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This Project is implemented by
the International Labour Organization

EU-ILO Project

ENHANCING THE LABOUR ADMINISTRATION
CAPACITY TO IMPROVE WORKING CONDITIONS
AND TACKLE UNDECLARED WORK

*Training for trainers
OSH - risk management
(assessment and control) methodologies
and labour inspectors' gesture*

PART I

OCCUPATIONAL RISK MANAGEMENT AND OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT SYSTEMS

November 2018

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Annex 3. Guidelines on occupational safety and health management systems ILO-OSH 2001 – <i>available in electronic format</i>	



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EU-ILO Project

«Enhancing the labour administration capacity to improve working conditions and tackle undeclared work»

Introduction

Training for trainers

“OSH risk management (assessment and control) methodologies and labour inspectors’ gesture in specific sectors of activity”

Антоніу Сантуш / António Santos
Менеджер проекту / Project manager

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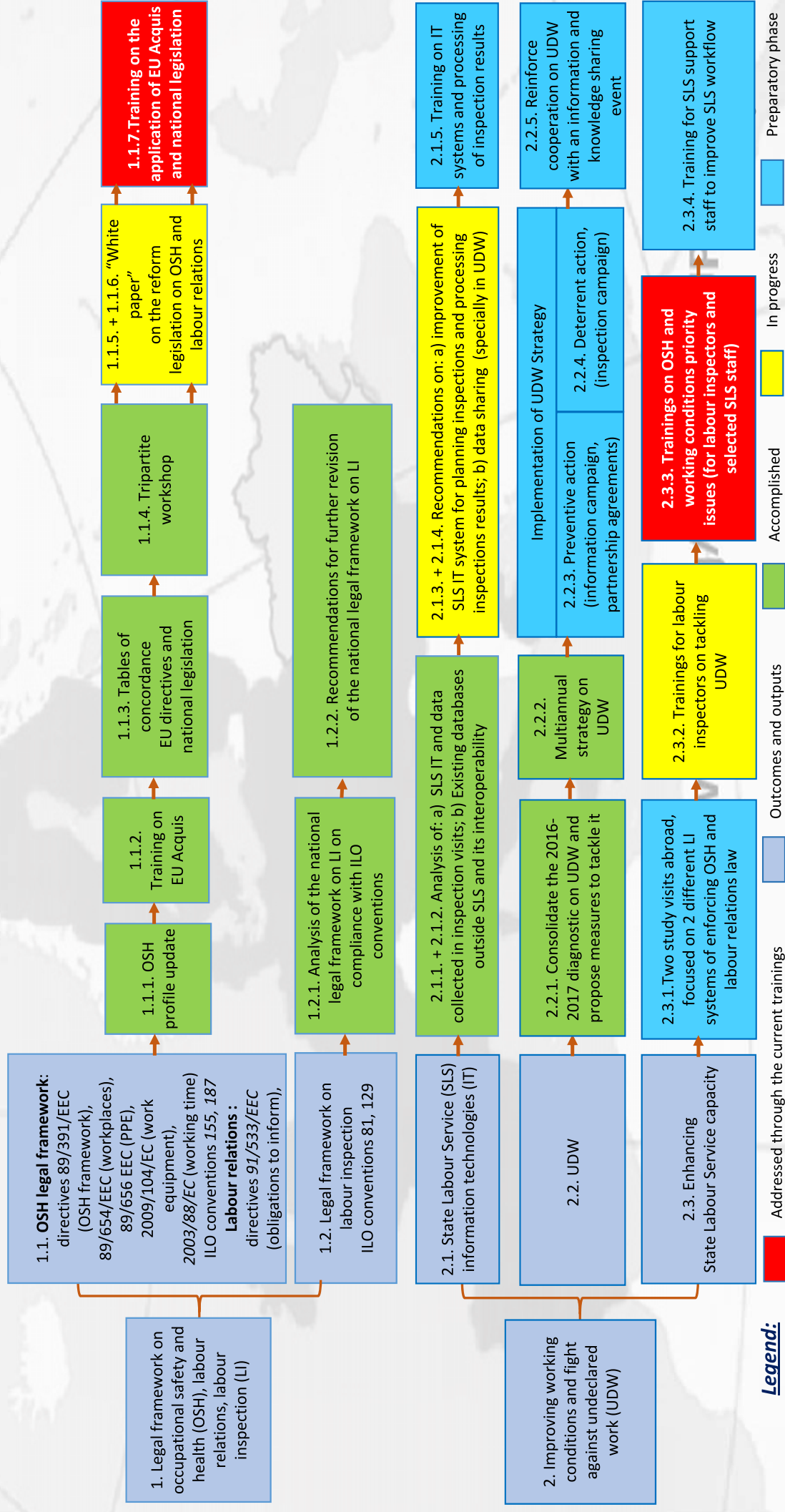
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Programme contents

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Rules of engagement

EU-ILO project “Enhancing the labour administration capacity to improve working conditions and tackle undeclared work” - Summary

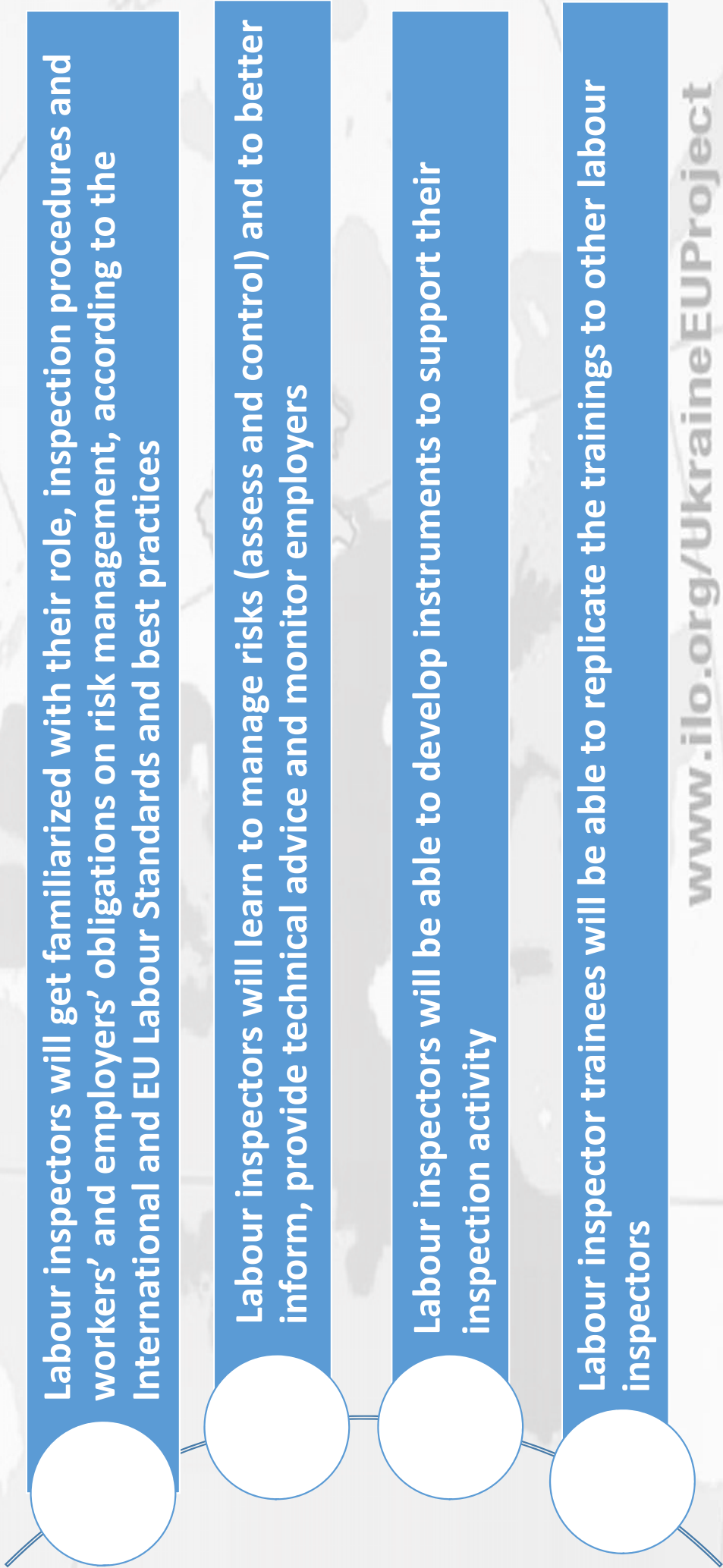


Purpose of the training

To strengthen the capacities of the Ukrainian Labour Inspectors on occupational risk management and inspection gesture and practices.



Training expected results



Labour inspectors will get familiarized with their role, inspection procedures and workers' and employers' obligations on risk management, according to the International and EU Labour Standards and best practices

Labour inspectors will learn to manage risks (assess and control) and to better inform, provide technical advice and monitor employers

Labour inspectors will be able to develop instruments to support their inspection activity

Labour inspector trainees will be able to replicate the trainings to other labour inspectors

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Trainers

Introductory & General Modules

António Santos

- EU-ILO Project Manager
- Former Deputy Inspector General of the Portuguese Authority for Working Conditions (ACT)
- Labour Inspector
- Certified Senior OSH specialist
- Certified trainer
- PhD, MSc, MBA, BSc

Forestry

António Santos

- EU-ILO Project Manager
- Former Deputy Inspector General of the Portuguese Authority for Working Conditions (ACT)
- Labour Inspector
- Certified Senior OSH specialist
- Certified trainer
- PhD, MSc, MBA, BSc

Road Transport Construction

Karel Van Damme

- Inspector-general at the Belgium Federal Public Service Employment Work and Social Dialogue
- Doctor of Medicine
- Postgraduate certificate in occupational medicine and hygiene
- Certificate in radiation protection
- Specialist in Occupational Medicine

Training programme contents

1st Day	2nd Day	3rd Day
Risk management (assessment and control): basic concepts; accidents at work; risk assessment and control; risk assessment methodologies; support instruments for risk management and for inspection visits (questionnaires, check-lists, register of dangers, risks and adequate preventive and protective measures).	EU and ILO sectoral OSH standards.	Training visit to two sectoral workplaces for practical and tutorial application of the knowledge obtained during the theoretical part of the training.
	Sectoral most serious and common occupational risks.	
Relevance of risk management in the EU OSH legal framework; obligations of employers and workers regarding risk management; and labour inspectors' role and inspection gesture on risk management.	Sectoral most appropriate preventive and protective measures - taking into account the General Principles of Prevention (GPP).	Discussion and wrap-up of the findings of each training visit.
	Risk assessment methods and instruments to support the inspection activity – concrete examples.	
Occupational Safety and Health Management Systems (OSHMS)	Interactive exercises on concrete work situations.	

Rules of engagement

1

This is not a seminar: you are more than welcome to intervene and to put questions whenever needed, and not only at the end of each module or session

2

You are expected to be punctual, to actively participate in the foreseen activities and to attend to all sessions

3

Trainees that punctually attended and actively participated all sessions will be awarded with an ILO course certificate

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EU-ILO Project

«Enhancing the labour administration capacity to improve working conditions and tackle undeclared work»

Module 1

Risk management

Training for trainers

“OSH risk management (assessment and control) methodologies and labour inspectors’ gesture in specific sectors of activity”

Антоніу Сантуш / António Santos
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Basic concepts on risk management

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Work-related accident

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Risk management

4

Risk assessment

5

OiRA – Online Interactive Risk Assessment (EU-OSHA)

6

Case study

Basic concepts on risk management

Workplace

- The place where the employee is or where he or she should go to because of his or her work, in which he is directly or indirectly subject to the control of the employer.

Material components of the work

- The workplace, working environment, tools, machinery, equipment and materials, chemical, physical and biological substances and agents and work organization and processes.

Danger

- The intrinsic property or inherent situation of an installation, activity, equipment, agent or other material component of the work with the potential to cause injury or damage.

Basic concepts on risk management

Occupational risk

- The likelihood of damage being effective, depending on the conditions of use, exposure or interaction of the material component of the work which presents a hazard.
- Combination of the probability of the occurrence of a dangerous phenomenon with the severity of the consequences (injuries or damage to health) that it may cause.

Probability of occurrence of a dangerous phenomenon



Severity of the consequences of the dangerous phenomenon



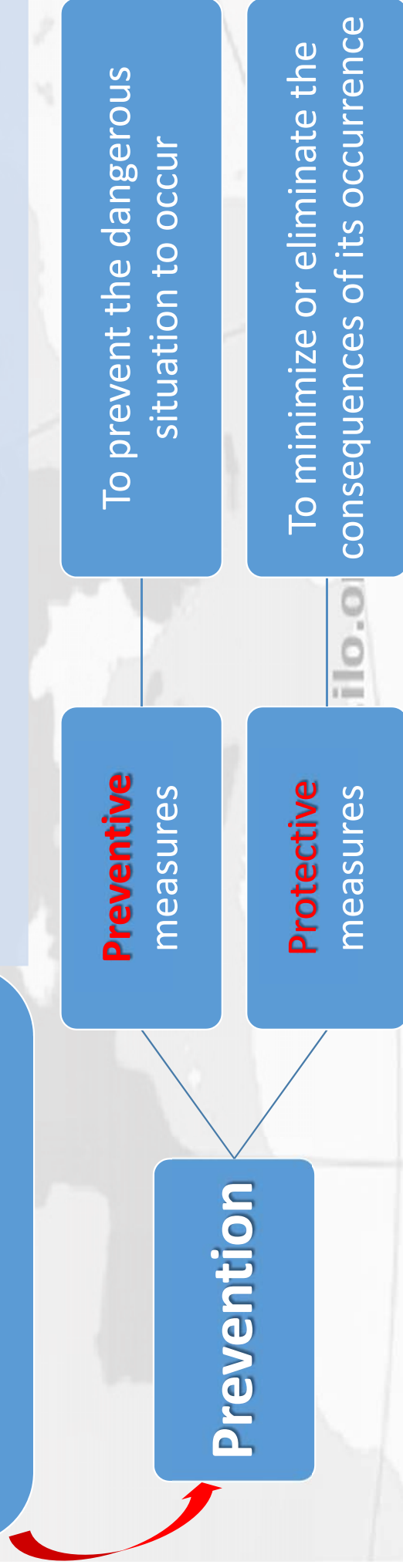
Occupational Risk

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Basic concepts on risk management

Prevention

- All public policies and programs, as well as provisions or measures taken or envisaged in the licensing and at all stages of the activity of the undertaking, establishment or service, aimed at eliminating or reducing the occupational risks to which the workers are potentially exposed.
- A set of provisions or measures taken or envisaged at all stages of the employer's activity, with a view to prevent or reduce occupational risks.



