be used in practice. However, they may need to draw on the advice of specialists to assess conformity with international or national standards (e.g. for machinery or pressure vessels), which may pose challenges for inspectorates where such expertise is not readily to hand. Another challenge is that, with much trade now taking place internationally, inspectorates need good cross-border networks and collaboration to follow up any remedial action required. Such networks are easier to set up where high-level regional groups already exist (e.g. within the European Union or the Association of South East Asian Nations).



► **Duties of manufacturers and suppliers: Convention No. 155 (Article 12)**

Measures shall be taken, in accordance with national law and practice, with a view to ensuring that those who design, manufacture, import, provide or transfer machinery, equipment or substances for occupational use:

- (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 information concerning the correct installation and use of machinery and equipment and the correct use of substances available, 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 subparagraphs (a) and (b) of this Article.

2.2 Changes in OSH regulation

Until the 1970s, OSH legislation focused almost solely on specific workplaces, such as factories, quarries and mines, and covered particular processes and items of plant (e.g. boilers or cranes) and their associated risks in some detail. In recent decades, however, there has been a marked trend for OSH legislation to be more all-embracing, applying to all employment sectors and all risks.

National OSH legislation tended to adopt a prescriptive approach, imposing on employers a very large number of specific obligations, either in the basic OSH law or in supporting regulations, decrees and ordinances. The emphasis was on achieving compliance with specific requirements,

rather than adopting a holistic, prevention-oriented approach. In many countries, if things went wrong or if there was a lack of compliance, it was the unfortunate supervisor, foreman or worker who was held responsible and often punished, and the charges always related to contraventions of very specific requirements.

With the spread of generalized and comprehensive obligations, exemplified by the Occupational Safety and Health Convention, 1981 (No. 155) and, in the European Union, by the provisions of the Framework Directive on safety and health at work, 1989,¹⁴ the old approach to OSH was no longer adequate or appropriate. The new approach makes it unequivocally clear that employers and top management are responsible for ensuring compliance with legislation and, so far as is reasonably practicable, that the workplaces, machinery, equipment and processes under their control are safe and without risk to health. The only practical way of successfully discharging such a comprehensive obligation is by adopting a management approach to OSH.

New regulations are placing obligations on employers to ensure that their enterprises have structures dedicated to prevention (including ways of promoting workers' consultation and participation) and management practices that promote preventive activities, the most common being:

- ▶ risk assessment,¹⁵
- ▶ control of working conditions,
- ▶ information, instruction and training for workers,
- ▶ surveillance of workers' health,
- ▶ monitoring of the environment (noise and other pollutants),
- ▶ emergency planning,
- ▶ recording, documentation and notification of OSH information, and
- ▶ investigation of occupational accidents and diseases.



▶ Systems of internal control

Norway, in 1992, and Sweden, in 1993, introduced systems of internal control (IC) or self-regulation, including the basic responsibility of the employer to organize systematic work on safety and health. The Norwegian Working Environment Act 1990 makes it obligatory for the employer at each workplace to work systematically to improve the working environment of the enterprise, requiring the employer to identify goals and responsibilities, and carry out safety and health activities such as risk assessments, action plans and performance monitoring, and to document the measures established to provide a safe working environment.

¹⁴ Council Directive 89/391/EEC.

¹⁵ The process of evaluating the risks to safety and health arising from hazards at work.

Traditionally OSH legislation focused on safety hazards, whereas modern OSH legislation focuses on safety and health issues. In recent years, other health problems have been included in the regulations, including ergonomic issues likely to cause musculoskeletal disorders and factors that may lead to psycho-social illnesses, such as stress and burn-out. Psycho-social factors also include aspects of work organization (the organizational climate or culture of the enterprise, work roles, interpersonal relationships, the design and content of tasks, and so on). Indeed, in 2019 the ILO adopted its latest standards on factors of this kind, namely the [Violence and Harassment Convention, 2019 \(No. 190\)](#) and the accompanying [Violence and Harassment Recommendation, 2019 \(No. 206\)](#).

2.3 A new approach to labour inspection and OSH

The introduction of this new approach, whether through new national legislation or changes in methodology for conducting inspections on OSH matters, has had a profound impact on the process of inspection. Labour inspectors have shifted from their traditional role, which was simply to identify legal irregularities and then give advice or impose sanctions, depending on the seriousness of the offence. Instead, they adopt a more proactive approach and focus on the way in which OSH is managed centrally, referring to individual examples of compliance or non-compliance to indicate how well the enterprise as a whole is managing OSH.

