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Ex-post evaluation of the European Union occupatinal safety and health Directives (REFIT evaluation)

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Safer and Healthier Work for All - Modernisation of the EU Occupational Safety and Health Legislation and Policy

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Ex-post evaluation of the EU occupational safety and health Directives

(REFIT evaluation)

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EXECUTIVE SUMMARY

Occupational safety and health (OSH) forms an integral part of the European labour market. It is an important element of the European social protection structure. In the context of European integration and realisation of the internal market, a common framework was established through Directive 89/391/EEC (Framework Directive) aiming at securing a minimum level of protection from work-related health and safety risks for the workers of all Member States. This framework built on the existing systems at the time and laid down important common principles of prevention, risk assessment, information, training etc. It established minimum protection levels while allowing Member States to go further if so desired. Building on these common principles, 23 further Directives have been adopted dealing with specific risks and situations. Together this set of rules constitutes the OSH framework.

The Commission is required to regularly evaluate the implementation of the OSH framework. This evaluation report draws from a number of elements, including an independent study, National Implementation Reports (NIRs) from all Member States and numerous consultation mechanisms involving independent experts, inspectors and representatives from industry, workers and Member States. The value of occupational safety and health interventions has to be considered in the light of which interventions at which level are most useful. This exercise also forms part of the Commission's Regulatory Fitness (REFIT) Programme with a special focus on SMEs. The REFIT Programme focuses on efficiency, effectiveness and legislative simplification including avoiding unnecessary regulatory burden.

In overall terms, the evaluation suggests that EU OSH legal framework remains relevant. Ideally, in order to evaluate the full impact of the framework, an assessment would have had to be made at the time of the changes in national law and practice required by the adoption of the directives along with EU-wide monitoring arrangements to check on progress, possibly with additional counter-factual analysis to ascertain what would have been the development across the Member States in its absence. This was not possible due to the lack of a robust 'comparison' group, the lack of prospective data design for the evaluation at the time of the adoption of the Directives as well as the difficulties in differentiating between the impact of the EU legislation and the national legislation as well as other factors (non-OSH legislation, technological progress, structural changes in the labour markets, socio-economic developments etc.).

Looking at the specific directives, the current levels of exposure to the different hazardous agents and the continued existence of previously identified risks still justify their need overall. The EU OSH framework in the EU has been transposed and implemented. The compliance is

better in large establishments compared to SMEs and micro-establishments, and varies depending on the type of requirement considered.

On effectiveness, the statistical evidence shows that the incidence and the number of accidents at work have considerably decreased over the evaluation period[1]. The decrease is likely to have been influenced by other external factors and the contribution of the OSH framework to this decrease could not be quantified. However, the different stakeholders consulted expressed their views that the OSH Directives are achieving their aims and do contribute to improving the health and safety of workers. Indeed, the external study found that a majority of stakeholders believe the Directives are effective and the analysis of NIRs also suggests this is the case.

Despite the 9.8% reduction in the percentage of workers with (a) health problem(s) caused or made worse by work over the evaluation period[2], work-related ill-health in the EU still remains high[3], with almost 8% of workers suffering from work-related ill-health. In particular, and despite the EU OSH directive on carcinogens and mutagens, work-related cancer remains the first cause of work-related deaths[4]. There were calls from a host of stakeholders, including workers, Member States and some employers for an update of protection in this area also citing the need to catch up with international developments.

Assessment of efficiency is hampered by lack of systematic European monitoring data, and this data challenge needs to be taken into account in any future work and monitoring arrangements[5].

As to the benefits of reduced levels of work related accidents and ill-health, literature studies suggest that there is indeed a business case for occupational health and safety interventions. Further data from the International Social Security Association assessed the return on prevention index for investments in occupational health and safety to be 2.2[6]. A study contracted by the Commission, assesses that the profitability index for OSH interventions was ranging between 1.29 and 2.89, with a benefit to costs ratio from 1.21 to 2.18[7]. However, the evaluation could not quantify the benefits generated by the EU OSH framework distinct from Member State legislation already in place or with more extensive coverage or providing a higher level of protection.

[1] Based on Eurostat, ESAW, as well as national accident at work data collected by the Member States.
[2] Based on Eurostat, EU LFS ad hoc modules on accidents at work and work-related health problems 2007 and 2013.
[3] Indeed, 7.9% of persons who work or have worked before declare suffering from one or more work-related health problems caused or made worse by work, EU-27. Eurostat, 2013 EU-LFS ad hoc module on accidents at work and work-related health problems (online data code hsw_pb1). Data including HR. Data for NL not available.
[4] *Global Estimates of the Burden of Injury and Illness at Work in 2012*, Journal of Occupational and Environmental Hygiene. 2014 May; 11(5): 326–337.
[5] The Better Regulation Package adopted in May 2015 focuses, *inter alia*, on better monitoring.
[6] Calculating the international return on prevention for companies: costs and benefits of investments in occupational safety and health, International Social Security Association; 2013.
[7] Socio-economic costs of accidents at work and work-related ill-health, European Commission, November 2011.

As to the costs of the EU OSH framework, the evaluation confirmed that on the basis of the available information, administrative and substantive compliance costs vary considerably across Member States and are presumed to be higher per employee in SMEs. Fostering further use of support tools and developing better guidance to enterprises, especially SMEs (in particular as regards the obligation to document the risk assessment) were identified as a possible solution to make complying with the existing legislation simpler (and less costly) for enterprises.

The evaluation also pointed to a number of issues related to the structure and scope of EU OSH framework.

The Framework Directive covers all workplaces and all risks and as such remains relevant. However, it is not always clear what role some of the provisions of the Framework Directive play where no more specific implementing provisions have been developed, particularly in the context of constantly changing organisational setting, technological developments and scientific advances. Consequently, there is a need to consider how to ensure clear, better understood and more effective outcomes from the application of the Framework Directive.

For example, there is a growing incidence of psychosocial risks and musculo-skeletal disorders (MSDs) in the workplace. While the scope of the EU framework covers these risks, the evaluation shows that considerable uncertainty remains over measures that may be appropriate to apply at the workplace or more broadly in society. It is also noted that MSDs and psychosocial risks are related to a complex interaction between occupational and non-occupational factors and therefore particularly challenging. Further analysis would be required to establish what type of action at what level, is needed and appropriate to improve the situation on the work floor.

The overall approach and structure of the OSH acquis was considered by stakeholders to be relevant for OSH management. There are no major inconsistencies between legal provisions and stakeholders raised concerns that any changes to the overall legal structure might have unintended consequences and potentially lead to higher burden for business and lower protection of workers. At the same time, in order to improve efficiency and effectiveness of the acquis the co-existence and complementarity of the Framework Directive and the individual directives could be better explained and clarified.

The six Common Processes and Mechanisms (CPMs) built into the OSH framework are central to its operation and designed to contribute to achieving overall health and safety objectives. The evaluation found that compliance with CPM's is reasonable but that the quality and the implementation of risk assessments and the management of risks should be further enhanced.

Regarding the personal scope, the evaluation of the OSH acquis pointed out that for most of the OSH Directives, some Member States implement more detailed or stringent requirements, with the result that the level of protection differs for some categories of workers such as domestic servants, self-employed persons and certain categories of vulnerable workers.

In terms of enforcement on the ground, the evaluation finds that there is a considerable degree of variation in the number and frequency of inspections across the Member States. Legal requirements combined with inspection are seen to be key determinants in explaining why establishments develop OSH policies and take OSH action, so there is a need to further examine the existing role and impact of Member State use of inspections and broader enforcement actions to target any appropriate future actions, either by the Member States or the EU, with respect to the role of inspection, competence building and guidance to inspectorates.

Finally, it is clear that there is limited data at EU level to assessing the effects, costs and benefits of the EU OSH framework showing the need for a better monitoring framework with appropriate indicators to measure performance. At the same time there is a common understanding that further reporting requirements can cause administrative burden on companies and administrations. A number of new methodologies, studies and tools are being developed to address this by the Commission and the European Agency for Safety and Health at Work (EU-OSHA).

1. INTRODUCTION

1.1. Purpose of the evaluation

In the area of occupational safety and health ('OSH'), the Commission is required, every five years, to produce a single report based on a comprehensive evaluation of the practical implementation of the OSH framework, comprising Directive 89/391/EEC[8] hereafter "the Framework Directive", which is the main piece of legislation in this area, and of 23 related Directives[9]. This comprehensive reporting obligation was introduced by an amendment in 2007 of the Framework Directive[10] simplifying considerably the previous system of individual reports per Directive.

The evaluation draws on national reports from Member States on the practical implementation of the framework and covers specific consultations of social partners (trade unions and employers' organisations), including organisations representing SMEs. The aim is to take stock of the various aspects of the practical implementation of the Directives[11] and inform the other EU institutions and bodies of the results and any suggestions on how to improve the operation of the regulatory framework. The first report formally covers the period 2007 to 2012 but conclusions can in many cases be drawn to date.

[8] Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work (OJ L 183, 29.6.1989, p. 1).
[9] Article 17a (1) of the Framework Directive; Article 22 of Directive 2009/148/EC; Article 10a of Directive 91/383/EEC; Article 9a of Directive 92/29/EEC and Article 17a of Directive 94/33/EC.
[10] Directive 2007/30/EC (OJ L 165, 27.6.2007, p. 21).
[11] Directive 2007/30/EC, recital 4.

In 2012, the Commission launched the Regulatory Fitness and Performance Programme ('REFIT')[12] which aims at the identification of burdens, inconsistencies, gaps and ineffective measures and the adoption of initiatives which result in significant regulatory cost reduction or simplification. This is in line with its "evaluate first" policy, whereby, in principle, the Commission will not examine proposals in areas of existing legislation until the regulatory mapping and appropriate subsequent evaluation work has been conducted[13].

The Commission included the OSH ex-post evaluation in the REFIT Programme[14] which focuses on efficiency, effectiveness and legislative simplification including avoiding unnecessary regulatory burden. However, due to its broader scope and specific regulatory regime under the Framework Directive, the OSH evaluation covers a broader range of issues and aims at a wider evaluation of the legislation, including on relevance, research and new scientific knowledge. It has a special focus on SMEs.

1.2. Scope of the evaluation

The ex-post evaluation covers the implementation of the OSH framework in 27 Member States[15]. The 24 Directives listed in Annex 5 are considered by this report while the following Directives are not included:

The Sharp Injuries Directive 2010/32/EU[16] is not covered by the evaluation as it does not contain the above-mentioned obligation to evaluate its implementation as laid down in the Framework Directive 89/391/EEC and related Directives;

The Electromagnetic Fields Directive 2013/35/EU ('EMF')[17], which entered into force and repealed Directive 2004/40/EC from 29 June 2013[18]. The latter Directive was part of the comprehensive OSH ex-post evaluation system, but the Commission, prior to the expiry of its (prolonged) transposition period, decided to thoroughly reconsider some of its provisions on the basis of new scientific information produced by internationally recognised experts. Subsequently, the new EMF Directive was adopted, after the period covered by the evaluation.

[12] COM(2012) 746 final of 12.12.2012, EU Regulatory Fitness, introducing the REFIT programme.
[13] COM (2012) 746, p. 4.
[14] See also COM(2013) 685 final of 2.10.2013: Regulatory Fitness and Performance (REFIT): Results and Next Steps, and the REFIT scoreboards published regularly.
[15] Croatia was not yet a Member State during the period of the current evaluation.
[16] Council Directive 2010/32/EU of 10 May 2010 implementing the Framework Agreement on prevention from sharp injuries in the hospital and healthcare sector concluded by HOSPEEM and EPSU (Text with EEA relevance) (OJ L 134, 1.6.2010, p. 66).
[17] Directive 2013/35/EU of the European Parliament and of the Council of 26 June 2013 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (20th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) and repealing Directive 2004/40/EC (OJ L 179, 29.6.2013, p. 1).
[18] The deadline for the transposition is 1st July 2016.

2. BACKGROUND TO EU OSH FRAMEWORK

This section presents a description of the EU OSH framework, its objectives and the problems it was intended to solve.

2.1. Baseline

Occupational safety and health is one of the EU's longest standing priorities in the social field. Due to a lack of an explicit legislative competence in this area in the Treaty until the mid-1980s, occupational safety and health was seen as an accessory to market harmonisation and the economic policies of the European Economic Community (EEC). The first Directives were adopted on the basis of the general market harmonisation provisions of the EEC Treaty, such as Directive 77/576/ EEC[19] on the harmonisation of national laws on safety signs in the workplace and Directive 78/610/ EEC[20] on the harmonisation of occupational exposure limits to vinyl chloride monomers. As a result, the EU action in the field of health and safety at work was fragmentary and limited to accompanying the needs of market harmonisation.

Since the entry into force of the Lisbon Treaty, the legal basis for OSH policy is Article 153 of the TFEU, stating that the EU is to support and complement the activities of the Member States as regards the "improvement in particular of the working environment to protect workers' health and safety". In this respect, actions for the improvement of OSH can be adopted through legislative (Directives) and non-legislative initiatives. The legislative framework rests on a double foundation: minimum requirements provide on the one hand a level playing field for businesses operating within the single market and on the other hand ensure a high degree of protection to workers. In addition, Member States are free to adopt more stringent protective measures when transposing EU directives into national law.

OSH instruments at international/global level

The ILO adopts international labour standards in the form of conventions and recommendations, including in the field of OSH. A large part of the Framework Directive has to a considerable degree been influenced by prior work that took place within the ILO. This includes a wide range of issues such as risk assessment, control and supervision by the authorities (labour inspection), the obligation to prepare a list of occupational accidents, protective and preventive services, health surveillance, rules on specific risks including cancer, asbestos and chemicals, and on specific sectors, such as construction, mining and agriculture.

The EU OSH legislation adopted in this area is more detailed and covers more aspects than the ILO Conventions; it applies throughout the EU, while ILO conventions can only be ratified by individual States and therefore the levels of ratification vary per convention.

[19] Council Directive 77/576/EEC of 25 July 1977 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the provision of safety signs at places of work (OJ L 229, 7.9.1977, p. 12).

[20] Council Directive 78/610/EEC of 29 June 1978 on the approximation of the laws, regulations and administrative provisions of the Member States on the protection of the health of workers exposed to vinyl chloride monomer (OJ L 197, 22.7.1978, p. 12).

Some subject matters of the conventions fall under the exclusive competence of the EU and therefore Member States should be authorised – by Council decision - before ratifying such ILO rules, whether or not the exclusive competence of the EU covers the whole convention, or only elements of the convention.

2.2. Key pillars of the EU OSH Framework

Prevention is the guiding principle of the EU OSH Framework. On this basis, the Framework Directive aims at "introducing measures to encourage improvements in the safety and health of workers at work" and contains general principles and common rules concerning the assessment and prevention of occupational risks, the protection of safety and health according to a hierarchy of prevention measures, the elimination of risk and accident factors, the principle of the responsibility of the employer, rights/duties of workers, including the informing, consultation, balanced participation and training of workers and their representatives, health surveillance as well as general guidelines for the implementation of the said principles. The Directive applies to both public and private sectors. It provides that "individual" Directives shall be adopted, *inter alia* in the areas listed in its Annex (e.g. work places, work equipment, personal protective equipment).

Employer risk assessment is a key element in the prevention and protection system of the Framework Directive, since it obliges employers to effectively take the measures necessary for the safety and health protection of workers, including risk prevention and the provision of information and training of workers. This goal-orientated approach means that instead of merely complying with prescriptions and limit values, employers have the responsibility to decide on improvement measures that best meet the identified risk profile of their company. The Framework Directive can thus be considered an important innovation at the time for workplace prevention measures and culture.

Most of the individual Directives were adopted in the five years following the adoption of the Framework Directive. The legislation has thus been in place for a considerable amount of time.

The individual OSH Directives develop the general principles and instruments/common rules of the Framework Directive with regards to specific hazards at work (e.g. exposure to dangerous substances, or physical agents), to specific activities (e.g. manual handling of loads, working with visual display units), to sectors with higher risks (e.g. construction sites, extractive industries, fishing vessels) and to vulnerable workers, such as pregnant women and breastfeeding mothers. The individual Directives define in more detail how risks are to be assessed, and the setting and measuring of limit values at the workplace.

The general provisions of the Framework Directive apply in full to all the areas covered by each individual Directive, without prejudice to more stringent and/or specific provisions contained in the individual Directives (lex specialis).

The provisions of the Framework Directive and its related Directives are to a large extent goal or process-oriented, combined with provisions of a more prescriptive nature.

Goal or process-oriented regulations set the goals to be achieved, but leave it to the employers / workers involved to decide on the best way to achieve these results. An example is Article 6(1) of the Framework Directive which requires employers to take the measures necessary for the safety and health protection of workers. Such provisions are generally more flexible and allow for different ways to achieve the results to best suit a particular situation. On the other hand, it may be less clear for employers how to comply, or for the workers in relation to Article 13 of the Framework Directive.

Prescriptive provisions lay down in detail what is required to be achieved and the way to obtain the outcome. An example is Article 3(1) of the Noise Directive 2003/10/EC which lays down specific limit values and action values for the exposure to noise. Such provisions are easier to enforce, but they require more frequent updating / modification.

3. EVALUATION CRITERIA AND QUESTIONS

The ex-post evaluation has addressed the following five evaluation criteria.

Relevance

Relevance refers to the extent to which a particular intervention is consistent with the needs and problems experienced by the target groups. In the case of the OSH framework, the essential issue examined was therefore whether or not the framework addresses the current and emerging OSH risks prevalent within the Member States.

Effectiveness

Under the effectiveness, the ex-post evaluation assessed whether the EU OSH Directives have achieved their objectives in improving the health and safety of workers and how significant these achievements were. Under this criterion the contribution of various elements to these objectives has been assessed (e.g. common processes and mechanisms - CPMs, derogations and transitional periods). Unintended effects have also been analysed. The CPMs foreseen by the Directives comprise risk assessment processes, training, consultation, participation and information of workers, preventive and protective services and health surveillance.

Efficiency

Under efficiency, the ex-post evaluation has looked at the benefits (e.g. reduction in working days lost due to work-related accidents or health problems; reduction in the number or severity of work-related accidents or health problems); costs which arise for society and employers from fulfilling the requirements of the EU OSH framework's requirements (including administrative and compliance burden). The analysis placed particular emphasis on SMEs, including risk assessment.

Coherence

Under coherence[21] the evaluation assessed whether there are any inconsistencies, overlaps and/or synergies across and between the Directives and whether the Directives interrelate with other measures and/or policies that also cover aspects related to health and safety at work.

EU added value

EU-added value looks for changes which are reasonably assumed to be due to EU intervention rather than any other factors.

4. METHOD

4.1. Methodology

Sources of findings

The evaluation is based on three main building blocks:

1) a study by an external contractor ('the study') - commissioned mid-2013. The final report was delivered in December 2015 and covers a total of 24 OSH Directives and their implementation in all Member States (except Croatia), in the period 2007-2012. A validation seminar was held in Brussels on 9 December 2014 to consult stakeholders on preliminary findings, results and conclusions of the study.

2) national reports on the practical implementation of the Directives ('NIRs') established by the Member States (and including the views of social partners) in accordance with Article 17a of the Framework Directive. In the NIRs, Member States provided data following the structure and questionnaire of the report as defined by the Commission[22].

3) extensive data collection (including in particular the NIRs, official statistics at national and EU level, past practical implementation reports, Commission communications and other policy documents, other external studies), through mapping of OSH at Member State level, as well as interviews with stakeholders carried out at both EU and Member State level.

Consultation

[21] Considering the internal logic between the EU OSH Directives as well as the external coherence between the Directives and other measures and policies at EU and international levels.

[22] Commission Decision C/2011/9200 of 20 December 2011 notified to Member States on 21 December 2011 on defining the structure and questionnaire for the practical implementation report to be drawn up by the Member States regarding Directive 89/391/EEC, its individual Directives, and Directives 2009/148/EC, 91/383/EEC, 92/29/EEC and 94/33/EC.

In parallel the Commission services received input from other sources such as individual Member States, the Advisory Committee for Safety and Health at Work (ACSH)[23], the Senior Labour Inspectors Committee (SLIC) and the Sectorial Social Dialogue Committee.

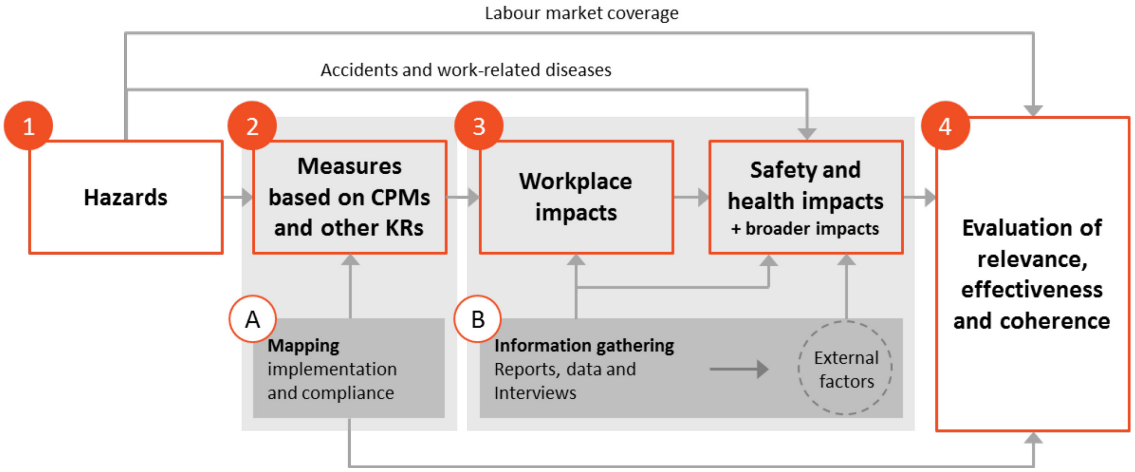
The ACSH and, in particular, its Working Party on Evaluation of OSH directives, have assisted the Commission services during the contractor's work. The draft opinion on the external study[24], put forward by the WP Evaluation, was approved on 24 September 2015 by the ACSH plenary and contained viewpoints agreed between the government, employers' and workers' representatives in the Committee.

The SLIC also prepared a contribution to the ex-post evaluation[25].

Steps in the evaluation methodology and intervention logic

The figure below presents the key steps in the evaluation methodology.

Figure 1: Steps in the evaluation methodology



Those consisted in particular in:

- Identifying and understanding the hazards which the Directives are meant to prevent.

- Identifying the important provisions of each Directive. The mapping of the provisions served as basis for developing the **intervention logic** of the EU OSH legislation[26]. As an integral part of this step, a mapping exercise was undertaken in order to understand the way the main provisions of each Directive were transposed and implemented in each Member State. This step aimed also to gather the available data on the level of compliance with the legislation from the EU and national sources.

[23] The tripartite ACSH is composed of government, employers' and workers' representatives. These discuss the issues in Working Parties to come to a common conclusion in the form of a draft opinion.
[24] ACSH, *Opinion on the report by COWI et al on the Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States* (Doc.1674-EN (2015)), adopted on 24/09/2015.
[25] SLIC, *Challenges faced by Labour Inspectorates relating to enforcement - Contribution to the ex-post evaluation of the OSH legislation, adopted by 68th SLIC Plenary in Riga (LV)*, 27/05/2015.
[26] See Annex 9 to this report.

- Identifying the workplace impacts. This part of the evaluation aimed at assessing to what extent legislation the accompanying tools have influenced the behaviour of establishments and in turn how this has influenced the final health and safety outcomes (accidents at work and different forms of work-related ill-health). This part of the evaluation aimed as well at assessing and better understanding the broader effects of the legislation and possible confounding factors to the outcomes achieved.

- Finally, on this basis, the assessment of relevance, effectiveness, efficiency, coherence and EU added value was undertaken.

4.2. Limitations – robustness of findings

Data limitations in the area of occupational health and safety were already highlighted in the Commission Communication from 2004 on the implementation of Directive 89/391/EC[27].

Since then, substantial efforts have been deployed at the EU level in order to improve the evidence base in this policy field. In December 2008, the European Parliament and the Council adopted Regulation 1338/2008 on Community statistics on public health and health and safety at work[28]. The implementing Regulation (EU) No 349/2011 on statistics on accidents at work was consequently adopted in 2011[29]. In 2007 and 2013 EU Labour Force Survey ('LFS') ad hoc modules were performed to provide complementary evidence on accidents at work and work related health problems. In parallel, data sources were developed by the EU-OSHA agency, including the ESENER and ESENER-2 surveys and by the Eurofound, which conducted its European Working Conditions Surveys (EWCS) in 2005, 2010 and 2015. Together, these sources provide valuable information on several themes pertinent to the policies in the field of health and safety at work.

Nevertheless, the quantification of the impact of EU legislation is a challenging task, requiring very specific input data to be developed for this purpose over time. Several studies conducted at national level highlighted already the difficulties in quantifying the impact of regulatory activities on health and safety final outcomes. National econometric research feasibility studies performed so far in the EU Member States assessed most of the time that given the current evidence and data sources, it is not possible to demonstrate links between regulatory activities and changes in the health and safety outcomes[30].

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[27] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the practical implementation of the provisions of the Health and Safety at Work Directives 89/391 (Framework), 89/654 (Workplaces), 89/655 5work Equipment), 89/656 5personal Protective Equipment), 90/269 (Manual Handling of Loads) and 90/270 (Display Screen Equipment); COM (2004)62 final.

[28] Regulation (EC) No 1338/2008 of the European Parliament and of the Council on Community statistics on public health and health and safety at work (OJ L 354, 31.12.2008, p. 70-81).

[29] Commission Regulation (EU) No 349/2011 of 11 April 2011 implementing Regulation (EC) No 1338/2008 of the European Parliament and of the Council on Community statistics on public health and health and safety at work, as regards statistics on accidents at work (OJ L97, 12.4.2011, p. 3-8).

[30] See as example in *Linking HSE activities to health and safety outcomes- A feasibility study*. Prepared by Cambridge Econometrics for Health and Safety Executive, HSE, 2012.

The following factors render such work challenging: the complexity of model specification, empirical and methodological problems and the available data sources not being fit for purpose. Those difficulties compound at the EU-level, where the national differences in the implementation of the legislation and collection of outcome indicators and the nature of the EU OSH acquis (mix of goal-oriented and prescriptive approach) are even a greater challenge when attempting to differentiate between the effects of the EU vs. (pre-existing) national legislation, other policy tools developed in the OSH policy field developed at national or EU level, as well as other confounding factors (technological progress, structural changes in the labour markets, socioeconomic developments etc.).

For these reasons, as explained in Chapter 7.3, a fully-fledged cost–benefit analysis for the EU OSH Directives under evaluation could not be undertaken.

To assess the effectiveness of the EU OSH legislation, the evaluation relied, however, to the extent possible on the data developed so far both at the EU and national level, complementing it with results of more targeted studies on specific topics. Though the exact impact of the EU legislation could not be assessed in detail due to methodological challenges mentioned above, the assessment tried to take to the extent possible the impact of other factors, such as cyclical variations on the presented indicators (in particular on the (standardised) accidents at work incidence rates). Whenever the relevant information was not available from the EU datasets the available national data sources were consulted. This was the case, in particular, as regards harmonised data on occupational diseases statistics, unavailable to date at the EU level.

As regards the evaluation study, it faced challenges and limitations in relation to the collection of interview data. Additional difficulties encountered in the framework of the study related to finding an adequate interview coverage for certain sector-specific directives and for SMEs. In such cases mitigating actions were taken by the contractor. Those measures included e.g. additional literature review for those directives for which adequate interviews coverage was not reached.

Furthermore, the **assessment of compliance** was marked by specific methodological challenges. In this regard, available data allowed for a mapping of the quantitative aspect of compliance (i.e. the extent to which establishments perform specific, measurable OSH-related actions, such as performing risk assessments or formulating an OSH management policy plan). However, the EU OSH framework contains requirements which are essentially quality and content oriented, rather than activity oriented[31] and the mapping exercise revealed that this qualitative aspect of compliance could not be systematically assessed due to a lack of data.

ESENER and ESENER-2 survey data were used to estimate compliance in the external study. In this document, findings from the ESENER surveys as regards certain aspects of compliance and OSH management measures represented, whenever relevant, together with information from other sources (EWCS, National surveys covering inter alia the thematic of

[31] e.g. an OSH management plan may be incomplete, it may lack essential elements, may not take all risks into account, may not be well executed etc., all of which undermines compliance.

compliance, reports from labour inspectorates etc.). The difficulty in triangulating findings from these different sources comes from the different target population and scope of the surveys and administrative data quoted.

5. TRANSPOSITION AND IMPLEMENTATION STATE OF PLAY

This section presents the overall findings concerning the state of transposition and implementation of the EU OSH acquis in the Member States with cross-Directive references. The assessment focusses on transposition and implementation of the CPMs and of other key requirements of the Directives.

The section is structured in two sub-sections: 1) transposition, including use of derogations and transitional periods, and 2) implementation, with a focus on the assessment of compliance, on the accompanying actions at national and EU level, enforcement and implementation in SMEs and micro-enterprises.

5.1. Transposition

The architecture/structure of the national OSH framework

With regard to the **architecture/structure of the national OSH framework**, most Member States (22) have transposed the Framework Directive by means of an OSH framework act (which was not necessarily newly adopted after the entry into force of the Framework Directive); often existing national OSH legislation has been brought together into one main OSH framework act or an existing OSH act has been amended to comply with the Framework Directive.

The individual OSH Directives are, as a rule, transposed one-to-one through secondary legislation. Some exceptions have been identified which are, seemingly, depending on the Directive(s) involved. The three OSH Directives targeting vulnerable workers are often transposed through a specific act and secondary legislation or directly through the OSH framework act or the Labour Code. Member States also often transpose the two OSH Directives on mineral extracting industries through several pieces of secondary legislation or through e.g. the national Mining Act and secondary legislation. The transposition of the two OSH Directives on vessels follows the same trend, although to a lesser degree.

78 infringement proceedings for failure to transpose the Framework Directive correctly into national legislation have been opened. The transposition seems, in particular, to have caused difficulties in Spain being subject to 26 of the 78 infringement proceedings, although most of the cases have subsequently been closed. Germany has been subject to eight cases, Italy seven and Portugal six. Several other Member States had a limited number of cases.

One of the typical non-conformities seems to be the failure to make the Framework Directive provisions applicable to the public sector or to the use of public installations – i.e. problems with the scope of application. Another typical non-conformity is imprecise implementation of

Article 5.1 – i.e. of the employers' duty to ensure the safety and health of workers in every aspect related to the work.

Figure 2. Observed discrepancies in national transposing legislation

Observed discrepancies	No observed discrepancies
IE, IT, NL, EE, FI, PL, MT, CY, LV, HU, SI, DE, RO, BG, UK	LT, AT, BE, CZ, DK, EL, ES, FR, LU, PT, SK

Source: Country Summary Reports.

With regard to the **transposition into national legislation of the CPMs**, 16 Member States have transposed one or more such requirements through distinct secondary legislation, principally in relation to preventive and protective services and health surveillance. Only four Member States[32] adopted separate OSH legislation for the public and the private sector.