Basic concepts on risk management

Work-related accident

- Unforeseen and undesirable event, including acts of violence, arising out of or relating to work resulting in body or mental injury or death of one or more workers.

Occupational disease

- Illness contracted as a result of a prolonged exposure, over a period of time, to risk factors arising from a professional activity.

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Work-related accident

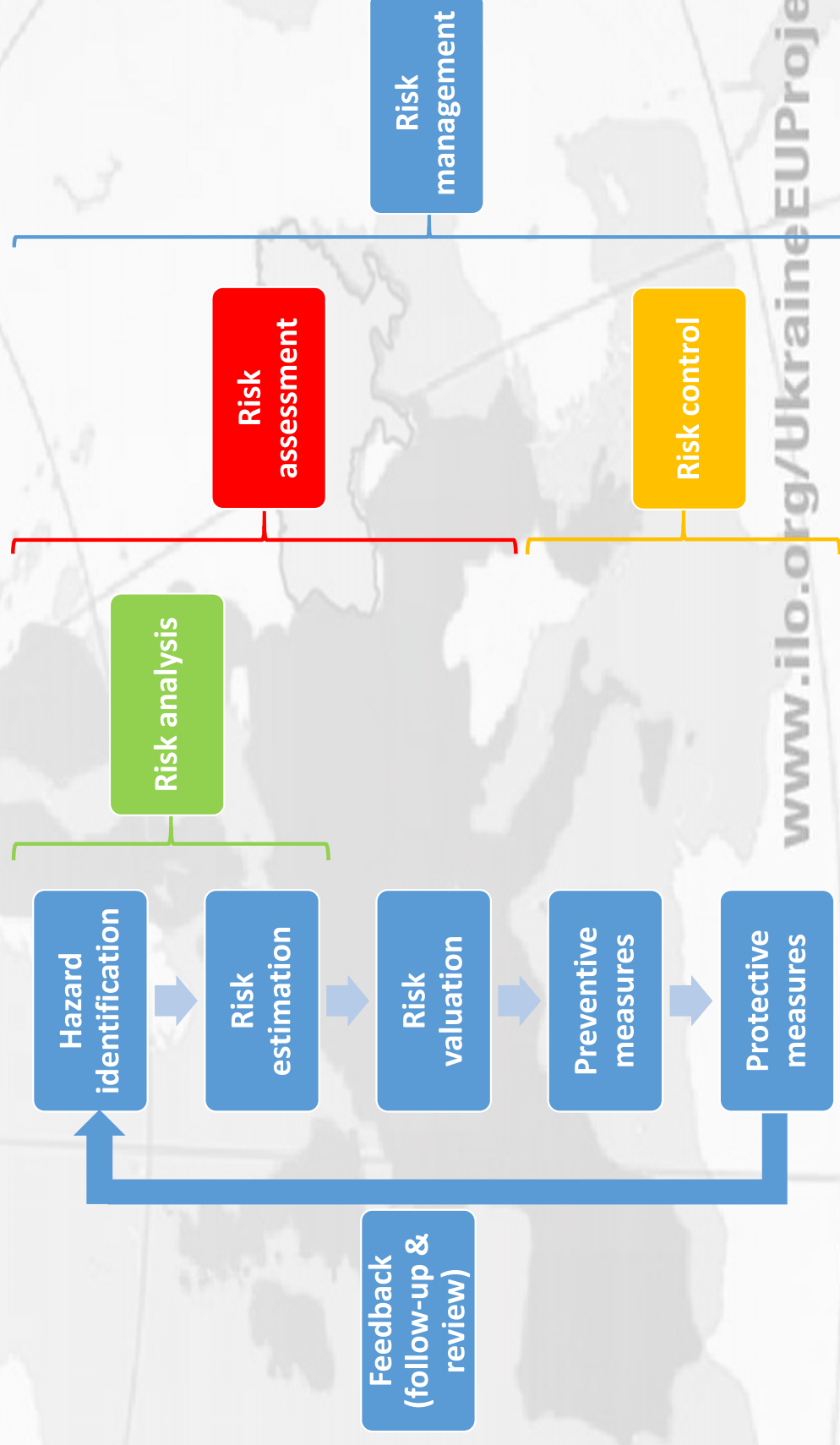


Preventive activities

Activities of emergency and rescue

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Risk management



Risk management

Risk analysis

- Process by which the hazard is identified and the risk is estimated (jointly assessing the resulting damage and the likelihood of its occurrence).
- Determines the magnitude of the risks.

Risk valuation

- Process by which the risk estimate found above is compared against benchmarks (normative or otherwise) - that establish the acceptable risk level - , and makes a judgment on the acceptability of the risk in question.

Risk assessment

- Systematic examination of all aspects related to work, in order to identify the hazards and to estimate (both qualitatively and quantitatively) and evaluate the risks to the safety and health of the workers.

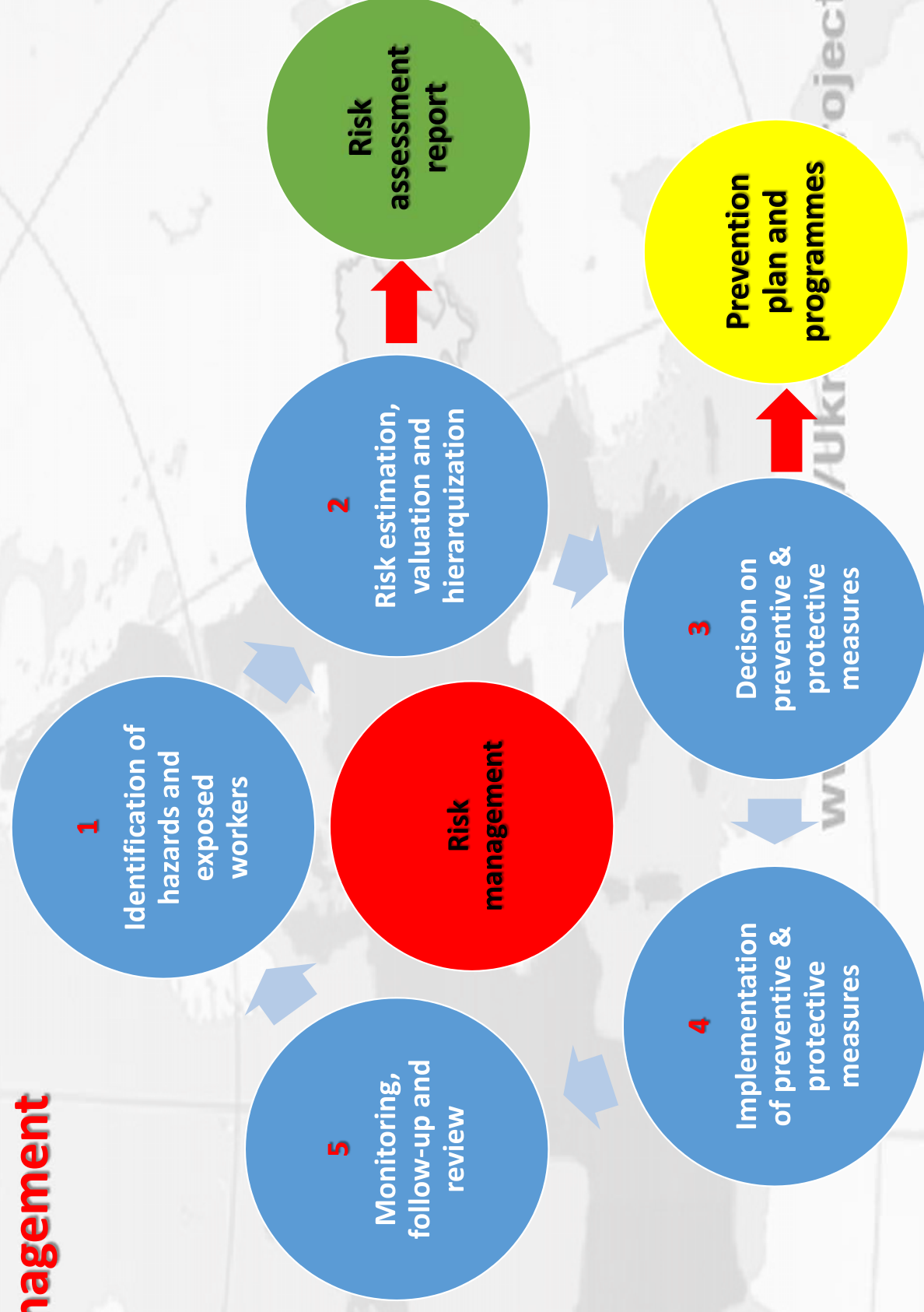
Risk control

- Process which addresses the unacceptable risks, through the formulation and execution of a prevention plan and corresponding programmes, in order to ensure the implementation of the preventive and protective measures necessary to eliminate or minimize the risks.

Risk management

- Continuous process which involves the constant monitoring, control and review of the occupational risks, in particular, the identification of hazards, analysis, valuation and assessment of occupational risks, as well as the implementation of the most appropriate preventive and protective measures to eliminate or minimize the risks.

Risk management



Risk assessment – It's relevance

It is the fundamental element for the effectiveness and efficiency of the occupational risk prevention management in the employer.

Only on the basis of the risk assessment can the most appropriate prevention and protection measures be determined and, in particular:

- Nature of the risks to which the workers are exposed;
- Degree and frequency of exposure;
- Number of exposed workers;
- Priorities of intervention;
- Training and information needs;
- Technical and organizational measures to be taken;
- Periodic monitoring of working conditions;
- Needs of workers' health surveillance.

Risk assessment – Basic rules

1

- It must ensure the strict observance of the sequential and hierarchical General Principles of Prevention (GPP).

2

- It must involve: employer and workers (and their OSH representatives); employer OSH specialists; external OSH experts; OSH service providers; middle managers; suppliers; and other employers (and workers) when sharing the same workplace.

3

- It must include all relevant hazards and risks to which the workers are, or maybe, exposed.

4

- It has to consider, in particular: number of workers exposed; the nature of the workplace; type of process; the task performed; and technical complexity.

5

- It should be properly planned.

6

- It has to consider the results of previous risk assessments, as well the results of the implementation of the corresponding preventive and protective measures.

Risk assessment – Basic rules (cont.)

- It must be done in all workplaces and workstations and be directed to what actually happens during the work activity and, in particular: take into account the real work practices; consider activities not included in routines; consider interruptions of work and changes in working conditions; take into account all the risk factors and their interactions; and include the control of equipment, tools, products and materials during the installation and use phases.

7

- It has to take into account the evolution of the techniques of risk assessment.

8

- It should allow the hierarchy of risks and the clear identification of the serious and imminent risks

9

- Where applicable, risk assessment shall take into account the methodologies and procedures provided for in legal regulations, national and international standards (NP, EN, ISO, etc.), codes of practice (eg ILO code of practice on recording and notification of occupational accidents and diseases), sectoral prevention manuals, instruction manuals of machines and equipment, safety datasheets and doctrine consecrated on the subject.

10

- Its results, along with the appropriate preventive and protective measures, should be set out in a report.

11

- It should be reviewed to take into account changing circumstances and the results of the measures taken.

12

Risk assessment- General Principles of Prevention (GPP)

- 1
 - To avoid risks
- 2
 - To evaluate the risks which cannot be avoided
- 3
 - To combat risks at source
- 4
 - To adapt work to the individual, with a view to alleviate monotonous work and work at a predetermined rate and to reduce their effect on health
- 5
 - To adapt to technical progress
- 6
 - To replace the dangerous by 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 the individual ones
- 9
 - To give appropriate instructions to workers

[Article 6/2 of the EU OSH framework Directive N.º 89/391/EEC](#)

Risk assessment- Phases



Inspired in European Commission “Guidance on risk assessment at work”

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Risk assessment – 1. Hazard identification

To identify hazards, causal agents and exposure conditions, gather all relevant and available information relating to each work activity, in particular on:

1. Tasks
2. Places where work is done
3. Who does the work (permanent or occasionally)
4. Other people who may be affected (visitors, subcontractors, public, ...)
5. Training received by each worker for task execution
6. Written work procedures and / or work authorizations
7. Facilities, equipment, ...
8. Tools used
9. Energies used
10. Composition of raw materials and final product
11. Contents and recommendations of safety labels
12. Organization of work ...

Risk assessment – 1. Hazard identification

Use information from a variety of sources, including:

1. Legislation
2. Manufacturer Instruction Manuals
3. Safety Data Sheets
4. Sequencing of activities of the productive process
5. Subcontracted activities
6. Support activities (maintenance, cleaning, loads, downloads ...)
7. Methods and work processes
8. Experience and qualification of workers
9. Statistical data (accidents, incidents, occupational diseases, ...)