This may require a comprehensive and systematic evaluation (or audit) of an enterprise's OSH systems, but more often it involves inspectors in making a judgement about the competence of the enterprise management to manage OSH on a day-to-day basis. It means forming an opinion as to how well employers/managers assess risks and take action to control them, and manage and maintain the necessary risk-control/prevention measures. Labour inspectors therefore have to consider the enterprise's OSH policy and organization, if such exist, the competence and responsibilities of its staff in matters of OSH, levels of OSH training and supervision, and so on, using practical examples from the workplace to demonstrate appropriate or inappropriate OSH management.

This new approach has not yet been adopted by all labour inspectorates, but there is a clear trend in this direction, especially in the more developed countries. The changes are well illustrated by the "[Common Principles for labour inspection in relation to health and safety in the workplace](#)," adopted by the European Union Senior Labour Inspectors Committee (SLIC), which were developed to reflect changes in EU legislation.

Notwithstanding the above, some inspectorates may choose to carry out inspections targeting specific matters, for example working at height and the appropriate risk control measures. Even so, during these inspections it will be necessary to establish how the employer ensures safe systems of work, i.e. how OSH is managed.

See [Occupational Safety and Health - A Guide for Labour Inspectors and other stakeholders](#). The aim of this guide is to provide information to inspectors and other stakeholders on the

management of occupational safety and health issues common across many sectors of industry. Generic information is also provided, so as to empower and inform users about occupational hazards and risks, and the actions that employers and workers should take to reduce them.

Videos from the Ministry of Labour of Ontario, Canada, showing OSH inspectors making assessments of the management of various OSH issues and sectors, can be viewed by clicking on these links:

[Auto body shop repair](#), [commercial kitchens](#) (slips, trips, falls and other hazards), [forklift safety](#), [heat stress](#), [loading dock safety](#), [manual materials handling](#) at industrial workplaces.



► Common principles for labour inspection in relation to health and safety in the workplace (SLIC)

A workplace inspection must include a physical examination of working practices, standards and conditions, and discussion with representatives of the employer and with workers' representatives. It is important when investigating work-related accidents or cases of ill-health that, whenever necessary and possible, the person affected is interviewed. Within the core principles, examination and discussion should be focussed on ensuring compliance with applicable national legislation, including that resulting from the transposition of EU law. (...). The priorities for inspection, based upon the structure of the Framework Directive, are:

- (i) to judge whether the employer's health and safety policy is directed to ensuring the health and safety of his/her employees;
- (ii) to judge whether the organization and arrangements the employer has introduced for securing health and safety are likely to lead to the identification, rectification and prevention of deficiencies. This will include the employer's arrangements for identifying hazards and for assessing risk;
- (iii) in particular to make assessments of the employer's arrangements for:
 - the effective planning, organization, implementation, control, monitoring and review of protective and preventive measures in the workplace;
 - securing expert advice and assistance on health and safety matters;
 - dealing with emergencies; providing employees and/or their representatives with comprehensible and relevant information;
 - training employees in health and safety;
 - ensuring consultation with employees and/or their representatives on matters relevant to health and safety;
 - ensuring that the arrangements in place effectively protect workers against identified risks. (...)"

2.4 Voluntary compliance initiatives¹⁶

Over the last 20 years, voluntary initiatives (VIs) — that is, codes of conduct or other enterprise initiatives not required by law but which address the performance of enterprises in respect of occupational health, safety, the environment (HSE) and other issues — have become more prevalent. [Corporate Social Responsibility \(CSR\)](#), as it is known, is a type of international private business self-regulation that aims to contribute to societal goals of a philanthropic, activist or charitable nature by engaging in or supporting volunteering or ethically-oriented practices. The time when it was possible to describe CSR as an internal organizational policy or a corporate ethics strategy has passed, as various international laws have been developed and various organizations have used their authority to push it beyond individual or even industry-wide initiatives. While it was formerly considered a form of corporate self-regulation, over the last decade or so it has shifted from voluntary decisions taken by individual organizations to mandatory schemes organized at the regional, national and international levels.

Some of the better known VIs are:

- ▶ [Responsible Care](#),
- ▶ [Eco-Management and Audit Scheme \(EMAS\)](#),
- ▶ [Standards of the International Organization for Standardization \(ISO\)](#),¹⁷ and
- ▶ [Guidelines on occupational safety and health management systems ILO OSH 2001](#).