Although a large number of **infringement proceedings** have been initiated regarding the national transposition of the Framework Directive and, to a lesser degree, of Directive 1999/92/EC (ATEX), Directive 2002/44/EC (vibration), Directive 2003/10/EC (noise), Directive 2006/25/EC (artificial optical radiation) and Directive 98/24/EC (chemical agents), most of them regarded late transposition (non-communication of national measures) and were subsequently closed. Apart from these, few cases of incorrect transposition have been observed in the transposition of the OSH acquis.

Furthermore, for most of the OSH Directives, Member States have implemented **more detailed more stringent or more protective requirements**. This is the case for example in several Member States for the Directive 92/57/EEC (temporary or mobile construction sites) in relation to the appointment of the health and safety coordinator[33]. Ten Member States[34] have established a broader personal scope of application of the legislation transposing the Framework Directive by including 'domestic servants' in the definition of 'worker'. Similarly, in a large number of Member States the scope of the legislation transposing Directive 94/33/EC (young people) is broader, for example because it applies to trainees and young students studying in technological or vocational college[35], because it covers all work carried out for employers, principals, customers and those responsible for schools who let minors do work for them or study[36] or because it covers self-employment of young people.

Derogations and transitional periods

[32] AT, FR, LU and PT.
[33] Several Member States impose minimum qualifications with regard to coordinators, or require a signed document for the appointment of a health and safety coordinator for a construction site and of his/her acceptation.
[34] PT, IE, PL, SE, FI, LU, MT, EE, CY, LV.
[35] FR.
[36] SE.

About half of the Member States have applied transitional periods in the implementation of most of the Directives for which such possibility was provided. In the vast majority of cases, Member States who opted for the application of transitional periods have also respected them.

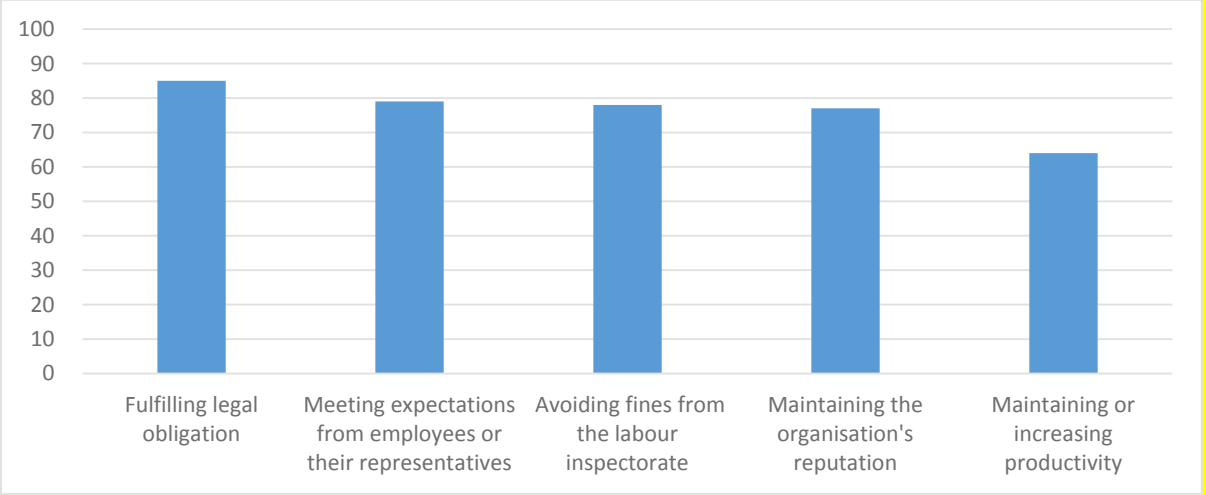
The evaluation shows a mixed picture as to the use of derogations by Member States. The derogations most frequently used are those laid down in Directive 98/24/EC (chemical agents) concerning the prohibition of the use of certain chemical agents and two of the derogations set out in Directive 94/33/EC (young people): the derogation from the prohibition of employment of young people in the case of adolescents where such derogations are indispensable for their vocational training and the derogation from the prohibition of night work for young people in the case of adolescents and in specific areas of activity.

5.2. Implementation

Compliance

The ESENER-2 survey conducted by the Bilbao Agency (Figure 3) shows that complying with legal provisions acts as strong driver for action on OSH, being reported as a major reason by 85% of the surveyed establishments in the EU-28. It was not specified in the questionnaire whether these legal obligations were at the EU, national or even regional level as it was felt that not all respondents would be necessarily aware of the origin or level of the existing legal framework in the case of OSH. Meeting expectations from employees or their representatives was reported to be a major reason to manage OSH by almost four in five establishments (79%) and was closely followed by avoiding fines from the labour inspectorate (78%), which is clearly linked to the fulfilment of the legal obligations.

Figure 3. Major reasons for addressing health and safety (% establishments, EU-28).



Source: European Agency for Safety and Health at Work (EU-OSHA), Second European Survey of Enterprises on New and Emerging Risks (ESENER-2) (2014); Base: Establishments employing 5 employees and more, EU-28.

On the basis of the data collected in the framework of the evaluation study[37] it was found that **overall compliance with the EU OSH acquis across the EU and across establishment sizes is good even if it varies across establishment size**.

The findings on quantitative **compliance with individual provisions common to EU OSH Directives (CPMs)** across Member States and establishment sizes are summarized in the table below:

Table 1: Conclusion of quantitative compliance with CPMs[38]

Conclusion by CPM	Interpretation	
Risk assessments	Moderate to good quantitative compliance	
Preventive and protective services	Good quantitative compliance	
Information for workers	Good quantitative compliance	
Training of workers	Moderate quantitative compliance	
Health surveillance	Moderate quantitative compliance	
Consultation of workers	Poor to moderate/good quantitative compliance	

Source: COWI evaluation team

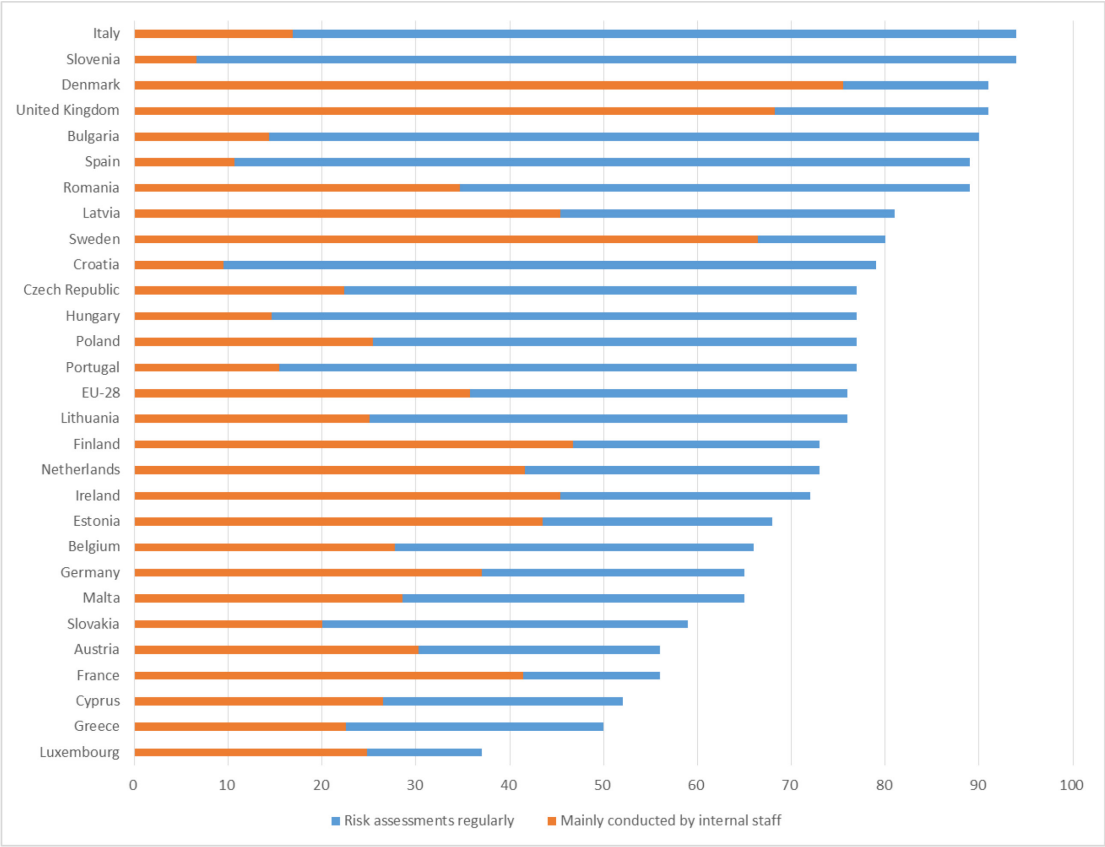
Regarding the **obligation to perform an occupational health and safety risk assessment**, which is the cornerstone of the EU OSH legislative framework, ESENER-2 indicates that **76%** of establishments in the EU-28 carry out a risk assessment and the majority of them (**92%**) report having it in a **documented form**. Compliance varies to a great extent depending on the establishment size (ranging from 69% among microenterprises employing five to nine workers up to 96% among those employing more than 250 people). Substantial differences were also found from Member State to Member State, with highest values in Italy and Slovenia, to the lowest in Luxembourg[39].

Figure 4: Risk assessments conducted regularly (% of establishments, EU-28)

[37] *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States, COWI, 2016*

[38] The qualitative assessment was made based on the following benchmarks: 90%-100% - very good quantitative compliance; 75%-89% - good quantitative compliance; 60%-74% - moderate quantitative compliance; 40%-59% - poor quantitative compliance; 0%-39% very poor quantitative compliance. It has to be noted that important differences were noted depending on the Directive, sector and company size. Source: *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States (Main report), COWI, 2016.*

[39] EU-OSHA, ESENER-2 (2014): https://osha.europa.eu/sites/default/files/publications/documents/esener-ii-summary-en.PDF.



Source: European Agency for Safety and Health at Work (EU-OSHA), ESENER-2 (2014).

A document explaining responsibilities and procedures on health and safety is available to workers in 90% of all establishments in the EU-28, with a higher prevalence noted in larger establishments. While having such a document is not a legal obligation, it is indicative of adoption by the employer of the systematic approach to health and safety management set out in the directives.

When focusing on those establishments that have other types of workers beyond directly employed people -such as temporary agency workers, subcontractors and self-employed, among others-, 62% of those establishments in the EU-28 that carry out risk assessments report covering these other types of workers in their risk assessments

Looking at those establishments that do not carry out regular risk assessments (Figure 5), the main reasons given for not doing so are that the risks and hazards are already known (83 % of establishments) and that there are no major problems (80 %). It is however not certain to what extent this result reflects the fact that on average the smallest establishments are exposed to fewer risks (or their risk profile is more stable) or if they are simply less aware of the workplace risks.

Interestingly, enterprises in the smallest size classes report less frequently than their larger counterparts that the procedure is too burdensome: 22 % among those employing five to nine people as opposed to 31 % among those employing more than 250 people (Figure 5).

Figure 5. Reasons why workplace risk assessments are not carried out regularly, by establishment size (% establishments, EU-28).

Source: European Agency for Safety and Health at Work (EU-OSHA), ESENER-2 (2014).. Base: establishments in the EU-28 that do not carry out risk assessments regularly.

The ESENER-2 survey also reflects important differences in the access to **OSH training** depending on the establishment size. Among all respondents of the survey (person who knows most about OSH in the establishment), 68% declared having received training on how to manage health and safety, whereas among those in microenterprises, this figure was only 62 % and in large companies (with more than 250 employees) as high as 93%. Important differences could be observed when considering the thematic coverage of training provided to employees (emergency procedures – 81%, lifting people and heavy loads – 79%, use of dangerous substances – 84%, proper use and adjustment of work equipment furniture – 67%, prevention of psychosocial risks – 37%).

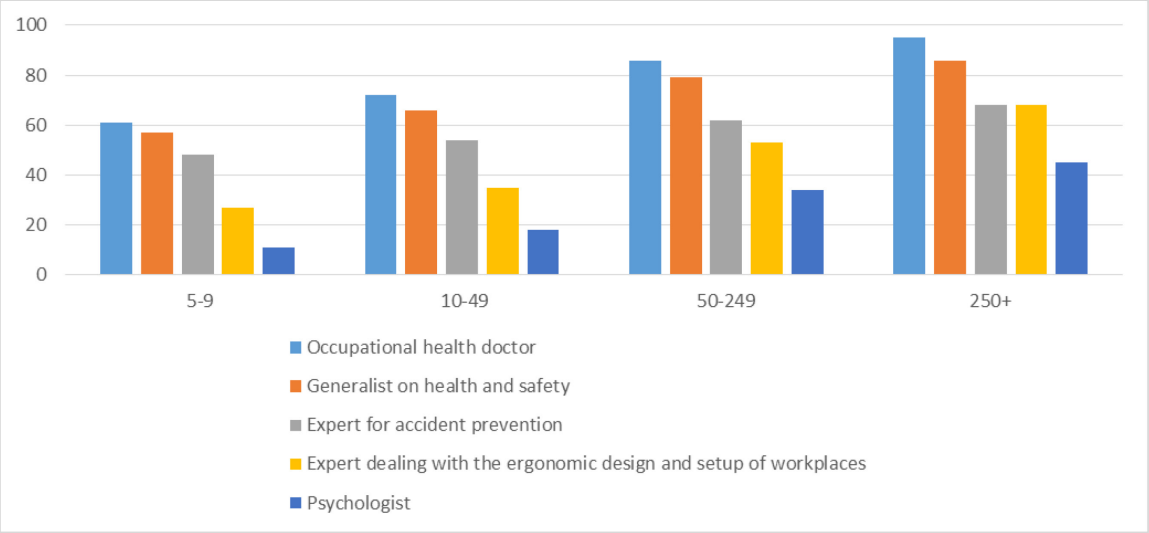
Looking at available data from surveys where respondents are workers, the first findings of the Sixth European Working Conditions Survey (EWCS)[40] show that 9 out of 10 workers report being either well **informed** or very well informed about health and safety risks related to the performance of their jobs. Again differences were noted depending on the establishment size. In line with the findings of the Flash Eurobarometer on working conditions, more than three quarters (77%) of current workers say health and safety information and/or training is available in their workplace.

[40] Eurofound, European Working Conditions Survey (2015): http://www.eurofound.europa.eu/publications/resume/2015/working-conditions/first-findings-sixth-european-working-conditions-survey-resume.

As regards health **surveillance**, ESENER-2 shows that 65% of establishments arrange regular medical examinations to monitor the health of employees. Again, important differences in this respect can be noted depending on the company size (58% for micro and 89% for large enterprises).

The most frequently used **health and safety services** (being internal or external) are those of occupational health doctors (68%), generalists on health and safety (63%) and experts in health prevention (52%), with again important differences depending on the establishment size (See Figure 6 below).

Figure 6: Use of health and safety services, by establishment size (% establishments in the EU-28).



Source: European Agency for Safety and Health at Work (EU-OSHA), ESENER-2 (2014),.

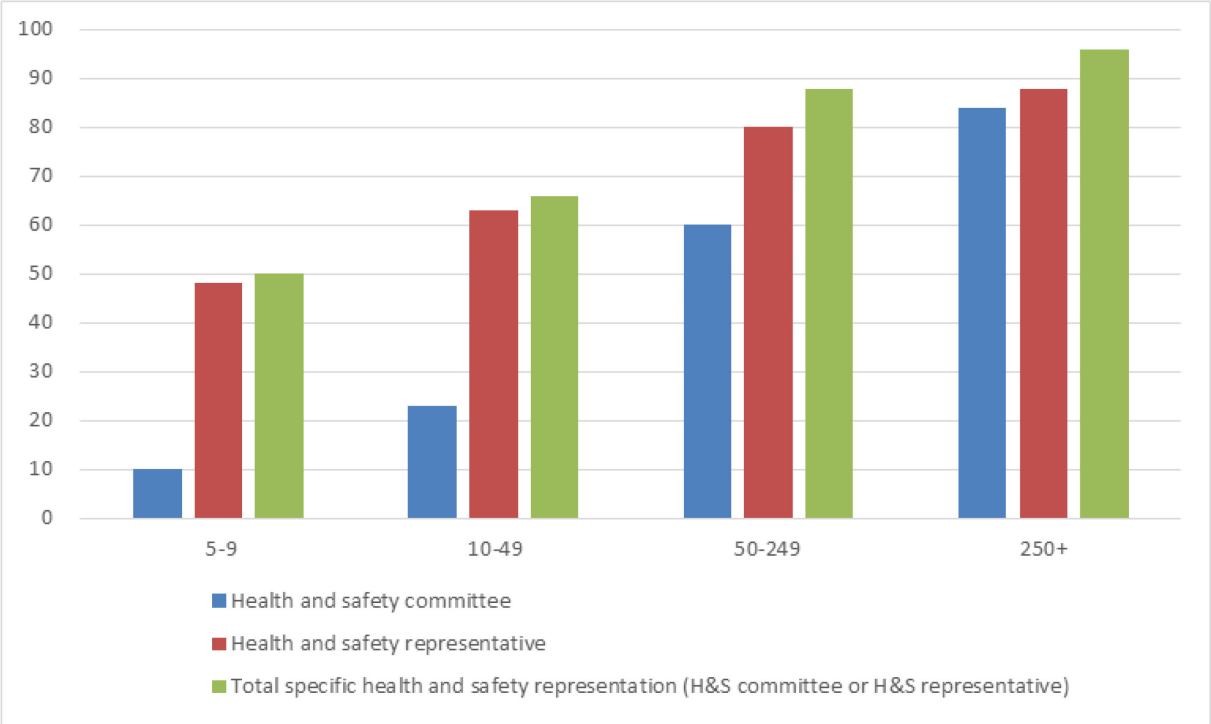
Important differences in this respect exist between the different Member States, which partially can be explained by the different ways of transposing Articles 7 and 14 of Council Directive of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers.

As regards the **consultation and participation of workers**, ESENER-2 shows that 81% of all establishments in the EU-28 report involving employees in the design of measures following a risk assessment. The same survey reveals that health and safety issues are discussed 'regularly' between employee representatives and the management in 56% of establishments in the EU-28 that have some form of employee representation.

Focusing on specific OSH representation, ESENER-2 asked about the presence of a health and safety representative and of a health and safety committee (Figure 7). The share of establishments that reported the existence of either one of these two forms was considerably higher than for general employee representation: 61% vs. 30%. This higher incidence is driven by the broad presence of health and safety representatives, which are found in 58% of

establishments in the EU-28. Meanwhile, a health and safety committee was reported by 21% of establishments surveyed in ESENER-2. In general health and safety committees tend to be present in those establishments where there is already a health and safety representative and they are more likely to coexist in middle-sized and large establishments.

Figure 7. Establishments with a specific OSH representation in place, by size (% establishments, EU-28).



Source: European Agency for Safety and Health at Work (EU-OSHA), ESENER-2 (2014),.

Concerning differences between Directives, for instance, while the results of the evaluation indicate that Directive 92/91/EEC (extractive industries - drilling) is complied with to a large extent, in contrast, Directive 2006/25/EC (artificial optical radiation) is characterised by a moderate level of compliance, as the issue of artificial optical radiation is regarded as complex. In particular, employers within this field find the technicalities and acquired competency to measure, monitor and assess difficult to understand and/or attain.

Furthermore, both EU and national stakeholders assessed **compliance with EU OSH Directives requirements to be higher in large establishments compared to SMEs and micro-establishments**. This is supported by quoted above ESENER-2 data, EWCS, the Flash

Eurobarometer on Working Conditions, by the NIRs and corroborated during the directive-specific evaluations.

Compliance and specific measures targeting SMESs and micro-enterprises

The most reported **challenge for compliance for SMEs**, in the NIRs produced by Member States, are the lack of financial, technical and human resources. Other identified challenges include the lack of established OSH traditions, of managerial experience, of information, knowledge and training, of equipment, of financial resources, of ensuring availability and quality of external expert services and of time. The evaluation study found that the most reported reasons by national stakeholders during interviews are that the large enterprises more often have dedicated OSH experts and/or departments that enable them to comply with legislation and international OSH standards; large establishments often have well-established safety and health cultures, partly developed through the accessibility of internal programmes and procedures, which are often a result of investing more financial resources than is available in smaller companies; large enterprises are often particularly concerned about company image and about negative safety and health stories in the media. The complexity of legal obligations was also identified as one of the main barriers for OSH management for SMEs according to the findings of the ESENER-2 survey.

25 Member States have established (a combination of) specific measures to support SMEs and micro-enterprises in the implementation of their legislation transposing the Framework Directive. These specific measures include exemptions, lighter regimes and/or financial incentives. Only a few of the individual Directives have been transposed using additional incentives for SMEs to comply with their requirements. However, many Member States have developed numerous accompanying actions targeted at SMEs, which are typically of a more general nature, not linked to a specific individual Directive.

As regards for example the obligation to conduct and to document risk assessment, the evaluation shows that Member States tend to favour lighter regimes and financial incentives to support SMEs and micro-enterprises; almost half of the Member States make use of financial incentives for SMEs and micro-enterprises to comply with the Framework Directive. Most of the Member States have guidelines on completing a risk assessment. A number of Member States provide specific guidance for particular sectors[41]. An important number of Member States provide guidance specifically addressed to SMEs[42]. Many Member States provide online guidelines and tools on how to conduct a risk assessment and document it, free of charge. Several Member States are involved in using the Online Interactive Risk Assessment web application (OiRA)[43] to develop risk assessment tools. OiRA is developed by the European Agency for Safety and Health at Work[44].

[41] Belgium, Denmark, Finland, Greece, Ireland, Latvia, Lithuania, Netherlands.
[42] Bulgaria, Cyprus, Denmark, France, Germany, Ireland, Lithuania, Poland, Spain.
[43] http://www.oiraproject.eu/.
[44] Council Regulation (EC) No 2062/94 of 18 July 1994 establishing a European Agency for Safety and Health at Work (OJ L 216, 20.8.1994, p. 1).

The quality of guidance and support tools is crucial, as is ensuring that it actually reaches the target audience. Thus, simply looking at the number of guidance documents does not in itself provide evidence of adequate guidance for SMEs[45].

It has not been possible to assess the quality of the extensive body of guidance listed and described in the study. Nevertheless, despite the quantity of material available there still appear to be a need for more and better guidance to support implementation in SMEs as well as for effective ways of delivering it to the intended user[46].

Accompanying actions

The number of accompanying actions varies greatly from Directive to Directive, both at the Member State and at the EU level. In addition, EU-level guidance serves mainly as a basis for national-level guidance and rarely reaches individual workers. At the Member State level, there are some Directives for which the number of accompanying actions is limited and there is a general demand for more targeted actions, especially those directed to SMEs. Practical tools, forms and check-lists that enable employers to comply with OSH obligations are considered by stakeholders as the most useful accompanying actions. Sectoral templates for risk assessment (e.g. OIRA) are welcomed by all stakeholders that recognise the potential for simplification and gain of time when using such tools.

According to the study, there appear to have been very few formal evaluations of the utilisation or impact of any such material although some isolated studies of individual measures have been reported[47].

Enforcement

The evaluation identified general enforcement authorities responsible for occupational safety and health matters, although other authorities may be involved and/or fully responsible for areas covered by certain individual directives, in particular Directive 92/104/EEC (extractive industries - mines and quarries) and Directive 92/91/ (extractive industries - drilling); Directive 92/57/EEC (mobile construction sites); Directive 92/29/EEC (medical treatment on vessels) and Directive 93/103/EC (fishing vessels); and Directives targeting vulnerable workers (Directive 91/383/EEC (temporary workers), Directive 92/85/EEC (pregnant/breastfeeding workers) and Directive 94/33/EC (young people).

While the actual number of inspectors in the EU has remained almost constant in the evaluation period (2007-2012), substantial differences in the evolution of the number of

[45] See e.g. *The Anderson Review – The Good Guidance Guide*, Department of Businesses, Enterprises and Regulatory Reform in the UK, 2009.
[46] Assessment made based on the findings of the *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States (Main report), COWI, 2016* and the National Implementation Reports.
[47] Melrose AS, Graham MK, Graveling RA, George JPK, Cowie H, Hutchison PA, Mulholland RE.. *Assessing the effectiveness of the manual handling assessment chart (MAC) and supporting website*. Sudbury: HSE Books, 2006 (Research Report No. 486).

inspectors could be observed between Member States. While in the majority of Member States the number of inspectors has decreased (16), it remained stable or increased in the remaining 11 Member States. Many stakeholders emphasised that there is room for improving enforcement in general, such as the use of more risk-based inspections, as already done in several Member States. Thus focussing inspections on where the main risks are expected to be encountered is thought to be a more efficient use of dwindling resources than a truly random selection would be.

All Member States have criminal and/or administrative sanctions in place, providing not only for imprisonment and/or fines but also for other types of sanctions such as various emergency measures to stop non-compliance, which can also prove very efficient. The strategic priorities for inspection are generally set per sectors or sub-sectors, groups of workers, type of risks or the company size.

Initiatives targeting potentially vulnerable workers

Initiatives targeting potentially vulnerable workers principally address their specific requirements through various forms of guidance, tools and initiatives at a number of levels (government, industry or other stakeholders), rather than through legislation which typically does not go beyond the EU requirements as far as vulnerable workers are concerned. As a consequence, women, pregnant and breastfeeding workers, young people, temporary workers and disabled workers are the most frequently covered groups as they are regulated under EU OSH legislation. Other groups also covered include, in particular, older workers, migrants, part-time workers, and parents. The evaluation found that approaches within establishments with regard to potentially vulnerable groups of workers are often not documented.

6. ANSWERS TO THE EVALUATION QUESTIONS

This section contains the answer to the evaluation questions across the EU OSH framework.

6.1. Relevance

Since the entry into force of the 24 occupational health and safety Directives, important changes in the labour markets and working methods took place, with a potential impact on the relevance of the OSH legislative framework.

The continued shift towards third sector jobs accompanied with the shrinking of certain industries, the changes in the global supply chains, the technological progress and changes in the working methods are only a few factors which have influenced the profile, the level and the nature of the hazards to which the European workers are subject. The increasing share of women in total employment and the ageing of the EU workforce are other factors shaping the relevance of certain directives for the future. Finally, the evaluation period (2007-2012) was marked by the financial crisis and the subsequent economic crisis with a major impact on the labour markets. While economic output and employment have both started to recover in recent quarters, the employment and social impacts of the crisis will take years to redress[48]. The ongoing structural changes linked to technological advance and innovation (including the development of robotics), globalisation, demographic change and the greening of the economy offer opportunities for the creation of high quality jobs and shifts in work organisation, but also pose new challenges for occupational health and safety management with the emergence of new risks. Certain forms of employment (for ex. remote work, teleworking), mobile workplaces[49], or specific employment relationships (dependent self-employment, self-employed working *de facto* as employees) pose new challenges to OSH management.

Last but not least, new scientific evidence available since the entry into force of the 24 occupational health and safety EU Directives have played a crucial role in the understanding of certain occupational hazards, allowing potentially for better prevention.

In this context, the evaluation aimed at assessing, based on the available data sources the current and future relevance of the EU occupational health and safety framework and the factors which could improve the acquis for the future. The criteria used for this purpose were: the labour market coverage of the Directives, the existence of occupational hazards that the

[48] Employment and Social Developments in Europe, DG EMPL, 2015, p.9.

[49] Though according to the findings of the EWCS 2015 most workers have a single main place of work, generally in their employer's business premises (or their own if self-employed), nearly a third of workers (30%) divide their working time across multiple locations, working at least several times a week at each different place of work. Eurofound, first findings Sixth European Working Conditions Survey (2015).

Directives were meant to prevent, the latest scientific information as regards these hazards, the labour market developments and changes in working practices which might have impacted some of the provisions of the OSH Directives.

At a general level, statistical data shows that despite progress achieved in some areas over the last years[50], a need for policy intervention exists in order to safeguard the health and safety of workers at work in the EU. In 2012 3,918 fatal accidents were recorded in the EU-28[51]. The 2013 EU LFS ad hoc module data shows that the percentage of the population suffering from one or more work-related health problems caused or made worse by work, in that year in the EU-27 was on average 7.9%[52].

The assessment of **relevance in relation to labour market coverage** showed that **almost all of the 24 OSH Directives are relevant in all 27 Member States covered by the evaluation** as all Member States have workers employed in relevant industrial sectors who are consequently exposed to relevant risks or who are members of vulnerable groups that are the subject of specific rules.

The main exceptions to this are the two Directives relating to maritime sectors (Directive 93/103/EC (fishing vessels) and Directive 92/29/EEC (medical treatment on board vessels), as a minority of Member States do not have any workers employed within one or both of the maritime and fishing sectors (or at least those parts of these sectors addressed by the two Directives). In such cases, some Member States appear to have taken the administrative action to transpose the provisions whilst others have not done so. A further exception relates to Directive 92/91/EEC (extractive industries – drilling) where, although the provisions of this Directive have been transposed into national legislation in all Member States, approximately 20% of Member States apparently have no drilling industry at present.

Across the EU, **the proportion of workers potentially covered by each of the Directives varies**. For some Directives, including the Framework Directive and Directive 2009/104/EC (use of work equipment), almost all workers are affected. By contrast, a number of Directives, including the two Directives in the maritime sector, the two Directives in the mineral extractive industries (Directive 92/104/EEC (extractive industries - mines and quarries) and Directive 92/91/ (extractive industries - drilling) and Directive 94/33/EC (young people) are of relevance to less than 1% of the EU workforce.

As regards the assessment of **relevance in view of existing work-related hazards,** the evaluation found, based on available data[53], that **the provisions for most of the EU OSH Directives remain relevant.**

[50] For details, see Chapter 7.2.
[51] Eurostat, ESAW (online data code hsw_n2_02). Note: Any further reference to ESAW data from datasets hsw_n2_02 and hsw_n2_01 made in this document is based on figures as extracted on 16/09/2016.
[52] Eurostat (online data code hsw_pb1). Data including HR. Data for NL not available.
[53] This assessment was made based on the information from the NIRs, commissioned studies, existing EU surveys covering questions on exposure to physical risks and risks to mental well-being at work. National data sources were also explored for more detailed information about exposure to specific hazards. The data about the actual current levels of exposure and the exact prevalence of exposure though was not always readily available from all MSs. The information on which the evaluation relied was therefore not always complete.

The main possible **areas for improvement** identified during the evaluation, in relation to the relevance criterion were the following**:**

- In terms of **relevance in scope**, the exclusion of **domestic servants** from the Framework Directive might need to be reconsidered[54].

- In the changing labour market with the emergence of new forms of work and increasing uncertainty over the status of workers and self-employed, the question of application of health and safety rules to all becomes even more important to prevent accidents and occupational diseases. Considering the recommendations from the NIRs, the conclusions of the external evaluation study, the development of the case-law of the ECJ on the definition of worker in EU law and the treatment of self-employed under construction site and fishing vessel directives, promoting inclusion of **self-employed** and in particular those **self-employed working alongside workers** might be considered as a possible action in the context of future-proofing of the OSH Framework. Any future action in that area should take into account the Opinion on that matter issued by the ACSH in 2014[55], which found that a single EU-wide approach in this area could not conceivably address all the very different national systems fairly and coherently[56].