Risk assessment – 2. Identification of exposed workers

- ✓ Ensure that all groups of workers or third parties that may be affected are properly considered (Office workers, night cleaning crews, maintenance personnel, guards, visitors, nearby population, ...)
- ✓ Ensure that groups of particularly vulnerable workers are taken into account:
 - Young workers
 - Pregnant women, women who have recently given birth or are breastfeeding
 - Disabled workers
 - Newly admitted workers
 - Temporary agency workers and fixed-term workers
 - Isolated workers
 - Foreign workers
 - Workers especially sensitive to certain risks

Risk assessment – 3. Risk estimation

- ✓ Estimates the risk based on the expected level of damage and its probability of occurrence
- ✓ Determines the magnitude of the risk

$$\text{Risk} = \text{Probability} \times \text{Gravity} = \text{Frequency} \times \text{Gravity}$$

Risk	Probability of occurrence	Gravity
Serious and imminent	4-Very likely	4-Fatal
Serious	3-Likely	3-Irreversible
Moderate	2-Unlikely	2-Reversible
Low	1-Very unlikely	1-Light

	Gravity / severity / seriousness			
	1	2	3	4
Probability / likelihood	1			
	2			
	3			
	4			

Risk assessment – 3. Risk estimation

On the basis of the expected damage severity

Damage severity characterization and scale		
Qualitative level	Characterization	Weight / points
Slightly harmful	Small cuts, eye irritation, headache, discomfort	1
Harmful	Lacerations, burns, minor fractures, deafness, dermatoses, asthma, musculoskeletal disorders	3
Extremely harmful	Amputations, major fractures, intoxications, multiple lesions, cancer, chronic diseases, death	6

Risk assessment – 3. Risk estimation

On the basis of the occurrence probability

Occurance probability characterization and scale		
Qualitative level	Characterization	Weight / points
Low	It is expected that it may occur rarely	1
Average	It is expected to occur relatively easily	3
High	It is expected to occur very often	6

Risk assessment – 3. Risk estimation

On the basis of the occurrence probability and expected damage severity

Risk = S x P		Damage severity		
		Slightly harmful	Harmful	Extremely harmful
Probability	Low	Trivial	Tolerable	Moderate
	Average	Tolerable	Moderate	Substantial
	High	Moderate	Substantial	Intolerable

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Risk assessment – 4. Risk valuation

Risk valuation:

- It compares the estimate of the risk found with normative or other benchmarks (which establishes the acceptable risk) and makes a judgment on the acceptability of the risk in question;
- If it is concluded that the risk is not acceptable, then adequate prevention and protection measures must be implemented.

Acceptable risk:

Is the risk that is within the limits established by normative or other standards and that the system stakeholders (employers, workers, labour inspection, etc.) accept conciensciously (in spite of the existence of solutions that could further minimize that risk), due to:

- Cost
- Performance, productivity, quality
- Effectiveness, efficiency
- Needed qualifications of the workforce
- Creation of new risks or interaction with existing ones,...

Risk assessment – 4. Risk valuation

Risk level	Preventive and protective measures
Trivial	Does not require specific measures.
Tolerable	There is no need to improve preventive action. However, more cost-effective solutions or improvements that do not entail a significant economic burden should be considered. Regular checks are necessary in order to ensure that the effectiveness of the control measures is maintained.
Moderate	Efforts should be made to reduce the risk. Measures to reduce risk should be taken within a specified period. Where the risk is associated with extremely damaging consequences, further action will be required to establish more precisely the likelihood of the damage as the basis for determining the need to improve the control measures.
Substantial	Work should not be started until the risk has been reduced. Considerable resources may be required for risk control. When the risk corresponds to work being carried out, steps must be taken to reduce the risk level, as soon as possible and in a time less than on the case of moderate risk.
Intolerable	Do not start or continue work until the risk has not been reduced. Even if using unlimited resources, the work should be banned until the level of risk has been reduced to an acceptable level.

Risk assessment – 5. Risk hierarchy

Risk hierarchy:

Considering the number and different severity level of the risks, the fact that the employers' resources are limited (and could be not sufficient to attend to all risks) and that several preventive and protective measures could be mutually exclusive, it is necessary to establish priorities regarding the order in which the risks should be addressed – this process of setting the priority of the risks is called risk hierarchy

Process of risk hierarchy:

1. Participants selection – selection of the participants on the process, as well as they form of their participation and collaboration (OSH specialists, employer representatives, workers' representatives, etc.)
2. Collect and analyze data - about the risks and selected hierarchy criteria (previous experiences, statistical data, information about the characteristics of the products, equipment ...)
3. Select the method - for hierarchize risk (preferable in a participative and / or negotiated way)
4. Select the relative weights to assign to each hierarchy criteria parameter

Risk assessment – 5. Risk hierarchy

Criteria for risk hierarchy			
Frequency		Gravity	
Qualitative level	Weight / points	Qualitative level	Weight / points
Unlikely	1	Trivial	1
Possible	2	Minor	2
Occasional	3	1 severe injury	3
Frequent	4	2 or more serious injuries	4
Regular	5	1 death	5
Very common	6	2 or more deaths	6

Risk level = Frequency x Gravity

Other criteria besides the risk level:

- Number of workers exposed
- Frequency of the exposure
- Degree of exposure
- Urgency of the intervention
- Criticality of the expected damage to the operations of the employer

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Risk control – Preventive and protective measures

Preventive measures

Formulate, approve and implement a coherent overall occupational risk prevention policy and plan.

Integrate OHS concerns in the management systems of all employer's areas and functions (planning, HR, procurement, stockage, production, logistics, etc.).

Organize internal OSH services and provide them with the necessary means

Assess all occupational risks to which the workers are, or may be, exposed in all phases of the production process and regarding all workstations.

Replace a dangerous work equipment or a (biologic or chemical) agent by a non-dangerous or or less dangerous.

Provide training and information to workers and ensure their participation on OSH matters.

Protective measures

Encapsulate work equipment to avoid projections, emissions and / or contacts with moving parts.

Introduce breaks on the working time in order to reduce exposure.

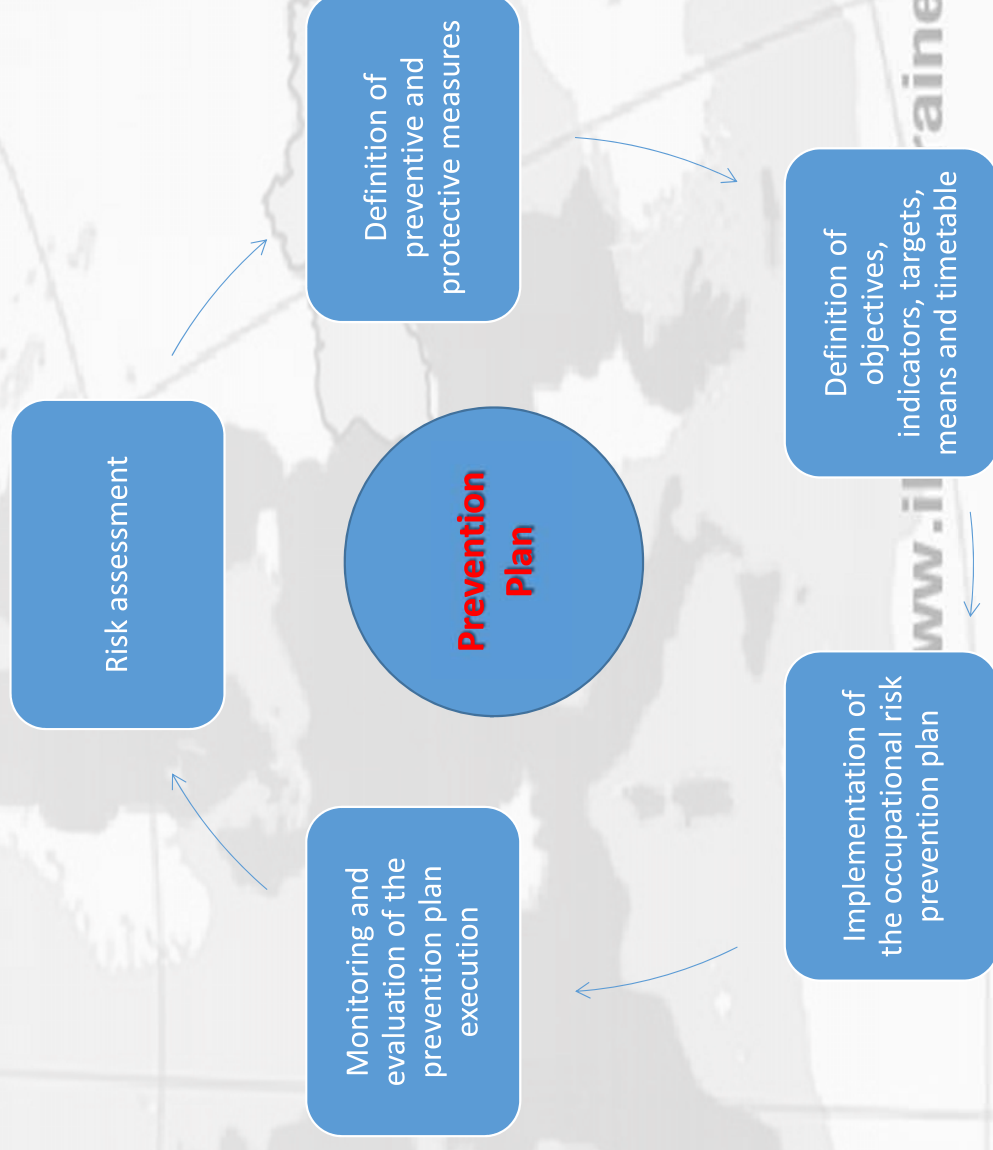
Install a central aspiration system on a work equipment to prevent dust inhalation.

Install a retention basin to prevent chemical contamination from spills of chemical agents.

Installation of a collective protection system against falling from heights in a scaffold or through a hole in the floor.

Provide adequate PPE to workers.

Risk management – Prevention plan



Risk management – Prevention plan

It has to foresee, at least:

- Preventive and protective measures to be implemented
- Timetable for the implementation of each measure
- Resources needed to implement the measures
- Responsible persons for the implementation of the measures
- Objectives, indicators and targets regarding the implementation of each measure
- Subsequent risk assessments' schedule
- Procedures for monitoring and evaluating implementation of the measures

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Risk management - Documentation

- The risk management process should be documented, in order to ensure:
 - ✓ The passage of relevant information to the persons concerned;
 - ✓ The monitoring to assess whether necessary measures have been introduced;
 - ✓ The compliance with the law;
 - ✓ The supervisory authorities monitoring and control;
 - ✓ Its revision, if circumstances change.
- The records of risk assessment, in particular, should be:
 - ✓ Drawn up with the consultation and participation of workers and/or their representatives;
 - ✓ Made available to workers and/or their representatives for information;
- The workers concerned should be informed of the outcome of each assessment that relates to their workstation and the measures to be implemented as a result of the assessment.

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Risk management - Documentation

The documentation on risk management should include:

1. A record of the results of risk assessments at work, which should be kept and include:
 - ✓ Name and function of the person(s) carrying out the risk assessment;
 - ✓ Hazards and risks identified;
 - ✓ Exposed workers and groups of workers who face particular risks;
 - ✓ Necessary preventive and protective measures and data for implementation;
 - ✓ Details on the introduction of the measures (e.g., name of the person responsible and date);
 - ✓ Subsequent monitoring and reviewing arrangements (e.g., dates and people involved);
 - ✓ Details of the involvement of workers and their representatives in the process.
2. Reports of internal safety inspections or audits;
3. Specific risk assessment reports (e.g., noise, vibration, thermal environment, chemical contaminants, etc.);
4. Mandatory notifications of certain risks (e.g., asbestos, serious industrial accident risks, etc.);

Risk management - Documentation

The documentation on risk management should include (cont.):

5. Notifications to take OSH preventive and protective measures issued by labour inspection;
6. Reports of medical examinations;
7. Analysis of events that take particular gravity in the perspective of OSH;
8. Reports of work-related accidents;
9. Analysis of occupational diseases;
10. Statistics on accidents at work;
11. Occupational risk prevention plan, its revisions and monitoring;
12. Etc....

Risk management – Possible templates for recording

Risk Assessment Template*

Department/section:											Assessment:		Initial
Workstation:													Periodic
Number of workers (attach list):											Assessment date:		
											Last assessment date:		
Hazard	Probability				Consequences				Risk Estimation				
	L	A	HI	SH	H	EH	T	O	M	S	I		
1													
2													
3													
4													
5													
6													
7													
8													
8													
10													

Legend:

L-Low; A-Average; HI-High;

SH-Slightly Harmful; H-Harmful; EH-Extremely Harmful;

T-Trivial; O-Tolerable; M-Moderate; S-Substantial; I-Intolerable.

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*INHST

Risk management – Possible templates for recording

Risk Control Template*

(for risks valuated as “M”, “S” or “I”, in the previous template)

	Hazards	Measures	Tasks	Information	Training	Risk controlled?	
						Yes	No
1							
2							
3							
4							
5							
6							
7							
8							
8							
10							

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*INHST

Risk management – Possible templates for recording

Action Plan Template*

(for risks valuated as “M”, “S” or “I”, which are not yet controlled)

Hazards	Necessary measures	Responsible	Execution date	Evidence of the effectiveness of the measure	
				Date	Signature
1					
2					
3					
4					
5					
6					
7					
8					
8					
10					

OiRA - Online interactive Risk Assessment



1

- OiRA is a web platform that enables the creation of sectoral risk assessment tools in any language in an easy and standardized way.

2

- It is developed and maintained by the European Agency for Safety and Health at Work (EU-OSHA) and it is based on the Dutch risk assessment instrument RI&E.

3

- It is aimed at facilitating the risk assessment for micro and small enterprises (MSEs), which may lack the resources or the occupational safety and health (OSH) know-how to do it effectively.

4

- OiRA is an online platform that includes:
- The **OiRA tool generator** - where developers can create sectoral tools;
- The **OiRA sectoral tools**, which are accessible through an interactive website and can be used by employers, free of charge, to assess occupational risks.

OiRA - Online interactive Risk Assessment



5

- The tools are free to download and can be easily accessed by clicking on the relevant link (see relevant links in the following page).

6

- The pages in which risk assessment is performed are accompanied by a short description of the necessary procedures, explanation of the concerned topic and have references to additional relevant documents.