Voluntary programmes are only one element of a comprehensive HSE protection strategy that includes a range of policies and programmes. They have great strengths but also present particular challenges, which should be recognized to ensure that they are used successfully. The strengths that make them powerful policy instruments are that they:

- ▶ use a market-based approach to encourage behavioural change that is not dependent on regulation;
- ▶ provide valuable benefits for participants, including access to low-cost information, reduced operating costs, and public recognition of their HSE accomplishments;
- ▶ tend to create partnerships between potential adversaries (government and industry, corporate competitors within an industry, industry and trade unions), which leads to improved dialogue and cooperation that can benefit all parties;
- ▶ can have far-reaching effects in influencing behaviour, e.g. by changing the attitude of the public towards the chemical industry, and thus leading to improvements on many fronts.

¹⁶ [Report for discussion at the Tripartite Meeting on Voluntary Initiatives Affecting Training and Education on Safety, Health and Environment in the Chemical Industries](#), ILO Geneva, 22-26 February 1999.

¹⁷ For example, the ISO 9000 and 14000 series of standards on quality and the environment respectively, and ISO 45001, which covers OSH.

The limitations of voluntary programmes, which are linked to their reliance on market forces, are that:

- ▶ they are successful only when participants can be persuaded to change their actions voluntarily. A careful analysis of opportunities and participant motivation is therefore appropriate before adopting a voluntary approach;
- ▶ voluntary programmes may not be compelling enough to entice participants to change their behaviour, as the prospect of sanctions for non-compliance tends to be absent or weak;
- ▶ voluntary programmes often lack transparency and may fail to protect third-party rights; credible monitoring, evaluation and reporting components are needed to establish credibility with important stakeholders;
- ▶ according to the European Commission, voluntary programmes may violate competition rules in various ways; for example, non-signatory companies can be excluded from a market, or consumer prices can be inflated.

A sound government regulatory and policy framework, and public involvement, might well counteract the limitations of these voluntary codes.

2.5 ILO Guidelines on OSH Management Systems

Prompted by the management approach to OSH and the success of the “systems approach” to international standards (such as those produced by the ISO), in 2001 the ILO adopted its *Guidelines on Occupational Safety and Health Management Systems*. These Guidelines, known as ILO-OSH 2001, provide a unique international model, compatible with other management system standards and guides. They also reflect ILO values, such as tripartism, and relevant international standards, such as Convention Nos. 155 and 161. Unlike some other international standards, ILO-OSH 2001 is not legally binding and its application does not require certification, but countries may formally recognize it as good practice and use it in developing their own guidance on the subject. It has now been translated into over 20 languages and is widely referred to by national administrations.

ILO-OSH 2001 advocates the integration of OSH management system elements into overall policy and management arrangements, though it also allows for some flexibility, depending on the size and type of enterprise concerned. ILO-OSH 2001 also emphasizes that OSH should be a line-management responsibility, and not be seen as a task solely for OSH departments or specialists. The Guidelines comprise a set of five elements integrated in a continuous cycle of policy, organizing, planning, implementation, evaluation and action for improvement.

► Figure 1. Main elements of the OSH management system



These follow the internationally accepted Demming cycle of Plan-Do-Check-Act, which forms the basis of the “system approach” to managing OSH.



▶ The five elements of the ILO-OSH 2001

- ▶ **The “Policy” section** is the basis of the OSH management system. It sets the direction for the organization to follow and includes worker participation.
- ▶ **“Organizing”** covers the elements of responsibility and accountability, competence and training, documentation and communication. It ensures that the management structure is in place and that responsibilities necessary for delivering OSH policy have been assigned.
- ▶ **“Planning” and “implementation”** comprises the elements of initial review, system planning, development and implementation, OSH objectives and hazard prevention. Through the initial review, it shows where the organization stands concerning OSH, and uses this as the baseline to implement OSH policy.
- ▶ **“Evaluation”** addresses performance monitoring and measurement, investigation of work-related injuries, ill health, diseases and incidents, inspection, audits and management review. Such steps reveal how well the OSH management system functions and identifies any weaknesses that need remedying. It includes the very important element of auditing, which should be undertaken for each stage. Audits should be conducted by persons independent of the activity being audited, though this does not necessarily mean that third-party audits are required.
- ▶ **“Action for improvement”** covers preventive and corrective action and continual improvement. It implements the necessary preventive and corrective action identified by the evaluation and the audits. It also emphasizes the need for continual improvement of OSH performance through the constant development of policies, systems and techniques to prevent and control work-related injuries, ill health, diseases and incidents.