- In the Directive 89/654/EEC concerning the minimum safety and health requirements for the workplace, the changes in the nature of some modern workplaces call for a reflection on a potential need to redefine the notion of 'workplace' as defined in this Directive. Suggestions from the NIRs as regards the Annexes to the Directive should be given further consideration[57].

- As regards Directive 2000/54/EC (biological agents) the classified list of biological agents is out of date and should be updated to improve the relevance of the Directive. As regards Annex V of the Directive, adopting a more flexible approach scoping the measures in accordance with the results of the risk assessments should be considered.

- In relation to Directive 2009/104/EC on the minimum safety and health requirements for the use of work equipment by workers at work, the recommendations from the NIRs to adopt a clearer definition of the notion of 'specific risk' - in order to reduce the inconsistencies in the interpretation of this term in different Member States – should be given further attention.

- In the Directive 89/656/EEC (use of personal protective equipment/PPE) the exclusion from the definition of PPE of equipment used by emergency and rescue services might need to be reconsidered.

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[54]. This issue identified as a relevance issue based on the finding of the external study, as well as main recommendation in the NIRs, due, inter alia, to the share of this work group in the workforce (at least 1%), but could also be qualified as an internal coherence issue, based on the legal analysis as regards the inclusion or not of this work group under the national OSH legislation and the resulting differences between the Member States.

[55] ACHS, Doc. 524-01/2014, adopted on 22/05/2014.

[56] This issue identified as a relevance issue in the context of the need to consider the appropriate coverage of the workforce in the changing world of work and the employment relationships could also be qualified as an internal coherence issue, based on the legal analysis as regards the inclusion or not of this work group under the national OSH legislation and the resulting differences between the Member States.

[57] Findings of the external study and the NIRs

- As regards Directive 92/57/EEC on the implementation of minimum safety and health requirements at temporary or mobile construction sites, give consideration to the recommendation given in several national implementation reports, to clarify the status of the coordinator and reinforce his function, namely to clarify the services expected to be provided by coordinators, especially with regard to project design, and to set out the qualifications coordinators should have.

- As regards the Directives 92/29/EEC the review of the compulsory list of medical supplies should be given consideration.

- In terms of **relevance related to the state of technological and workplace developments**, in the Directive 90/270/EEC (display screen equipment/DSE) the minimum requirements which all DSE workstations must meet (Articles 4 and 5), are widely recognised to be outdated and to not adequately reflect modern computing technologies or ways of working.

- In terms of relevance related to the **state of scientific knowledge**, the DSE Directive includes provisions aimed at the "Protection of workers' eyes and eyesight" (Art. 9) even though there is scientific evidence that work with computers does not cause any damage to the eyes or eyesight. The Directive also includes reference to "problems of mental stress" (Art. 3). Up to date epidemiological surveys suggest that the prevalence of such problems amongst DSE users is no different from that amongst the general population.

- Other Directives affected by scientific development are **Directives 98/24/EC (chemical agents), 2004/37/EC (carcinogens and mutagens) and 2009/148/EC (asbestos).** In particular, contributions received from different stakeholders point to a need for the adoption of further occupational exposure limit values (OELVs) and/or the revision of existing ones. Following concerns reflected in the NIRs, there seems also to be a need to consider the most appropriate approach to managing risks that may arise from exposure to reprotoxic substances. It should also be clarified that risks related to exposure to nano sized particles (nanomaterials) are already covered under the existing Directives.

The individual directives are complementary to the Framework Directive which already covers all risks. Adapting OSH acquis to new risks may in many cases be done more effectively and efficiently through providing interpretative guidance to employers, workers and enforcers on how to apply existing provisions in the new context. In accordance with the better regulation principles legislative action should only be considered in case where the added value can be clearly established. In view of avoiding unnecessary burden on businesses, the exact scope of any modifications of existing legislation and the related costs and benefits should be subject to further discussions with stakeholders in the ACSH and a thorough impact assessment and related SME test.

The analysis of relevance also suggests that improved data is necessary in this area so as to support future policy development.

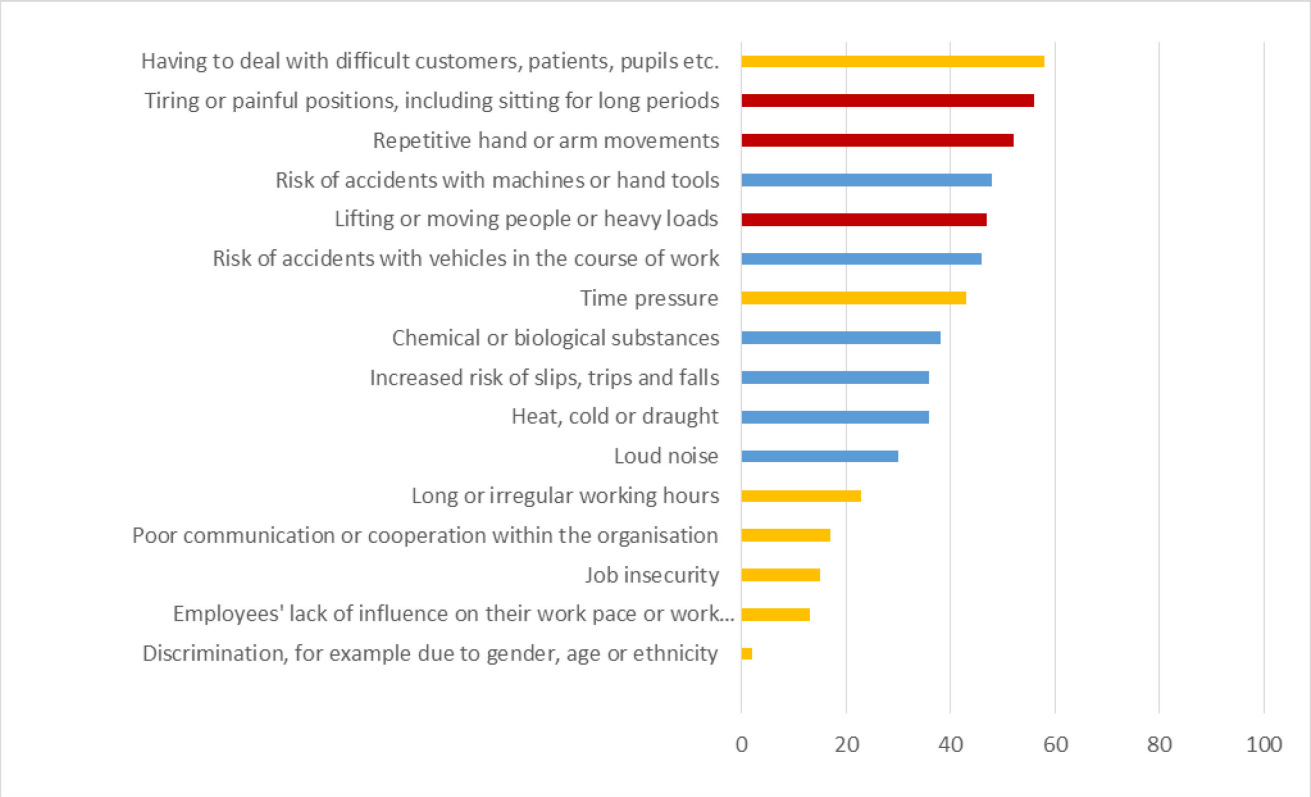
Indeed, for many Directives, data about the actual number of workers exposed to different hazardous agents and about the levels of exposure in the populations at risk was not gathered

so far at the EU level and information available at national level is scarce. Also as another example, there have been efforts to set up statistical systems to an EU data collection on occupational diseases (e.g. the European Occupational Diseases Statistics). However, this is associated with considerable challenges due to the large variation in Member States' recognition of occupation diseases.

The evaluation found that although some changes in the relative importance of different work sectors (or activities) can be anticipated, the current levels of exposure to the different hazardous agents and **the continued existence of previously identified risks justify the need for the action to address those risks**.

The evaluation also confirmed the high prevalence of exposure to both risks leading to MSDs and psychosocial risks (Figure 8).

Figure 8: Risk factors reported in the establishments (% of all establishments, EU-28)[58]



Source: European Agency for Safety and Health at Work (EU-OSHA), ESENER-2 (2014),.

However, there are and will be **new or emerging risks which may not yet be fully addressed in the workplace and it may require some clarification how the existing provisions of the framework directive apply to them**. These risks could be related to the demographic changes as well as to the changing world of work (e.g. new technologies and innovations in work organisation and the new products and processes to which they lead, possibly increasing sedentary work and reducing physical activity, changes in work

[58] In red –risk factors leading to MSDs and in yellow – psychosocial risk factors.

organisation brought about by information technology developments, as well as the increasing workforce diversity, as reflected in new atypical contractual arrangements and work patterns, and a higher job turnover associated with shorter job assignments, especially for younger workers).

6.2 Effectiveness

This section presents the findings on the assessment of the extent to which the OSH framework achieved its aims and what factors have particularly contributed to the achievement of the objectives.

The general aims of the OSH framework are to improve the health and safety situation for workers across the EU. However, the more specific intended impacts, such as – for example – the kinds of occupational diseases to be prevented or reduced are often not identified. This means that, for many Directives, there are no clear parameters against which to measure the progress towards achievement of objectives.

This also reflects the complex interrelations between exposures to various risks at the workplace and specific health and safety impacts – and between different OSH measures targeting various groups of workers, types of risk or sectors and their effects on levels of exposure.

In addition, the existing mixture of Directives representing a goal and process-oriented approach and Directives representing a prescriptive approach results in different ways of evaluating effectiveness. In general, those with specific actions prescribed are more open to confirming compliance, while those Directives which are more goal-setting need suitable outcome measures to confirm that their goal has been achieved.

Four specific evaluation questions were set:

- To what extent have the Directives influenced workers' safety and health, the activities of workers' representatives, and the behaviour of establishments?

- What are the effects on the protection of workers' safety and health of the various derogations and transitional periods foreseen in several of the Directives concerned?

- How and to what extent do the different Common Processes and Mechanisms contribute to the effectiveness of the Directives?

- To what extent do sanctions and other related enforcement activities contribute to the effectiveness of the Directives?

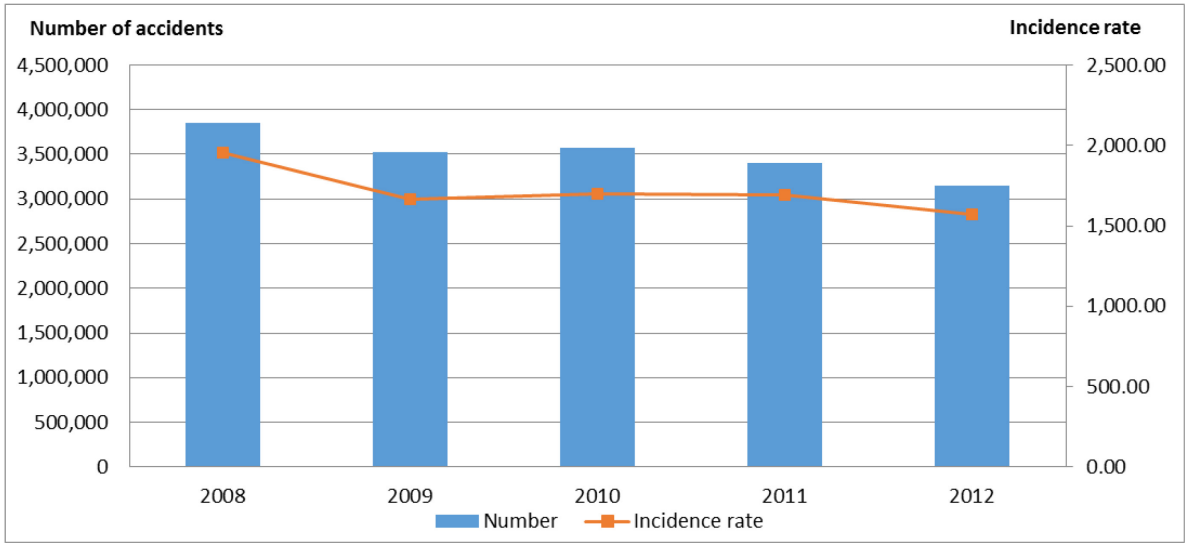
Impact on workers' safety and health, the activities of workers' representatives, and the behaviour of establishments

- **Accidents at work**

Over the evaluation period, **a declining trend for accidents at work** could be observed in the EU-27.

According to data collected in the framework of the Eurostat data collection European Statistics on Accidents at Work (ESAW) for all economic activity sectors, both the number and the incidence rate of serious accidents at work[59] in the EU-27 declined between 2008 and 2012 by 18.1% and 19.6%[60] respectively (Figure 9)

Figure 9: Non-fatal accidents at work, resulting in an absence from work of more than 3 days, number and incidence rate per 100 000 persons employed, EU27, 2008-2012.

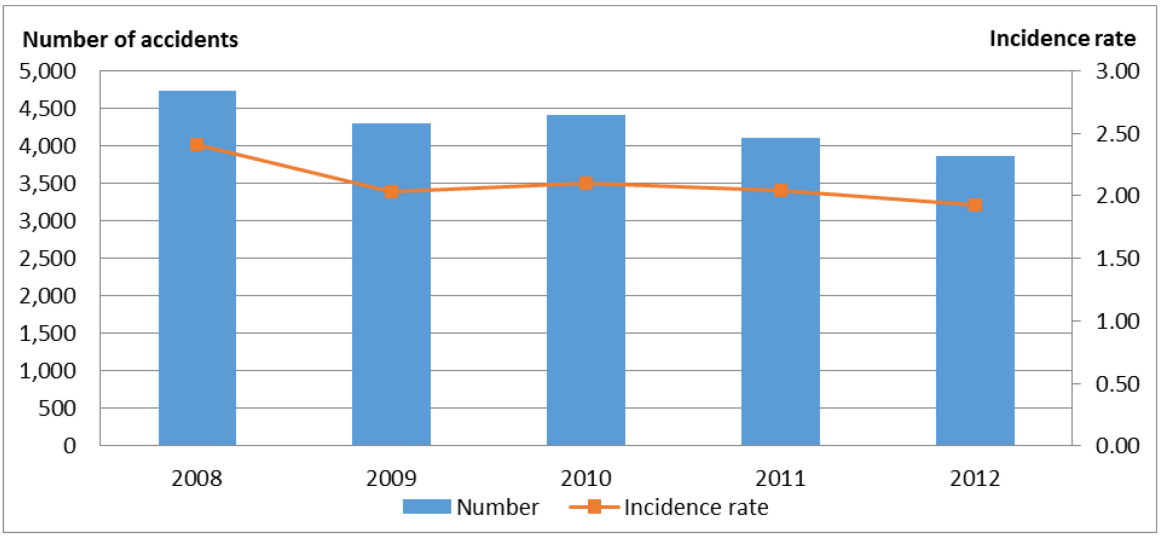


Source: Eurostat, ESAW (online data code hsw_n2_01).

During the same period, the number of fatal work accidents fell by 18.4% while the incidence rate for this category of accidents declined by 19.9%[61], in the 27 Member States concerned (Figure 10).

Figure 10: Fatal accidents at work, number and incidence rate per 100 000 persons employed, EU27, 2008-2012.

[59] According to the ESAW methodology a serious, non-fatal accident at work is defined as an accident involving an absence from work of more than 3 calendar days.
[60] Eurostat, ESAW (online data code hsw_n2_01).
[61] Eurostat, ESAW (online data code hsw_n2_02).



Source: Eurostat, ESAW (online data code hsw_n2_02).

Over this period, the financial and economic crisis which has followed had without any doubt an important impact on the evolution of this indicator. A recent UK HSE study modeled the relationship between injury rates and GDP for Great Britain and estimated that for the last recession; approximately 10% of the fall in injury rates between 2007/08 and 2009/10 is likely to have been due to economic cycle variations[62].

Most data prior to 2008, collected at EU level according to the ESAW methodology, is available only for a limited number of economic sectors[63] and for a limited number of Member States (EU-15). Looking at those data sets, the standardised incidence rate over the evaluation period fell substantially from 2,736 accidents per 100,000 employed persons in 2007 to 2,073.5 in 2012 for non-fatal accidents at work and from 2.9 accidents per 100,000 employed persons in 2007 to 2.3 in 2012 for fatal accidents at work[64].

The declining trend is confirmed by national statistics in the NIRs and the Scoreboard exercise for the evaluation of the EU Strategy 2007-2012 on health and safety at work[65].

An analysis of longer time series based again on the ESAW records, and starting in years just after the adoption of the health and safety Directives[66], confirms the declining trend over a longer period. The standardised incidence rate of non-fatal accidents at work fell from 1994 to 2012 by 54.3%, while that of fatal accidents declined in the same period by 61.8%[67] in the EU15. More detailed data on the evolution of accidents at work from 1994 until 2012 is available in Annex 4 Figures 1 and 2.

[62] *Effects of the Economic Cycle on Workplace Injury Rates: A Time Series Analysis of RIDDOR Data,*, UK HSE, 2013.

[63] Data for the so called 'common branches', i.e. NACE Rev. 1.1 economic activity sections A_D-K prior to 2008 and NACE Rev. 2 economic activity sections A_C-N after from 2008 onwards.

[64] Eurostat, ESAW (online data codes hsw_aw_inasx and hsw_mi01).

[65] Communication from the Commission to the European Parliament, the Council, the European Economic and social Committee and the Committee of the Regions – Improving quality and productivity at work: Community strategy 2007-2012 on health and safety at work; COM(2007)62 final.

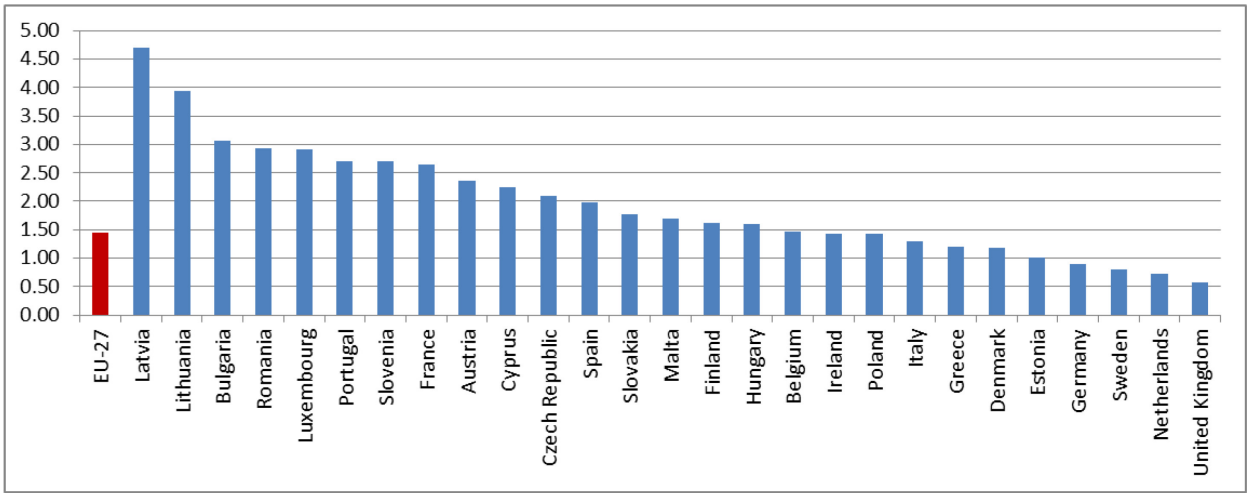
[66] European Statistics on Accidents at Work (ESAW) are available from 1994 onwards.

[67] Eurostat, ESAW (online data codes hsw_aw_inaag and hsw_mi01).

Over the period 2008-2012 a decline in the incidence rate of both fatal and non-fatal accidents leading to an absence of more than three days could be observed in almost all NACE sectors[68]. As regards the share of different sectors in the overall number of accidents, manufacturing accounted for the highest proportion of all accidents (21.2% in 2012) followed by construction (13.3% of all accidents) and the sector of wholesale and retail trade, repair of motor vehicles and motorcycles (13.2%)[69].

In order to analyse the situation by Member State, the dataset for fatal accidents at work, for the subset of accidents excluding road traffic accidents on board of any mean of transport in the course of work was analysed, providing for most comparable data by Member State. In most Member States both the number and the rate for this subset of fatal accidents at work decreased from 2008 to 2012. At the end of the evaluation period (2012) the incidence rate for this type of fatal accidents ranged from 0.58 in the United Kingdom to 4.7 in Latvia (See Figure 11 below).

Figure 11 Fatal accidents at work, excluding road traffic accidents on board of any mean of transport in the course of work, EU-27, standardised incidence rate (accidents per 100 000 persons employed), NACE Rev.2. sections A_C-N.



Source: Eurostat, ESAW (online data code hsw_mi03)

The EU statistics on the rate of fatal accidents at work, broken down by establishment size enabling to follow the situation in microenterprises and SMEs as compared with large enterprises, available for 2007[70], show the differences in the standardised incidence rate depending on the size of the enterprise: 3.6 for establishments from 1 to 9 employees; 3.3 for establishments from 10 to 49 employees; 2.7 for establishments from 50 to 249 employees and 1.8 for establishments of 250 employees and more[71]. According to the same source, the standardised incidence rate is higher for SMEs as compared with enterprises with over 250 persons employed also for non-fatal accidents at work. An exception to this trend is the

[68] For detailed information about the evolution of the incidence rate of accidents at work for the different NACE Rev. 2 economic activities at section level in the EU27 between 2008 and 2012, see Tables 1 and 2 in Annex 4.
[69] Eurostat, ESAW (online data code hsw_02_04). Data as extracted on 16/09/2016.
[70] The latest ESAW incidence rate data broken down by enterprise size is available for 2007 only, for EU15. It covers the so called 'common branches', i.e. NACE Rev. 1.1 economic activity sections A_D-K.
[71] Eurostat, ESAW (online data code hsw_aw_inasz).

situation in establishments from 1 to 9 employees, featuring a standardised incidence rate for non-fatal accidents of 2,184 against 3,216 for entities with 250 employees or more[72]. At the same time, it should further be studied to what extent under-reporting affects these results.

Data from the EU LFS[73] ad hoc modules on 'accidents at work and other work-related health problems' (reference years 1999, 2007 and 2013) shows a slightly decreasing trend in accidents from 1999 to 2007[74]. At EU27 level (all Member States except the Netherlands), there is no trend visible between 2007 and 2013: in both years the percentage of the workers having had one or more accidents is 3.0%, which corresponds to an incidence rate of 3,000 workers having had an accident per 100,000 workers employed[75]. However, when looking at data by country, 18 Member States showed a negative trend, only 7 a positive trend and 2 no change between the two years. The LFS figure should be interpreted with caution as the EU-27 aggregate does not take into account the Netherlands and several Member States used survey questions which differed to the EU model questionnaire at least for one of the years.

In conclusion, the available EU data collections on accidents at work, as well as information gathered in the NIRs and the Scoreboard exercise of the EU Strategy 2007-2012 on health and safety at work give **a strong indication that both the incidence and the number of accidents at work have considerably decreased since the implementation of the EU framework and in particular over the evaluation period.**

The evaluation found that other factors, independently of the EU Directives might have also influenced this trend, in particular the more detailed national legislation (of which the effect cannot be easily dissociated from that of the Directives which they have transposed), other policies, structural changes in the labour markets, working methods and global supply chains. Due to the complexity of interaction between the different factors influencing the evolution of accidents at work, no exact estimate for the fraction of avoided accidents attributable to the entry into force of the Directives exclusively can possibly be established in a sound scientific way in the framework of this evaluation.

However, even though it is qualitative evidence, it is worth emphasizing that the majority of stakeholders interviewed during the evaluation stated that the Directives, by establishing minimum common requirements for occupational health and safety management at work,

[72] Eurostat, ESAW, 2007 (online data code hsw_aw_inasz). At the same time under-coverage problems for the self-employed population do not allow to draw definitive conclusions for this group.; As regards other relevant sources see in Theo Nichols, Amanda Dennis and Will Guy, *Size of employment unit and injury rates in British manufacturing: a secondary analysis of WIRS 1990 data*, Industrial Relations Journal, 1995; Gli infortuni sul lavoro. Dall'analisi delle cause alla loro prevenzione, 2008, p.116-117.

[73] This data is based on a European wide, representative household survey, while ESAW data is based mostly on administrative records of national labour inspectorates or insurance. It should also be noted that there are considerable differences between LFS and ESAW data, including that LFS collects not only serious but also minor accidents (with less than 3 days absence from work).

[74] Data for DK, ES, FI, HU, IE, IT, LU, PT, SE, UK. *Health and safety at work in Europe (1999-2007). A statistical portrait*, European Commission, 2010, p. 34.

[75] *Final statistical report on the quality assessment and statistical analysis of the 2013 Labour Force Survey ad hoc module*, Agilis S.A. Statistics and Informatics, 2015, p. 103, and Eurostat website update following last data received from Germany.

were successful in achieving their intended aims and benefitted considerably the health and safety of workers, including the reduction in accidents at work.

- **Work-related ill health**

The EU OSH framework aims at achieving a reduction not only in the incidence and number of accidents at work but also work-related ill-health.

There are significant methodological issues that complicate the evaluation in this respect. Firstly, the individual Directives[76] often cover more than one disease, especially those directives that are of general nature or target specific types of workers (and all diseases are in principle covered by the Framework Directive) or the risks of a disease are covered by more than one Directive.

Secondly, as regards occupational diseases[77], comparable and harmonised data is not available to date at EU level. This is mainly due to the major differences in the recording and recognition practices within the different social security systems across the Member States. The evaluation relied thus mainly in this respect on available national occupational diseases statistics.

Thirdly, while the evaluation period encompasses the time horizon 2007-2012, in the particular case of many forms of work-related ill-health, this time frame is not appropriate to judge the effectiveness of the policy intervention. Each occupational disease has a different minimum duration of exposure, maximum latent and minimum induction period. The decline or fall in the incidence of recognised occupational diseases in a given Member State during the evaluation period cannot only be attributed to the policy intervention, but also to the differences in the national recognition and recording systems as well as the weight which each disease with its specific exposure, latency and induction period has in the overall aggregate.

Different trends concerning the numbers of recognised occupational disease cases were noted across EU-27. In some Member States, such as France, Italy, Denmark or Germany there was an increase, while in other Member States, such as the United Kingdom, Sweden or Spain a decrease was recorded[78]. In most Member States, which recognise MSDs as occupational diseases, those forms of work-related ill-health constituted a high proportion of recognised cases, showing often increasing trends.

Other impact indicators contributing to the analysis of the effectiveness of Directives derive from the existing population surveys covering the thematic of work-related problems[79]. The

[76] The EMF Directive has not been evaluated for effectiveness as it has yet to be widely implemented in its latest (2013) version.

[77] In line with Regulation (EC) No 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work, a case of 'occupational disease' is defined as a case recognised by the national authorities responsible for recognition of occupational diseases.

[78] Based on Eurogip reports: http://www.eurogip.fr/en/component/search/?theme_document=Statistics&date_document=Select%20a%20date&pays_document=Select%20a%20country&searchword=Keywords&type_de_document=publication&limitstart=0, as well as information from the NIRs.

[79] In line with Regulation (EC) No 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work, work-related health problems and

2013 EU LFS ad hoc module data shows that the percentage of the population suffering from one or more work-related health problems caused or made worse by work, in that year in the EU-27 was on average 7.9%. Overall, the percentage of workers aged 15 to 64 that reported a work-related health problem in 2013 decreased by 9.8%, as compared with 2007 for the EU-26 (without France and the Netherlands) [80],[81]. Again, this assessment must be considered with caution, as the EU-26 aggregate does not take into account two countries and several Member States used survey questions which differed to the EU model questionnaire at least for one of the years.

Another possible measure to be considered is the workers' overall satisfaction of the health and safety conditions which they find at the workplace. In this respect, in a Flash Eurobarometer commissioned in 2014, 85% of respondents expressed satisfaction with the health and safety arrangements at their workplace[82]. At the same time, the EWCS indicates a declining trend with regard to the percentage of workers who consider their health and safety to be at risk because of their work: 23% of workers in 2015 in the EU, compared to 31% in 2000[83].

Finally, the 500 key stakeholders at EU and Member State level, interviewed in the course of the evaluation, provide further support for the view that the Directives appear collectively to have been reasonably successful in achieving their intended aims and benefitting the health and safety of workers as a result. The justification for this opinion was primarily linked to the role the Directives have played in establishing common, minimum health and safety at work requirements across the EU. Differences could be observed among the different national stakeholders' groups when assessing if the transposed legislation has fulfilled its objectives. The competent national authorities were more positive in their assessment as compared with other stakeholders' groups. Among EU stakeholders, the employers were the most positive when assessing the effects of the EU OSH Directives on the safety and health of workers, while the workers were the least positive. When replying to the question to what extent the national legislation transposing the Directives affected establishments' behaviour for the securing of OSH, the assessment of all stakeholders groups differed according to enterprise size. The aggregated scores of the national stakeholders for the Directives' impact on the behaviour of SMEs was somewhat lower than for larger establishments. Both employer and worker organisations, on average, agreed that the nationally transposed OSH legislation has had a medium impact on SMEs, while national authorities were more optimistic in their assessment. These findings provided by national stakeholders were confirmed during interviews with EU stakeholders.

There are specific challenges related to some particular types of ill-health related to work.

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illnesses are those health problems and illnesses which can be caused, worsened or jointly caused by working conditions. This includes physical and psychosocial health problems. A case of work-related health problem and illness does not necessarily refer to recognition by an authority

[80] Eurostat calculation based on 2013 LFS ad hoc module on accidents and work-related health problems.

[81] France was excluded from this trend analysis because it exhibited major conceptual differences concerning this variable in 2007 and the Netherlands did not participate in the entire 2013 ad-hoc module.

[82] Flash Eurobarometer 398/ April 2014 – TNS Political & Social.

[83] *First findings: Sixth European Working Conditions Survey*, Eurofound, 2015.

Several studies based on the attributable fraction method[84] underline the burden of occupational cancer in the overall weight of work-related ill-health. According to estimates for 2012 for the EU and other industrialised countries, occupational cancer had a 57% share in all work-related deaths. Other major work-related death causes are circulatory diseases (23%) and respiratory diseases (6%)[85]. A study made in UK in 2010 estimated that 5.3% (8023) cancer deaths were attributable to occupation in 2005 (men: 8.2% (6366); women 2.3% (1657). Attributable estimates for total cancer registrations were 13694 (4.0%); and for men: 10074 (5.7%) and women 3620 (2.1%)[86]. According to a study published in November 2013[87], around 8,000-8,500 deaths/year from occupational cancer are estimated to occur in Italy.

The hazards leading to cancer are primarily covered in Directive 2004/37/EC (Carcinogens or Mutagens at Work Directive) and Directive 2009/148/EC (Asbestos Directive). Due to the long latent period for this type of diseases, it must be underlined that today's mortality and morbidity cases relate to past exposures, occurring often before the entry into force of the Directives meant to prevent these forms of work-related ill-health.