7

- The risk assessment tools to use can be searched by country, language and sector.

8

- Besides a generic OiRA tool (which can be applied to any sector) there are currently OiRA tools for dozens of sectors of activity, including: hairdressing; offices; car repair; cleaning; road transport; catering; construction; hotels and restaurants; leather and tanning; private security; woodworking; butchers; education; manufacture; mining of coal and metal ores and quarrying of non-metallic raw materials; wholesale and retail trade; agriculture; crop and animal production; forestry; human health activities; laundries; public administration; etc.

OiRA - Online interactive Risk Assessment



Relevant website links

- **About what's OiRA:** <https://oiraproject.eu/pt/what-oirra>
- **To use OiRA Tools:** <https://oiraproject.eu/pt/oirra-tools>

Information Video on OiRA

- **English Video on OiRA:** <https://www.youtube.com/watch?v=IU2DWWX1DzFY&index=2&list=PLeirXAiKXKFHoW2Xgm7jSles8mDyVgDyF>

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OiRA - Online interactive Risk Assessment



<https://oiraproject.eu/en/oir-a-tools?text=&sort=alphabetically>

The screenshot shows the OiRA website interface. At the top, there is a navigation bar with links: "What's new", "Risk assessment", "Micro and Small Enterprises", "OiRA & Tools", "Partners and OiRA Community", and "Promotional resources". Below this, the main content area is divided into two columns. The left column features a search bar and filters for "Country", "Language", and "Sector". The right column displays a list of risk assessment tools, with "Agriculture" selected. The "Agriculture" tool is described as dealing with risk factors like contact with animals, heavy agricultural equipment, and exposure to chemicals. It includes a date of "30/09/2016" and a "See more" link. At the bottom, there is a footer with the European Agency for Safety and Health at Work logo and a date of "01/05/2014".

Search

Country

Language

Sector

Showing 1 - 10 from 149

Order : Alphabetically

30/09/2016

Agriculture

This tool deals with agriculture which can be characterized by a huge amount of various risk factors - contact with animals, work with heavy agricultural equipment, exposure to various chemicals, seasonal work, prolonged working hours etc. It starts...

> See more

Access the tool

01/05/2014

Air transport

Bulgaria

Bulgarian

OiRA - Online interactive Risk Assessment



Initial Risk Assessment

Preparation

Identification + Evaluation

Action Plan

Report

Check your progress

Help

1 OSH management

2 Work environment (site related)

3 Work equipment

4 Window cleaning

5 Work execution & organisation

6 Fire prevention and emergency procedures

7 Added risks (by you)

6.1 The workers know what to do in case of an accident.

6.2 The workers know what to do in case of a fire alarm.

6.3 The workers know what to do in case of serious and imminent dangers.

Unanswered

Fire prevention and emergency procedures

Workers need to be prepared for responding to fire and emergency situations.

OiRA - Online interactive Risk Assessment



Initial Risk Assessment

Preparation

Identification + Evaluation

Action Plan

Report

Check your progress

Help

https://client.oiraproject.eu/eu/eu-cleaning/identification/5/1

Aplicações Google ILO PEOPLE Outlook Web App Save to Mendeley ACT - Autoridade p ACT - Autoridade p

Facebook MiX Knitcrap Millennium bcp CGD-Particulares UKRSIB online

robalo@ilo.org

1 OSH management

2 Work environment (site related)

3 Work equipment

4 Window cleaning

5 Work execution & organisation

5.1 Health risks related to manual handling are prevented.

5.2 Tasks and responsibilities are clear to the workers.

5.3 Measures are taken to reduce time pressure.

5.4 Workers have sufficient breaks.

5.5 Working time, including overtime provisions, is as stipulated by national legislation or collective labour agreement.

5.6 When organising work schedules, issues related to health and work life management are taken into consideration.

Health risks related to manual handling are prevented.

☐ Yes

☒ No

Health risks related to manual handling are not prevented.

Select the priority of this risk

☐ Low

☐ Medium

☒ High

ORA

 robalo@ilo.org ▾ ?

Case study - Inspection action

Labour inspection action focused on monitoring compliance with OSH regulations and labour relations (the labour relation part will not be addressed here):

1. Basic data:

- **Employer:** Company “XPTO” that produces wooden furniture
- **Number of workers:** 150 employees (130 of which at work on the day of the inspection visit)
- **Turnover:** €12,000,000.00
- **Reason for the inspection action:** complaint of a worker regarding the annual leave scheduling
- **Production process phases:** reception of the raw material, cutting, stapling, debugging, collage, machining/bordering, machining/drilling, painting of borders (of spray and high gloss), repairs, selection / Inspection, painting of surfaces (spray painting line and painting line by rolls), lashing and expedition
- **Industry main OSH risks:** cuts and amputations by mechanical contact with moving bodies of work equipment, deafness by noise exposure, respiratory and skin diseases by exposure to chemical agents, fire and explosion for explosive atmospheres and Risks of electrification and electrocution by direct or indirect contact with the electric current
- **Dates/time of the inspection visits:** 18/09/2009, 10:45-17:00 (OSH); 21/09/2009, 10:00-13:00 (labour relations); 16/07/2010 (follow-up visit)

Case study - Inspection action

2. Preparation of the inspection action:

- **Collection of data on the employer:** identification (fiscal and social security number, addresses, stock-holders, board members, sector of activity, establishments, turnover, number of workers, etc.), business practices, results of prior inspection visits and complaints, etc;
- **Conversation with the complainant worker;**
- **Internal sources:** employer physical file in labour inspection, data on the employer in the Inspection Activity Information System and colleagues labour inspectors that already visited or know the employer);
- **External sources:** internet (employer site, site of the Minister of Justice), social security database, and written local press;
- **Study of the main risks to which the workers are, or may, be exposed to in this industry;**
- **Definition of the objectives of the inspection action;**
- **Determination of the necessary means:** N.º of labour inspectors to involve (four), N.º of vehicles and other equipment to take to the inspection visit (PPEs, cells, laptops, etc.);
- **Development of the instruments to support the inspection activity (see annexes):** (1) Questionnaire to the employer; (2) Questionnaire for workers; (3) Survey of risks and prevention measures concerning the production process; (4) List of irregularities detected; (5) List of documents to request and analyze
- **Definition of the strategy for the inspection action and the role of each labour inspector**

Case study - Inspection action

3. Inspection visit on OSH (18/09/2009, 10:45-17:00)

- Briefing da equipa de inspeção (9:15-10:30) para:

- ✓ Introduce the target employer;
- ✓ Share the information so far collected on the employer;
- ✓ Introduce the instruments developed to support the inspection action and their use;
- ✓ Definition of the strategy to be adopted and priorities for inspection visit:
 - Priority for the visit to the workstations of all sections of the production sector and to identify the largest number possible of workers;
 - Logical path of the visit: identification, presentation and follow-up request to the person in charge of the employer; verification of compliance with the legislation applicable in sequence in all sections of the production area; wrap-up meeting between inspection team and the employer;
 - Assigning specific tasks to each inspector during the visit (who identifies the workers, who takes photographs, who supports more directly the leader of the inspection action, etc.).

Case study - Inspection action

3. Inspection visit on OSH (18/09/2009, 10:45-17:00)

• Development of inspection visit:

- ✓ **Presentation of the team and accompanying request to the responsible (director of production) – by considering it was advantageous and not put into question the objectives of the inspection visit;**
- ✓ **1st phase:**
 - It began on the first floor and included the show-room and proceeded to the adjacent offices and then to the cafeteria:
 - It was mainly checked:
 - Luminosity
 - Thermal environment
 - Cleaning and tidying
 - Area occupied by workers and work equipment
 - Cubing, ventilation and ceiling height
 - Pavements, traffic routes, fire-fighting equipment

Case study - Inspection action

✓2nd phase (more relevant and time consuming):

- Focused exclusively on industrial area.
- Was developed in a sequential logic, coincident with the productive cycle. Began in the reception of the raw material and passed by the departments of cutting, stapling, debugging, collage, machining/bordering, machining/drilling, painting of borders (of spray and high gloss), repairs, selection / Inspection, painting of surfaces (spray painting line and painting line by rolls) and lashing and was concluded with the inspection of the expedition.
- Focused on detailed understanding of the production process and, in particular:
 - Identification of hazards
 - Risk assessment
 - Verification of prevention and protection measures
 - “CE marking” or “Declaration of conformity” of work equipment
 - Reports of risk assessments
 - OSH services annual report
 - List of recommendations and proposals made by OSH services

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Case study - Inspection action

✓2nd phase (more relevant and time consuming):

■ Included:

- Demonstration of the operation of some work equipment: saw Waco n.º 34869.604 (cutting section); Homag n.º 0-202-13-5885 (machining-bordering section); e Brema and Biesse n.º 72615 (machining - drilling section);
- Detailed analysis of some processes and activities: stapling; depuration; cleaning spray pistols of work equipment Venjakob RS8 n.º 87-4-77 (spray painting line of surface paint); and addition of chemical agents in work equipment Elmag Superfici PF 3 (rollerpainting line of the surface painting section);
- Verification of: safety data sheets of chemicals used; work equipment instruction manuals in Portuguese; and reports of verifications and tests of equipment;
- Verification of: lightness, thermal environment, area occupied by workers and work equipment, cubing, ventilation, ceiling height, floors, cleaning, traffic routes, traffic and emergency exits and fire-fighting equipment;
- Control of compliance with legislation on: consultation, information and training of workers; health surveillance; participation and reporting of occupational accidents and diseases; and transfer to the insurers of civil liability for accidents at work.

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Case study - Inspection action

- **Main irregularities detected:**

1. No global or specific risk assessment

2. Identification of unsafe work processes and work equipment:

- Depuration;
- Cleaning of the spray paint pistols in surface paint section;
- Use of Bordering-Squaring machine Homag (Machining – Bordering section);
- Using the Multi-drilling Technologic Biesse (Machining – Drilling section);
- Addition of chemical agents in the paint roller line;
- Manual handling of wooden panels by operators of most of the factory's work equipment (with special emphasis on repair and selection / inspection sections)

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Case study - Inspection action

- **Main irregularities detected (cont.):**

3. Lack of internal structure of first aid, fire-fighting and evacuation of workers
4. Lack of collective protections against falls from a height at the loading docks
5. Lack of safety data sheets of some chemical agents
6. Insufficient and degraded horizontal (on the pavement) and vertical safety signalization of the circulation routes (of both mobile workers and work equipment)
7. Existence of a forklift without a safety belt and without visual safety marking
8. Irregular use of a ladder
9. Driving a forklift per unskilled worker
10. Non-use of PPE by workers, as recommended in various safety signs affixed to their work stations (gloves, mask, glasses, shoes, hearing protectors, etc.)

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Case study - Inspection action

4. Inspection procedures adopted:

- 3 Infraction Notices (registration of overtime; abusive marking of holidays outside the legal period; lack of risk assessment of exposure of workers to chemical agents; lack of assessment of the risk of exposure of workers to musculoskeletal disorders);
- 1 Notification to take OSH measures within the given period;
- 7 Warning Notices (changing the map on vacations; creation and maintenance in the establishment of up-to-date register of workers; registration of working hours available for immediate consultation; inclusion of all workers in the registration of working hours; conversion of fixed-term work contracts to contracts without term; revocation of exemption from working hours; and changing the operating period in the working hours map);
- 2 Notifications to present documents.

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Case study - Inspection action

In the surface painting section (on spray painting line) – which workstation uses the work equipment Venjakob RS8, intended for pistol painting (with serial number 87-4-77, de 1987) - , at 15:46, the inspection team verified the following:

- The equipment does not have "CE marking", as provided for in Decree-Law 320/2001, de 12/12;
- Their paint pistols were being cleaned in a bucket with diluent, on a carton pasted on the floor, without recourse to any retention basin and blocking the circulation route, exposing workers to the risks of: fall at the same level; contact with chemical agents and contact with mobile work equipment in circulation (cf. fotos)“Foto_2.21a.jpg”, “Foto_2.21b.jpg”, “Foto_2.21c.jpg” and “Foto_2.21d.jpg”).
- The risks of this workstation (associated with the use of this work equipment, well as to exposure to chemical agents, to noise and to musculoskeletal disorders’ risk factors) were not assessed.