In the context of labour inspection, it is perhaps important to say that these Guidelines refer to the need for “systematic inspection” by employers and workers as part of their evaluation and monitoring of performance. In fact, employers have always been responsible for ensuring that their work equipment, premises and working practices are safe, and inspection has been a means to this end.

ILO-OSH 2001 promotes the establishment of a national framework for occupational safety and health (OSH) management systems (MS), including the nomination of:

- ▶ a competent institution (or institutions) for OSH-MS;
- ▶ the formulation of a coherent national policy and the establishment of a framework for the effective national application of ILO-OSH 2001.

There are other interesting initiatives for promoting the OSH-MS approach on the part of public authorities involving non-legally binding instruments such as [Voluntary Protection Programs](#) in the United States of America.



▶ Voluntary Protection Programs (VPP) in the USA

The VPP initiative was launched in 1982 by the Occupational Safety and Health Administration (OSHA) of the United States. Basically, VPP sites are committed to effective employee protection beyond the requirements of OSHA standards. In a VPP, management, labour and the OSHA establish cooperative relationships at workplaces that have implemented a comprehensive OSH management system to effectively identify, evaluate, prevent and control occupational hazards and so prevent employee injuries and illnesses.

VPP approval is the OSHA's official recognition of the outstanding efforts of employers and employees who have achieved exemplary OSH. VPP sets performance-based criteria for a managed OSH system, invites sites to apply, and then assesses applicants against these criteria. The OSHA's verification includes an application review and a rigorous onsite evaluation by a team of OSHA safety and health experts.

Statistical evidence for VPP's success is impressive. As a result, the average VPP worksite has a lost-workday incidence rate at least 50 per cent below the average of its industry. The OSHA removes participant enterprises from programmed inspection lists.

In Mexico and the USA, enterprises that can meet the Voluntary Protection Program requirements may be exempted from preventive inspection. However, similar programmes have been tried in other countries and have not worked well: working conditions in enterprises that have followed voluntary compliance schemes (and were exempted from inspection) have sometimes got worse, and so regular inspections have been resumed. The voluntary use of management systems is nevertheless helpful in promoting compliance, since it provides a sound organizational framework within which legal obligations and responsibilities can be more readily identified and met.

2.6 Preventative safety and health culture¹⁸

The terms "safety culture", "prevention culture", "preventative safety and health culture" and other variants used in many countries have similar meanings. Experts commonly describe it as the values and practices that management and personnel share to ensure that risks are minimized. In short, this means that safety and health is always the first priority and prevention

¹⁸ ILO, [Safe and healthy workplaces. Making decent work a reality](#), Report for World Day for Safety and Health at Work, Geneva, 2007.

is the key. With a true safety culture, every employee or staff member — whether a worker or manager — thinks about safety and health and new ways of making it a reality.

While there is widespread recognition that there is no prescriptive formula for developing and improving safety culture, there is an emerging belief that there are some common characteristics and practices that organizations can adopt to make progress.



▶ Preventative safety and health culture - common characteristics and practices

- ▶ Strong leadership and a visible and real commitment (in theory and in practice) on the part of management.
- ▶ Communication and consultation with the workforce and active worker participation in OSH issues.
- ▶ OSH awareness, knowledge and understanding shared by management and personnel incorporating the belief that all accidents are preventable and hazards can be eliminated and, where this is not possible, risks can be reduced.
- ▶ OSH is everyone's responsibility. Responsibility for OSH is not confined to a single department or person. The enterprise should establish comprehensive rules concerning roles, rights and obligations. However, a true safety culture is also an open and error-tolerant culture (there is an atmosphere of co-operation and openness in which employees feel comfortable about discussing errors and near-misses in order to improve learning).
- ▶ Constant presence of OSH, not only in terms of OSH-conscious attitudes and behaviour on the part of staff, but also by including OSH considerations in relevant management practices/meetings.
- ▶ An enterprise is willing to improve its OSH performance by learning from experience and setting targets for continuous improvement.

Thus, all managers and workers adopt positive values, attitudes, practices and behaviour, which are conducive to maintaining a working environment that not only complies with the law but is also a good place in which to work. Such an approach motivates workers and increases their commitment to their employer, encouraging innovation and dedication, with obvious advantages for business productivity and for workers' well-being in general.

Building and maintaining a "national preventative safety and health culture" means increasing general awareness and understanding of hazards and risks by conducting national campaigns and through training and education, starting from basic education and continuing throughout working life.

▶ 3. Ensuring safe workplaces - Risk assessment

What is a risk assessment?