The evaluation found a decrease in exposure to a number of chemical agents. This does however not seem to be the case for all substances or mixtures classified as carcinogens 1A/1B or mutagens 1A/1B under Regulation (EC) No 1272/2008[88]. In addition, in the majority of the EU Member States, national limit values for highest concern substances and mixtures belonging to the aforementioned IARC groups exist. However, the values often differ by orders of magnitude[89] and therefore lead to different levels of health and safety protection of workers across the EU as well as complex considerations for companies with production across the EU.

In addition, the lack of common definitions for certain process-generated substances or mixtures known as occupational carcinogens and mutagens across Member States contribute to different levels of protection across the EU. This can further contribute to maintain the burden of occupational cancer high in the future, in particular with the ageing of the EU workforce.

There is no indication of an appreciable reduction in MSDs which remain a major type of work-related ill-health. According to the findings of the EU LFS ad hoc module 2013,

[84] The population attributable fractions (AFs) for work-related illnesses are commonly used to measure the component or fraction of such illnesses and deaths that are related to work.
[85] *Global Estimates of the Burden of Injury and Illness at Work in 2012*, Journal of Occupational and Environmental Hygiene. 2014 May; 11(5): 326–337.
[86] *The burden of occupational cancer in Great Britain, Overview report* prepared by the Imperial College London, the Institute of Environment and Health, the Health and Safety Laboratory and the Institute of Occupational Medicine, Health and Safety Executive, 2010.
[87] Am J Ind Med. 2013 Nov;56(11):1272-9. doi: 10.1002/ajim.22224. Epub 2013 Jun 24, http://www.ncbi.nlm.nih.gov/pubmed/23797976.
[88] Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) (OJ L 353 31.12.2008, p. 1).
[89] Based on results of a survey with the Member States competent authorities

musculoskeletal disorders were the most prevalent type of work-related health problem. Among respondents in the EU who declared having a work-related health problem, 60.1% pointed to musculoskeletal disorders as to their most serious issue[90]. According to the findings of the EWCS, though the reported exposure to posture-related risks declined over the last years, it still remains at a very high level (43%). Exposure to repetitive movements, tiring and painful positions as well as carrying or moving heavy loads still rank among the most prevalent physical occupational risk factors in the EU[91].

The hazards associated with MSDs are covered by the Framework Directive and by several specific Directives, most importantly the Manual Handling, the Display Screen and the Vibration Directives. The Work Equipment Directive also includes references to poor working postures from inadequate attention to ergonomics principles which could give rise to posture-related MSDs. The Directives do not relate specifically to all risks leading to MSDs (repetitive movements, tiring of painful positions) nor do they deal with the issue of combined exposure.

Considering psychosocial health problems, different data sources confirmed an increase in the forms of work-related ill-health related to the exposure to psychosocial risks. Indeed, according to the findings of the EU LFS ad hoc module 2013, stress, depression and anxiety were the second largest type of work-related ill-health identified by the respondents. Indeed, 15.9% of respondents of this survey declaring being affected by a work-related health problem over the last 12 months declared that those types of problems were the main type of work-related problems that they have had[92].

The psychosocial risks need to be seen in a wider context. The WHO suggest that nearly one in two people will suffer from mental illness at some point in their lifetime, while it is estimated that almost 10% of the population suffer from depression in any year while a further 2.6% suffer from a psychotic disorder. Anxiety is also a major issue. Many of the risks to mental health have their source in the professional context (job content, workload and work pace, control, environment and equipment, organisational culture and function, interpersonal relationships at work, role in the organisation, career development, violence and bullying)[93].

Different data sources show that the extent of exposure to those types of risks and the related costs to society remain very high. In Europe 25% of workers say they experience work-related stress for all or most of their working time, and a similar proportion reports that work affects their health negatively. Psychosocial risks contribute to these adverse effects of work. The

[90] Eurostat, EU LFS ad hoc module on accidents at work and work related health problems (online data code: hsw_pb5).
[91] *First findings: European Working Conditions Survey 2015*, Eurofound. The results should be interpreted with caution as the questions of the survey, were not designed to monitor the effectiveness of the OSH Directives. Also over the past few decades, the employment structure in terms of occupation and sector has changed. This shift could at least partly explain patterns of risk exposure described above, which would imply that risk level associated with the jobs themselves might not have changed much at all.
[92] Eurostat , EU LFS ad hoc module on accidents at work and work related health problems (online data code: hsw_pb5).
[93] *Promoting mental health in the workplace – Guidance to implementing a comprehensive approach*, DG EMPL 2014.

incidence of some psychosocial risk factors has fallen since 2005. Fewer people report working long hours and a lack of social support. However, job insecurity has grown, and one-fifth of workers still work long hours or have irregular schedules. Recently, increases in work pressure and violence and harassment have been reported in some countries; this is associated with workplace changes brought on by the economic crisis. Psychosocial risks are of concern to a majority of companies: nearly 80% of managers express a concern about work-related stress, and nearly one in five considers violence and harassment to be of major concern[94].

The costs of mental ill health have a major impact on workplaces. As part of the work on the European Mental Health Pact, it has been estimated that the total productivity costs of absenteeism due to mental illness was €136 billion in 2007. Mental ill health has a disproportionate influence on absence from work, disability and early retirement. When people develop a mental health problem, they are likely to be out of work for longer, they are more likely to become disabled and they are more likely to retire early. Moreover, data from a number of countries indicate that mental ill health accounts for an increasing proportion of absenteeism, disability and early retirement as time passes. For example, in Germany early retirements due to mental ill health have risen from just over 20% to almost 40% of all retirements due to ill health between 1989 and 2010. The proportion of such mental health related early retirements has continued to rise[95]. Moreover, mental ill health as a cause of absence from work in Germany has also increased – between 1989 and 2012 it has risen 2.5 times while absence due to other health causes has remained substantially the same. These trends in Germany are reflected in data from many other countries across the EU. Data from the UK suggests that not only is there an increase in stress or mental health related disorders as a cause of absence, but that the absences due to these conditions are longer than those for physical health causes[96].

While there is no EU OSH Directive which lays down detailed provisions on psychosocial risks, the Framework Directive covers this risk and there is a reference to mental stress in the DSE Directive. The analysis of compliance shows some difficulties that establishments face in including these types of risks in the risk assessments. Further evaluation regarding the situation at national level and the costs and benefits of national and social partner/enterprise initiatives to tackle these challenges would seem warranted.

Impact of derogations and transitional periods

As described in the section 5.1., derogations and transitional periods are not considered to have had a major impact on the implementation and effectiveness of the Directives.

Impact of the different CPMs

[94] *Psychosocial risks in Europe – prevalence and strategies for prevention*, EUROFOUND, 2014.
[95] SUGA (Bericht zur Sicherheit und Gesundheit bei der Arbeit) 1998-2008. Bundesanstalt für Arbeitsschutz und Medizin (BAUA), Federal Institute for Occupational Safety and Health http://www.baua.de/de/Startseite.html
[96] Department of Work and Pensions 2013. DWP Statistics. Available at: http://statistics.dwp.gov.uk/asd/, London, DWP.

The six Common Processes and Mechanisms (CPMs) built into the OSH framework are central to its operation and contribute to achieving overall health and safety objectives.

Two factors have been identified which may influence the impact of CPMs. Firstly, the co-existence of the two levels of EU legislation, having its impact on the national legislations: the overarching framework directive and individual directives with provisions specific to some sectors, risks or groups of workers and the fact that obligations described on those two levels are complementary might not always be well understood, particularly amongst SMEs. Furthermore, scientific literature as well as analysis of compliance levels across sectors indicate that not being aware that one is not complying, particularly in SMEs, undermines the effectiveness of the CPMs. This is supported by ESENER data that shows that many, especially small, establishments perceive that no major problems exist at the workplace. Such recognition may primarily be achieved by means of external intervention from inspectors and consequential iterative dialogue (see below).

Turning to the specific CPMs, the relatively good levels of compliance (compliance being a first condition for legislation being potentially effective) with the requirement to perform **risk assessments** (cf. section 5) above, imply that the CPM may potentially have been effective at ensuring OSH at workplaces. The OSH management infrastructure set up in the establishments in relation to the risk assessments contributes to this goal. This interpretation received support during national and EU stakeholder interviews. Risk assessments are viewed as the foundation for forming and applying a risk prevention strategy rather than as a reactive approach to occupational safety and health. ESENER-2 survey results support this, as 90% of surveyed establishments in the EU-28 that carry out regular risk assessments regard them as a useful way of managing health and safety[97].

This was a consistent finding across activity sectors and establishment sizes. The 2014 ESENER-2 survey results also show that fewer establishments than in 2009 refrain from conducting risk assessments because the procedure is regarded as too burdensome or because they lack the necessary expertise[98]. But the same survey also reflects the difficulties in taking certain types of risks into account in the risk assessment (only 56% of respondents of the survey declared having sufficient information on how to include psychosocial risks in the risk assessment). While preventive measures are taken in establishments where a given risk was identified as being relevant, their nature and uptake differs between Member States and establishments of different sizes[99]. This links to the difficulties for SMEs in complying with the legislation identified in the previous chapters (lack of sufficient information and training, complexity of legal obligation, lack of resources).

Also the stakeholder interviews conducted in the framework of the evaluation indicate that the provision on risk assessment would benefit from being more closely linked to risk management and the proactive prevention of identified risks on the part of employers, as stakeholders point to a tendency that risk assessment performance occasionally diverts

[97] EU-OSHA, ESENER-2 (2014).
[98] EU-OSHA, ESENER-2, (2014).
[99] See analysis for preventive measures in relation to risks leading to musculoskeletal disorders, ESENER-2 Overview Report: Managing Safety and Health at Work.

attention away from managing identified risks, particularly in SMEs. This highlights the impact of non-recognition as SMEs tend to believe that, having followed legislative requirements and conducted a risk assessment, they are in compliance. Contrarily, risk assessments in SMEs are often of insufficient quality to ensure adequate risk management as they sometimes lack the resources (human and financial) to identify and manage hazards adequately[100].

One finding of the evaluation is that while risk assessments performed by external service providers reduce the need to maintain in-house expertise, they often result in a lack of subsequent 'anchoring' in the establishment and consequent risk reduction in comparison to risk assessments performed by internal staff[101]. This is particularly the case when the available external services are of poor quality. As SMEs are more inclined to use external service providers, risk assessments in SMEs may not have the same quality as in larger establishments, nor to the same extent result in an OSH management approach that is integral to the particular business and priorities of the SME. Development of digital risk assessment tools such as EU-OSHA's OiRA could provide efficiency gains and cost reductions in this respect.

On the subject of protection and preventive services, this CPM is subject to varying assessments regarding its contribution to the safety and health impacts of the OSH acquis by national and EU stakeholders, respectively. While during the stakeholders' interviews national stakeholders do not place significant emphasis on the CPM, EU-stakeholders find it to be the second most contributing CPM. This may be explained by the fact that many external protection and preventive services seem to design and target their products to larger companies which means that their aid is of less use to SMEs, who make the most use of them. This imbalance has reduced the effectiveness of the CPM to some extent. In this context, some Member States have taken measures to improve the quality of available preventive services (e.g. certification, auditing, setting minimum qualifications).

ESENER-2 findings confirm that the existence of a formal **OSH employee representation** does play a role in OSH risks management. According to this survey, lower proportions of workplace risk assessments are reported among those establishments without a health and safety representative than those with a health and safety representative: 62% versus 87%, respectively. The gap widens with the decrease of the establishment size[102]. Establishments with a formal OSH representation score also better as regards the existence of a document explaining OSH procedures and responsibilities in the establishment, training, support for return to work after long-term absence or routine analysis of sickness absences (See Figure 12 below).

[100] NIRs (e.g. NIR-PL and SI), Validation Seminar, national stakeholder interviews.

[101] EU-OSHA (2013c), European Risk Observatory, Analysis of the determinants of workplace occupational safety and health practice in a selection of EU Member States: https://osha.europa.eu/en/publications/reports/analysis-determinants-workplace-OSH-in-EU

[102] EU –OSHA (2016), Second European Survey of Enterprises on New and Emerging Risks (ESENER-2), Overview Report: Managing Safety and Health at Work, European Risk Observatory,p.21.

Figure 12: OSH management measures by existence of formal employee representation (% establishments, EU-28)

Source: EU–OSHA (2016) , Second European Survey of Enterprises on New and Emerging Risks (ESENER-2), Overview Report: Managing Safety and Health at Work, European Risk Observatory, p. 75.

Finally, evidence suggests that **training and information** is a pivotal element in the process of improving the safety and health of workers.

However, a clear indication of a potential need for improvement of the effectiveness of the training of workers is that **training on prevention and measures related to psychosocial risks and risks associated with exposure to chemical and biological agents, non-ionising radiation or dust hazards has been provided to less than half of the surveyed worker representatives**. Of these, a total of 57 % report that they have received a sufficient amount of training. Important differences were also noted as regards the thematic coverage of training to employees. There is in other words a continued need for training on these matters, and on emerging risks in particular. As these proportions refer to the training of safety and health representatives, it is reasonable to assume that the training of workers is more limited. Interestingly, evidence suggests that worker representatives in SMEs tend to be more satisfied with the training they receive, than those working in larger establishments.

Impact of sanctions and labour inspections

The main responsibility for enforcing EU OSH law lies with national authorities. Article 4 of the Framework Directive 89/391/EEC on safety and health of workers at work requires Member States to ensure adequate controls and supervision, leaving Member States free to organise their enforcement authorities according to their national law and traditions. The body competent for OSH inspections varies from one Member State to another depending on the institutional setting of the country. The Commission supports the efforts of the Member States in this regard through various measures, where appropriate, in particular to ensure that effective and efficient enforcement and monitoring mechanisms are put in place.

National labour inspectorates cooperate closely at EU level on effective and equivalent enforcement of the EU health and safety at work legislation in the context of the Committee of Senior Labour Inspectors (SLIC)[103]. Several activities are being carried-out by SLIC to facilitate cooperation and coordination between inspectorates such as the development of an electronic handbook comprising all OSH enforcement authorities' competences and contact points facilitating mutual assistance among labour inspectorates or the European inspection campaigns.

As regards the effectiveness of enforcement in the area of health and safety[104], a relatively recent literature review concludes that:

- Enforcement is an effective means of securing compliance, creating an incentive for self-compliance and a fear of adverse business impacts such as reputation damage in all sectors and sizes of organisations, including major hazard sectors.

- Fear of enforcement is a significant motivator for organisations, there may be value in exploring new types of penalties, charging regimes and enforcement strategies so as to maximise the deterrent effect of enforcement, such as court ordered publicity.

- There is evidence that enforcement is an important element in prompting major hazard firms to manage health and safety, including major accident prevention.

- Enforcement supported by advice and guidance is considered to be of equal benefit to health hazards as it is to safety risks.

The evaluation confirmed fear of enforcement is a key driver to comply with OSH legislation, as companies rated legal requirements and enforcement as major reasons for developing OSH policies and take OSH action. The EU-OSHA ESENER-2 survey results show that fulfilling legal obligations and avoiding fines from the labour inspectorate is among three main reasons for establishments to address health and safety issues[105].

Although at macroeconomic level, no strong correlation could be identified between fatal accidents incidence rates in the different Member States and the level of enforcement, evidence based on studies at micro-economic level, including longitudinal data, points to the fact that enforcement, and particularly the combined role of inspectors enforcing legislation and providing guidance on implementation, contributes to the compliance with the OSH acquis. This is particularly true in SMEs and micro-enterprises, where non-compliance is more important than in large companies.

[103] Commission Decision 95/319/EC of 12 July 1995 setting up a Committee of Senior Labour Inspectors, (OJ L 188, 9.8.1995, p.11).

[104] *Building an evidence base for the Health and Safety Commission Strategy to 2010 and beyond: A literature review of interventions to improve health and safety compliance*- Prepared by Greenstreet Berman Ltd for the Health and Safety Executive 2004.

[105] EU-OSHA, ESENER-2 (2014).

Two major concerns have been identified in this regard in the framework of the EU OSH Directives evaluation:

Firstly, it is the level of enforcement across Member States varies significantly. Secondly, while a strong link between the number of workers per inspector and data on work-related accidents rates could not be established, also given other confounding factors in play, the number of inspections carried out per 100,000 workers appears insufficient and there is a large spread between Member States ranging from 4,000 to 22,000 workers per inspector. The challenge to enforcement is further compounded by falling resources allocated to labour inspectorates in many Member States. Some Member States have experienced a considerable decrease in the number of inspections per 100,000 workers, while, in other Member States, the situation is the opposite. One important observation is that the respective increases or decreases of inspections across Member States is not linked to previous levels of enforcement (e.g. number of inspections per 100,000 workers) and thus does not constitute a process of levelling out inspection frequencies across Member States.

According to SLIC, inspectorates subject to budget cuts have, thus, not affected the number of inspectors/inspections carried out in all Member States, but they can have implications on salary levels and educational/training budgets. Notably, a majority of those Member States, which have managed to increase the number of inspections per 100,000 workers from 2007 to 2012, have done so largely by increasing the number of inspections made by each inspector, i.e. by improving the effectiveness of national inspectorates.

There is also significant evidence that points to the benefits associated with stressing the preventive and advisory role of inspectors. This is particularly true for SMEs because face-to-face interventions, discussions and negotiation allow them to internalise the rules of the OSH acquis and recognize a need for action. However, exploiting this potential to its fullest entails training labour inspectors and providing them with sufficient information and knowledge to cope with emerging risks and new realities[106].

Overall, the evidence outlined above points to a need for a strong effort in the area of enforcement, and inspections in particular, to ensure the implementation of the directives and to aim for a greater harmonisation in the way the legislation is enforced[107]. The degree to which the inspection strategies developed at Member States level together with other policy tools contributes to better enforcement and compliance needs to be further studied. It is critical that labour inspectors are seen as facilitating compliance with legislation rather than obstacles to business activity. The effectiveness of labour inspections depends largely on the expertise of labour inspectors and their capacity to carry out these inspections.

[106] European Federation of Public Service Unions (EPSU) (2012), *A mapping report on Labour Inspection Services in 15 European countries*:
http://www.epsu.org/IMG/pdf/EPSU_Final_report_on_Labour_Inspection_Services.pdf

[107] *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States (Main report), COWI, 2016.*

Effectiveness of current data and systems enabling monitoring of the implementation of the Directives

The evaluation identified that an important challenge in the assessment of effectiveness is related to the effectiveness of current data and systems enabling monitoring of the implementation of EU OSH framework.

As also described in the Commission's better regulation guidelines, part of effective regulation is monitoring to generate evidence on activities and impacts over time in a continuous and systematic way. The guidelines, among other things, state that the monitoring system should provide time series data, which is more reliable in explaining behaviour than one-off data collection exercises.

The Directives, apart from most of them referring to the five-yearly reporting requirement, **make little or no reference as to how they will be monitored.** As shown in the analysis of effectiveness above, there are some important sources of data at the EU level, which do enable the monitoring of the implementation of the Directives to some extent. ESENER, ESAW, the EU-LFS ad hoc modules of accidents at work and work-related health problems and EWCS do provide valuable input. In some cases, the ongoing work on methodological issues such as under-coverage and underreporting in the ESAW data collection can bring valuable input for future evaluations. The periodicity of the ESENER and EWCS surveys is however not fully aligned with the periodicity of the evaluations. Furthermore, the monitoring of the directives often requires data at a level of detail going beyond the capacities of the existing EU data collections. The absence of longitudinal studies assessing the effects of the policy intervention, of up-to-date data on occupational exposures, the difficulties in matching or linking different data sources necessary to study the effects of the policy intervention, as well as the absence of EU level detailed data on work-related ill-health (including occupational diseases) are other challenges for the evaluation. More up-to-date data on the incidence rates of accidents at work, broken down by enterprise size would be valuable in order to establish the nature of the connexion between the levels of compliance in establishments of different size (micro, small, medium and large enterprises) and OSH outcomes.

Most of the Directives are covered by the general requirement to report to the Commission about their implementation every five years. The resulting NIRs for the period 2007-2012 constitute one of the three main building blocks for this evaluation. Having a report every five years from the Member States on the implementation of all these Directives hence also marks a unique opportunity for collecting data and filling gaps where sources such as those mentioned above, do not give sufficient insight.

Analysis of data from the NIRs for the present evaluation also shows that while they do provide valuable information, the scope of information provided varies between Member States and between Directives. This is partly because the respondents in the Member States have taken different interests in answering the questions posed in the questionnaire devised by the Commission. However, this is also due to the fact that the questions are often phrased in

an open manner. For this reason, the responses from the Member States are often not comparable and reflect different interpretations of the question posed.

Furthermore, fifteen Directives contain reporting obligations. These obligations could be seen as a basis for EU wide data collection of data pertaining to the implementation of the Directives, but no initiatives have been taken to streamline reporting in these areas.

The lack of data, and the resulting limitations, have not only posed a methodological problem for the evaluation, but also reflect a fundamental problem for policy and regulatory development in relation to OSH. A clear understanding of the relationship between specific risks and their adverse consequences provides an important basis for addressing those risks. Follow-up actions are therefore needed to address this issue in the future.

6.3. Efficiency – Assessment of costs, benefits and broader effects

One key concern in the Better Regulation Agenda is to assess the efficiency of interventions, i.e. whether objectives are met at proportionate cost (the protection of workers health and safety under the 24 EU Directives) without imposing unnecessary burdens on enterprises, in particular SMEs. As EU level data on costs was not available to answer this question, the approach taken consisted in bringing together a number of sources of evidence: a literature review; national data; and the results of stakeholders' interviews conducted in the framework of the external study.

The result is a preliminary qualitative assessment of both the benefits for the main stakeholders groups (the workers, employers, governments) and main costs (incurred in particular by the enterprises) in relation to the health and safety legislation. Enterprise level case studies were also examined to provide further perspective. The assessment was carried out at the level of the OSH acquis in general, as the provisions of different Directives are interlinked and do not allow for an analysis by Directive.

- **Difficulties in relation to building a model to compare the costs and benefits of the EU health and safety legislation**

A major challenge in applying cost-benefit type methods to assess the efficiency of the EU OSH framework is the difficulty in establishing a robust baseline scenario, and the lack of sufficient input data on both benefits and costs.

As far as the baseline is concerned, the mapping exercise showed that the Directives were often put in place in parallel to pre-existing national legislation of varying detail. In other cases, the Directives have influenced the way the national legislation has evolved. It is, however, difficult to judge ex-post what would have happened if the EU OSH legislative

framework would not exist. An experimental or quasi-experimental counter-factual design model was impossible to implement because no robust 'comparison' group could be envisaged as compared with the 'treatment' group due to the general character of the policy intervention. At the same time no prospective data design for the evaluation was envisaged when the Directives were adopted and the data available ex-post was not fully fit for purpose. While considering an analysis based on a non-experimental design the difficulties in differentiating between the impact of the EU legislation and the national legislation as well as other confounding factors (non-OSH legislation, technological progress, structural changes in the labour markets, socio-economic developments etc.) rendered the analysis impossible.

Secondly, as explained in Chapter 6.2, an additional difficulty lies in the timeframe appropriate for the analysis. Each form of ill-health (independently of accidents at work), which the Directives are meant to prevent has its own minimum duration of exposure, maximum latent and minimum induction period. For each form of ill-health a different time frame for the analysis would need to be considered. As diseases such as cancers have a very long latent period, a 2007-2012 evaluation time frame cannot address efficiency in relation to ill health.

Finally, several pieces of input data are missing to make a full cost-benefit type assessment. On the costs side of the equation, no information is currently available to date on this topic at EU level. The study gathered information primarily from national studies, but findings from one Member State cannot be easily extrapolated to another due to differences in the transposition of the Directives and different methodologies applied to measure costs. In addition, the costs of the EU legislation cannot easily be dissociated from more detailed national requirements.

On the benefit side, information was not systematically gathered in all Member States in a comparable way during the evaluation period and in prior years. In particular, data on the levels of exposure in the exposed populations as compared to exposure limit values in the Directives and the actual number of workers exposed is often not available. This renders difficult to properly forecast the benefits, in particular in the case of Directives aiming at the prevention from forms of ill-health with long latent periods. An additional difficulty is to identify the correct appraisal value for the health outcomes.

- **Overall compliance costs and administrative burdens**

This section presents findings in relation to the costs of complying with EU OSH legislation that arise for society, workers, and employers ('compliance costs'). The evaluation of this point was carried out on the basis of the external study, and of the NIRs, but also on the basis of the results of the measurement undertaken in the framework of the EU Action Programme for Reducing Administrative Burdens in the EU[108] as well as a distinct specific study on the consequences of the existing obligation to document risk assessment and of a possible

[108] http://ec.europa.eu/smart-regulation/refit/admin_burden/index_en.htm

exemption[109] outsourced by the Commission (hereinafter, 'the external study on risk assessment documentation').

The external study analysed the compliance costs arising from EU OSH legislation using the Standard Cost Model (SCM)[110] framework which divides compliance costs into **substantive compliance costs** (such as investments in safety equipment or physical changes in the workplace) and **administrative costs[111]** (costs generated by the legal obligation to provide information, such as reporting obligations[112], including documentation). The result is a mapping of all provisions which could potentially give rise to those in costs in all the Directives.

Several **methodological challenges for estimating compliance costs and administrative burdens** were encountered. Following the detailed mapping of the way the Member States transposed the provisions of the Directives, it became clear that Member States frequently go beyond EU requirements. Consequently, it was felt that that the approach whereby isolated results available from chosen Member States will be extrapolated to other Member States is not appropriate. Furthermore, reservations about the SCM assumption of full compliance did not seem to be consistent with evaluation evidence of different levels of compliance by Member State, individual provisions, and other factors such as the size of the enterprise.

The Commission has been working to reduce the regulatory burdens created by EU legislation – making administrative processes easier and more efficient for citizens and businesses since 2006, Prior to the external study, the EU Action Programme for Reducing Administrative Burdens in the EU examined OSH legislation with a focus on the provisions of the Framework Directive (Council Directive 89/391/EEC) and the Construction Sites Directive (Council Directive 92/57/EEC). The measurement concluded that the information obligations, which had the most significant impact on all administrative costs related to OSH legislation, generated a cost of around 4.2 bln EUR. Out of this number, 3.8 bln EUR (88.6 %) were assessed to be administrative burdens. The most significant administrative costs were related to the obligation to possess an assessment of risks to safety and health at work (2.9 bln EU, i.e. more than half of the overall administrative costs)[113]. The SCM methodology applied in the framework of the Action Programme suggest that most goal-oriented provisions of both Directives were classified as an EU administrative burden.

In this context, ETUI (2010)[114] has questioned whether the goal-oriented legal requirements present in some directives (in particular the Framework Directive) can be translated into

[109] Europe Economics, Final Report, *Study on the consequences of the documentation of the risk assessment (Article 9 of Directive 89/391/EEC) by very small enterprises engaged in low-risk activities, compared with a possible exemption from that obligation*, 12 December 2012.
[110] http://ec.europa.eu/smart-regulation/refit/admin_burden/scm_en.htm
[111] It is to be noted that costs in relation to information that would be collected by businesses in absence of legislation (business-as-usual costs) are not included in the category administrative burdens.
[112] In brief, reporting obligations include the obligation to supply information (on request or automatically) to the competent authorities; and the obligation to keep certain documents at the workplace (e.g. health records, risk assessment, explosion protection documents) in view, for example, of an inspection.
[113] Detailed information about the level of administrative costs and burdens related to the information obligations steaming from the Framework and Construction Sites Directives is summarized in Table 4, Annex 4.
[114] L.Vogel, Eric Van den Abeele, *Better Regulation: a critical assessment*, ETUI, 2010.

substantive compliance costs and information obligations (administrative costs and burdens). According to ETUI, the Framework Directive (and most other OSH Directives) contains few detailed substantive rules (such as exposure limits, medical checks etc.). Rather, they lay down general objectives and establish procedures to create a management system, which links between health and safety at work to business management systems. This makes the distinction between information obligations and other substantive compliance costs meaningless, because the production, processing and passing on of information are the building blocks of that process.

Nevertheless, in the framework of the evaluation study, in line with the SCM methodology a detailed mapping of the provisions which might lead to administrative and compliance costs was made. Most of the principles and rules common to all Directives as information obligations (generating administrative costs) and found that the main cost category related to these obligations is labour cost. It was also found that the substantive obligations will generate costs through the following obligations: requirements to change/alter the way the work is organised (work organisation); requirements to invest in safety equipment (safety equipment); and requirements to change physical working aspects, like equipment or workstations (physical aspects of work).

The study concluded that it was not possible to estimate the actual monetary costs or estimate the time used in relation to the obligations set by the Directives. The principles and rules common to all Directives laid down in the Framework Directive generally do not indicate exactly how enterprises should carry out the relevant activities nor the exact frequency of recurrent obligation. Therefore, the actual costs of compliance is dependent not only on the specific national rules but also on the enterprises interpretation and operations and they are likely to differ markedly from one enterprise to another depending on the specific risk factors, workplace operations and the level of compliance. It is noted that other studies have attempted to quantify costs under certain circumstances / in particular sectors[115].

Other sources of information were used to attempt such an assessment including interviews with EU and national stakeholders. However, they did not provide the foundation for a robust quantitative assessment, as most of the stakeholders did not distinguish between

[115] See the results of the Cumulative Cost Assessment of the Chemical Industry (Technopolis, 2016, , pp. 110-111, available online: http://ec.europa.eu/DocsRoom/documents/17784/attachments/1/translations/): *"The average cost of the workers' safety package amounts approximately €2b per year. The main cost drivers are the operating cost and the investment related to the improvement of safety conditions and protection of the health of workers. The yearly cost borne by companies remains stable over the period covered by the study, as there are no significant changes in the legislation. However, changes in processes, product formulations or classification of substances can require updates of safety standards in place at a manufacturer's site. As an example, when a substance classified as hazardous is introduced in a chemical process, the manufacturer must implement measures such as individual protective equipment, emission control systems, emission abatement measures including ventilation or closed systems, bio monitoring of workers and safety training. Changes in the classification of substances trigger adaptations in the workers' protection measures. Investments in safety measures are usually one-off at the start of a plant and changes are limited to upgrades or expansion of facilities. Overall CAPEX is kept around 0.8%. On the other hand, operating costs recur on an annual base and amount to approximately 2% of the value added. Operating costs include periodic maintenance of safety systems, regular replacement of individual protective equipment (overwear, gas mask, goggles, gloves), bio-monitoring and training of workers."*

administrative or substantive compliance costs. The external study also conducted a literature review, which showed that current knowledge is limited and fragmented. It was not possible to directly compare the results from the studies, because they differ in methodology and cover different pieces of legislation, information obligations and Member States. However, based on the available data several provisional conclusions could be reached as regards **substantive compliance costs, administrative burdens and compliance costs in SMEs**.

All Directives contain obligations which can potentially **generate either administrative costs or substantive compliance costs**. Those are, however, dependent on the situation in place in a given Member State before the entry into force of the Directives. The external study found that 15 of the 24 Directives contain reporting obligations (i.e. obligations to supply information to the competent authority or to keep and record certain documents).