Case study - Inspection action



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Case study – Risk assessment

In this context, it was included in the mentioned Notification to Take OSH Measures, the following entry, regarding the above situation:

N.º	CHECKED IRREGULARITIES	VIOLATED LEGAL PROVISIONS	PENALTY	PREVENTION AND PROTECTION MEASURES TO BE FULFILLED	MAXIMUM TERM (DAYS)
17	At 15:46, in the surface paint section (spray paint line), I checked the workstation of the equipment Venjakob RS8 (serial number 87-4-77, 1987) for spray painting), and verified the following: 1) The equipment does not hold "CE marking" , as foreseen in Decree-law 320/2001, of 12/12; 2) The respective paint guns were being cleaned in a pail with diluent on a cardboard coating glued to the floor without recourse to any holding basin and blocking the roadway. The workers were exposed to the risks of falling at the same level, contact with moving working equipments, contact with chemical agents and also exposed to noise and to risk factors of musculoskeletal disorders (see photos "Foto_2.21a.jpg" , "Foto_2.21b.jpg" , "Foto_2.21c.jpg" and "Foto_2.21d.jpg"); 3) The risks to which the workers of this workstation were exposed (associated with the use of this work equipment, as well as exposure to chemical agents, noise and musculoskeletal risk factors) were not assessed.	- N.ºs 1, 2 e 3 do art.º 4.º of Decree-law 290/2001, of 16/11; - Point 1 of n.º 4.º and point 1 of n.º 13.º of Order 987/93, of 6/10; - Conjugation of art.ºs 109.º, 112.º and 136.º of Order 53/71, of 3/2 (amended by Order 702/80, of 22/9), with n.º 1 of art.º 273.º of the Labour Code.	Very serious offense: N.º 1 of art.º 15.º of Decree-law 290/91, of 6/11; Very serious offense: N.º 1 of art.º 671.º of Labour Code; Serious offense: Conjugation of art.º 4.º of Decree-law 347/93, of 1/10, with n.º 2 of art.º 6.º of the same legal act (amended by Law 113/99, of 3/8).	1) Assess the risks associated with this workstation (pursuant art. 4 of Decree-law 290/2001, of 16/11, paragraph a) of art. 3 of Decree-law 50/2005, of 25/2, and paragraph 1 and al. b) of paragraph of n.º 2 of art. 273 of the Labour Code), in particular: (a) the risks associated with the use of Venjakob RS8 No. 87-4-77, as well as regarding the cleaning process of the respective pistols; (b) the risk of exposure to chemical agents; (c) the risk of exposure to noise; (d) the risk of falling at the same level; and (e) exposure to risk factors work-related musculoskeletal disorders 2) Implement the appropriate prevention and protection measures resulting from the abovementioned risk assessments, pursuant to Article 5 et seq. of Decree-law 290/2001, de 16/11, art.º 4.º et seq. of Decree-law 50/2005, of 25/2, point 1 of n.º 4.º and point 1 of n.º 13.º of Order 987/93, of 6/10, art.ºs 109.º, 112.º and 136.º of Order 53/71, of 3/2 (amended by Order 702/80, of 22/9) and, in a general way, in accordance with the al. b) of n.º 2 of art.º 273.º of the Labour Code. 3) Provide adequate information and training to workers who operate and clean the paint spray pistols of the work equipment Venjakob RS8 No. 87-4-77 (pursuant art.º 11.º of Decree-law 290/2001, of 16/11, art.º 8.º of Decree-law 50/2005, of 25/2, and paragraphs n) and o) of the n.º 2 of art.º 273.º of the Labour Code).	30 60 60

Case study – Risk assessment

To comply with the notification to take OSH measures, the employer conducted a risk assessment, with the following methodology:

$$\text{Risk Level (RL)} = \text{Probabilidade Level (PL)} \times \text{Consequences' Level (CL)}$$

Where:

$$\text{Probability Level (PL)} = \text{Preventive Measures' Disability Level (PMDL)} \times \text{Exposure Level (EL)}$$

Simplifying:

$$\text{RL} = \text{PMDL} \times \text{EL} \times \text{CL}$$

$$\text{PL} = \text{PMDL} \times \text{EL}$$

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Case study – Risk assessment

Risk Estimation – Probability level

Exposure Level (EL)			Preventive Measures' Disability Level (PMDL)		
Qualitative level	Characterization	Weight / points	Qualitative level	Characterization	Weight / points
Continuous (C)	Several times during the workday with extended time.	4	Very deficient (VD)	There are significant risk factors and the set of existing preventive measures is ineffective.	10
Frequent (F)	Several times during the working day, of short duration.	3	Deficient (D)	There are some risk factors that need to be minimized or eliminated and existing preventative measures are poorly effective.	6
Occasional (O)	Sometimes during the working day, short duration.	2	Moderate (M)	There are minor risk factors and the set of preventive measures shows some effectiveness.	2
Sporadic (S)	Irregular.	1			

Exposure Level (EL)				
	1	2	3	4
2	2	4	6	8
6	6	12	18	24
10	10	20	30	40

Probability Level (PL)			Probability Level (PL)		
Qualitative level	Characterization	Weight / points	Qualitative level	Characterization	Weight / points
Very high (VH)	Deficient prevention with continuous exposure or very deficient prevention with frequent exposure. The accidents occur with high frequency.	24-40	Very high (VH)	Deficient prevention with continuous exposure or very deficient prevention with frequent exposure. The accidents occur with high frequency.	24-40
High (H)	Deficient prevention with frequent or occasional exposure. The materialization of risk can occur several times during the work day.	8-20	High (H)	Deficient prevention with frequent or occasional exposure. The materialization of risk can occur several times during the work day.	8-20
Average (A)	Deficient prevention with sporadic exposure. It is possible that the situation generating damage occurs.	6-10	Average (A)	Deficient prevention with sporadic exposure. It is possible that the situation generating damage occurs.	6-10
Low (L)	Moderate prevention with occasional or sporadic exposure. A probability de ocorrência da atividade geradora de dano é relativamente baixa.	2-6	Low (L)	Moderate prevention with occasional or sporadic exposure. A probability de ocorrência da atividade geradora de dano é relativamente baixa.	2-6

Case study – Risk assessment

Risk Estimation – Consequences level

Consequences' Level (CL)				
Qualitative level	Characterization		Weight / points	
	Personal Injuries	Materials damage		
Catastrophic (C)	1 dead or more	Total system destruction	100	
Very serious (VS)	Serious injuries	Partial system destruction	60	
serious (S)	Injuries with temporary work incapacity	Requires process stop	25	
Light (L)	Small lesions without hospitalization	Repair without stopping	10	

Case study – Risk assessment

Risk Estimation – Probability level x Consequences level

Probability Level (PL)		Consequences' Level (CL)		
Qualitative level	Characterization	Weight / points	Qualitative level	Characterization
Very high (VH)	Deficient prevention with continuous exposure or very deficient prevention with frequent exposure. The accidents occur with high frequency.	24-40	Catastrophic (C)	1 dead or more Total system destruction
High (H)	Deficient prevention with frequent or occasional exposure. The materialization of risk can occur several times during the work day.	8-20	Very serious (VS)	Serious injuries Partial system destruction
Average (A)	Deficient prevention with sporadic exposure. It is possible that the situation generating damage occurs.	6-10	serious (S)	Injuries with temporary work incapacity Requires process stop
Low (L)	Moderate prevention with occasional or sporadic exposure. A probabilidade de ocorrência da atividade geradora de dano é relativamente baixa.	2-6	Light (L)	Small lesions without hospitalization Repair without stopping
				Weight / points
				100
				60
				25
				10

Probability Level (PL)		Consequences' Level (CL)			
		2-4	6-8	10-20	24-40
10	IV 20-40	III 60-80	III 100-200	II 240-400	
25	III 50-100	III 150-200	II 250-500	I 600-1000	
60	III 120-240	II 360-480	I 600-1200	I 1440-2400	
100	II 200-400	I 600-800	I 1000-2000	I 2400-4000	

Case study – Risk assessment

Risk Valuation

Intervention level	Risk level	Description
I - NO NEED	20-40	It is not necessary to intervene, unless another more demanding analysis justifies it.
II - ADVISABLE	50-240	Can and should be improved, through the adoption of control measures when possible.
III - IMPORTANT	200-500	Adopt control measures as soon as possible.
IV - URGENT	600-4000	Critical situation. Urgent adoption of control measures (preventive and protective).

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Case study – Risk control

Preventive and protective measures to implement

WORKSTATION	HAZARD	RISK	DAMAGE / EFFECT	RISK ANALYSIS					PROPOSED MEASURES
				PMDL	EL	PL	CL	RL	
				[1]	[2]	[3]=[1]x[2]	[4]	[5]=[3]x[4]	
Venjakob R58 and surface painting	Electrical equipment	Direct and indirect electrical contact	Electrization and electrocution	2	4	8	60	480	O9
	Handling of dangerous chemical agents	Skin contact	Chemical burning	2	4	8	60	480	O2; O3; O5; O6; O7; O10
	No retention basin	Inhalation of dust, gases or vapors of harmful substances	Asphyxiation	2	4	8	60	480	O2; O3; O5; O6; O7; O14
	Presence of noise	Leakage	Chemical contamination	6	4	24	25	600	E1; O2; O3; O4; O5; S2
	Manual Load Handling	Noise exposure	Deafness	2	4	8	60	480	O11
		Excessive physical exertion of lifting objects	Musculoskeletal disorders	2	4	8	60	480	O2; O9; O15; O16

Case study – Risk control

Preventive and protective measures to implement

PREVENTION / PROTECTION MEASURES	
CODE	DESCRIPTION
CONSTRUCTION / ENGINEERING MEASURES (EM)	
E1	Install retention basin for possible spills
E2	Mark obstacles with yellow and black bands interspersed and inclined
E3	Re-marking the circulation paths of mobile equipment
E4	Mark pedestrian traffic lanes
ORGANIZATIONAL MEASURES (OM)	
O1	Keep ladder with non-slip floor, steps and handrail in good condition
O2	Provide adequate information and training to workers of the section
O3	Provide adequate information and training to workers on the procedures to be followed for the removal of waste
O4	Adopt the measures defined in the products Safety Data Sheets (SDS) in case of spillage
O5	The SDS, in Portuguese, of the chemicals used must be affixed or available at the workstations concerned
O6	The labeling of the products must be in Portuguese
O7	Adopt the measures defined in the SDS for the products used in relation to the use of Personal Protective Equipment (PPE)
O8	Prevent access to moving parts of the working equipment
O9	Perform preventive maintenance of work equipment and maintain maintenance records
O10	Use the PPE indicated for each task (eg gloves against high temperatures, against mechanical agents, against chemical agents, protective mask, earphones, protective shoes)
O11	Implement the preventive and corrective measures defined in the noise risk assessment carried out at the company's premises
O12	Assess the risk of exposure to respirable and inhalable dust in the workplace
O13	Assess the quality of the workplace air - inhaled and breathable fraction dust
O14	Conduct air quality assessment in the workplace - chemical concentration
O15	Provide information and training to workers on work equipment and ergonomics
O16	Place lifting platform in the workplace
SIGNALING MEASURES (SM)	
S1	Install safety signalization for the ladder
S2	Install safety signalization for the holding basin, with signaling tape (yellow and black tape)
S3	Put danger sign of falling at the same level
S4	Install safety signs for the movement of mobile work equipment

Case study – OSH Risks Prevention Plan

OCCUPATIONAL RISK PREVENTION PLAN						
Employer:	"XPTO"	Establishment:		Date:		XX/XX/XXXX
Department / Section:		Workstation:				
Prevention plan responsible:		Responsible for the external service provider:				
Date and signature:		Date and signature:				
WORKSTATION	PREVENTION AND PROTECTION MEASURES	RESPONSIBLE	TERM	CONTROL	CONTROLLED BY	CONCLUSION DATE
Painting of borders	O2; O3; O5; O6; O7; O9; O10; O11; O14		Dec/2009			
Repairs, Choice-Inspection	O2; O9; O10; O13; O15; O16		Dec/2009			
Venjakob R58 and painting of surfaces	O2; O3; O4; O5; O6; O7; O9; O10; O11; O14; O15; O16		Dec/2009			
	E1		Dec/2009			
	S2		Dec/2009			
	O11; O15		Dec/2009			
Mobile work equipment	E3; E4		Dec/2009			
	S4		Dec/2009			



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«Enhancing the labour administration capacity to improve working conditions and tackle undeclared work»

Module 2

Key role of risk management in the OSH EU and International Labour Standards

Training for trainers

“OSH risk management (assessment and control) methodologies and labour inspectors’ gesture in specific sectors of activity”

Антоніу Сантуш / António Santos
Менеджер проекту / Project manager

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Content

1

Risk management (assessment and control) within the EU OSH legal framework and International Labour Standards

2

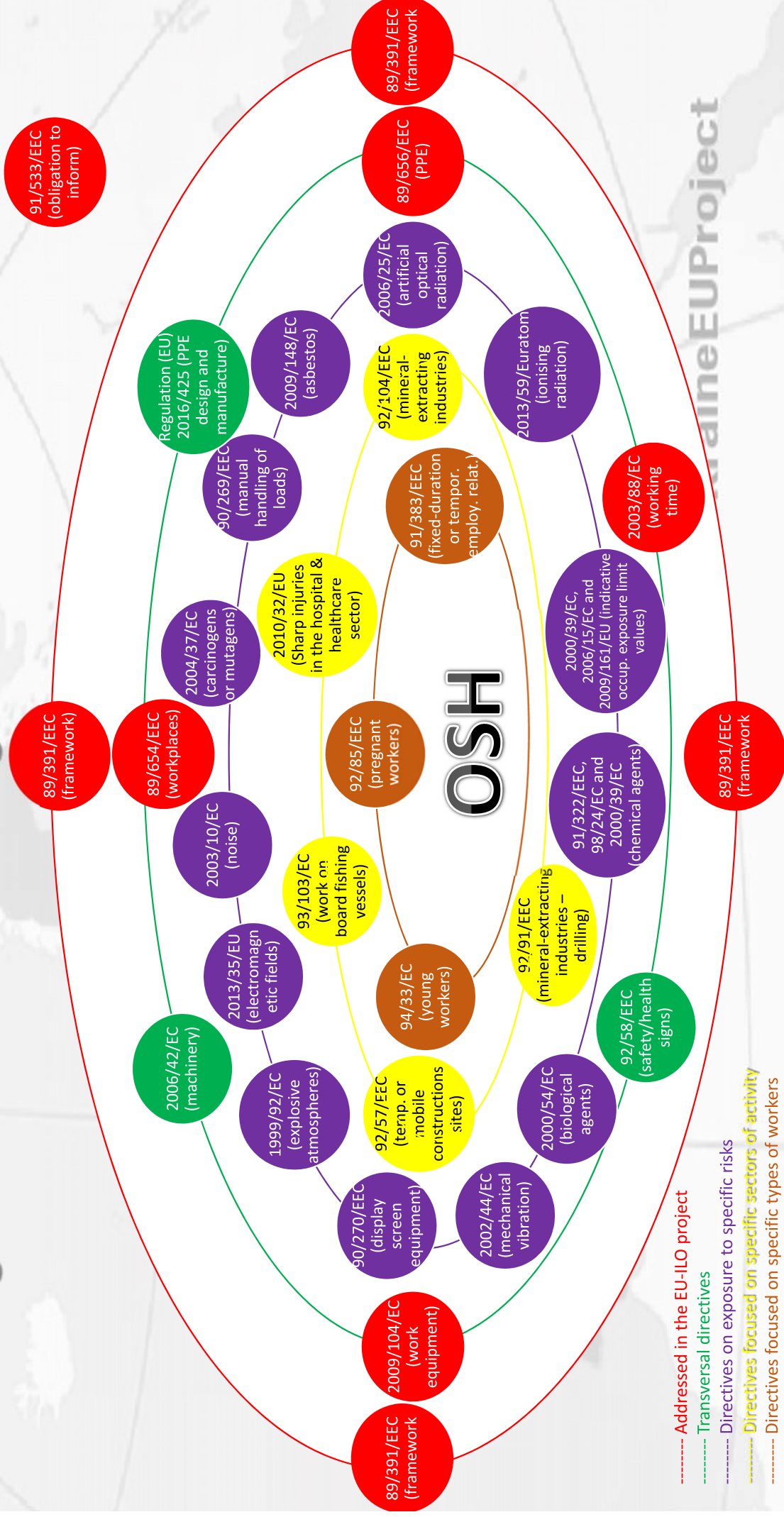
Obligations of employers and workers regarding risk management