A workplace safety and health risk assessment is essentially a careful examination of what could cause injury or ill health to people in a particular workplace. When correctly carried out, it enables employers to weigh up whether they have implemented suitable risk control measures or whether more should be done to prevent harm to those at risk, including workers and members of the public. The aim is to make sure that no one gets hurt or falls ill.

A risk assessment involves identifying the hazards present in a business (whether arising from work activities or from other factors, for example the layout of the premises) and then weighing up the magnitude of the risks involved, taking into account control measures already in place to reduce the risks and deciding if more has to be done to ensure that no one is harmed.

The results of a risk assessment should help employers decide what risk controls are required and are most appropriate.

A risk assessment involves dealing with the levels of risk in the conditions pertaining at the time the risk assessment is carried out. It is important to identify who may be at risk and the safety and health consequences for EACH hazard separately, as different risk control measures to prevent or reduce the probability (likelihood) and severity of harm will be required for each hazard.

The key to risk assessment is not to over-complicate the process. In carrying out a risk assessment, it is important to focus and decide on the risk control measures that need to be put in place, following a hierarchy of controls for making working conditions safe and healthy.

3.1 Hazards and risks

The term “hazard” is often confused with the term “risk”. These two concepts are very relevant to many OSH processes and activities and need clear definition and differentiation.

A hazard is an agent, condition or activity with potential to cause harm that, if left uncontrolled, may adversely affect the well-being or health of those exposed to it. There are an almost limitless number of hazards that can be found in any workplace, including:

- ▶ chemical hazards, arising from liquids, solids, dusts, fumes, vapours and gases;
- ▶ physical hazards, such as noise, vibration, unsatisfactory lighting, radiation and extreme temperatures;
- ▶ biological hazards, such as bacteria, viruses, infectious waste and infestations;
- ▶ safety hazards associated with gravity (falls of people and objects), manual handling, hand tools, moving parts of plant/machinery and/or their loads, vehicles, electricity, pressure equipment;

- ▶ psychological hazards relating to the content and context of work causing stress and strain;
- ▶ hazards associated with poor ergonomic design of workplaces and working methods, such as poor seating for drivers of vehicles like fork-lift trucks, or awkward design of workstations, offices and factories.

Risk is a combination of the likelihood of an occurrence of a hazardous event and the severity of injury or damage to the health of people caused by this event.

A risk will be higher when the consequences are severe and when the likelihood of occurrence is more certain. The two factors are independent: the consequence of contact with a hazard could be high and the likelihood rare, and thus the risk is low, as shown by the table below. The likelihood of the occurrence is related to the frequency with which the hazard can realize its potentially harmful effects (continuously present hazards have higher probability to harm than those present for short periods).

While hazards are intrinsic to a given process, risks are not so and will vary depending on the levels of prevention and protection afforded, i.e. the risk control measures put in place. For example, pesticides are intrinsically hazardous and spraying them may pose serious risks to farmers, but where appropriate control measures are in place, the risks can be reduced to acceptable levels.

▶ **Table 1. Showing residual risk as a function of the likelihood of being exposed to a hazard and the resulting consequence**

Likelihood	Consequences				
	Insignificant	Minor	Moderate	Major	Severe
Almost certain	Medium	High	Extreme	Extreme	Extreme
Likely	Medium	Medium	High	Extreme	Extreme
Possible	Low	Medium	High	High	Extreme
Unlikely	Low	Medium	Medium	High	Extreme
Rare	Low	Low	Medium	Medium	High

Risk assessment – a five-step process

The simplest and most straightforward way to carry out a risk assessment is for the employer or designated representative(s), with the active involvement of the entire workforce, to follow these five steps:

Step 1: Identify the hazards.

Step 2: Identify who might be harmed and how.

Step 3: Evaluate the risk — identify and decide on the safety and health risk control measures, involving two sub-steps:

Step 3a: Identify what you are already doing in terms of existing risk control measures.