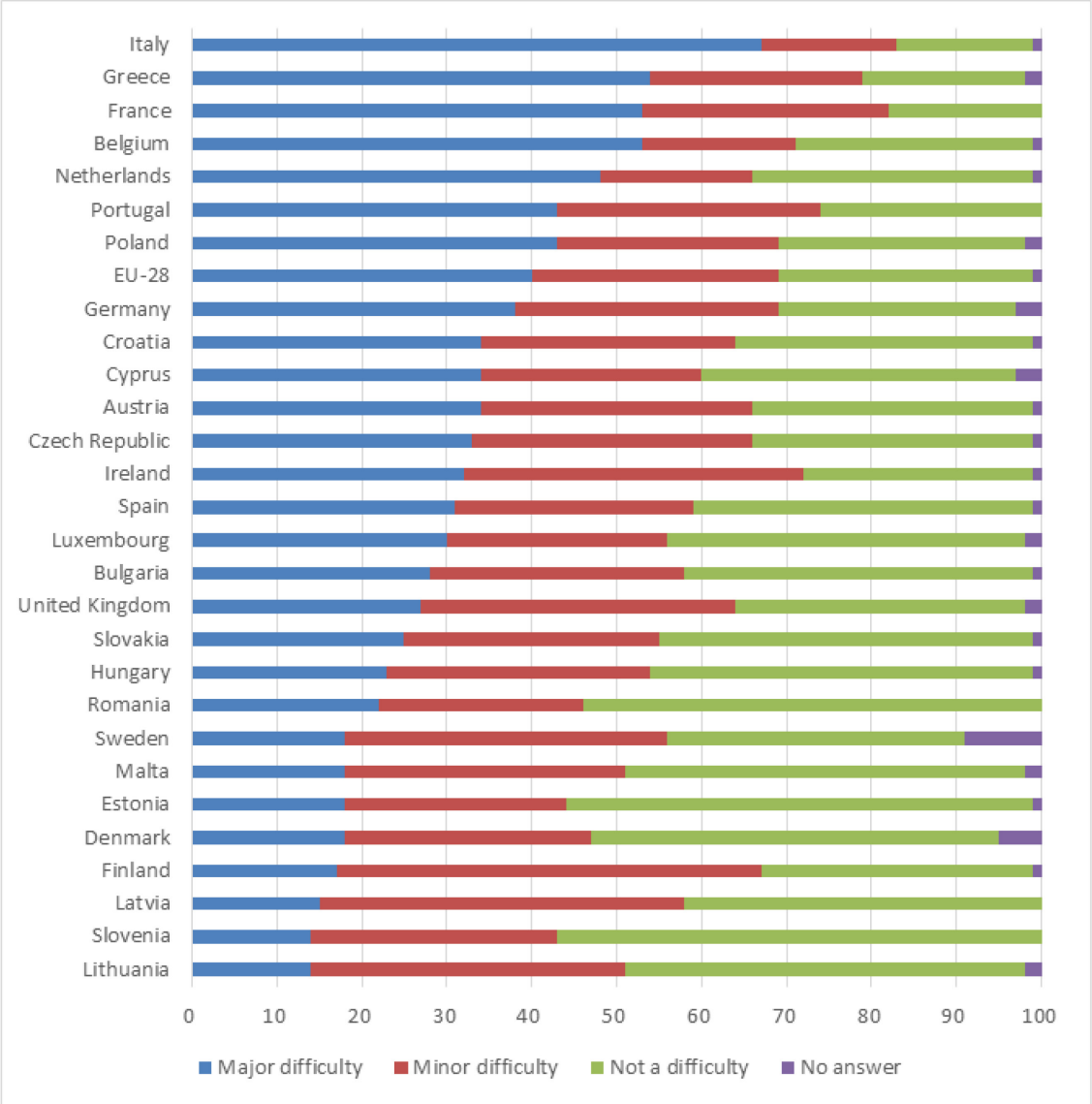
Compliance costs stemming from the Directives appear to primarily fall on the enterprises (employers) and on the governments to a lower degree (compared to enterprises). However, it has proven difficult to estimate whether some requirements are more costly than others, as the different data sources are not directly comparable and present conflicting results.

OSH Directives that target all enterprises (especially the Framework Directive), and provisions that are common to all EU OSH Directives generate the highest costs from a societal perspective. However, this might not be the case from the enterprise perspective. Indeed, some obligations might be rather costly for the individual enterprise, but because the obligation only applies to a small sector or industry, the total cost from the societal perspective can be quite small. The evaluation study also pointed to the fact that there is a strong business as usual factor in costs incurred for OSH[116], as reasons to address health and safety go beyond the legal obligations (see also figure 3).

Available literature, which uses the SCM to assess administrative costs, does not separate between costs stemming from national and/or EU legislation. Also no firm conclusions could be drawn in the external study concerning administrative costs arising from 'gold plating'. However, some of the EU stakeholders expressed the opinion that administrative costs, in general, stem from complying with national legislation rather than the EU OSH acquis. This view seems to be supported by results of a large scale 2014 survey[117] of 49,320 enterprises across the Member States, which showed that the regulatory burden (percentage of establishments reporting that the complexity of legal obligation is a major difficulty) varies from around 67% in Italy to around 14% in Slovenia and Lithuania (Figure 13). This suggests that a significant proportion of the administrative burden could be attributed to the national differences rather than the common EU minimum rules. National differences may be due to several factors, such as differences in the transposition of the EU Framework Directive, the availability of guidance, support and external services that combined with other issues lead to this very diverse perception of how complex legal obligations on OSH are.

[116] *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States (Main report), COWI, 2016.*
[117] European Agency for Safety and Health at Work, ESENER-2 (2014),.

Figure 13. Difficulties in addressing health and safety, by country: the complexity of legal obligations (% establishments).



Source: European Agency for Safety and Health at Work (EU-OSHA), ESENER-2 (2014),. Base: all establishments.

As regards **compliance costs in SMEs**, the study concluded that **costs per employee are likely to be higher in SMEs**. This conclusion is based on a UK study[118], which showed that while SMEs spent less (measured in absolute numbers) compared to large enterprises, the costs per employee is considerably higher[119]. However, another study from the UK shows

[118] Costs of compliance with health and safety regulations in SMEs, HSE, 2003. The Health and Safety Executive in the UK conducted a study, to assess the extent of disproportion in the cost of OSH compliance across differently sized sectors. The study included enterprises from five sectors (agriculture/forestry, construction, manufacturing, transport and health).

[119] In the aforementioned study the average mean spend on OSH equalled 4,136 £ for small enterprises (0-49) and 628,926 £ for very large enterprises (more than 5,000 employees). At the same time the average spent per

that **external consultancy might have a strong effect on costs in SMEs**. In this context, the evaluation found evidence that smaller enterprises are more likely to use external consultants. This may be because larger enterprises more often have the competency in-house, while microenterprises and SMEs find it easier to acquire the service from external providers, even if they have less financial resources at their disposal.

According to another 2008 survey based study[120], third parties (like business consultants, health and safety experts, lawyers, financial service companies, and occupational health professionals) play a significant role in shaping how employers experience and feel about health and safety. However, this also means that the third sector (e.g. insurers and OSH consultancy) also likely to play a role in relation to cost of compliance among SMEs[121].

- **The obligation to document the risk assessment**

As the documentation of the risk assessment was identified since 2009 as the provision generating most administrative costs in relation to the EU health and safety legislation, the evaluation of the 24 EU occupational health and safety directives put a special emphasis on this requirement, in particular in relation to SMEs, to explore possibilities for administrative burden and costs reduction.

The evaluation of this point was carried out on the basis of sources previously mentioned, as well as of a specific mapping of the situation in the Member States carried out by the Commission services from 2010 to 2011. The two EU relevant advisory bodies, i.e. the Advisory Committee on Safety and Health at Work (ACSH) and the Senior Labour Inspectors Committee (SLIC) also adopted opinions on this point[122].

Risk assessment is as an essential part of OSH management and the documentation obligation. However, this is also an area where the Commission has received requests [123], [124] to exempt microenterprises from the risk assessment obligation of the Framework Directive.

The Framework Directive requires an employer to possess documents containing an assessment of the risks to safety and health at work. Those documents must be accessible to workers and/or their representatives with specific responsibility for the safety and health of workers must have access under its Article 10(3)(a). Risk assessment should be regularly

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employee by size of organisation equalled 149.38 £ for small entities (0-49 employees) and 19.54 £ for very large organisations (more than 5,000 employees).

[120] Department for Business Enterprise and Regulatory Reform (2008), Improving outcomes for health and safety.

[121] While highly specialised consultant might be cheaper, the third sector increasingly demand health and safety assessment, compliance and/or forms of pre-qualification from clients that want to work with them. For many of the employers that face them, these requirements have become a significant source of health and safety bureaucracy. SMEs in particular struggle to act as informed consumers of third party advice: knowing when – and when not – it is in their interest to buy in health and safety support.

[122] Opinion of the ACSHW on the recommendations of the High Level Group of Independent Stakeholders on Administrative Burdens, 10 December 2009, Doc. 2353/09; Opinion of the SLIC on the recommendations of the High Level Group of Independent Stakeholders on Administrative Burdens, 31 December 2009.

[123] See for example Report from the Business Task Force, Cut EU Red Tape, October 2013, p. 22; United Kingdom suggestion in the NIR.

[124] http://ec.europa.eu/enterprise/policies/betterregulation/files/hlg_opinion_working_environment_09052009_en.pdf.

adjusted when circumstances change and improvements allow[125] and they can be recorded on paper or another stable support.

A degree of flexibility for the needs of SMEs[126] is foreseen firstly in that the structure and authorship of the documents containing the results of the risk assessment is not fixed[127] and Member States can allow equivalent methods of recording the risk assessment[128]. Secondly, Member States are to define the obligations to be met by the undertakings in respect of the drawing-up of the risk assessment documents *depending on the nature of the activities and/or the size of the undertakings*[129]. Member States thus benefit from flexibility in this area which may consist for example in requiring the use of a simplified format or a lighter regime for certain categories of companies.

Nevertheless, the Court of Justice of the European Union (CJEU) established that Member States cannot exempt small business from being in possession of the risk assessment in a documentary form[130].

The evaluation finds that a very limited number of Member States exempt certain categories of undertakings from the requirement to document risk assessment (Article 9 (1) (a)) [131, 132], e.g. on grounds of their size, or the nature of their activities.

Member States use the flexibility under Article 9 (2) of the Framework Directive by allowing simplified documentation obligations for smaller companies, depending also on the level of risk of sector of activity in which they operate[133]. Most Member States do not have any particular requirement for the structure of the document, but many of them specify the kind of information that must be included in the document.

Most Member States do not define "low risk activities" or "high risk activities"[134]. Moreover, several Member States expressed their opposition and/or concerns towards a classification of activities in low and high risk[135], indicating in particular the lack of a necessary connection

[125] According to Article 6 (1), the employer shall be alert to the need to "adjust" the measures necessary for the safety and health protection of workers, including prevention of occupational risks, to take account of changing circumstances and aim to improve existing situations.
[126] M.L.A. GEELHOED, Opinion on ECJ, 7 February 2002, *Commission / Germany*, C-5/00, ECR 2002 p. I-1305, para 60.
[127] ECJ, 7 February 2002, *Commission / Germany*, C-5/00, ECR 2002 p. I-1305, para 25.
[128] ECJ, 7 February 2002, *Commission / Germany*, C-5/00, ECR 2002 p. I-1305, para 27.
[129] Article 9 (2) of the Framework Directive.
[130] ECJ, 7 February 2002, *Commission / Germany*, C-5/00, ECR 2002 p. I-1305, para 35.
[131] Based on the NIRs and on a comprehensive mapping carried out by the Commission services during 2010 and 2011.
[132] United Kingdom and Malta.
[133] Austria, Slovenia, Spain.
[134] One Member State (Italy) has adopted in August 2013 a law that gives competence to the Minister of Labour and Social policies to define by decree "sectors of activities of low risk on the basis of the incidence of accidents and occupational diseases on the basis of objective criteria and parameters, resulting from the accidents index of INAIL (National insurance institute) and relative to sectoral occupational diseases and specific to a given undertaking".
[135] Cyprus, Denmark, Germany, Malta, Sweden.

between an undertaking size and the risks its activities involve. However, several Member States classify activities depending on their level of risk[136] and list 'high risk' activities[137].

Some Member States[138] have carried out an assessment in order to determine whether the obligation to document risk assessment constitutes a necessary or unnecessary administrative burden for companies, but have generally not considered the size of the companies. No Member State has carried out an assessment of the impact of the requirement to document risk assessment for micro-companies undertaking low risk activities and very few Member States have specific information in this context about the situation of SMEs.

In line with a recommendation made by the High Level Group on Administrative Burdens, a study[139] investigated the possible consequences of an exemption of SMEs from a risk assessment documentation obligation. The results suggest that under certain scenarios an exemption from the documentation obligation for micro-enterprises in low risk sectors might lead to a modest net benefit, but that the possibility that an exemption might lead to a negative net impact cannot be ruled out. The very limited available evidence would seem not to point to overall higher work-related accidents rate because of the exemption from carrying out a risk assessment. However, the causal link between an exemption and a fall in costs of work-related ill health seems difficult to prove. The study investigated the consequences of the exemption under three different definitions of 'low risk'. Given the high degree of uncertainty in relation to certain input variables to the model, the sensitivity analysis undertaken showed that there is a risk that the policy would lead to a negative outcome in all three Low Risk definition scenarios, ranging from a net cost of 15 million EUR to 424 million EUR in the low sensitivity scenario.

An exemption from the documentation obligation can also impact the ability of enforcement bodies to monitor companies' compliance with health and safety practices[140]. Labour inspectorates in some Member States rely heavily on the documentation as a signal of SMEs and micro-enterprises' compliance with the health and safety legislation, and in the absence of any documentation such monitoring would need to be done through inspections, at a greater cost.

Also, there is a possibility that an exemption from documenting risk assessments could have negative consequences for small companies through rising insurance premiums that would affect all companies, even those that do not have any claims against them. Available evidence regarding an exemption from risk assessment documentation would seem not to point to overall higher work-related accidents rate because of the exemption. However, the causal link between an exemption and a fall in costs of work-related ill health seems difficult to prove.

[136] Belgium, Czech Republic, Greece, Hungary, Ireland, Latvia, Slovakia.
[137] Malta, Poland, Portugal, Slovakia, Poland.
[138] Austria, Denmark, Finland, Ireland, Lithuania, Netherlands, Romania.
[139] Europe Economics, Final Report, *Study on the consequences of the documentation of the risk assessment (Article 9 of Directive 89/391/EEC) by very small enterprises engaged in low-risk activities, compared with a possible exemption from that obligation*. See also references in note 1.
[140] See also Opinion of the SLIC on the recommendations of the High Level Group of Independent Stakeholders on Administrative Burdens, 31 December 2009.

Several challenges as to the availability of harmonised data at EU level for the purposes of a possible "low risk" sector definition remain. This, in particular, concerns the data on occupational exposures and work-related ill-health (in particular occupational diseases). In view of the data challenges in determining what sectors/occupations/hazards should be covered by the definition of low risk at European level, the exercise of categorizing low risk sectors appears to be somewhat subjective and to have corresponding limitations, including the possibility of inclusion/exclusion errors of sectors from the low risk definition.

Research undertaken so far on the relationship between the size of establishments and the injury rates for accidents at work provide another counter argument to exempting smaller establishments from the obligation to document the risk assessment (the obligation to document the risk assessment being an integral part of the general health and safety management). While no up-to-date data is available, based on available evidence the major injury rates (triggering also the highest costs for workers, social security systems and employers[141]) seem to be higher for SMEs than for larger establishments[142]. Further efforts are therefore needed to bring the incidence for most serious accidents down in SMEs, through focussing on solutions which could improve and facilitate and improve the management of OSH risks in those establishments.

As regards the solutions identified in the course of the evaluation which could contribute to making the risk assessment procedure easier for the SMEs, those include the development of tools and templates to help guide the companies and digital solutions for assessment of risks to safety and health. Since the adoption of the EU occupational safety and health Directives, substantial efforts were deployed to develop this type of tools.

At the EU level, an example of this approach is the OiRA project. Similar tools are being developed at national level and their use can also lead to reduction in costs due to the way the legislation has been implemented at national level or at least to create incentives to renew the risk assessment based on existing provisions. In the Netherlands, the acknowledgement of a relevant risk-assessment tool for small companies with less than 25 employees replaces the need for an OSH expert to approve their risk assessment, making it easy and convenient to use for these small businesses. There is a requirement to review and update all risk assessments performed with the tools every three years and if this does not happen, the mark of acknowledgement will be removed and the advantage of not having to employ an OSH expert will be lost (which can easily cost €1,500). This acts as an incentive for both sectorial organisations and individual companies to renew their risk assessments[143].

[141], Minor injuries contribution to total costs is small (2%). Based on *The costs to Britain of workplace injuries and work related ill health*, HSE.

[142] EU incidence rates of accidents at work broken down by establishment size are available until 2007 for 15 Member States (Source: Eurostat, ESAW). In 2007, the latest year for which the data was available, the standardised incidence rate of fatal accidents at work for all establishments was 2.9. The rate for establishments of 1 to 9 employees was 3.6, while for large enterprises (250 employees and more) – 1.8. Findings confirmed by studies conducted at national level. See, as example in: *Gli infortuni sul lavoro. Dall'analisi delle cause alla loro prevenzione*, 2008, p.116-117.

[143] http://www.oiraproject.eu/Resources/case-studies/review-of-dutch-experience/at_download/file

- **Benefits**

Accidents at work and work-related ill-health are a major cost to EU Member States. Estimates from different Member States indicate these costs range from **2.6% to 3.8% of Gross Domestic Product (GDP)**[144]. Action against poor Health and Safety can consequently provide benefits through avoiding costs that would otherwise result from cases of accidents at work and work-related ill-health.

A recent EU-OSHA literature review study[145] categorizes the costs of work-related ill-health and accidents at work into five types: productivity costs, healthcare costs, quality of life losses, administration costs and insurance costs. Those costs are not equally distributed between the different stakeholders, i.e. the workers and their families, the employers, the governments and consequently by the society in general[146].

In the absence of EU-level estimates, an overview of the distribution of costs of work related ill-health among the different stakeholders' categories can be drawn from studies made at national level (though based on different cost models).

According to recent estimates from the United Kingdom[147], 57% of the total costs fell on the workers, whilst 23% fell on government and 20% on the enterprises. The same source shows that non-financial human costs (which we refer to as quality of life losses) account for 57% of total costs of workplace injury and ill health. Productivity losses (which we refer to as indirect costs) accounts for 31% of total costs followed by health and rehabilitation costs (6%), administrative costs (1%) and compensation (referred to as insurance costs) (4%)[148].

Figure 5 in Annex 4 shows the trend in the cost of workplace injuries and ill health in the UK from 2006/07 to 2012/2013. Those costs in the UK have fallen by 14% since 2006/07 reflecting downward movements in the number of cases. The estimate does not include though the costs of long latency illness. It is not possible to exactly identify what part of this reduction can be attributed to the legislation, and it should be borne in mind that UK results cannot be extrapolated to other EU Member States.

- **Profitability**

Though a cost-benefit analysis of the effects of the EU occupational health and safety legislation was not undertaken at macroeconomic level for reasons stated above, several studies have been reviewed as a basis for assessing the **profitability for enterprises** of different OSH activities. The International Social Security Association assessed the return on prevention index for investments in occupational health and safety to be 2.2[149]. In line with the findings of the study on Socioeconomic costs of accidents at work and work-related ill-health the profitability index for all types of interventions analysed was ranging between 1.29

[144] EU-OSHA.
[145] *Estimating the costs of accidents and ill-health at work: a review of methodologies*, EU-OSHA, 2014, https://osha.europa.eu/en/publications/reports/estimating-the-costs-of-accidents-and-ill-health-at-work.
[146] For details, see Table 3 in the Annex 4
[147] See Figure 3 in the Annex 4
[148] See Figure 4 in Annex 4
[149] *Calculating the international return on prevention for companies: costs and benefits of investments in occupational safety and health*, International Social Security Association; 2013.

and 2.89. The benefit to costs ratio was assessed to be 1.21-2.18[150],[151]. Benefit to cost ratios over 1 were also observed in most of the case studies analysed in a study undertaken recently by EU-OSHA, targeting SMEs[152].

Case study literature suggests that wide-ranging interventions are more profitable than interventions targeting a particular issue related to a specific sector or type of enterprise. Moreover, interventions that mainly concern training and organizational change appear to be more profitable compared to interventions based on technical changes, such as personal protective equipment. Finally, the case studies show that participatory interventions that include workers appear to be most profitable[153].

As regards new and emerging risks, such as psychosocial risks, a recent study has estimated that the net return on investment generated by workplace mental health promotion programmes over a 1 year period varied from €0.81 to €13.62 for every €1 of expenditure in the programme[154].

As regards **benefits in SMEs**, the external study found that SMEs might in particularly benefit from health and safety effects of the EU OSH acquis, because a serious incident can lead to closure of a business due to the direct costs of dealing with the incident or the loss of contract/costumers. Thus, it is usually more difficult for SMEs to recover from a serious accident, because key workers cannot easily be replaced and because short-term interruptions to business can lead to dissatisfied clients/breach of contract.

- **Broader effects**

The evaluation also suggests that the EU OSH acquis has had positive effects by influencing agenda setting and national priorities in Members State and by creating more awareness at enterprise level. The evidence for innovation, quality of products, competitiveness is much weaker, but the literature also points to a link between competitiveness and a safer working environment. No conclusions, however, could be drawn in this regard.

Finally, the evaluation also points to negative side effects. Most notably, stakeholders expressed concern that unbalanced emphasis on risk assessments vis-à-vis risk management

[150] *Socio-economic costs of accidents at work and work-related ill-health*, European Commission, November 2011.
[151] As regards different project types, the median value for the profitability index depending on the scenario ranged between 2.56 to 4.08 for substitution/avoidance measures (with a benefit-cost ratio ranging from 1.60 to 2.25); 1.74 to 3.18 for organisational measures (with a benefit-cost ratio ranging from 1.04 to 1.36); 1.41 to 2.76 for new equipment/auxiliaries measures (with a benefit-cost ratio ranging from 1.40 to 2.70); 1.37 to 2.15 for workplace adjustment measures (with a benefit-cost ratio ranging from 1.22 to 1.66); 0.95 to 3.39 for training measures (with a benefit-cost ratio ranging from 1.12 to 2.51); and 1.05 to 1.83 for personal protective equipment uses (with a benefit-cost ratio ranging from 1.18 to 2.10).
[152] *The business case for safety and health at work: cost-benefit analyses of interventions in small and medium-sized enterprises*, European Agency for Safety and Health at Work, 2014.
[153] *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States, COWI, 2016*, p. 434.
[154] *Matrix Insight (2013). Economic analysis of workplace mental health promotion and mental disorder prevention programmes and of their potential contribution to EU health, social and economic policy objectives, Matrix Insight, Research commissioned by the European Agency for Health and Consumers*. Available at http://ec.europa.eu/health/mental_health/docs/matrix_economic_analysis_mh_promo tion_en.pdf

and preventive measures could be ineffective, in particular in situations where the preventive and risk management measures do not follow after the risk assessment phase.

6.4 Coherence

This section describes the main findings on how the Directives operate together, with other EU interventions and with measures at international level to achieve their objectives.

6.4.1 Coherence between the OSH Directives (internal coherence)

The evaluation suggests that there are no major contradictory provisions and the legal articulation between the OSH Directives through in-built mechanisms (e.g. specific scope, without prejudice clause, exemptions, *lex specialis* principle) has in most cases contributed to avoiding inconsistencies. The analysis of the interlinkages of the common processes and mechanisms (CPMs) across Directives also showed that the overall approach is relevant.

The external study has identified a number of specific **requirements within individual directives that could apply to all risks, workers and workplaces**. These are provisions with a scope and rationale corresponding to that of the Framework Directive and a level of prescription that would not restrict the Member States and employers' flexibility in implementing these general principles. Specific examples of provisions which are currently included in some of the individual directives but could possibly be applied across the OSH framework are given below.

The study could not establish to what extent this would be beneficial and what additional costs for employers it would generate. Stakeholders pointed out the risk that conducting even these seemingly straightforward modifications to the framework directive could in practice result in creating additional burdens for employers while having no effect on actual protection of workers, or even *de facto* lowering current protection standards. Another approach, to be further explored, could be to provide clearer explanation of what is considered as effective implementation of the framework directive.

a) Risk assessment

The requirement to conduct a risk assessment is set as a general, 'a minima', principle in the Framework Directive. Most Directives regulating specific risks define in detail the elements/risks that must be covered by this assessment. Out of those Directives which include an obligation to carry out a risk assessment, the majority (15) establishes detailed risk assessment procedures. Eight directives provide for an obligation to be in possession of an assessment. Out of the 24 directives all except one refer to risk management measures, undefined or detailed.

However, in some cases, these detailed provisions are not directly linked to the specific scope of the Directive and could apply to all workers regardless of the risks or the sector. The evaluation suggests that the following risk assessment and derived risk management measures could be applied across the whole OSH framework:

- To update or periodically repeat the risk assessment.
- To record the risk assessment on a suitable medium and to preserve it in a suitable form to permit consultation at a later stage.
- To take particular attention, when carrying out the risk assessment, to appropriate information obtained from health surveillance, including published information, as far as possible.
- To preserve in a suitable traceable form the protection and prevention measures derived from the risk assessment.

b) Preventive and protective services

The evaluation has not revealed any coherence issues, nor have stakeholders raised concerns, in relation to the provisions relating to preventive and protective services. Only one instance of **possible streamlining** has been identified in relation to the **Framework Directive** and **Directive 91/383/EEC (temporary workers)**.

Under Directive 91/383/EEC (temporary workers), Member States must ensure that workers, services or persons designated to carry out preventive and protective activities are informed of the assignment of temporary workers to the extent necessary to carry out adequately their protection and prevention activities for all the workers. This requirement is potentially applicable to all newly employed workers and workers who need specific attention (e.g. young workers and pregnant/breastfeeding workers) due to the risks they encounter.

c) Information to workers

The Framework Directive (Article 10) sets out the requirement of providing information to workers in a general manner. All individual Directives apart from Directive 1999/92/EEC (explosive atmospheres/ATEX Workplace) contain specific provisions on information for workers that apply to the specific risks or workplaces they cover. In some cases, these additional details and examples of information to be communicated to the workers are more general and could bring an added value to the general principles set in the Framework Directive. Consequently, the evaluation suggests that the following provisions on information to workers under individual Directives could be applied across the whole OSH framework:

- The requirement to inform all workers concerned in a comprehensible manner.
- The requirement to inform all workers on the outcome/results of the risk assessment including an explanation of their significance and potential risks, on the circumstances in which workers are entitled to health surveillance, on safe working practices to minimise exposure or risks, on how to detect health effects of exposure and how to report them.
- Specific information requirements in particular cases, namely in cases of abnormal situations, in cases of accidents and incidents.
- The requirement to provide information to workers before they take up activity.

- The requirement to inform workers about any significant findings from the health surveillance, taking into account any medical confidentiality.

d) Training of workers

The Framework Directive sets the general principle of ensuring adequate training to all workers (Article 12) and most individual Directives also contain specific provisions on training of workers that apply to the specific risks or workplaces they cover. However, in some cases, the additional details and examples of training that should be provided to the workers are more general and could bring an added value if applied to all workers.

Consequently, the evaluation suggests that the following provision on training of workers under the individual Directives could be applied across the whole OSH framework:

- The requirement to organise demonstrations, e.g. how to wear personal protective equipment.
- The requirement concerning training instructions understandable/ comprehensible to the workers concerned.
- The inclusion of safe working practices among the training topics.
- The provision of specific training to workers at particular risk.
- The inclusion of special circumstances and what to do in that case in the training topics as well as inclusion of information on how to perform and execute the tasks safely in the training topics.

e) Health surveillance

Article 14 of the Framework Directive set general principles on health surveillance of workers. While some specific Directives have established more detailed and specific health surveillance requirements, some individual directives set general health surveillance provisions that could potentially bring an added value to the general principle of health surveillance under the Framework Directive, as follows:

- To ensure that medical examinations or surveillance must be made available during hours chosen by the worker (Directive 2004/40/EC (electromagnetic fields/EMF).
- To ensure that the doctor, the occupational health professional or the medical authority responsible for the health surveillance has access to the results of the risk assessment where such results may be relevant to the health surveillance (Directive 2006/25/EC (artificial optical radiation/AOR)).
- To ensure that the doctor or the authority responsible for the health surveillance must be familiar with the exposure conditions or circumstances of each worker (Directive 2004/37/EC (carcinogens and mutagens); Directive 2009/148/EC (asbestos) and Directive 2000/54/EC (biological agents).
- Obligation to inform the employer of any significant findings from the health surveillance, taking into account medical confidentiality set in Directive 2002/44/EC (vibration) and Directive 2006/52/EC (artificial optical radiation).

- To take into account advice from the person/authority responsible for health surveillance in implementing risk management risks including assigning alternative work (Directive 2002/44/EC (vibration); Directive 2003/10/EC (noise); Directive 2004/40/EC (electromagnetic fields/EMF); Directive 2004/37/EC (carcinogens and mutagens); Directive 2009/148/EC (asbestos)).
- To ensure that result of health surveillance are kept under health records (requirement in relation to health records are set in eight directives).

f) Limit values

Limit values are set after scientific assessment and, for binding limit values, subsequent analysis of socio-economic factors. Rapid technological change and scientific developments put high demands on timeliness and quality of these assessments. The Commission should strive to consistently improve robustness and coherence of methodologies across relevant directives[155].

g) Workers with particular sensitive risks

Directive 89/654/EEC (workplace), Directive 92/57/EEC (construction sites), the two Directives on mineral extracting industries and Directive 2013/35/EU (EMF) contain some measures on pregnant workers and nursing mothers. In order to ensure better clarity and avoid that provisions on pregnant/nursing workers are spread across different directives, the streamlining of these provisions could be considered.

h) Sanctions, judicial protection, inspection and other enforcement measures

The Framework Directive does not contain express provisions on sanctions or defence of rights (by judicial process or by recourse to other competent authorities). By contrast, several individual Directives do contain specific provisions on sanctions (Directive 2013/35/EU (electromagnetic fields), Directive 2006/25/EC (artificial optical radiation), Directive 2009/148/EC (asbestos) and to a certain extent Directive 94/33/EC (young people) and means of redress (Directive 92/85/EEC (pregnant/breastfeeding workers)). These provisions could be applied across the whole OSH framework.

6.4.2. Coherence between the OSH Directives and other EU measures and/or policies and international instruments (external coherence)

With regard to **external coherence of the OSH acquis with other EU legislation/policies** the evaluation found that, in several cases, **there are some concerns on coherence** between one or more OSH directives and one or several inter-related non-OSH EU. The coherence issues identified can be classified under the following categories:

Inconsistencies

[155] Directive 98/24/EC (chemical agents), Directive 2004/37/EC (carcinogens and mutagens) and Directive 2009/148/EC (asbestos)

Despite close links with Directive 2000/54/EC (**biological agents**), the scope of Directive 2010/32/EU (**sharp injuries**) does not cover all the categories of workers that might be exposed to infection through sharp injuries (e.g. workers dealing with special/ contaminated waste management treatments or researchers in laboratories).

Regulation (EC) No 1272/2008 **('CLP Regulation')** and **OSH Directive** 98/24/EC **(chemical agents)** could, according to some stakeholders, give reason for concern about the consistency of the definition of "hazardous chemical agent" in the two Directives.