3

Labour inspectors' role and gesture on risk management

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Risk management in the EU OSH Legal Framework



EU OSH Framework Directive 89/391/EEC

1. The employer shall implement the prevention measures (i.e., all the steps or measures taken or planned at all stages of work in the undertaking to prevent or reduce occupational risks) on the basis of, among others, the following two first sequential and hierarchical General Principles of Prevention (GPP):

- Avoid risks
- Evaluate the risks which cannot be avoided

2. Employer shall assess the risks to the safety and health of workers, *inter alia*, in:

- Choice of work equipment
- Choice of chemical substances or preparations used, and
- The fitting-out of the workplaces

3. Subsequent to this assessment and as necessary, the preventive measures and the working and production methods implemented by the employer must:

- Assure an improvement of the safety and health of workers
- Be integrated into all the activities of the undertaking and/or establishment and at all hierarchical levels

4. Employer shall:

- Be in possession of an assessment of the risks to safety and health at work
- Decide on the protective measures to be taken and, if necessary, the protective equipment to be used

Risk management in other EU OSH Directives (examples)

89/656/EEC (use of PPE)

- PPE must be appropriate for the risks involved
- The use of PPE shall be determined on the basis of: seriousness of the risk, frequency of exposure, characteristics of workstation and PPE performance
- Before choosing PPE employer has to analyze and assess risks that cannot be avoided by other means

90/269/EEC (manual handling of loads)

- Wherever the need for manual handling of loads by workers cannot be avoided, the employer shall: (1) organize workstations so as to make such handling as safe and healthy as possible; (2) Assess, in advance, the health and safety conditions of the type of work involved, and the characteristics of loads; (3) Take appropriate measures to avoid or reduce the risk (particularly of back injury to workers), considering the characteristics of the working environment and the requirements of the activity

Risk management in other EU OSH Directives (examples)

98/24/EC (chemical agents)

- Employer shall determine if any hazardous chemical agents is present at the workplace. If so, he shall assess any risk to safety and health of workers, taking into account the following:
 - Their hazardous properties
 - Information on safety and health to be provided by the supplier (e.g. safety data sheet)
 - Level, type and duration of exposure
 - Circumstances of work involving such agents, including their amount
 - Any occupational exposure limit values or biological limit values established on the territory of the Member State in question
 - The effect of preventive measures taken or to be taken
 - Where available, the conclusions to be drawn from any health surveillance already undertaken
- The employer must be in possession of an assessment of the risk (in accordance with Art. 9 of Directive 89/391/EEC), and shall identify which measures have been taken.
- The risk assessment shall be documented in a suitable form and kept up-to-date
- In the case of exposure to several hazardous chemical agents, the risk shall be assessed on the basis of all such chemical agents in combination.
- In the case of a new activity involving hazardous chemical agents, work shall only commence after an assessment of the risk has been made and any preventive measures implemented

Risk management in other EU OSH Directives (examples)

98/24/EC (chemical agents) – Cont.

- Employers, in order to eliminated or reduce to a minimum the risks to the health and safety of workers at work involving hazardous chemical agents, besides the necessary preventive measures set out in Directive 89/391/EEC shall also implement the following:
 - Design and organization of systems of work at the workplace
 - Provision of suitable equipment for work with chemical agents and maintenance procedures which ensure the health and safety of workers at work
 - Reducing to a minimum the number of workers exposed or likely to be exposed
 - Reducing to a minimum the duration and intensity of exposure
 - Appropriate hygiene measures
 - Reducing the quantity of chemical agents present at the workplace to the minimum required for the type of work concerned,
 - Suitable working procedures including arrangements for the safe handling, storage and transport within the workplace of hazardous chemical agents and their waste containing
 - Substitution shall by preference be undertaken. Where this is not possible, employer shall ensure risk reduction by applying protection and prevention measures consistent with the risk assessment, which shall include, in order of priority:
 - Design of appropriate work processes and engineering controls and use of adequate equipment and materials
 - Application of collective protection measures at the source of the risk
 - Where exposure cannot be prevented by other means, application of individual protection measures

Risk management in other EU OSH Directives (examples)

98/24/EC
(chemical
agents) –
Cont.

- Prevent the presence at the workplace of hazardous concentrations of inflammable substances or hazardous quantities of chemically unstable substances
- Avoid the presence of ignition sources which could give rise to fires and explosions, or adverse conditions which could cause chemically unstable substances or mixtures of substances to give rise to harmful physical effects
- Mitigate the detrimental effects to the health and safety of workers in the event of fire or explosion due to the ignition of inflammable substances, or harmful physical effects arising from chemically unstable substances or mixtures of substances
- Ensure that the work equipment and protective systems provided by the employer for the protection of workers shall comply with the relevant Community provisions on design, manufacture and supply with respect to health and safety and for the use in potentially explosive atmospheres.

Risk management within the International Labour Standards

ILO Conv. 155 (OSH & working environment)

- Employers shall be required to ensure that:
 - Workplaces, machinery, equipment and processes are safe and without risk to health.
 - Chemical, physical and biological substances and agents are without risk to health when the appropriate measures of protection are taken
 - Workers, where necessary, are provided with adequate protective clothing and protective equipment to prevent risks of accidents or of adverse effects on health

ILO Conv. 187 (Promotional Framework for OSH)

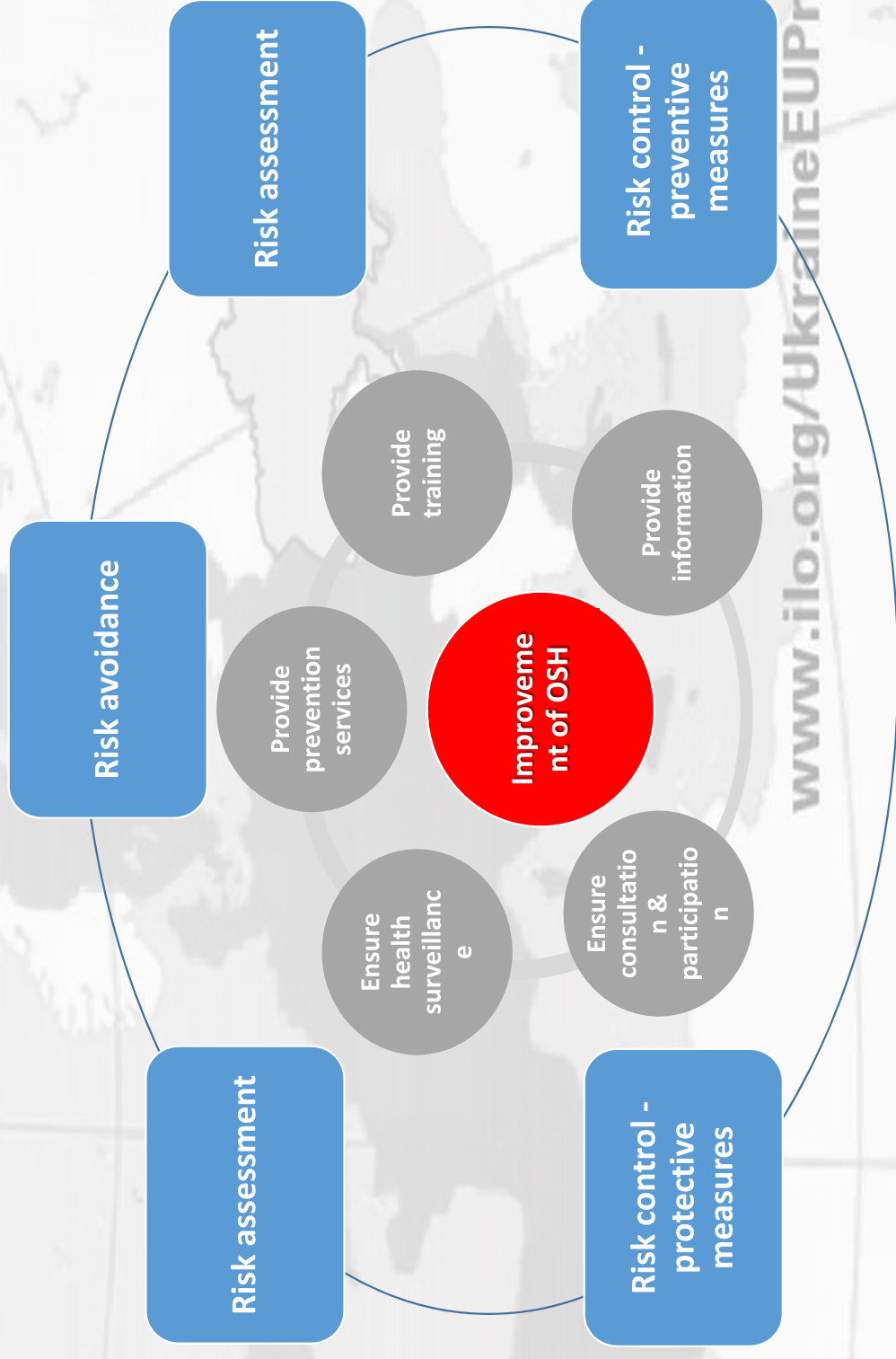
- Each Member shall promote a safe and healthy working environment by formulating a national policy, which shall promote basic principles such as assessing occupational risks or hazards; combating occupational risks or hazards at source; and developing a national preventative safety and health culture that includes information, consultation and training.
- Each Member shall formulate, implement, monitor, evaluate and periodically review a national programme on OSH, which contribute to the protection of workers by eliminating or minimizing work-related hazards and risks, in order to prevent occupational injuries, diseases and deaths and promote safety and health in the workplace

Risk management within the International Labour Standards

ILO Conv. 161 (Occupational Health Services)

- Occupational health services shall have, among others, the following functions:
 - Identification and assessment of the risks from health hazards in the workplace
 - Surveillance of the factors in the working environment and working practices which may affect workers' health
 - 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)
 - Participation in the development of programmes for the improvement of working practices as well as testing and evaluation of health aspects of new equipment
 - Advice on occupational health, safety and hygiene and on ergonomics and individual and collective protective equipment
 - Surveillance of workers' health in relation to work
 - Participation in analysis of occupational accidents and occupational diseases

Employers' obligations on risk management



Employers' obligations on risk management

Employers'
obligations

To take (and continuously adjust to
changing circumstances) the
preventive and protective measures to
ensure workers' OSH, with strictly
compliance with the GPP

Avoid risks

**Evaluate the risks which cannot be
avoided**

Combat risks at source

Adapt the work to the individual

Adapt to technical progress

Replace the dangerous by non or less
dangerous

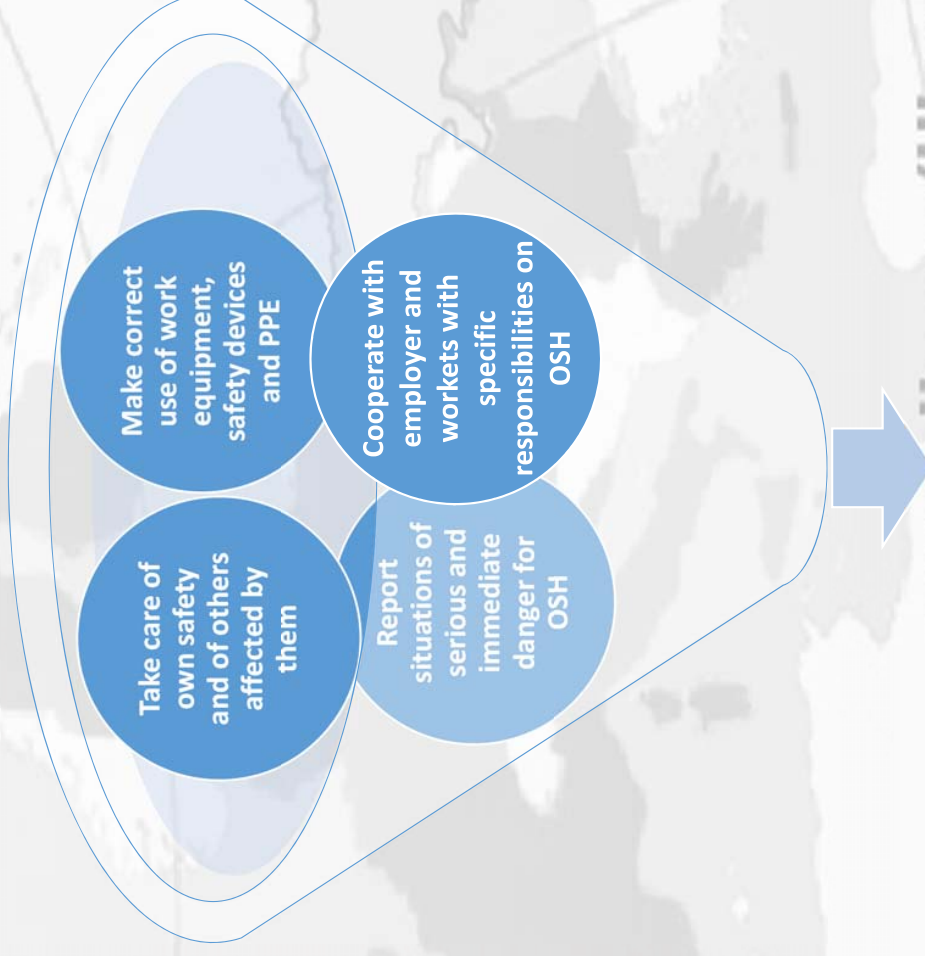
**Develop a coherent overall
prevention policy**