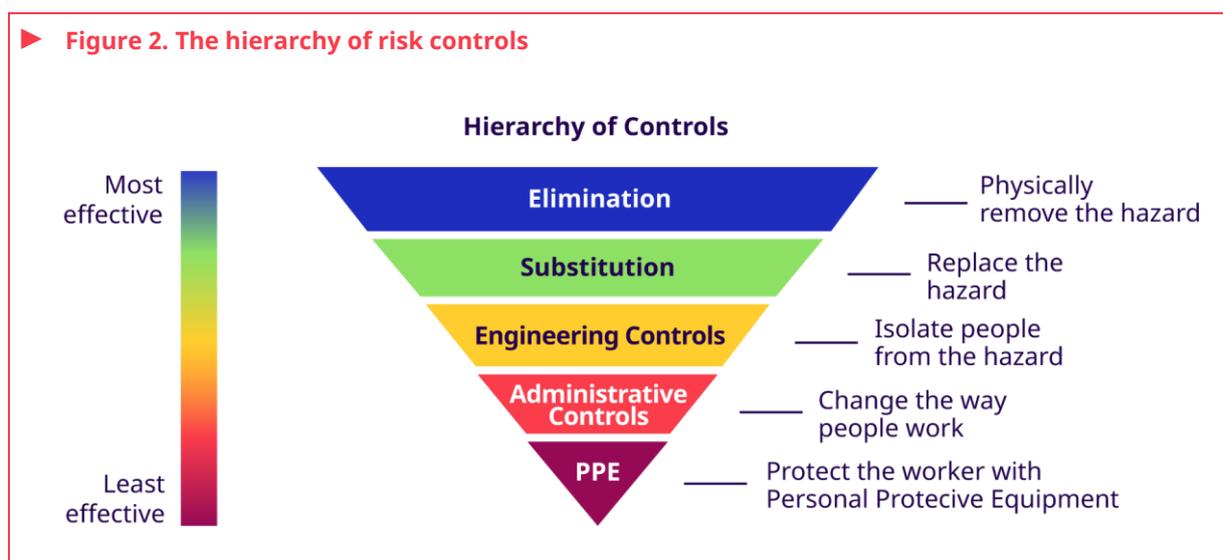
Step 3b: Identify what further risk control measures are necessary.

For sub-steps 3a and 3b, the risk control measures should be considered and decided on using the hierarchy of risk control measures (illustrated below) in the following order:

- ▶ Risk control measure 1: Elimination or substitution of hazards;
- ▶ Risk control measure 2: Tools, equipment, technology and engineering controls;
- ▶ Risk control measure 3: Safe working methods, practices, organization, information and training;
- ▶ Risk control measure 4: Personal protective equipment.

Step 4: Record who is responsible for implementing which control measures and the timeframe. Implement the safety and health risk control measures (deciding who is responsible for doing what, and by when).

Step 5: Monitor and review your risk assessment, and update when necessary.





▶ A hierarchy for risk control

- ▶ **1. Elimination of hazards.** The first approach should be, if possible, to completely remove hazards at source. For example, can a job be performed at ground level, rather than by working at height (e.g. washing windows using a long pole to avoid the need to work off ladders)?
- ▶ **2. Substitution of hazards.** For example, a process might be changed from one that uses a hazardous substance to one that does not, such as using a water-based paint instead of a hazardous chemical. Another type of substitution would be to use the same chemical but in a different form, for example a pellet instead of powder, as smaller-sized particles are easier to inhale.
- ▶ **3. Engineering controls.** Where unacceptable risks remain, employers should consider engineering controls to reduce them. Some hazardous processes may be completely isolated and/or enclosed, as in the case of X-ray equipment: workers are normally kept away from the equipment and entry into the enclosure is strictly controlled. Noisy machines may also be fitted with soundproofed enclosures, which reduce noise emissions, thereby reducing exposure. Guarding of machinery and local exhaust ventilation may also be considered under this heading.
- ▶ **4. Administrative controls.** Administrative or organizational controls consist in developing and implementing safe systems of work to reduce exposure to hazards, and these may often be used in conjunction with engineering controls. Taking the above example of the X-ray enclosure, this would mean having effective working rules to ensure that only authorized workers enter the enclosure and that, when they do so, there are safeguards in place to reduce exposure. In offices, work programmes should be arranged to give computer operators sufficient breaks. Warning signs also come into this category, backed up by the OSH management system to ensure they are adhered to.
- ▶ **5. Personal protective equipment.** Personal protective equipment (PPE) is the least effective method of reducing risks to workers because it only protects one worker; it does not afford collective protection. It may also be ineffective if is not used properly or is not properly maintained. PPE should therefore be seen as a last resort for most jobs, although for some it is the only option, for example for firefighters. PPE may also have value during maintenance or repair work, or as an additional protective measure. When it is required, the employer should always provide suitable PPE free of charge and ensure that that it fits the employees concerned (who should of course be consulted and trained in its use). The employer should also ensure that it is properly maintained by carrying out regular checks and inspections.