There are close links between Regulation (EC) No 1907/2006 (**REACH**), Directive 98/24/EC (**chemical agents**) and Directive 2004/37/EC (**carcinogens and mutagens**).

REACH and OSH legislation are complementary and both protect workers from the risks from chemicals. In general, REACH applies without prejudice to worker protection legislation and OSH legislation applies without prejudice to existing or future Union provisions that are more favourable to the protection of the safety and health of workers at work. There are, nevertheless in this interaction, points of friction that need to be addressed.

Under OSH, assessing and managing risks to workers is principally the responsibility of employers. REACH, via registration and obligations to communicate hazards and risks along the supply chain, places risk management duties on all the actors in the supply chain. Often, these actors are employers in terms of producers or downstream users of a chemical substance. REACH requires suppliers to compile and supply a 'safety data sheet' (SDS) when certain conditions are met. The SDS provides important information to employers helping them to perform their risk assessment at the workplace and to adopt adequate risk management measures. It must specify national OELs and biological limit values established to implement corresponding EU limit values and, where a 'chemical safety report' is required under the REACH Regulation, also relevant 'derived no-effect levels' (DNELs). This can confuse employers/downstream users who may receive different values reported in the same SDS section for the same substance.

Both Directive 98/24/EC (chemical agents) and Directive 2004/37/EC (carcinogens or mutagens) make provision for employers to eliminate or minimise risks from hazardous chemical agents to the safety and health of workers at work via ‘substitution' for non- or less-hazardous alternatives where feasible – or, in the case of carcinogens or mutagens, where technically possible. Under REACH the substitution principle also applies in particular in relation to authorisation. In the case of restriction, substitution is required by the restriction terms, while authorisation obliges users to move to alternatives where alternatives are technically and economically feasible. Authorisations for continued use of a substance are periodically reviewed to determine whether such alternatives exist.

The evaluation has identified that data generated by REACH can support employers’ efforts to find alternatives – and stakeholders have identified cases where the preparation of an

application for authorisation under REACH has resulted in improved consideration of substitutes and reduced exposures in the workplace.

Key points of the interface therefore include the conclusions made by REACH registrants and employers regarding appropriate risk control, and concerning the lack of clarity in the relationship between the OSH OEL and the REACH DNEL concepts, and proposals for REACH 'authorisation' or 'restriction' measures intended to address worker protection concerns. These points can pose challenges for authorities and employers – but can also result in improved standards of worker protection under the provisions of both OSH and REACH.

In particular, the **coexistence of national OELs and DNELs, which are communicated in the SDS, needs further clarification for employers** with regard to the limit values they must take into account in the risk assessment and for the definition of appropriate risk management measures. The evaluation noted that provisions could, for example, be included in REACH and/or the Chemical Agents Directive to **coordinate how OELs and DNELs** are derived in order to define the most accurate way of using them in the risk assessment, and that there is **cooperation between SCOEL and ECHA's Risk Assessment Committee (RAC) when establishing limit values** as required under REACH and COM Decision 2014/113/EU to reduce the potential scientific divergences.

Concerning the interface between the REACH Regulation and Directive 2009/148/EC (**asbestos**), the benchmark value used by ECHA in the risk assessment supporting the amendment of the restriction on chrysotile in entry 6 of Annex XVII to REACH Regulation[156] is lower than the value for maximum airborne asbestos fibre concentration in the Directive 2009/148/EC (asbestos). The difference indicates that the limit value for airborne asbestos (or at least for chrysotile) may need to be reconsidered.

In conclusion, there is potential for further developing synergies between OSH, REACH, CLP and other EU chemicals legislation.

Lack of legal clarity in the interface

- Directive 2013/30/EU on **safety of offshore oil and gas operations** refers to the complementarity of the reporting requirements under this Directive and the ones under Directive 92/91/EEC (**extractive industries - drilling**). However, it does not provide further details on the articulation between the two reporting requirements.

-Directive 92/85/EEC (**pregnant/breastfeeding workers**) and Directive 94/33/EC (**young people**) set specific employment rights that are not always linked to occupational health and safety issues (e.g. working time provisions allowing young people to combine work with school attendance or time off for ante-natal examinations and prohibition of dismissal of pregnant/breastfeeding workers). Those other provisions which aim at protecting and ensuring

[156] ECHA, Annex XV Restriction Report, Amendment to a Restriction, Asbestos (Substance name Chrysotile), p. 27, http://echa.europa.eu/documents/10162/13641/annex_xvi_chrysotile_en.pdf.

the rights of pregnant/breastfeeding workers represent another important function of the maternity leave directive.

- Directive 2009/13/EC (**Social partners Agreement on the Maritime Labour Convention**) contains equivalent medical treatment requirements to Directive 92/29/EC (medical treatment on board vessels). Directive 2008/106/EC (implementing the IMO Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and Directive 92/29/EC set equivalent training requirements for commercial seagoing ships. This does not lead to double regulation in practice but may be confusing as similar requirements are set by different texts.

Possibility to enhance synergies

The relevant provision concerning the award criteria under the **Public Procurement Directive** mentions 'social characteristics' as a possible criterion to be used by contracting authorities, without further details or specific reference to OSH obligations on behalf of the tenderers. The synergies between the two sets of EU legislation might be enhanced by reintroducing the link between the award criteria or contract performance conditions and the fulfilment of OSH requirements by the (potential) contractor in the provisions of the Public procurement Directives.

The main interaction between Directive 94/9/EC (**ATEX Equipment**) - recast by Directive 2014/34/EU - and Directive 1999/92/EC (ATEX Workplace Directive) concerns the selection of equipment and protective systems as defined under Directive 94/9/EC to be used in the different zones as defined under Directive 1999/92/EC. Although it was generally perceived that both Directives work well with no major coherence problems, some Member States expressed some concerns about this interaction leading to potential barrier to the free movement of equipment across the EU, as more MSs can impose more stringent national provisions when transposing Directive 1999/92/EC.

Positive synergies can also be found between Directive 2006/42/EC (**Machinery Directive**) and the following OSH directives or groups of directives: the Work Equipment Directive, physical agent Directives, Directive 89/656/EEC (use of personal protective equipment/PPE), and the ATEX Directive as they complement each other (e.g. work equipment, ATEX) in a way that raises the level of protection of the workers concerned and leads to a better application of the Directives (e.g. PPE).

Another positive synergy can be identified between the OSH Directive 2009/148/EC (**protection of workers from asbestos exposure**) and Directive 87/217/EEC on the protection of the environment from asbestos whereby the former contributes to the meeting of the objectives of the latter, in particular in respect of activities involving the demolition of buildings, structures and installations containing asbestos and the removal therefrom of

asbestos and of products containing asbestos involving the releases of asbestos fibres or dust.[157]

b) Coherence between OSH Directives and other international instruments

With regard to **external coherence of the EU OSH acquis with international instruments,** in several instances international conventions (i.e. 15 International Labour Organization ('ILO') Conventions and the International Maritime Organization Conventions ('IMO') International Convention on Standards of Training, Certification and Watch keeping for Fishing Vessel Personnel (the STCW-F Convention)) ratified by at least some Member States set additional or more stringent requirements than the EU acquis. The incorporation of the more stringent provisions in the EU OSH acquis would ensure a level-playing field across the different Member States. However, further analysis is needed to determine whether further ILO Conventions should be implemented through the EU OSH acquis.

The evaluation also found that there is uncertainty as regards the legal hierarchy between Directive 92/58/EEC (safety and health signs) and the Graphical Symbols standard EN ISO 7010 (that includes safety signs) which complicates national implementation and causes confusion amongst manufacturers and employers. There is also a lack of clarity regarding the interrelationship between the Directive and the EN ISO standard, the REFIT Programme can potentially ensure a greater clarity on the relationship between them.

6.5 EU added value

The evaluation shows that despite the progress achieved, in the light of continued workers' exposure to occupational risks and observed levels of work-related ill-health, intervention is necessary to ensure minimum safety and health conditions for the workforce throughout the EU.
In line with the European Court of Justice jurisprudence[158], minimum requirements in the area of health and safety at work are adopted at EU level contribute to achieving the objective set in the Treaty of raising the level of protection as regards the health and safety of workers and to harmonize the conditions in this area while maintaining the improvements made.

Results from several studies (including qualitative or qualitative structured stakeholders' interviews) as well as a detailed analysis of the NIRs show that the OSH Directives ensured a minimum protection level for workers in Member States with regard to OSH.,

- The OSH legislation plays a role in preventing unfair competition between Member States based on low standards for working conditions. Different standards in terms of

[157] Concerning the Directive 2009/148/EC on the protection of workers against asbestos exposure, a deeper analysis is required to determine whether the combined implementation of the provisions of Directive 2009/148/EC in particular on the demolition of buildings containing asbestos and asbestos-added products and on the removal therefrom of these raw material and products (Article 12(c)), and of the provisions set out in other Union instruments (e.g. Regulation 1907/2006 (REACH)) ensure the full achievement of the objective of Article 7(2) of Directive 87/217/EEC (protection of human health and the environment against asbestos).

[158] See Case C-84/94, *United Kingdom / Council*, ECR 1996 p. I-5755.

workers' health and safety protection across the Member States provide potential incentive for companies to locate their production facilities in Member States with the lower standards, thus impacting the cost of production. In all cases, differences in labour standards have an impact on competitiveness, because they impose different costs on operators. EU OSH acquis contributes to reduce potential differences of competition at the cost of the health and well-being of workers.

As risks to workers' health and safety are broadly similar across the EU, setting minimum requirements prevents duplication of efforts in Member States in assessing risk levels. There is thus an efficiency gain for the EU to agree on common values when developing EU-OSH legislation. Indeed, this requires often a high level of scientific expertise and can therefore bring costs savings to national administrations incurred in relation to scientific advice. This is for example the case for the legislation aiming at the protection of workers from the chemical agents as well as carcinogens and mutagens at work, where the scientific expert evaluation plays an important advisory role in establishing evidence-based occupational exposure limits as minimum requirements at the EU level.

Furthermore, as the EU legislator considered it necessary to improve the existing level of protection as regards the health and safety of workers and to gradually implement the conditions in this area, the achievement of that objective through the imposition of minimum requirements necessarily presupposes EU-wide action to ensure that Member States implement provisions in a similar way[159] The evaluation found evidence that the legislation of Member States have aligned to common minimum requirements. Indeed, the contributions received from the NIRs for the 24 OSH Directives as well as the detailed mapping exercise performed during the evaluation shows that the adoption of the Framework Directive and the related individual Directives have triggered changes both in the structure and the content of the national OSH legislations in the Member States aiming at aligning it to common minimum requirements, even though those came often in the context of an already existing national legislation. The main 'new elements' or positive aspects brought by the Framework Directive and the Individual Directives, as highlighted in the NIRs were: the contribution to the dissemination of main occupational risk prevention concepts (such as the upstream assessment of risks at the workplace and definition of corresponding preventive and protective measures, the reinforcement of the basic prevention principles of substitution and planning), reaffirmation of the general principles of risk prevention, the involvement of preventive services, in the sense of Article 7 of Directive 89/391/EEC in the risk-prevention measures; a stronger focus on preventive rather than remediation measures. In some Member States, the transposition of the OSH Directives has proven to be the occasion for the further development of the national legislation or the regrouping of a number of pre-existing

[159] See Case C-84/94, *United Kingdom / Council*, ECR 1996 p. I-5755.

elements[160]. The Framework Directive introduced in many countries a modern goal-setting process-based regulatory approach, replacing detailed prescriptive legislation.[161]

Although in this area of shared competence, Member States are allowed to set high levels of protection, through EU OSH legislation workers across the EU can be assured of a minimum level of health and safety protection, also when executing their rights as regards free movement when working abroad in another Member State. As an example of how the EU OSH legislation contributes to ensuring a more even protection of workers, data gathered in the preparatory work for a revision of the CMD Directive, indicated wide differences in the Member States regarding the setting of limit values for the carcinogens under the proposal. Some Member States have already established binding limit values that are at the same value or lower than the value recommended by the ACSH. This demonstrates that unilateral national action is possible as regards setting a limit value for these chemical agents. However, there are also many cases where Member States have no limit values or ones that are less protective of worker health than the value put forward in the Commission's proposal. In addition, where national limit values exist, they vary considerably, leading to different levels of protection. Some of these limits are considerably higher than recommended by scientific evidence. Establishing a European limit value leads to ensuring a more even, minimum level of protection of workers across the EU.

As regards the contribution to broader EU policy goals, the findings of this evaluation point at a certain level of impact in terms of the goals of promotion of better job quality and working conditions of the EU 2020 Strategy.

7. CONCLUSIONS AT EU AND NATIONAL LEVEL

Implementation and Compliance

While the Member States have chosen various models for their legal transposition of the Directives' requirements, the requirements of the EU OSH Directives contain the core elements of the national systems. **EU OSH legislation** – through the Framework Directive - **has contributed to a focus on the risk management cycle**.

The evaluation found that **overall compliance with the EU OSH acquis across the EU and across establishment sizes is good**. **Compliance with EU OSH Directives requirements is higher in large establishments compared to SMEs and micro-establishments**. Overall compliance increases with the size of the establishment. The available data shows that **the lower level of compliance in smaller establishments to a large extent is coupled with the**

[160] Based on Commission's services analysis of the National Implementation Reports and *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States, COWI, 2016*.

[161] *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States, COWI, 2016*

lack of a safety and health representative. The most reported **challenge for compliance for SMEs** is the lack of financial, technical and human resources.

Relevance

Based on the existing data, the evaluation suggests that most of **the provisions of the EU OSH Directives remain relevant in view of prevalence of work related risk.** Although some changes in the relative importance of different work sectors (or activities) can be anticipated, the current levels of exposure to the different hazardous agents and **the continued existence of previously identified risks justify the need for the Directives**.

Nevertheless, the evaluation identified some provisions where the updating of the outdated provisions or some guidance to employers and enforcers on interpretation in the light of the changing working methods in the workplaces, technological changes as well as new scientific knowledge could be considered.

Effectiveness

Concerning the effectiveness of the OSH framework, the available statistical data shows that **both the incidence and the number of accidents at work have considerably decreased over the evaluation period**. Several research studies and available statistical evidence show that SMEs, reporting lower levels of compliance with the OSH legislation, experience also higher (standardised) incidence rates for serious and fatal accidents at work. Data for smallest entities (microenterprises) presents a mixed picture with again higher standardised incidence rates for fatal accidents as compared with large enterprises, but lower non-fatal accident rates as compared with larger enterprises[162]. At the same time, it should further be studied to what extent under-reporting affects these results.

Due to the complexity of interaction between the different factors influencing the evolution of accidents at work, the causal links between the decreasing trend and OSH acquis given the existence of many external factors could not be properly quantified. However, qualitative evidence from stakeholders confirms that in their view the **Directives were at least reasonably successful in achieving their intended aims and contribute to benefitting the health and safety of workers, including the reduction in accidents at work.**

One of the main exceptions to the declining rates of work-related ill-health is **work-related cancer** which still seems to be very high in the EU. The latent period for cancer is often particularly long and currently recognised cases are to a large extent the effect of past exposures. Nevertheless, the absence of minimum OELs for certain substances of high concern and process generated substances or mixtures, as well as lack of common EU-level definitions for the latter, might lead to continued inefficiencies in the protection of workers

[162] Eurostat, ESAW, 2007 (online data code hsw_aw_inasz). At the same time under-coverage problems for the self-employed population do not allow to draw definitive conclusions for this group.; As regards other relevant sources see in Theo Nichols, Amanda Dennis and Will Guy, *Size of employment unit and injury rates in British manufacturing: a secondary analysis of WIRS 1990 data*, Industrial Relations Journal, 1995; Gli infortuni sul lavoro. Dall'analisi delle cause alla loro prevenzione, 2008, p.116-117.

from carcinogens at work. EU level protection of workers concerning carcinogens and mutagens has been broadly identified by stakeholders and Member States as in need of updating, also in the light of international developments.

Other major risk areas of ill-health are **musculoskeletal disorders and mental ill-health**. However, considerable uncertainty remains over measures that may be appropriate to apply at the workplace or more broadly in society.

Efficiency

The evaluation shows that administrative and substantive costs are **likely to vary considerably from Member State to Member State and from enterprise to enterprise**.

This is related firstly to the fact that much of the EU legislation is goal-oriented - the EU-level legislation does not exactly specify how different measures should be put in place and the actual costs will depend on the specific situation of an enterprise and its interpretation of the obligations.

Secondly, the costs of the EU legislation cannot easily be dissociated from more detailed national requirements. No firm conclusions could be drawn in the evaluation concerning **administrative costs stemming from more detailed national requirements and/or EU legislation**. Many factors might also influence compliance costs – especially the availability of support and accompanying measures from the EU, such as OiRA, and in Member States. However, it should be noted that developing more accompanying measures also comes at a cost.

Although some compliance costs may be business as usual costs, as enterprises would likely make some OSH-related investments irrespective of OSH legislation, complying with legal obligations is given as the major reason for addressing health and safety. Therefore, compliance cost cannot be fully regarded as being business as usual costs. A UK 2003 study points out that compliance **costs per employee are likely to be higher in SMEs than in large enterprises**. The reason might be that larger enterprises more often have the competency in-house and benefit from the economies of scale, which may be cheaper than relying on external services (e.g. OSH consultancy), which plays a role in cost of compliance among SMEs.

The evaluation concluded that it is not possible to quantify the exact impact of the EU OSH legislation on the health and safety of workers, due to numerous confounding factors and the lack of appropriate data. There is some data that might serve as an indication of the magnitude of the benefits that derive from occupational accidents and ill-health related prevention measures thereby avoiding related costs. Estimates from different Member States indicate these costs range from 2.6% to 3.8% of Gross Domestic Product (GDP). Estimates from the HSE in the UK have shown that the societal costs of work related accidents and ill health have fallen by 14% from 2006/07 to 2012/13. The International Social Security Association assessed the return on prevention index for investments in occupational health and safety to be 2.2. Thus, **it is likely that the reductions in work related accidents also have translated**

into economic benefits for workers, enterprises and society even if the contribution that EU legislation made to these economic benefits could not be quantified. Several exercises, including an OSH cost-benefit methodology study by EU-OSHA, have or will shortly be launched in order to improve our understanding and data in this area.

EU added value

The evidence gathered through the (structured) qualitative stakeholders interviews made in the context of different studies, as well as throughout the analysis of the NIRs shows that the EU OSH Directives have contributed to a more even protection of workers ensuring **a level playing field** in occupational health and safety and minimum requirements for the protection of workers in the EU. The results of the evaluation have shown, in particular, that the EU OSH acquis, with its stronger emphasis on the preventive approach, has influenced in many cases not only the content of the provisions in place but also the structure of the national OSH legislations.

Challenges

The evaluation also points out a number of issues and challenges related to the OSH framework (with a view to improving its performance while respecting the policy objectives set). It remains to be examined further how to best address these issues.

Challenge 1: Structure and coherence of the EU OSH acquis

The structure of EU OSH acquis

The evaluation looked at the inter-relation between the over-arching framework directive and the individual directives. Whilst some overlaps were identified, there was no tangible evidence that this has led to higher costs or lack of implementation. However, the fact that the Framework Directive covers in general all sectors and risks would point to a potential approach of addressing specific details not dealt with by detailed regulation by a combination of general rules and complementary paths such as guidance and other supporting tools.

Another question to be further explored is how to reduce the use by Member States of any national legislative techniques that add additional requirements that may result in costs for companies while not bringing added value for workers' protection.

The external coherence of the Directives

The evaluation identified interfaces between the OSH Directives and other EU measures and/or policies, where there could be scope for removing overlaps leading to application of contradictory requirements, improve legal clarity (which may otherwise cause confusion) and possibly enhance synergies. Examples of such interfaces can be found in the Annex 7. Most

notably, it is important to analyse and clarify the interface between OSH and the REACH Regulation.

The framework for vulnerable groups

The evaluation concluded that vulnerable groups are not addressed in a consistent manner in the current acquis. Some groups (young workers, pregnant/breastfeeding workers, temporary workers) are addressed by an individual Directive whereas others are not (e.g. older workers, migrant workers, newly employed workers). New groups of vulnerable workers may be identified in the future and it might require clarification how such groups could be taken into account in the existing legal framework. Furthermore, there are cross-references to vulnerable groups of workers between worker-specific Directives and risk-specific Directives. While these references are not incoherent from a legal perspective, they do add to the complexity of the legal framework.

Challenge 2: Addressing on-going and emerging risks

Addressing emerging risks

The evaluation suggests that the evolution of the workplace, technological developments, and demographic change bring about new occupational risks, which might not be fully addressed in the workplace. Depending on the nature of these risks, the most appropriate level and manner of addressing them will have to be further explored, notably with regard to adaptation to changing circumstances.

Furthermore, risks such as the MSDs or psychosocial risks are related to a complex interaction between occupational and non-occupational factors. These are covered by the framework directive but clarification is needed on what this means and the corresponding obligations for Member States and employers. Further analysis and discussion would be required to establish whether and if further action would be necessary, and at what level. It would be important to analyse the situation at national level and to examine the effectiveness of existing national, sectorial and/or enterprise level initiatives to address these risks. At EU level, awareness raising activities and practical guidance e.g. by the EU-OSHA have shown promising results to date.

Future-proofing the acquis

While the world of work is constantly changing, the Framework Directive is designed to cover all risks and workplaces and as such covers such changes, although - as stated above in relation to musculoskeletal disorders - further work may be required as new issues arise to ensure any clear outcome from the application of the framework provisions alone. Employers and enforcers could be better supported in interpreting existing provisions in light of the various changes and clear guidance could contribute to making the acquis more future-proof.

There are cases where some provisions of the individual Directives do not fully reflect technological change. One example would be Directive 90/270/EEC (display screen equipment Directive). Updating outdated provisions and removing obsolete ones will be done

in close consultation with relevant stakeholders such as social partners, inspectorates and relevant authorities.

Challenge 3: Compliance, enforcement and SMEs

Compliance of SMEs

The evaluation provides evidence to suggest that compliance with the requirements of the OSH directives is more challenging for SMEs than large establishments. At the same time the major and fatal injury rates (triggering also the highest costs for workers, social security systems and employers) are higher for SMEs, representing 99% of EU businesses, than for large establishments[163]. Almost all Member States already have established specific measures to support SMEs, including micro-companies, in implementation. A peer review process could be set up with Member States to build on best practices with a view to encourage and facilitate the compliance of SMEs. This may lead to additional benefits in terms of avoiding work-related accidents and diseases.

The key challenge in this respect is both to confirm the link between compliance and health and safety outcomes for different sizes of company and then further to investigate how to reach those SMEs where improved results can be expected to be achieved and to encourage them to improve compliance and see how compliance cost might be reduced so facilitating better compliance. The data suggests that SMEs are often not consciously non-compliant; that they typically do not react well to written guidance (often finding it too complicated); and that they rely on external services to a greater extent than large establishments thereby increasing compliance cost. Consideration could be given to how different categories of SMEs might be best targeted through a more personalised approach combining enforcement and guidance. The challenge is to confirm the impact of compliance on results and then to identify the extent to which it would be useful to apply new and innovative ways of reaching the SMEs and increasing compliance in an efficient and effective way.

Establishing exemptions for SMEs and micro-enterprises may lead to a lowering of the levels of protection for workers considering the feedback on effectiveness from key stakeholders, although micro-companies have relatively high compliance costs. Alternative measures, such as regimes better adapted to what different categories of SME can be expected to be able to manage, could be considered. These could include, for example:

- Continuing the further development linked to digitalisation and dissemination of already existing effective tools, in particular the OiRA tool. The role of EU-OSHA is important in this respect.

- Support the use and development of new digital tools and ICT solutions (including in the field of robotics), in order to allow for simpler and more efficient solutions in terms of day to day OSH risk management and the daily OSH risks monitoring;

[163] See in ESAW 2007 (latest available data). See also in Theo Nichols, Amanda Dennis and Will Guy, *Size of employment unit and injury rates in British manufacturing: a secondary analysis of WIRS 1990 data*, Industrial Relations Journal.

-.Better assist SMEs through developing improved and better targeted guidance.

- Encourage use of on-line tools like OiRA that are set up to facilitate SME compliance.

-In cooperation with Member States, best practices on compliance cost reduction for SMEs could be identified and further developed. Free advice and guidance could be examined.

These measures would be considered together with the Member States and with the representatives of employers and workers to make sure the most relevant way forward is chosen.

Enforcement

The OSH Directives require Member States to enforce the legislation transposing the Directives; however this is not always clearly articulated in the current provisions in the Directives. There is literature that enforcement is an important element in prompting major hazard firms to manage health and safety, including major accident prevention. The evaluation suggests that there is a **large degree of variance in the number and frequency of OSH inspections across the Member States**. To some extent this undoubtedly reflects national differences in the approach to inspections. The degree to which the inspection strategies developed at Member State level together with other policy tools contributes to better enforcement and compliance needs to be further studied.

At the same time, the evaluation found that legal requirements and enforcement[164] are major reasons for companies to develop OSH policies and take OSH action, so consideration could be given to the value of a strong effort to ensure the implementation of the Directives and to aim for a greater consistency in the way the legislation is enforced. Certain recommendations from the NIRs regarding inspection for specific Directives, as is the case for inspection standards for work equipment and competences of persons charged with inspection referred to in Article 5 of Directive 2009/104/EC could be given further attention in order to identify any possibilities to enhance the effectiveness of the current provisions.

On this basis, a process of identifying best practices regarding **enforcement and inspection by Member States could be initiated with the aim to understand better the role and impacts of inspections**, potentially coupled with a greater emphasis on competence building and guidance to inspectorates. The SLIC would be a key actor in this respect.

Focus on risk management

The evaluation suggests that **there is a good level of compliance with the requirement to perform a risk assessment, whereas compliance is relatively lower in relation to the other CPMs.** The evaluation also calls attention to evidence from some Member States at least that the issue that a sole focus on the requirement of compliance with the risk assessment obligation is not always followed by the introduction of effective risk management measures. However, it should also be noted that in several cases, evaluations of individual Directives resulted in conclusions regarding inadequate or insufficient risk assessment procedures for a

[164] EU-OSHA, ESENER-2 (2014).

given Directive, which did not adequately address Directive-specific hazards, risks, challenges and/or circumstances. There is thus a **need for a dual focus on further enhancing the quality of risk assessments while at the same time ensuring that the measures identified in the risk assessment are, in fact, implemented and the risks properly managed**.

More specifically, issues which may require further attention include the need to clarify the question on how the use of external services to carry out risk assessments affects the Framework Directive's objectives of prevention and protection and **a possible need to revisit the provisions related to the CPM of health surveillance. Finally,** the evaluation shows that there is **a continued need for training on health and safety risks, and on emerging risks in particular.**

Challenge 4: Data and monitoring of effects

Evidence based policies need high quality, comparable and timely data. The evaluation provides evidence that despite the substantial efforts made so far in order to develop comparable datasets on health and safety at the EU level, those datasets are not always "fit for purpose" when it comes to assessing to what extent the EU OSH Directives have achieved their objectives. International cooperation to expand data-sets and detect trends as early as possible should also be explored.

There is a need for better monitoring systems to be able to follow up on whether the legislation is working as intended in terms of reducing exposure to hazards and consequently reducing the incidence of accidents and work-related disease. This includes a need to better define and execute the monitoring plan for the Directives.

In view of informing future policy development, work will continue, within the Commission and in collaboration with other actors such as EU-OSHA and Eurofound on the development of the EU-level data collections. This will include, for example, the continuation of the methodological work on the issues of under-coverage and under-reporting as regards the ESAW data collection and the ongoing work on the pilot data collection on European Occupational Diseases Statistics. It will include as well exploring the possibility of ensuring up-to-date data at the EU-level about the incidence rate of accidents at work broken down by enterprise size. New editions of existing multiannual EU surveys[i] will also be conducted by the horizon of 2020. Important efforts will also be devoted to develop better exposure data. The use of new ICT solutions to improve the information base will be explored.

Finally, cost-benefit analysis provides important information for policy makers, but there is a need for better national data on both costs and benefits. Moreover, to conduct cost benefit analysis at the EU level, more in-depth examination of existing country specific literature and databases, analyses of structural difference between Member States and a standardisation of national methodologies, is needed. Monitoring arrangements should be set-up in collaboration with Member States, bearing in mind that creating additional administrative burden in relation to data collection should be avoided

Annex 1 - Procedural information

DG EMPL is the lead DG for the ex-post evaluation of 24 EU OSH Directives.

The ex-post evaluation is part of the on-going EU Regulatory Fitness and Performance Programme (REFIT).

Pursuant to Article 17a of the Framework Directive 89/391/EEC[165], the Commission is required, every five years, to produce a single report based on a comprehensive evaluation of the practical implementation of that Directive and of 23 related Directives, in terms of their relevance, of research and of new scientific knowledge in the various fields in question, and inform the other EU institutions and bodies of the results and any suggestions on how to improve the operation of the regulatory framework.

The evaluation is mainly based on:

- National reports on the practical implementation of the Directives established by the Member States - including the views of the social partners;
- A study by an independent external contractor;
- Experience the Commission gained from monitoring the transposition and application of the Directives in the Member States.

Timing

- The first report covers the period from 2007 to 2012.

- December 2011: adoption of the Commission decision on the structure and questionnaire for the national implementation reports and notification to Member States.

- March 2012: setting up of an Inter-Service Group comprising 12 DGs and 2 agencies: DG for Economic and Financial Affairs (ECFIN), DG for Energy (ENER), DG for Internal Market, Industry, Entrepreneurship and SMEs (GROW), DG for the Environment (ENV), Eurostat (ESTAT), DG for Communications Networks, Content and Technology (CNECT), DG for Justice and Consumers (JUST), DG for Maritime Affaires and Fisheries (MARE), DG for Research and Innovation (RTD), DG for Health and Food Safety (SANTE), Secretariat-General (SG), Legal Service (SJ), EU-OSHA agency (Bilbao), Eurofound agency (Dublin). The ISG held 9 meetings;

- June 2012: conclusion of contract with a consortium of COWI (lead), Milieu Ltd. and IOM Consulting Ltd for an external study;

[165] Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work, OJ L 183, 29.6.1989, p. 1.

- End 2013: deadline for the Member States to produce their national implementation reports – all 27 Member States concerned[166] transmitted a report to the Commission;

- December 2014: validation seminar organised by the contractor with wide group of stakeholders (workers, employers, governments);

- December 2015: finalisation of the final report by the contractor;

- September 2015: adoption of ACSH opinion on the ex-post evaluation study;

Consultation of RSB

See RSB opinion in Ares (2016) 649284

Use of evidence

The following sources have been used in the SWD: national implementation reports of the 27 Member States concerned, the above-mentioned external study, other external studies (e.g. on MSDs, chemical agents, OSH in SMEs), national legislation, official statistics at EU and national level (e.g. Eurostat's EODS, ESAW, ESENER and ESENER-2), literature, interviews by the external contractor, Commission reports on practical implementation of some of the Directives, the ACSH opinion, SLIC contribution.

A chapter on the robustness of data is included in the main text of the SWD. Quality assurance was applied by the external contractor.