Give collective protective measures
priority over individual

Give appropriate instructions to the
workers

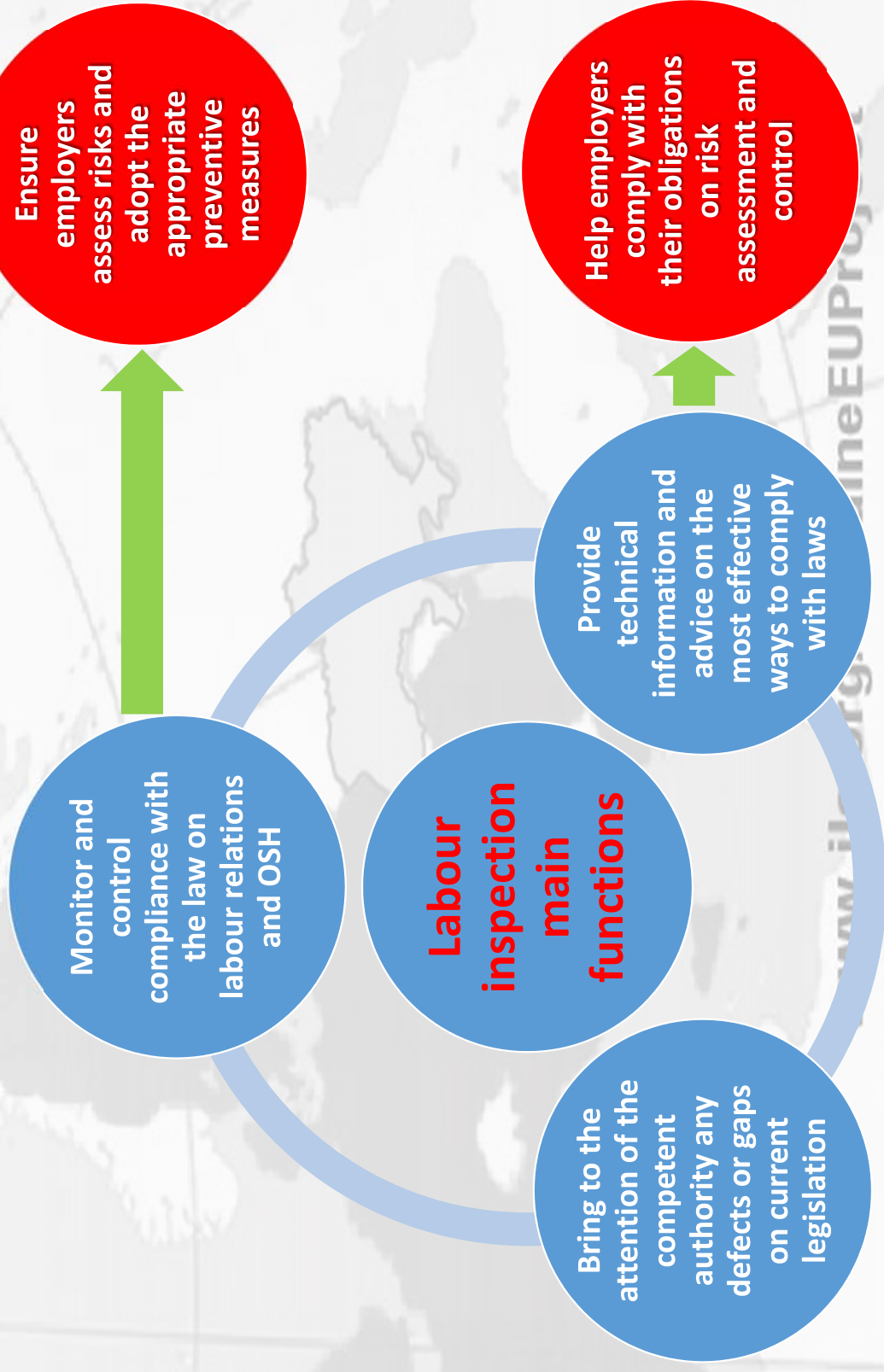
www.osha.europa.eu

Workers' obligations on risk management



www.ilo.org/UkraineEUProject
Risk Management

Labour inspectors' role on risk management – LI mandate



ILO Conventions 81 and 129

Labour inspectors' role and gesture on risk management

Labour inspectors are supposed to:

- Analyze the OSH conditions at workplaces (in particular regarding the hazards, the risks to which workers are exposed and the adequacy of control measures implemented by the employer to eliminate or reduce them)
- Review the employers' risk assessment reports and occupational risk prevention plans and programmes analysing their appropriateness and, if necessary, to determine the employer to introduce the necessary modifications or to update them
- Enforce legal provisions regarding the obligation of employers to assess risks and to implement the consequent appropriate preventive and protective measures
- Determine to employer to take (immediately, on in a given period of time) the control measures (preventive and/or protective) necessary to ensure workers health and safety
- Suspend immediately the work in progress, in case of serious and imminent danger to life, safety or health of workers
- Assist employers in the fulfilment of their obligations, providing technical advices and information

Labour inspectors' role and gesture on risk management

Labour inspectors are not supposed to:

- Substitute the employers in their obligations to assess the risks to which their workers are or may be exposed to
- To implement the preventive and protective measures that the employer, himself, is obliged to implement

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EU-ILO Project

«Enhancing the labour administration capacity to improve working conditions and tackle undeclared work»

Module 3

Occupational Safety and Health Management Systems (OSHMS)

Training for trainers

“OSH risk management (assessment and control) methodologies and labour inspectors’ gesture in specific sectors of activity”

Антоніу Сантуш / António Santos
Менеджер проекту / Project manager

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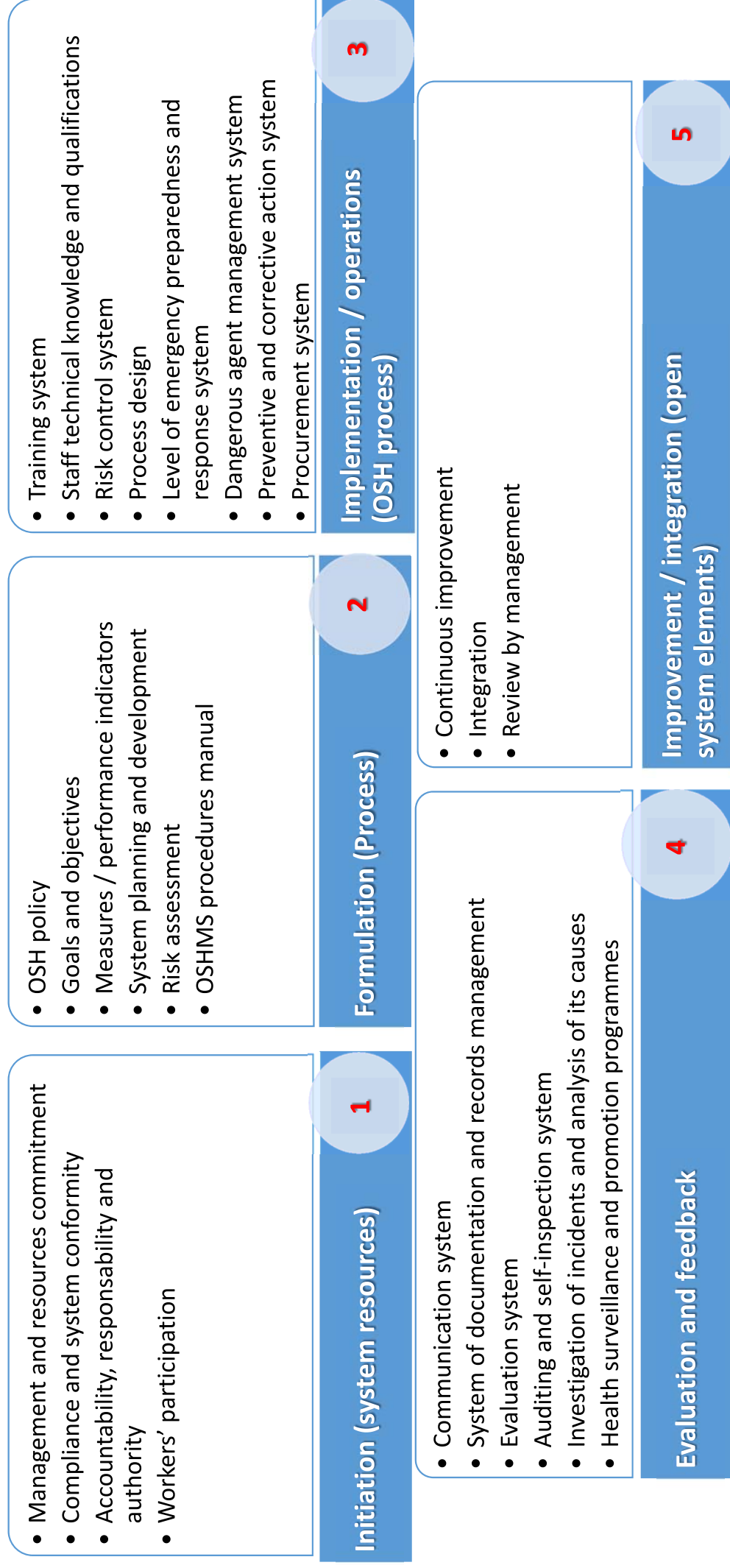
OSHMS concept and nature

A set of interrelated or interacting elements to establish OSH policy and objectives, and to achieve those objectives (ILO, 2001)

A mixture of elements such as planning, review, consultative activities, management organizational arrangements and specific program components that interact in an integrated manner so as to improve OSH performance (Gallagher, 2000)

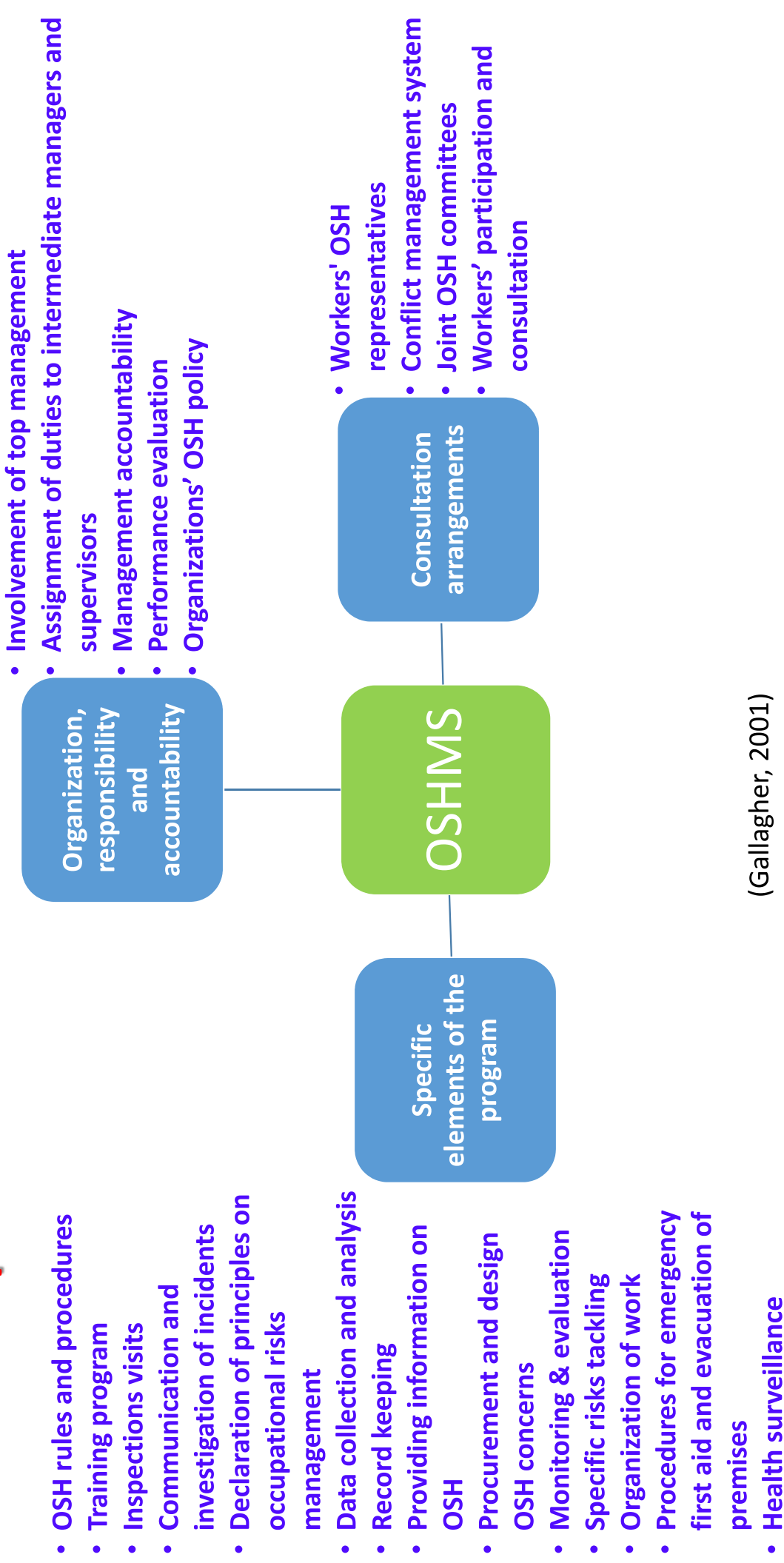
OSHMS can also be seen as an integrated set of organizational elements (e.g. health and safety policies, objectives and goals, decision-making structures and respective practices, technical resources, accountability structures and respective practices, risk assessment practices, training practices, occupational risks control, quality assessment practices, evaluation practices and organizational learning practices) involved in the continuous cycle of planning, implementation, evaluation and continuous improvement, aimed at reducing occupational risks in the workplace (Robson et al., 2005, 2007)