3.2 Step: 1 Hazard identification

Hazard identification in any occupational activity is the process of finding and identifying hazardous agents (situations and products that could contribute to provoking an occupational accident or/and disease), as well as the groups of workers potentially exposed to these hazards. Hazard identification is one component of the larger process of OSH management. The sources of information for identifying workplace hazards include, among others:

- ▶ OSH legislation, codes of practices, guidance documents provided by national and international institutions and organizations;
- ▶ information derived from national, sectoral or enterprise statistics on prevalent occupational accidents or/and diseases, and the hazards involved;
- ▶ information or safety data sheets provided by manufacturers and suppliers of machinery, equipment, tools, products and substances;
- ▶ information from workers, workers' representatives and joint OSH committees resulting from consultations, observations, complaints, ad-hoc meetings, etc. Workers are often more aware than management of hazards and the possible ways of controlling them;
- ▶ workplace and job inspections and analyses based on observation of the tasks being performed, discussions with the operational staff involved and analysis of the situation, circumstances, plant/products/substances, etc., or a combination of all these inputs;
- ▶ reviewing of accident history (including "near misses") and occupational illnesses, accident/disease investigations and data from workers' health surveillance, undertaken in the enterprise or in other enterprises;
- ▶ advice, opinions and judgments of competent internal and external OSH professionals. Labour inspectorates can also be approached for helpful advice.

Whenever possible, hazards should be identified during the **planning or design of new plants or processes**, so that changes can be made at an early stage and hazards can be anticipated and eliminated. Remember: a hazard that has not been identified cannot be controlled.

3.3 Step 2: Identify who might be harmed and how

For each hazard identified — and there may be many — assessors need to be clear about who might be harmed and how; this will help ascertain the best way of managing the risk. This does not mean listing everyone by name, but rather identifying relevant groups of people (e.g. "people working in the storeroom" or "passers-by").

In each case, identify how they might be harmed, i.e. what type of injury or ill health might occur. For example, "shelf stackers may suffer back injury from repeated lifting of boxes".

Remember:

- ▶ Some workers have particular requirements, e.g. new and young workers, new or expectant mothers and people with disabilities may be at particular risk. Extra thought will be needed for some hazards.
- ▶ Cleaners, visitors, contractors, maintenance workers, etc., may not be in the workplace all the time.
- ▶ Members of the public could be hurt by work activities.
- ▶ If the workplace is shared, think about how work activities might affect others present, as well as how their work affects others; talk to them, and ask workers if they can think of anyone that may have been missed.

3.4 Step 3: Evaluate the risk – Identify and decide on the appropriate safety and health risk control measures

Having identified the hazards and who is in danger, the next step is to identify the level of risk. Assessors will need to determine the likelihood of someone being injured and the consequence of that injury. This can be done using Table 1 above.

Once the level of residual risk has been identified, assessors need to look at the controls already in place and how the work is organized and, comparing these factors with good practice, decide whether the present situation is acceptable or if the level of risk should be further reduced.

If the level of residual risk is not acceptable, further controls will need to be identified following the hierarchy of risk controls described earlier.

For example, assessors should consider:

- ▶ whether the hazard concerned can be eliminated altogether, e.g. by removing the need to work at height;
- ▶ if not, how the risk can be controlled so that harm is unlikely.

When controlling risks, assessors should follow the hierarchy of controls, if possible in the following order:

- ▶ Try a less risky option (e.g. switch to using a less hazardous chemical); substitution of the hazard.
- ▶ Prevent access to the hazard (e.g. by guarding).
- ▶ Organize work to reduce exposure to the hazard (e.g. put barriers between pedestrians and traffic), safe work methods.
- ▶ Provide welfare facilities (e.g. first aid and washing facilities for removal of contamination).
- ▶ Issue personal protective equipment (e.g. clothing, footwear, goggles etc.) at no cost to the worker.

3.5 Step 4: Record who is responsible for implementing which control measure, and the timeframe

If assessors have decided on additional control measures, action has to be taken to ensure that they are implemented. It is good practice to allocate responsibility for this to named individuals, as well as assigning a timeframe for implementation. The date of implementation should also be recorded.

Completing the risk assessment is an important step, but it is acting on the findings of the risk assessment that will make the difference in eliminating or minimizing work-related hazards and risks.

It is likely that assessors will have identified the need for a number of new control measures and businesses may not have the resources to implement all of them at once. Some of the measures can be implemented immediately with limited resources, e.g. ensuring housekeeping improvements or removing/rerouting trailing cables. Others will have to be prioritized, and this should be based on the degree of risk. Make a plan of action to deal with the most important things first.