External expertise

The following expert groups were involved in the process:

- The Advisory Committee on Safety and Health at Work (ACSH), a tripartite committee (government, workers' and employers' representatives) from all 28 Member States (84 members);
- ACSH Working Party Evaluation of OSH Directives, involved since the beginning of the exercise (first meeting on 7 February 2012);
- ACSH Standing Working Party;
- ACSH Working Party on Chemical Agents;

- Senior Labour Inspectors' Committee (SLIC), comprising senior labour inspectors from all 28 Member States;
- SLIC Working Group Enforcement, with a special sub-Working Group "Contribute to the review of EU OSH legislation";
- SLIC Working Group "MACHEX" (machinery, work equipment);

- EU Offshore Authorities Group (DG ENER) regarding Directive 92/91/EEC (drilling);

[166] Croatia was not included in the evaluation as it was not a Member State during the evaluation period.

- Social Dialogue Committee and Sectorial Social Dialogue Committees;

A study was carried by an external contractor, a consortium of COWI (lead), Milieu Ltd. and IOM Consulting Ltd, following a call for tender procedure on the "Evaluation of the EU Occupational Safety and Health Directives" (VT/2012/056 and VC/2013/0049). The contract was closely followed by the ISG (9 meetings) and the ACSH Working Party Evaluation of OSH Directives (6 meetings). The contractor mainly produced three interim reports and a final report, Directive reports for each of the 24 Directives and Country summary reports for each of the 27 Member States concerned. The contractor also organised a validation seminar in December 2014 to test preliminary conclusions of the study.

Annex 2 - Stakeholder consultation

1. Summary of the consultation process

The Commission services made major efforts to ensure the larger involvement possible of all relevant stakeholders (employers and workers organisations, Member States) throughout the ex-post evaluation process, and the external consultant that prepared the evaluation has consulted various additional stakeholders. In addition, ad hoc contributions were received by the Commission services from different stakeholder groups.

The following stakeholders and expert groups were consulted through the following channels:

- **Advisory Committee on Safety and Health at Work (ACSH)**

The ACSH is a tripartite committee established by Council Decision 2003/C 218/01[167], comprising representatives of governments, trade unions and employers' organisations, from all 28 Member States (84 members), appointed by Member States and nominated by the Council. Co-ordination for the social partners' Interest Groups is ensured by the two most important EU cross-industry worker and employer organisations, that is respectively ETUC and BusinessEurope. The remit of the Committee is to assist the Commission in the preparation, implementation and evaluation of all major activities in the field of safety and health at work[168]. It delivers opinions or adopts any other political statements either at the Commission's request or on its own initiative.

For the purpose of the evaluation process, and from the beginning, the ACSH established the Working Party Evaluation of OSH Directives, to assist the Commission in monitoring and providing input to the ex-post evaluation external study (6 meetings)[169]. It was composed of twelve permanent members of the ACSH, four from each interest group (government[170], workers[171] and employers[172]. In addition, the Commission services made available to all members of the ACSH the third interim report and the draft final report prepared by the external consultant. One member from each interest group of the Working Party functioned as a coordinator, collecting comments and input from all members of the ACSH from their interest group, with the view to ensure the largest possible involvement in the exercise. The

[167] Council Decision of 22 July 2003 setting up an Advisory Committee on Safety and Health at Work (2003/C 218/01), OJ C 218, 13.9.2003, p. 1–4.
[168] Art. 2 (1) of Council Decision 2003/C 218/01.
[169] ACSH, Revised Mandate, Evaluation of OSH directives, adopted on 19.6.2012 (Doc.11-795_01-EN).
[170] The governmental representatives come from UK, NL, D and ES.
[171] The workers' representatives come from HU, DK, RO and NL.
[172] The employers' representatives from SE, UK, LU and CZ.

extraordinary plenary ACSH issued an opinion on the external study on 24 September 2015[173].

In addition a Commission services questionnaire was sent to a number of working groups in the ACSH, as well as to the EU Offshore Oil and Gas Authorities Group (EUOAG)[174]**.** The questionnaire covered all the mandatory evaluation criteria[175]. The ACSH Working Party on Chemicals, the ACSH Standing Working Party for the mining and extractive industries and the EUOAG provided replies. The ACSH Standing Working Party for the mining and extractive industries adopted a paper in relation to the evaluation of Directive 92/104/EEC (extractive industries - mines and quarries). Similarly, the ACSH Working Party on Chemical Agents adopted a key message document in relation to Directive 98/24/EC (chemical agents), and Directive 2004/37/EC (carcinogens and mutagens).

- **Senior Labour Inspectors' Committee (SLIC)**

SLIC was set up by Commission Decision 95/319/EC of 12 July 1995[176] (as amended by Commission Decision 2008/823/EC[177]) and comprises senior officials from the labour inspection services of all 28 Member States. It gives opinions, either at the Commission's request or on its own initiative, on all problems relating to the enforcement of OSH legislation by Member States. The 68th SLIC plenary adopted a contribution to the ex-post evaluation on challenges faced by labour inspectorates relating to enforcement and recommendations for further action[178], prepared by the SLIC Working Group Enforcement[179].

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[173] ACSH, *Opinion on the report by COWI et al on the Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States* (Doc.1674-EN (2015)), adopted on 24/09/2015.

[174] EUOAG was established by Commission Decision of 19 January 2012 on setting up of the European Union Offshore Oil and Gas Authorities Group (2012/C 18/07). The group is formed by Member States' authorities covering both safety and environmental protection aspects. It is a forum for the exchange of experiences and expertise both amongst national authorities and between national authorities and the Commission on all issues relating to major accident prevention and response in offshore oil and gas operations within the Union, as well as beyond its borders, where appropriate.

[175] The 36 questions concern the changes required to the Directives and their justification, regulatory approaches in the Member States (including problems of application/interpretation of the Directive), relevance (through questions in relation to the scope of the Directives, the extent to which the Directives set forth adequate minimum requirements, possible gaps in the Directive), enforcement, effectiveness, (the extent to which the Directive adequately protects the safety and health of worker; options to be used to increase the effectiveness of the Directives), coherence (changes to ensure coherence with other EU legislation; overlaps with other EU legislation); administrative burdens and changes necessary to minimise them; future regulatory approach.

[176] OJ L 188, 9.8.1995, p. 11.

[177] OJ L 288, 30.10.2008, p. 5.

[178] SLIC, *Challenges faced by Labour Inspectorates relating to enforcement - Contribution to the ex-post evaluation of the OSH legislation, adopted by 68th SLIC Plenary in Riga* (LV), 27/05/2015.
For more detailed information see Chapter 7.3, p.[…].

[179] For this purpose, a questionnaire was submitted to the members of the Working Group, with the following sections : description of perceived enforcement challenges; specific macro enforcement challenges, enforcement

In addition, the 68th SLIC plenary also adopted a paper on the evaluation of the evaluation of Directive 2009/104/EC (use of work equipment) and its interplay with Directive 2006/42/EC[180], prepared by SLIC Working Group MACHEX (machinery, work equipment)[181].

- **Member States and social partners in the context of the National Implementation Reports (NIRs)**

In accordance with Article 17a of the Framework Directive 89/391/EEC, the 27 concerned Member States have submitted NIRs to the Commission on the basis of a questionnaire laid down in a Commission Decision. The questionnaire was prepared in close cooperation with the ACSH. Pursuant to the Framework Directive, Member States were required to indicate the points of view of the social partners in the NIRs. In all 27 Member States concerned, the social partner organisations have therefore been consulted on the NIRs. The Commission services have analysed the NIR and drawn up one document containing all suggestions and recommendations put forward by the Member States in the NIRs and one document containing the suggestions and recommendations put forward by the Member States in the NIR supported by more than one Member State. The main recommendations and suggestions from the NIRs are reflected and referred to in the SWD.

- **Consultations carried out in the context of the external contract -**

The external consultant made provisions for the carrying out of interviews with EU-level OSH stakeholders and national stakeholders with a view to collect information and nuance the analysis.

In total, 540 interviews with national stakeholders (national authorities, labour inspectorates workers' representatives, employers' representatives, other national stakeholders) were carried out by the national experts in the 27 Member States[182]. Compared to the planned balance between stakeholder groups, it proved that national authorities, labour inspectorates and other national stakeholders were more readily available to be interviewed, compared to worker and employer organisations. Interviews with EU-level stakeholders were also carried out in accordance on the basis of an interview guide[183]. 59 interview persons were contacted for interviews and 44 of these participated in an interview. The selection of stakeholder organisations interviewed was based on a list of proposed organisations collated by the evaluation team combined with feedback/comments by the Commission (DG EMPL and the ISSG) and the ACSH. As a result, a final list of selected stakeholder organisations was agreed

problems relating to the Strategic Framework for OSH and recommendations for further action. The Questionnaire with all responses are included in Annex 1 to the SLIC Contribution. There were 25 respondents in total.

[180] SLIC, *Evaluation of 2009/104/EC Work Equipment Directive and it's interplay with related Directives*, adopted by 68th SLIC Plenary in Riga (LV), 27/05/2015.

[181] A sub-group was tasked with the 'Review EU OSH legislation', composed of members from Portugal, Italy, Netherlands, Cyprus, France, Sweden, United Kingdom and Spain.

[182] Cf. also Appendix D.

[183] The interview guide is included in Appendix I to the COWI, Main Evaluation Report.

upon with DG EMPL. 31 EU organisations[184] were interviewed which include 17 employer organisations, five worker organisations, three DGs, three EU agencies and bodies, and three other OSH knowledge institutions.

In addition, a validation seminar was organised in December 2014 by the contractor with wide group of stakeholders (workers, employers, governments) with the aim to consult stakeholders on preliminary findings, results and conclusions of the external study (57 stakeholders participated). The stakeholders attending the seminar did not represent any official views and opinions of the social partners, but provided very helpful reactions and viewpoints. The inputs from the seminar have been used by the evaluation team as additional background knowledge from stakeholders with long OSH experience to complete conclusions and recommendations in the individual directive reports and as input for the Main Report.

- **Consultation of EU Offshore Oil and Gas Authorities Group (EUOAG)[185] (DG ENER) regarding Directive 92/91/EEC (drilling)**

In February 2015, the Commission services (DG EMPL) requested the contribution from the EUOAG on the application and possible improvements of the Directive 92/91/EC (extractive industries-drilling), and in particular in addressing the interactions between this Directive and the Directive 2013/30/EU on safety of offshore oil and gas operations[186]. A questionnaire was sent to EUOGA to that effect. While it was not possible to reach a common EUOGA position[187], the replies of several Member State (UK, NL, FR, IT and PT), as expressed by the members of EUOAG, were transmitted to the Commission[188].

Furthermore, the EU North Sea Offshore Authorities Forum (NSOAF) Working Group[189] submitted to the Commission services a Position Paper on how to improve Directive 92/91/EEC, in May 2012[190]. The Position paper was the outcome of a two year project chaired by the United Kingdom and aimed to help NSOAF members to prepare their contributions to the Commission's evaluation of Directive 92/91/EEC.

- **Ad-hoc contributions**

[184] Cf. COWI, Main Evaluation Report, Table 2 4, EU stakeholders interviewed.
[185] EUOAG was established by Commission Decision of 19 January 2012 on setting up of the European Union Offshore Oil and Gas Authorities Group (2012/C 18/07). The group is formed by Member States' authorities covering both safety and environmental protection aspects. It is a forum for the exchange of experiences and expertise both amongst national authorities and between national authorities and the Commission on all issues relating to major accident prevention and response in offshore oil and gas operations within the Union, as well as beyond its borders, where appropriate.
[186] Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC, OJ L 178, 28.6.2013, p. 66.
[187] Cf. 10th EUOAG meeting, 10th-11th June 2015.
[188] Reply to Commission questionnaire on ex-post evaluation of February 2015.
[189] The North Sea Offshore Authorities Forum (NSOAF) consists of representatives of authorities responsible for the supervision of offshore activities in North West Europe. The current membership represents Denmark, Faro Islands, Germany, Republic of Ireland, the Netherlands, Norway, Sweden and the United Kingdom. The NSOAF was founded in 1987. It has the aim to "ensure and encourage continuous improvement in Health, Safety, Environmental Care and the Welfare of offshore workers".
The members of NSOAF have
[190] North Sea Offshore Authorities Forum (NSOAF) Final Position paper, Directive 92/91/EEC Project, May 2012. The Project aims to produce proposals on how to improve Directive 92/91/EEC.

An important number of ad-hoc contributions was received from several Member States (UK[191], NL[192], FI, AT, DE[193]), from employers' organizations (CEEMET)[194], as well as from National Institutes (on Directive 2000/54/EC-biological agents[195]; on Directive 94/33/EC (young people))[196].

1.2. Compliance with the Commission minimum requirements on stakeholder consultation

An open public consultation was not organised. The reason is that the 24 OSH Directives are very technical texts concerning safety of the work place, where the input that may be collected through consultation will solely originate with employers and employees. It was thus important to ensure the consultation of the social partners in the evaluation process. The Commission services consulted social partners and Member States throughout the evaluation process, and the external consultant who has prepared the evaluation has consulted various additional stakeholders.

Targeted and specialised consultations of particular stakeholder groups and experts were privileged, with a view to collect expertise effectively, in an area, OSH, which is characterised by highly technical subjects. Stakeholder consultation was used both to collect evidence in relation to the evaluation criteria (e.g. stakeholders interviews carried out by the external consultant in charge of the evaluation) and to test/validate already existing analysis or evidence coming from different sources (e.g. validation seminar, ACSH opinion; the views of national social partners on NIRs). All relevant and interested stakeholder groups which have to implement and/or are affected by EU OSH legislation have been provided with the opportunity to express their views, both at national and EU level, an all evaluation criteria. Furthermore, groups with expertise ort technical knowledge were consulted or presented ad-hoc contributions (e.g. ACSH Working Party on Chemicals).

In addition, future consultations will take place, which are mandatory. Firstly, in accordance with Article 17a (4) of the Framework Directive 89/391/EEC, the Commission is to inform the European Parliament, the Council, the European Economic and Social Committee and the Advisory Committee on Safety and Health at Work of the results of the evaluation and, if necessary, of any initiatives to improve the operation of the regulatory framework. Secondly, in accordance with Article 154 TFEU, a two stage consultation of the social partners is mandatory on any legislative proposals to improve the EU OSH regulatory framework further to the evaluation. Finally, public consultations are also to be launched in the context of the preparation of the impact assessment for such new legislative proposals. These consultations

[191] UK Non paper – Review of EU OSH Framework

[192] Letter of Mr L.F. Asscher, of 9 July 2015 on the Dutch concept of EU OSH acquis.

[193] *Non-Paper by the GIG Members Finland, Austria and Germany, The Evaluation of the OSH Directives – Cost Effective Exercise or Unnecessary Administrative Burden.*

[194] Position paper, 30 January 2014.

[195] National Institute for Public Health and the Environment, Classification of biological agents, RIVM Letter report, 205084002/2012, M.R. Klein.

[196] Health and Safety Executive

are more important for stakeholders as they will concern the essential elements of the new proposals.

2. Detailed summary of all consultations and their results

- Advisory Committee on Safety and Health at Work (ACSH)

The ACSH in the opinion adopted on 24 September 2015 mentions that there is no need for a full recast of the EU OSH Directives system and that the current structure with a Framework Directive and individual Directives should be maintained. However, it also mentions that "there is a need for an update of some outdated Directives, or certain requirements in the Directives, as they do not take account of the present technical situation" and it underlines that "there are some opportunities to streamline certain Directives and to better ensure the effectiveness of provisions and to manage complexities". As regards compliance, the ACSH acknowledges the conclusions of the external study that legal requirements are an important factor (but certainly not the only one) influencing the compliance behaviour of establishments, which suggests that, by requiring the introduction of such requirements in all MSs, the Directives had an impact on compliance behaviour. As regards the relevance of the acquis, the ACSH mentions that "consideration should be given to work-related MSDs, psychosocial risks and the aging worker population, with a view to clarifying any need for action".

The ACSH underlined the recommendation to focus on better enforcement and compliance, whereby it is recommended that the Commission considers how efforts to ensure compliance can be further enhanced with particular focus on SMEs and micro-enterprises and also considering the need for risk based approaches, as well as the need to find new and innovative ways of reaching SMEs and micro- enterprises – for example tools such as OIRA, and exploring the approaches adopted in some Member States to make the essential requirements of the Directives more accessible – rather than establishing exemptions for them, as this would lead to a lowering of the levels of protection of workers. The ACSH agreed that the focus of OSH management should be on the full management cycle and the consistent application of the general principles of prevention and not just on certain processes or procedures. Finally, the ACSH considered that any specific proposals in regard to the OSH acquis should take account of the opinion of the ACSH and the contributions of social partners according to the provisions of the EU Treaties on social dialogue.

- SLIC contribution

In its contribution, SLIC described five perceived major enforcement challenges, starting with those inherent to the Labour Inspectorates themselves[197] (e.g. the exclusion of certain category of workers from the responsibilities pertaining to Labour Inspectorates; regional enforcement differences); the nature of the employment relationship[198] (e.g. the problems faced in enforcing OSH legislation in regard to self-employed persons and domestic workers, either because these categories are excluded from the scope of the legislation or in the case

[197] 12 respondents identified these challenges.
[198] 10 respondents identified these challenges.

where these are not excluded; precarious work; work carried out by migrant workers and posted workers, in particular in relation to health surveillance in this latter case; teleworking). Third, according to certain respondents[199], the EU OSH Directives themselves give rise to a number of challenges, as they are deemed too technical, creating difficulties for Labour Inspectorates or leading to compliance difficulties for duty-holders, especially SMEs (Directive 2002/44/EC (vibration) and other physical agents directives (in particular due to system of multiple limit values) were specifically mentioned in this regard). Repetition within the different existing directives and duplication of requirements was also mentioned[200], as well as the lack of legal instruments addressing new and emerging risks, including new forms of employment and new technologies (in particular, Directive 90/270/EEC (display screen equipment))[201]. The fourth major challenge identified concerns the size of the enterprises[202], the ageing workforce, specific risks or high risks work activities which pose significant challenges (psychosocial risks, ergonomic risks, construction work, handling of asbestos containing material, chemical agents), old equipment and machinery still in use[203] and occupational diseases[204].

SLIC recommended that opportunities need to be provided for the voluntary continuous professional development of Labour Inspectors. Such training should go beyond the initial training which inspectors receive within the national framework at the time of recruitment, and should tackle those areas providing particular technical difficulties especially with regards to new and emerging risks. The provision of information and guidance for duty-holders in areas where this is not yet available will also aid compliance. In the case of Labour Inspectorates, exchanges of information should be facilitated and encouraged. Such information exchanges need to include areas such as the health and safety risks associated with atypical work relationships, and how these are tackled within different Member States. The setting up of close regional cooperation between Labour Inspectorates also needs to be considered as it facilitates the exchange of good practice by Member States facing common problems, have common approaches or similarities in processes, procedures or even legislation. Even though a number of Member States are currently against the establishment of 'minimum' or 'recommended' inspector-worker ratios, a number of Member States favour such a development, as it would assist the Labour Inspectorates' claims for the allocation of adequate resources; In view of such a divergence of opinion, it is being suggested that a wide discussion is organised on whether such a ration needs to be determined at a European level. Finally, SLIC proposes that structures at national or at a European level are established so as to provide assistance to inspectorates wishing to apply for and manage projects using EU funds, and that procedures are simplified.

- **Directive 98/24/EC (chemical agents), Directive 2004/37/EC (carcinogens and mutagens) – ACSH Working Party on Chemicals –Relevance and Effectiveness**

[199] 7 respondents.
[200] 2 respondents.
[201] 2 respondents.
[202] 6 respondents.
[203] 2 respondents.
[204] 2 respondents.

The ACSH Working Party on Chemicals presented its view in relation to the EU OSH chemicals legislation architecture. First in relation to EU OSH occupational exposure limit values (OELs) it highlighted that OELs are an important tool for chemical risk management at the workplace. However, there is a need to update and simplify the legal procedure for adopting OELs. This should result in a simpler and quicker legal procedure for the adoption and revision of OELs. According to the WP issues to consider include: the need to adopt values for more substances of high concern, in particular carcinogenic, mutagenic and reprotoxic substances based on duly justified reasoning including guidance on methodology; There is a need to further develop the approach taken for identifying priority substances for evaluation by SCOEL and thereafter as candidates for future EU OELs. The WP also considered that other lists established at national or EU level may be also used as starting material; the need to address threshold and non-threshold issues for carcinogens and other substances where relevant; a more detailed explanation of how feasibility factors are taken into account; the need for a terminology used to describe different types of OELs (and corresponding procedures) based on clearly described concepts; the basis on which an OEL is set should be indicated; in the longer term it may be advisable to move to a single list of limits; guidance on the practical use of OELs should be developed; take account of similar concepts in other legal fields and their corresponding adoption procedures; the speedy adoption of more OSH OELs would facilitate REACH implementation if the registrant could use OELs as relevant DNELs; the fundamental role of SCOEL in the limit setting process for workers' health protection; the need to improve the management of the interface and further enhance synergies between EU OSH legislation and other EU chemical legislation such as the REACH and the CLP Regulations; the need to consider the most appropriate approach to managing risks that may arise from exposure to reprotoxic substances; the need to consider if and how biomonitoring could be used more effectively for workplace risk management; the need to consider the potential adverse health affects arising from exposure to dusts with low specific toxicity, clarification that; there is no need for a specific directive on nanomaterials as the existing directives already cover the known risks; any identified emerging risk not adequately covered by the existing legal framework should be promptly addressed as a matter of concern; develop more EU guidance on a range of topics[205]; the guidance should be developed using modern communication methods and tools with a clear indication of the target audience; other substances such as sensitisers should be considered as a high priority that may merit further consideration to ensure that the risk management requirements are appropriate.

As regards the overall structure and interface between Directive 98/24/EC and Directive 2004/37/EC, a systematic examination of a number of issues, including the aforementioned issues is necessary to determine whether the merging of the two Directives would lead to a simplified and more effective approach resulting in practical benefits in controlling chemical risks at the workplace.

- **Directive 92/104/EEC (extractive industries - mines and quarries)**

[205] In particular such as practical risk management e.g. substitution, how to design, install, use and maintain local exhaust ventilation, managing dermal risks, use of OELs, bio-monitoring, personal protective equipment etc.

ACSH Standing Working Party for the mining and extractive industries indicated made several recommendations for changes, including that an important number of the provisions of the Directive are generic and could be included in EU OSH Directives that apply to all work places). In addition, where a Directive applicable to all workplaces contains provisions similar to those in Directive 92/104/EC, the relevant provisions of the latter Directive should be repealed.

- **Directive 2009/104/EC and Directive 2006/42/EC (machinery) –SLIC – External coherence**

SLIC[206] recommends to enhance synergies between the two Directives in particular through the clarification of the interplay between these two Directives in relation to modification or adaptation of a machine provided to workers in for the first time before or on 31 December 1992; the alignment of certain requirement in the Annex I to Directive 2009/104/EC to Directive 2006/42/EC; the adaption of existing guidance to take into account the current state of the art in terms of standardization.

[206] SLIC, Evaluation of 2009/104/EC Work Equipment Directive and it's interplay with related Directives, adopted by 68th SLIC Plenary in Riga (LV), 27/05/2015.

Annex 3 - Methods and analytical models used in preparing the evaluation

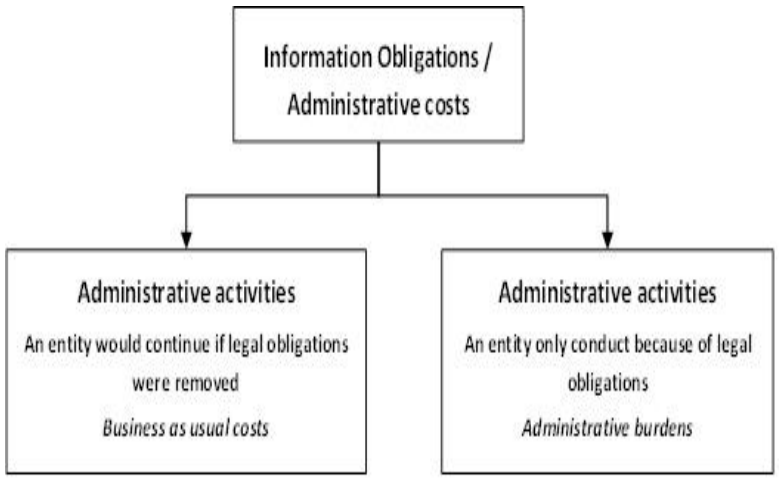
The evaluation relied on a number of different data sources, including the information provided in the NIRs, the results of external studies commissioned by the Commission services for the evaluation of the 24 EU Directives and some specific topics in relation to the evaluation (for example the consequences of exempting very small enterprises in low-risk sectors from the obligation to document the risk assessment) [207], statistical sources both at EU and national level and a number of targeted studies covering specific topics discussed in this evaluation.

As regards the chapter on administrative costs and burdens, the study based, inter alia on the Standard Cost Model. The main aim of the model is to assess the net cost of information obligations imposed by EU legislation (net costs = costs introduced by a proposal if adopted, minus the costs it would eliminate at EU and/or national level).

Administrative costs are defined as the costs incurred by enterprises, the voluntary sector, public authorities and citizens in meeting legal obligations to provide information on their action or production, either to public authorities or to private parties. Recurring administrative costs and, where significant, one-off administrative costs have to be taken into account.

The administrative costs consist of two different cost components: the business-as-usual costs and administrative burdens. While the business-as-usual costs correspond to the costs resulting from collecting and processing information which would be done by an entity even in the absence of the legislation, the administrative burdens stem from the part of the process which is done solely because of a legal obligation.

Components of administrative costs



[207] For details about the cost-benefit analysis applied in case studies see, for example, in Socio-economic costs of accidents at work and work-related ill health, DG EMPL, 2010, p. 123-130.

Core equation of the cost model

According to the Standard Cost Model, administrative costs are assessed on the basis of the average cost of the required administrative activity (Price) multiplied by the total number of activities performed per year (Quantity). The average cost per action is estimated by multiplying a tariff (based on average labour cost per hour including prorated overheads) and the time required per action. Where appropriate, other types of costs such as outsourcing, equipment or supplies' costs should be taken into account. The quantity will be calculated as the frequency of required actions multiplied by the number of entities concerned. In case of multiple relevant administrative activities per information obligation these need to be summed up to calculate the administrative cost per information obligation. The core equation of the SCM is as follows:

Core equation of the Standard Cost Model

Σ P x Q

where P (for Price) = Tariff x Time; and

where Q (for Quantity) = Number of businesses x Frequency

As regards the estimates on the consequences of a possible exemption of microenterprises from the obligation to document the risk assessment in low risk sectors, the model referred to investigated over a ten year period: the costs of the risk assessment documentation obligation to all micro-enterprises under the current situation ('the counterfactual'); the cost savings to micro-enterprises in low risk sectors if they were exempt from the obligation. The exemption scenario was calculated in relation to the current situation and represented only additional costs or cost savings.

Three different definitions of 'low risk' were formulated within the study, using a sectoral approach.

The limitations of the model developed, were mainly related to the availability of certain data necessary to better define the notion of 'low risk', such as better EU level data on occupational diseases and occupational exposures. Other limitation related to the lack of robust information about the link between the documentation of the risk assessment and the OSH impacts.

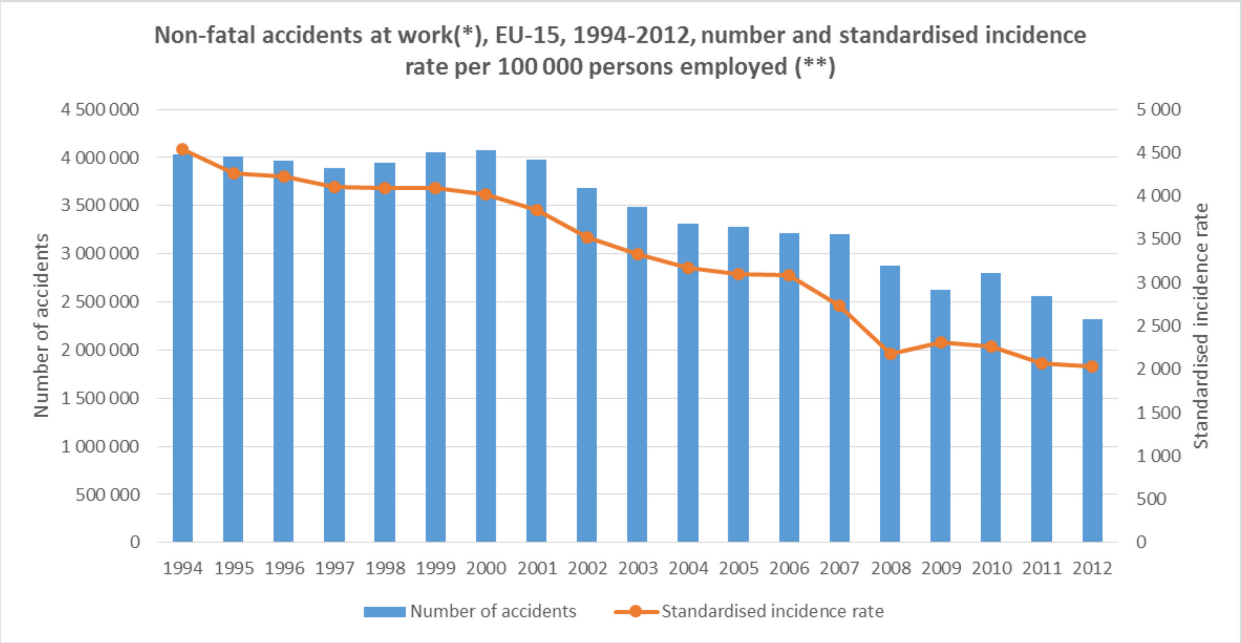
As a consequence, due to the uncertain values of some of the inputs to the cost model developed in the study ('analysis of uncertainty'), the latter made use of a range of values for the uncertain inputs to present low, medium and high sensitivity scenarios of the net benefit of the proposed exemption. This uncertainty was due to either difference in data that were collected from different sources; or to the need to adjust data, using assumptions, to construct the input. In case of the exemption, the low sensitivity scenario represents the lowest likely net benefit of the proposed exemption, and uses values for the input that result in the lowest net benefit. The high sensitivity scenario represents the highest likely net benefit of the exemption.

For reasons discussed in Chapter 7.3, a cost-benefit analysis of the 24 EU Directives could not be undertaken. The same chapter refers, however, to cost-benefit analyses undertaken to assess the profitability of health and safety interventions at an enterprise level[208].

[208] For details about the cost-benefit analysis applied in case studies see, for example, in Socio-economic costs of accidents at work and work-related ill health, DG EMPL, 2010, p. 123-130 and in Calculating the international return on prevention for companies: costs and benefits of investments in occupational safety and health, International Social Security Association, p.3.