OSHMS components

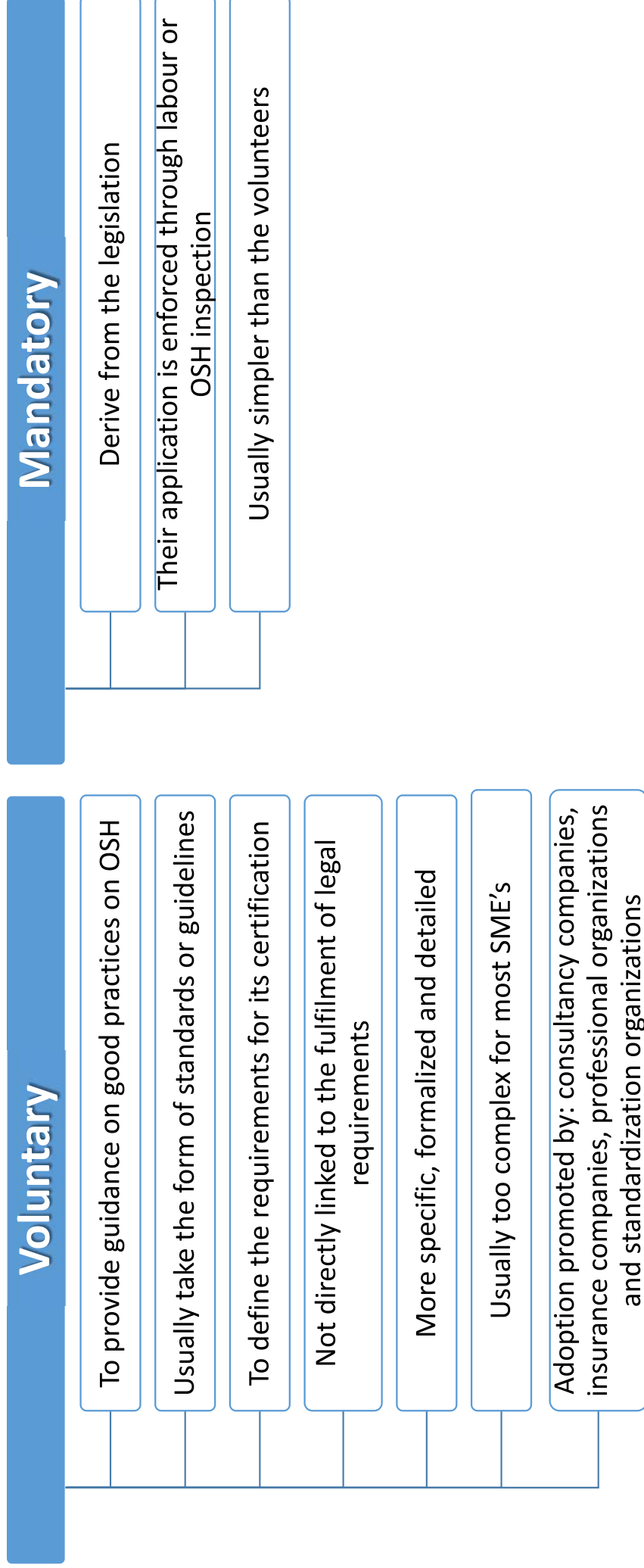


(Redinger & Levine, 1998)

OSHMS components



OSHMS types: voluntary and mandatory

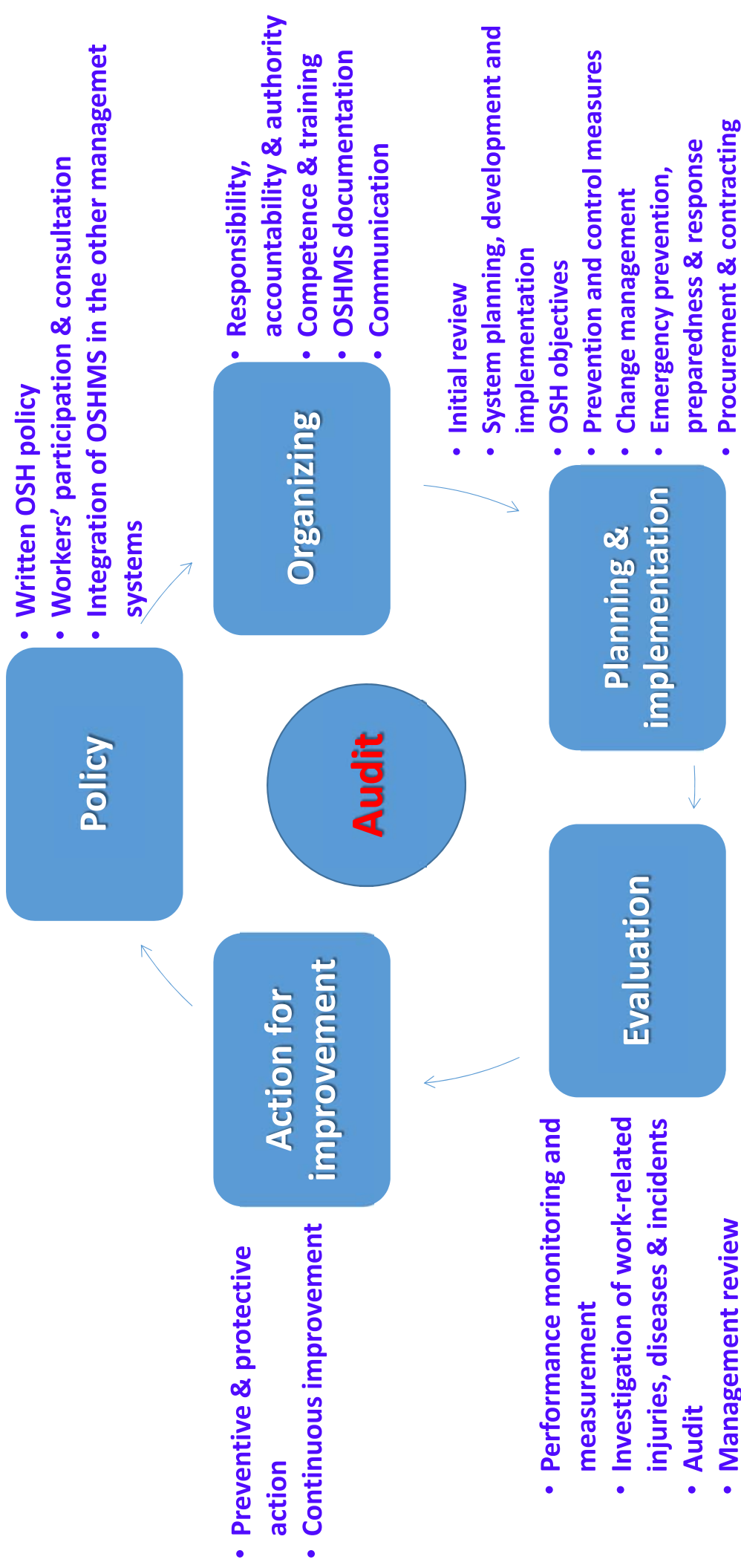


Examples of voluntary and mandatory OSHMS

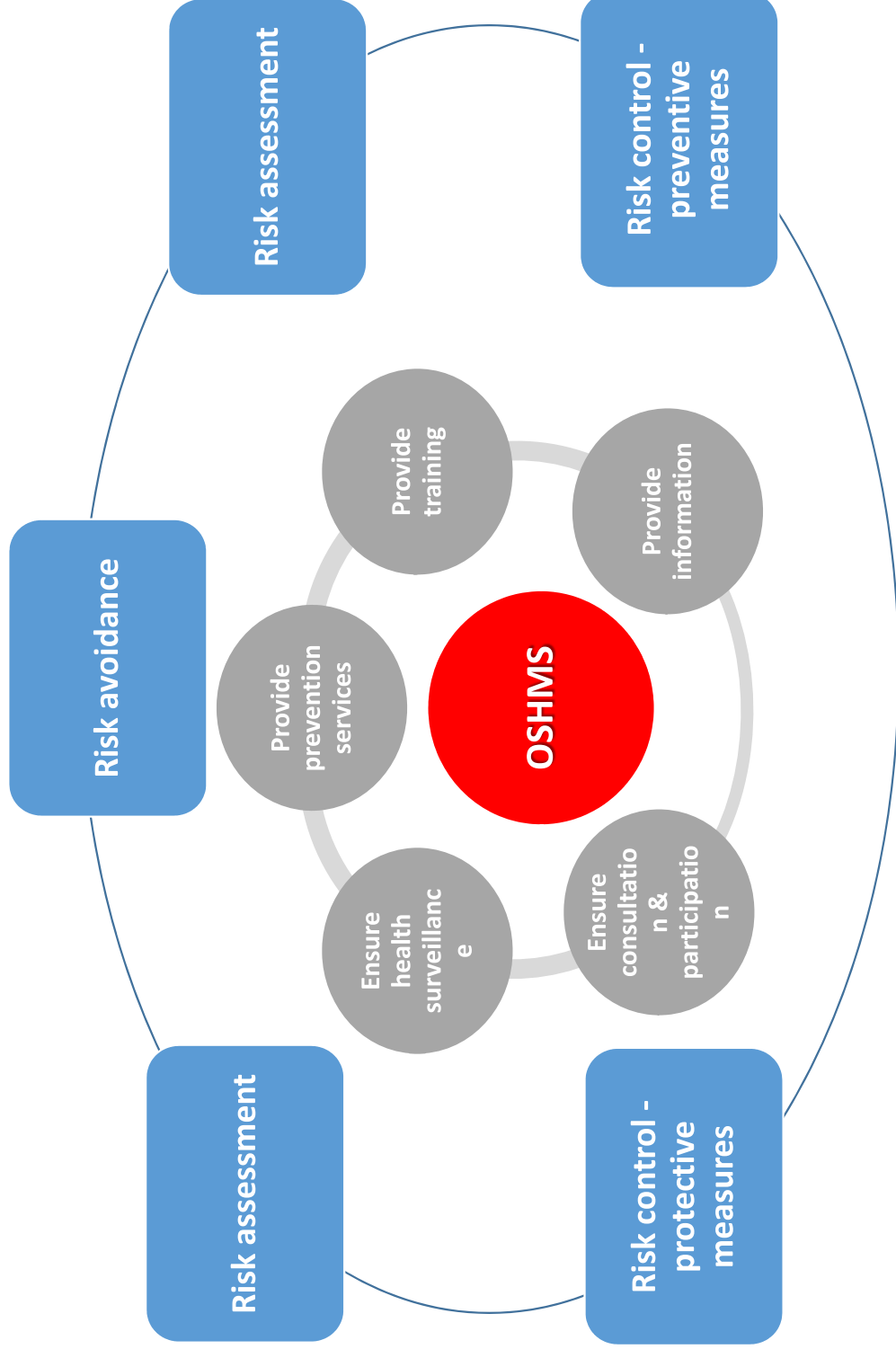
Voluntary	
	ILO-OSH 2001 OSHMS guidelines
	BS 8800:2004 and BS OHSAS 18001:2007 of the British Standards Institution
	U.S. Department of Labor Occupational Safety and Health Administration's Voluntary Protection Program (VPP)
	ANSI Z10:2005 OHSMS standard
	Portuguese NP 4397:2008 standard on OSHMS requirements
	Victorian <i>WorkCover</i> Authority <i>SafetyMap</i>
	ACC <i>Responsible Care</i> management system;
	DT-78 OSHMS (French Chemical Industries Union)
	MASE (<i>Manuel d'Amélioration de la Sécurité de l'Entreprise</i>) - French petrochemical industry grouping

Mandatory	
	EU OSH framework Directive (89/391/EEC) OSHMS
	SGS (<i>Système de Gestion de la Sécurité</i>) – OSHMS applicable to French “Seveso” companies

ILO – OSH 2001 Voluntary OSHMS guidelines



EU OSH Framework Directive mandatory OSHMS



OiRA: Online interactive Risk Assessment

What is OiRA?

OiRA is a web-based platform where companies can find free online interactive tools to help them manage safety and health risks in the workplace. The tools are tailored to a range of sectors and EU countries, and they enable companies to take crucial steps to prevent work-related accidents and ill health.

Safety and health risks at work exist - easy and free solutions to assess and prevent them too!

OiRA tools are available in several languages and cover a wide range of sectors, including hairdressing, office work, residential care and transport — and new tools are being added all the time. Users are guided step by step through the process of risk assessment tailored to their specific situation, and the tool generates an action plan offering solutions to the issues identified.

Why use OiRA?

The tools can help ensure that workers' safety and health is looked after and that businesses avoid the costs of work-related illness and accidents. Of course, employers have a legal obligation to protect their workers and undertake risk assessments, and doing so also protects their companies. Good workplace safety and health is good for business.

Who is OiRA for?

Anyone who wants to gain a better understanding of how to manage safety and health risks in their workplace can use OiRA. However, it's likely to be particularly useful for micro and small enterprises (MSEs). Owners and managers of MSEs often believe that they don't face such risks or don't have the resources or expertise to carry out risk assessments, but OiRA makes assessing risks easy for even the smallest companies. Active involvement of workers in the process is key for a proper risk assessment.

A hands-on support for micro and small companies to manage workplace risks - developed by the EU, built by Member States, used by all.

How does OiRA work?

Simply go to oiraproject.eu and select 'OiRA Tools', where you can search for tools by country, language or sector. You can run a test session to see how it works, and then register to start creating a risk assessment. You can save an assessment and return to it later, which means you can complete it step by step whenever it suits you.



www.oiraproject.eu