A good plan of action often includes a mixture of different things, such as:

- ▶ a few low-cost or easy improvements that can be done quickly, perhaps as a temporary solution until more reliable controls are in place;
- ▶ long-term solutions to those risks most likely to cause accidents or ill health;
- ▶ long-term solutions to those risks with the worst potential consequences;
- ▶ arrangements for training workers on the main risks that remain and how they are to be controlled;
- ▶ regular checks to make sure that the control measures stay in place.

3.6 Step 5: Record the findings, monitor and review the risk assessment, and update when necessary

Record and display the findings, writing down what assessors have identified and decided in Steps 1 – 4. This record should be made available to workers, supervisors and labour inspectors.

There is no set format for recording the findings. However, you will find examples of completed templates in the “Training package on workplace risk assessment and management for small and medium-sized enterprises”, available [here](#).

The examples are designed to show the logical steps in a risk assessment and the templates are convenient for recording the findings in a simple and readily accessible format.

Arrangements will be needed to monitor the effectiveness of the control measures. One way of doing this is through workplace inspections. Indeed assessors may identify in Step 3 the need to conduct daily, weekly or monthly workplace inspections as one of the required control measures.

Few workplaces stay the same. Sooner or later, new equipment, substances and procedures will be introduced and this could lead to new hazards. It makes sense, therefore, to review what is being done on an ongoing basis. Every year or so, formally review whether your assessment is still valid; this will ensure that occupational safety and health standards are improving, or at least not sliding back.

Look at the risk assessment again. Have there been any changes? Are improvements still needed? Have workers identified other issues? Have accident or near-miss investigations identified weaknesses in occupational safety and health management? Make sure the risk assessment stays up to date.

During the year, if there is a significant change, do not delay. Check the risk assessment and, where necessary, amend it. It is best to take the risk assessment into account when planning changes; this will ensure that no new hazards are introduced and that appropriate control measures are in place.

► Summary

Occupational safety and health (OSH) is a subject that touches on many different disciplines and approaches. Although there is now more common ground than in the past, there are still differences in understanding the aims of OSH and the meaning of OSH concepts, and the principles that should guide its implementation. This lack of a common understanding hinders the establishment of a shared basis for fruitful work on OSH. This module, in addition to being a learning tool, is also intended to serve as a useful reference.

The main principles and concepts of OSH are set out in various Conventions and Recommendations adopted by the International Labour Conference, as well as in documents produced by the International Labour Organization (ILO), such as codes of practice, resolutions, guidance and, above all, the ILO's Encyclopaedia of Occupational Health and Safety. The content of this module is derived primarily from the above-mentioned ILO documentation, as well as the work of other national and international bodies with recognized competence in the field.

The focus of Chapter 2 is on identifying the rights and duties of the key stakeholders, as well as modern approaches to OSH regulation, the management of OSH at enterprise level, and the role inspectors should play in these new approaches.

Chapter 3 explains the purposes and the content of hazard-identification and risk-assessment techniques. Although the responsibility for implementation these techniques lies with the enterprises concerned, inspectors must be familiar with them in order to verify whether an enterprise is implementing them correctly and, in many cases, to provide appropriate advice.

It is not possible in this module to cover all subject areas in the vast field of OSH. It therefore focuses on the key concepts and principles, summarizing them in a form that will be useful for labour inspectors. The aim is to provide an overview of the importance of preventing occupational accidents and ill-health, how best to prevent them, and how to promote OSH. Further information can be found in the reference documents mentioned at the end of this module, such as the above-mentioned ILO Encyclopaedia and its glossary of technical terms, and by consulting the international and national websites listed.



Exercise 1

TITLE	<i>Risk assessment exercise</i>
AIM	To develop the participants' skills in undertaking a risk assessment.
TASK	<p>The group of participants should be divided into several groups. Each group should elect a spokesperson to report back on the group's views.</p> <p>On the basis of the attached scenario, and using the risk assessment table collectively:</p> <ul style="list-style-type: none">✓ Identify as many hazards as you can and record them on the form.✓ Identify who might be harmed and how.✓ Evaluate and prioritize the risks.✓ Identify what preventive actions are necessary.
TIME	The groups have 45 minutes for their deliberations. After that, each spokesperson will have 5 minutes to report back on the conclusions of their group.
RESOURCES	Use the picture and the form attached for this exercise.

What are the hazards?				
Who might be harmed and how?				
What are the current control measures?				
What is the residual risk?				
Do you need to do anything else to control this risk?				
Action by who?				
Action by when?				
Done				

► Bibliography and additional reading

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