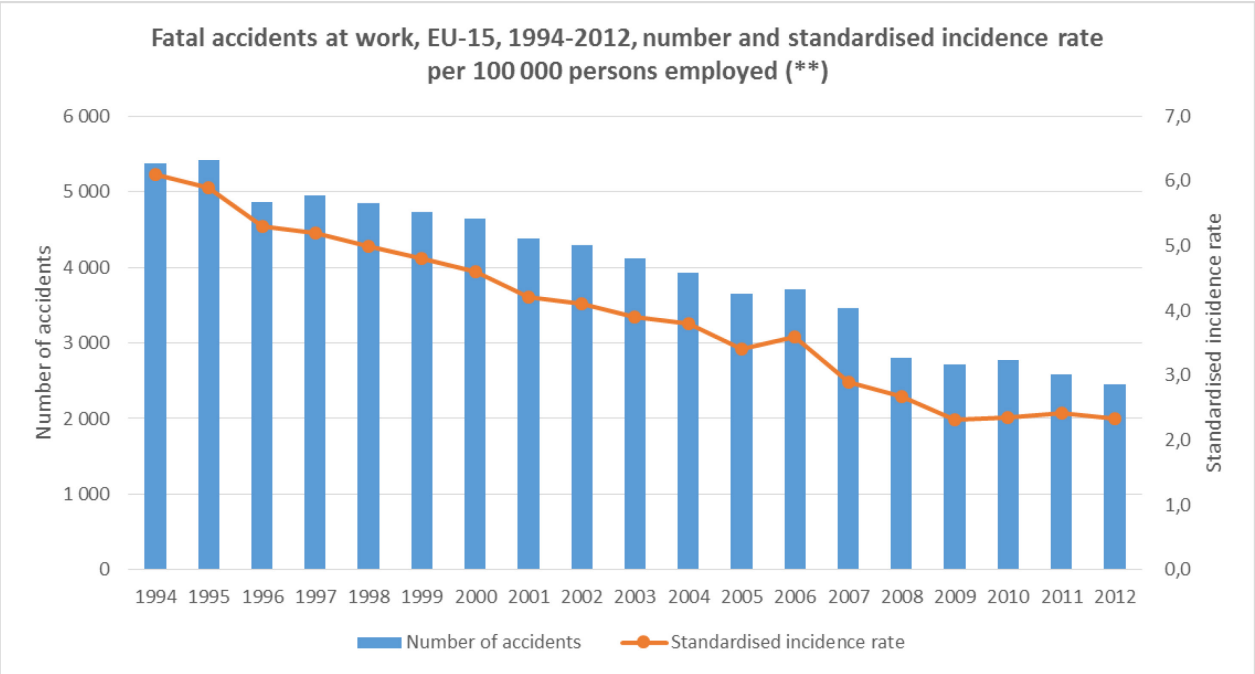
Annex 4 - Analytical Annex (effectiveness and efficiency)

Figure 1



Source: Eurostat, ESAW, online datasets hsw_aw_nnasx, hsw_aw_inasx and hsw_mi01.
(*) Data on non-fatal accidents collected in the framework of the ESAW data collection includes accidents at work resulting in more than 3 days' absence from work
(**) Data for NACE Rev.1.1 Section A and D to K until 2007 and NACE Rev. 2 Sections A and C to N from 2008 onwards.

Figure 2



Source: Eurostat, ESAW, online datasets hsw_aw_nnasx, hsw_aw_inasx and hsw_mi01.
(**) Data for NACE Rev.1.1 Section A and D to K until 2007 and NACE Rev. 2 Sections A and C to N from 2008 onwards.

Table 1 Incidence rate for non-fatal accidents at work (absence of more than 3 calendar days), EU27, 2008-2012.

Economic activity (NACE Rev. 2)	2008	2009	2010	2011	2012
Total - All NACE activities	1,956.02	1,666.37	1,700.27	1,694.8	1,572.43
Agriculture, forestry and fishing	1,794.62	1,219.13	1,283.83	1,707.85	1,492.73
Mining and quarrying	1,897.2	1,899.49	2,209.63	1,950.22	1,607.06
Manufacturing	2,688.06	2,230.94	2,371.25	2,230.39	2,101.89
Electricity, gas, steam and air conditioning supply	726.58	612.74	779.05	615.46	501.65
Water supply; sewerage, waste management and remediation activities	3,465.26	3,442.5	3,679.46	3,522.95	2,883.53
Construction	3,735.24	3,477.89	3,226.04	3,442.21	3,112.08
Wholesale and retail trade; repair of motor vehicles and motorcycles	1,677.05	1,534.7	1,545.64	1,507.47	1,394.77
Transportation and storage	3,031.56	2,838.23	3,012.11	2,786.66	2,620.52
Accommodation and food service activities	2,051	1,971.26	1,759.37	1,827.23	1,718.39
Information and communication	476.76	411.77	454.12	389.58	332.28
Financial and insurance activities	359.4	313.66	339.17	286.27	274.44
Real estate activities	1,257.09	1,165.76	1,112.72	957.66	808.81
Professional, scientific and technical activities	474.85	428.47	372.06	427.46	396.96
Administrative and support service activities	3,002.68	2,521.45	2,347.75	2,394.98	2,144.92
Public administration and defence; compulsory social security	1,089.06	958.68	1,253.34	1,036.7	1,066.91
Education	562.54	620.83	656.84	605.4	576.56
Human health and social work activities	1,552.4	1,381.6	1,532.03	1,573.89	1,479.99
Arts, entertainment and recreation	1,736.81	1,728.06	1,685.75	1,619.99	1,659.58

Other service activities	809.03	751.21	773.92	748.49	798.2
Activities of households as employers	311.46	:	272.11	181.94	144.95
Activities of extraterritorial organisations and bodies	657.31	502.89	637.25	756.73	281.6
Unknown NACE activity	:	:	:	:	:

Source:Eurostat, ESAW, hsw_n2_01.

Table 2 Incidence rate for fatal accidents at work, EU27, 2008-2012.

NACE_R2	2008	2009	2010	2011	2012
Total - All NACE activities	2.41	2.03	2.1	2.04	1.93
Agriculture, forestry and fishing	8.31	3.49	4.53	5.69	5.16
Mining and quarrying	13.02	12.17	11.16	15.21	10.65
Manufacturing	2.39	2.07	2.17	2.09	2.01
Electricity, gas, steam and air conditioning supply	3.43	2.92	2.93	2.52	3.42
Water supply; sewerage, waste management and remediation activities	7.23	5.33	6.04	7.05	4.69
Construction	7.50	7.33	6.63	6.78	6.34
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.24	1.23	1.27	1.19	1.15
Transportation and storage	6.81	5.60	6.54	5.97	5.49
Accommodation and food service activities	0.59	0.72	0.57	0.52	0.45
Information and communication	0.67	0.55	0.66	0.48	0.62
Financial and insurance activities	0.52	0.44	0.54	0.29	0.24
Real estate activities	1.26	1.59	0.91	0.68	1.33
Professional, scientific and technical activities	0.81	0.68	0.60	0.51	0.74
Administrative and support service activities	2.30	2.12	1.83	1.85	1.87
Public administration and defence; compulsory social security	0.74	0.77	0.93	0.66	0.65
Education	0.27	0.26	0.3	0.23	0.17
Human health and social work activities	0.23	0.25	0.37	0.25	0.34
Arts, entertainment and recreation	1.18	0.88	0.78	1.14	0.82
Other service activities	0.59	0.51	0.73	0.55	0.45
Activities of households as employers;	0.17	0.06	0.08	0.23	0.11
Activities of extraterritorial organisations and bodies	2.6	:	1.6	2.23	0.59
Unknown NACE activity	:	:	:	:	:

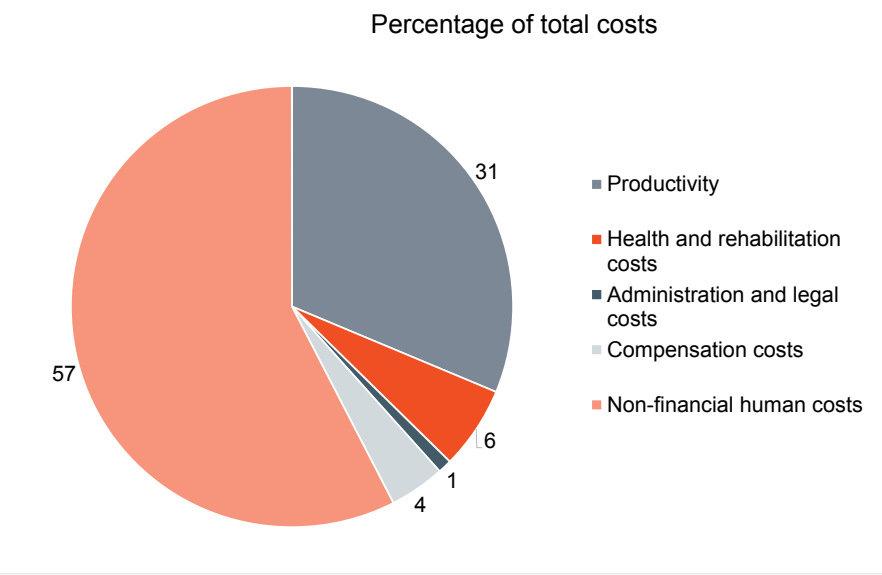
Source:Eurostat, ESAW, hsw_n2_02.

Table 3 Economic costs of work-related accidents and ill-health, by perspective and type

Cost type / Stakeholder	Productivity costs	Healthcare costs	Quality of life losses	Administration costs	Insurance costs
Workers and families	Loss of present and future income (net of taxes)	Direct and indirect medical costs and rehabilitation costs	Physical pain and suffering Moral pain and suffering	Cost of time claiming benefits, waiting for treatment, etc.	Compensation payments
Employers	Sick payments Production losses Production disturbances Damaged equipment Damaged company image (All of the above costs are net of taxes)			Administrative and legal costs Cost for reintegration and re-schooling of (disabled) workers	Impact on insurance premiums
Government	Sick payments State benefits (disability, early retirement) Tax revenue losses	Direct and indirect medical costs and rehabilitation costs		Administrative and legal costs	
Society (over and above all the previous)	Loss of output (due to fatality or disability/early retirement)				

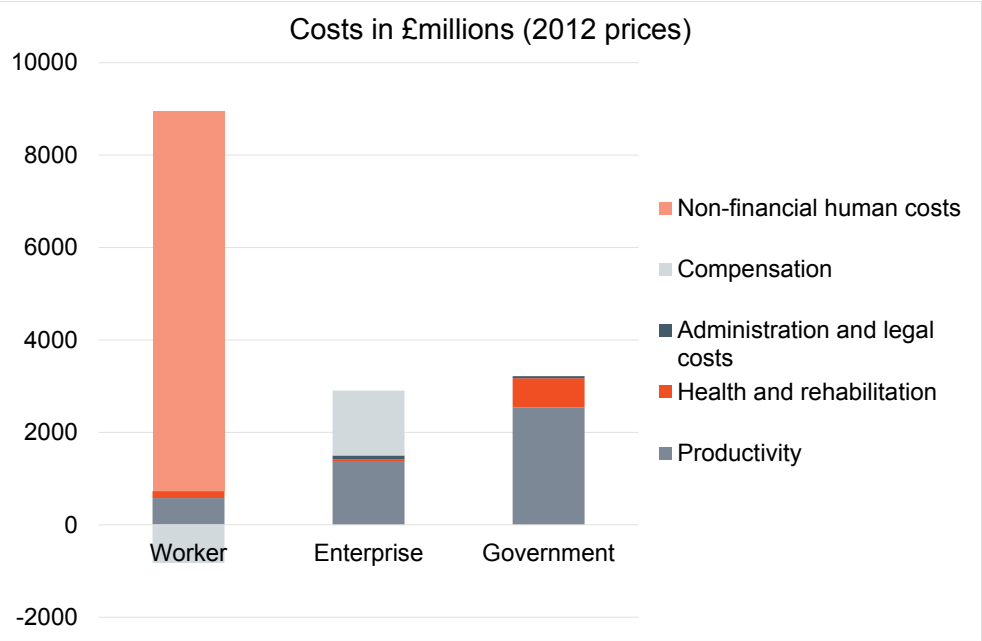
Source: Estimating the cost of accidents and ill-health at work: a review of methodologies, EU-OSHA, 2014, p. 15.

Figure 3 Distribution of types of costs of workplace injuries and ill-health in Britain (2012/2013)



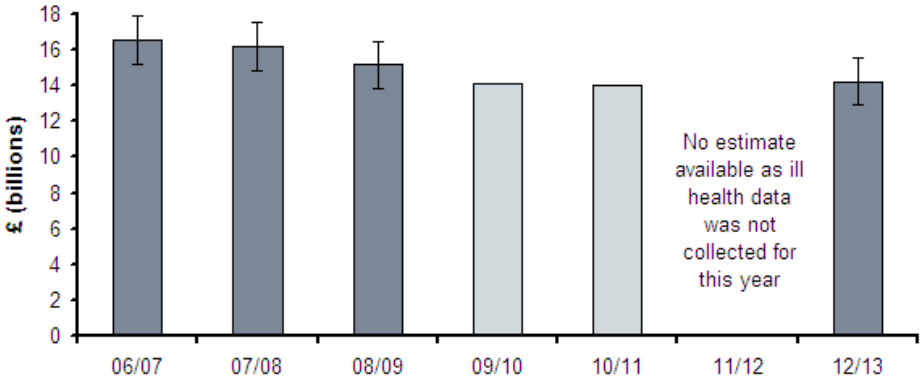
Source: Adapted from HSE: Costs to Britain of workplace fatalities and self-reported injuries and ill-health 2012/2013

Figure 4 Costs of workplace injuries and ill health in Britain (2012/13) by type and stakeholder



Source: *Adapted from HSE: Costs to Britain of workplace fatalities and self-reported injuries and ill-health 2012/2013*

Figure 5 Costs to Britain of workplace injuries and new cases of work-related illness, 2006/07 to 2012/13 (2012 prices)



Source: *Costs to Britain of workplace fatalities and self-reported injuries and ill-health 2012/2013*
Note: *Costs for 2006/07, 2007/08, 2008/09 and 2012/13 are shown in dark grey and include an error bar to show the 95% confidence interval around the estimate. Cost estimates for 2012/13 are independent of cost estimates for 2006/07-2008/09 and can be reliably compared to these.*

Table 4 Total Administrative Costs and National Obligations going beyond EU requirements

			EU Requirement	National obligation going beyond EU Requirement Possibility not stated in the EU Act	Total	Total Admin. Burden	
			Admin. Cost (€ x 1,000)	Admin. Cost (€ x 1,000)	Admin. Cost (€ x 1,000)	Admin. Burden (€ x 1,000)	Share of Admin. Cost (%)
EU IO	EU Legislation	Article number					
1. "Obligation to possess assessment of risks to safety and health at work"	Council 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	Art. 9 par. 1(a); (Art. 10 par. 3 (a))	2,925,987.7	10,531.5	2,936,519.2	2,722,177.3	92.70
2. "Safety and health plan"	Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites (eighth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC)	Art. 5 point (b); Art. 3 par. 2; (Art. 9; Art. 10)	566,991.2	0	566,991.2	448,941.3	79.18

			EU Requirement	National obligation going beyond EU Requirement Possibility not stated in the EU Act	Total	Total Admin. Burden	
			Admin. Cost (€ x 1,000)	Admin. Cost (€ x 1,000)	Admin. Cost (€ x 1,000)	Admin. Burden (€ x 1,000)	Share of Admin. Cost (%)
3. "Obligation to report on occupational accidents suffered by his workers"	Council 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	Art. 9 par. 1(d)	242,144.8	124.0	242,268.8	172,329.2	71.13
4. "Obligation to prepare a file containing relevant health and safety information for any subsequent work"	Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites (eighth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC)	Art. 5 point (c); (Art. 9; Art. 10)	237,698.6	0	237,698.6	174,425.5	73.38
5. "Control and supervision of safety and health at work place"	Council 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	Art. 4 par. 2	215,158.0	2,303.7	217,461.7	213,826.3	98.33

			EU Requirement	National obligation going beyond EU Requirement: Possibility not stated in the EU Act	Total	Total Admin. Burden	
			Admin. Cost (€ x 1,000)	Admin. Cost (€ x 1,000)	Admin. Cost (€ x 1,000)	Admin. Burden (€ x 1,000)	Share of Admin. Cost (%)
6. "Prior notice of construction site"	Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites (eighth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC)	Art. 3 par. 3	28,865.7	11,094.2	39,959.9	36,834.4	92.18
7. "List of occupational accidents"	Council 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	Art. 9 par. 1(c)	11,373.0	8,362.2	19,735.1	17,857.8	90.49
Total			4,228,218.9	32,415.5	4,260,634.4	3,786,391.9	88.87

Source: Final Report Measurement data and analysis as specified in the specific contracts 5&6 on Modules 3&4 under the Framework Contract n° ENTR/06/61 Report on Working Environment/Employment Relations Priority Area. EU project on baseline measurement and reduction of administrative costs. June 2009.

Annex 5 - LIST OF EU OSH DIRECTIVES UNDER EX-POST EVALUATION

- **Directive 89/391/EEC**[209] of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work, as amended by:
- **Council Directive 89/654/EEC**[210] of 30 November 1989 concerning the minimum safety and health requirements for the **workplace** (first individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Directive 2009/104/EC**[211] of the European Parliament and of the Council of 16 September 2009 concerning the minimum safety and health requirements for the use of **work equipment** by workers at work (second individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC – Codification of Directive 89/655/EEC, as amended by Directives 95/63/EC and 2001/45/EC);
- **Council Directive 89/656/EEC**[212] of 30 November 1989 on the minimum health and safety requirements for the use by workers of **personal protective equipment** at the workplace (third individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Council Directive 90/269/EEC**[213] of 29 May 1990 on the minimum health and safety requirements for the manual handling of **loads** where there is a risk particularly of back injury to workers (fourth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Council Directive 90/270/EEC**[214] of 29 May 1990 on the minimum safety and health requirements for work with **display screen equipment** (fifth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Directive 2004/37/EC**[215] of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to **carcinogens or mutagens** at work (sixth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC - Codification of Directive 90/394/EEC);
- **Directive 2000/54/EC**[216] of the European Parliament and of the Council of 18 September 2000 on the protection of workers from risks related to exposure to **biological agents** at work (seventh individual directive within the meaning of Article 16(1) of Directive 89/391/EEC) - Codification of Directive 90/679/EEC);
- **Council Directive 92/57/EEC**[217] of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile **construction sites** (eight individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);

[209] OJ L 183, 29.6.1989, p.1.
[210] OJ L 393, 30.12.1989, p.1.
[211] OJ L 260, 3.10.2009, p. 5.
[212] OJ L 393, 30.12.1989, p.18.
[213] OJ L 156, 21.6.1990, p.9.
[214] OJ L 156, 21.6.1990, p.14.
[215] OJ L 229, 29.6.2004, p.23.
[216] OJ L 262, 17.10.2000, p.21.
[217] OJ L 245, 26.8.1992, p.6.

- **Council Directive 92/58/EEC**[218] of 24 June 1992 on the minimum requirements for the provision of safety and/or health **signs** at work (ninth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Council Directive 92/85/EEC**[219] of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of **pregnant workers** and workers who have recently given birth or are breastfeeding (tenth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC) ;
- **Council Directive 92/91/EEC**[220] of 3 November 1992 concerning the minimum requirements for improving the safety and health protection of workers in **the mineral-extracting industries through drilling** (eleventh individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Council Directive 92/104/EEC**[221] of 3 December 1992 on the minimum requirements for improving the safety and health protection of workers in **surface and underground mineral-extracting industries** (twelfth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Council Directive 93/103/EC**[222] of 23 November 1993 concerning the minimum safety and health requirements for work on board **fishing vessels** (thirteenth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Council Directive 98/24/EC**[223] of 7 April 1998 on the protection of the health and safety of workers from the risks related to **chemical agents** at work (fourteenth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Directive 1999/92/EC**[224] of the European Parliament and of the Council of 16 December 1999 on minimum requirements for improving the safety and health protection of workers potentially at risk from **explosive atmospheres** (fifteenth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Directive 2002/44/EC**[225] of the European Parliament and of the Council of 25 June 2002 on the minimum health and safety requirements regarding the exposure of workers to the risk arising from **physical agents (vibration)** (sixteenth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Directive 2003/10/EC**[226] of the European Parliament and of the Council of 6 February 2003 on the minimum health and safety requirements regarding the exposure of workers to the risk arising from **physical agents (noise)** (seventeenth individual directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Directive 2004/40/EC**[227] of the European Parliament and of the Council of 29 April 2004 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from **physical agents (electromagnetic fields)** (18th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC),); **as amended by Directive 2008/46/EC**[228]**;**

[218] OJ L 245, 26.8.1992, p.23.
219 OJ L 348, 28.11.1992, p. 1.
[220] OJ L 348, 28.11.1992, p.9.
[221] OJ L 404, 31.12.1992, p.10.
[222] OJ L 307, 13.12.1993, p.1.
[223] OJ L131, 5.5. 1998, p.11.
[224] OJ L 23, 28.1.2000, p.57.
[225] OJ L 177, 6.7.2002, p.13.
[226] OJ L 42, 15.2.2003, p.38.
[227] OJ L 184, 24.5.2004, p.1.
[228] OJ L 114, 26.4.2008, p. 88

- **Directive 2006/25/EC**[229] of the European Parliament and of the Council of 5 April 2006 on the minimum health and safety requirements regarding the exposure of workers to risks arising from **physical agents (artificial optical radiation)** (19th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC);
- **Council Directive 91/383/EEC**[230] of 25 June 1991 supplementing the measures to encourage improvements in the safety and health at work of workers with a **fixed-duration employment relationship or a temporary employment relationship**;
- **Council Directive 92/29/EEC**[231] of 31 March 1992 on the minimum safety and health requirements for improved **medical treatment on board vessels**;
- **Council Directive 94/33/EC**[232] of 22 June 1994 on the protection of **young people** at work;
- **Directive 2009/148/EC**[233] of the European Parliament and of the Council of 30 November 2009 on the protection of workers from the risks related to exposure to **asbestos** at work.

[229] OJ L 114, 27.4.2006, p.38.
[230] OJ L 206, 29.7.1991, p. 19.
[231] OJ L 113, 30.4.1992, p.19.
[232] OJ L 216, 20.8.1994, p. 12.
[233] OJ L 330, 16.12.2009, p. 28.

Annex 6 - Relevant non-OSH EU legislation

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC;

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006;

Council Directive 87/217/EEC of 19 March 1987 on the prevention and reduction of environmental pollution by asbestos;

Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)

Directive 2008/106/EC of the European Parliament and of the Council of 19 November 2008 on the minimum level of training of seafarers (recast)

Council Directive 2009/13/EC of 16 February 2009 implementing the Agreement concluded by the European Community Shipowners' Associations (ECSA) and the European Transport Workers' Federation (ETF) on the Maritime Labour Convention, 2006, and amending Directive 1999/63/EC

Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC

Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts

Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC

Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres (recast)Commission Decision 2014/113/EU on setting up a Scientific Committee on Occupational Exposure Limits for Chemical Agents and repealing Decision 95/320/EC

Annex 7 - Coherence with EU non-OSH legislation:

Directive 2000/54/EC (biological agents) and Directive 2010/32/EU (sharp injuries) - review of the scope of Directive 2010/32/EU (sharp injuries) to cover all workers exposed to sharp injuries leading to infections by biological agents should be considered since it would have a positive impact on limiting worker exposure to biological agents.

There is a need to develop synergies between OSH, REACH, CLP and other EU chemicals legislation. There is a need to improve the interface and further enhance synergies between OSH and other EU legislation on chemicals such as REACH and CLP.

Application of OSH OELs and REACH DNELs: The inclusion of in-built provisions under REACH and/or Directive 98/24/EC (chemical agents) and Directive 2004/37/EC (carcinogens and mutagens) to coordinate how OELs and DNELs are derived in order to define the most appropriate way of using them in the risk assessment. Other options would be to:

- To enhance the cooperation between SCOEL and ECHA (RAC);
- To evaluate the methodologies used to define OELs and derive relevant DNELs in order to align the approaches and promote convergence;
- To ensure that REACH registrants take into account OELs recommended by SCOEL when deriving DNELs without being challenged in other regulatory processes;
- To ensure that for a given substance SCOEL considers DNELs derived under REACH when establishing new or reviewing existing, outdated OELs;
- To reconsider the nature and extent of Member States' capacity to set different OELs in the case of the currently so-called 'indicative' OEL values established under the terms of Directive 98/24/EC (chemical agents);
- Simplification of the procedures to set occupational limit values at EU level – and in particular currently so-called 'binding' limit values – is needed. This would also have a positive impact under OSH and also on other EU policy areas such as REACH.

Similarly, one of the main suggestions of the NIRs is to better align Directives 98/24/EC (chemicals agents) and 2004/37/EC (carcinogens and mutagens) and Regulations (EC) No 1272/2008 (CLP) and 1907/2006 (REACH).

Concerning Directive 2009/148/EC on the protection of workers against asbestos exposure, a deeper analysis is required to determine whether the combined implementation of the provisions of Directive 2009/148/EC in particular on the demolition of buildings containing asbestos and asbestos-added products and on the removal therefrom of these raw material and products (Article 12(c)), and of the provisions set out in other Union instruments (e.g. Regulation (EC) No 1907/2006 (REACH)) ensure the full achievement of the objective of Article 7(2) of Directive 87/217/EEC (protection of human health and the environment against asbestos).

Reporting requirements under Directive 2013/30/EU on safety of offshore oil and gas operations and under Directive 92/91/EEC (drilling): The articulation of the reporting requirements should be clarified through the adoption of guidelines on the interface between the two directives. The main recommendation from the NIRs are to better align Directive 92/91/EEC and Directive 2013/30/EU on safety of offshore oil and gas operations.

Medical treatment and training requirements for commercial seagoing ships: The existence of equivalent medical treatment requirements in Directive 2009/13/EC and Directive 92/29/EC, as well as of equivalent training requirements in Directive 2008/106/EC and Directive 92/29/EC, while not leading to double regulation in practice, may create confusion. One of the main recommendations from the NIRs is to better align the Directive 92/29/EEC (medical treatment on board vessels), with certain international standards (e.g. International Maritime Organisation (IMO) - Life Saving Appliances (LSA) Code 4.15.1.8.; ISO 3864-1:2011 "Graphical symbols — Safety colours and safety signs; International Labour Organization's 2006 Maritime Labour Convention and 2007 Convention on Work in Fishing).

Public Procurement Directives and OSH award criteria: The reintroduction of a link between the award criteria or contract performance conditions and the fulfilment of OSH requirements by the (potential) contractor in the provisions of the Public Procurement Directives should be considered to enhance health and safety at work through public procurement incentives.

Directive 1999/92/EC (ATEX) and Directive 94/9/EC (ATEX equipment): In view of the concerns raised by some Member States, the review of the definition of zones to ensure similar technical interpretations in Member States to avoid barriers to the free movement of ATEX equipment should be considered. However, this would imply to set up prescriptive conditions without allowing Member States to set more stringent definitions of zones, which is contrary to the a minima approach of the EU OSH acquis. The development of guidelines for the application of Directive 1999/92/EC (ATEX) to equipment and protective systems placed on the market before the entry into force of Directive 94/9/EC (ATEX equipment) and equipment not falling under the scope of this Directive could also be considered to enhance the synergy between the two Directives.

Directive 92/58/EEC (OSH signs)- the main recommendation from the NIRs is to update the Directive and further align it with international standards (e.g. EN ISO 7010).

International instruments: The incorporation of additional requirements under international instruments in the relevant EU OSH legislation would ensure a level-playing field across the different Member States. As an alternative (or a first step), when it is not yet the case, the adoption of a Council Decision authorising the ratification of the relevant convention by Member States and to further promote ratification should be envisaged.

Annex 8 - OSH GLOSSARY

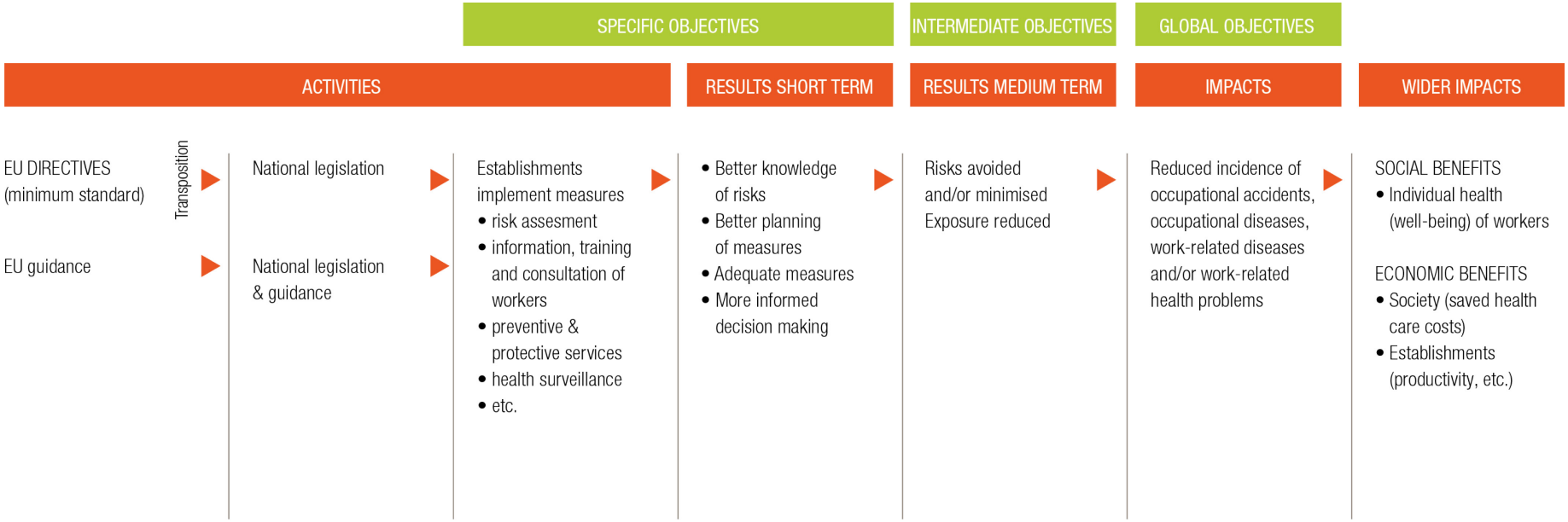
ACSH	Advisory Committee on safety and health at work
ACSH (WP)	Advisory Committee on safety and health at work (Working party)
AIL	Analytical intervention logic
APCMA	L'Assemblée permanente des chambres de métiers et de l'artisanat
AT	Austria
ATEX	Explosive atmospheres
BE	Belgium
BenOSH	Benefits of Occupational Safety
BG	Bulgaria
BusinessEurope	Advocate for growth and competitiveness at European level
CAD	Chemical Agents at Work Directive
CEEMET	European employers' organisation representing companies of the **metal, engineering** and **technology-based industries**
CEFIC	European Chemical Industry Council
CIETT	International Confederation of Private Employment Agencies
CMD Directive	Carcinogens and Mutagens Directive
CPM	Common process and mechanism
CSR	Country Summary Report
CY	Cyprus
CZ	Czech Republic
DE	Germany
DG EMPL	Directorate-General Employment
DG ENV	Directorate-General Environment
DG GROW	Directorate-General Internal Market, Industry, Entrepreneurship and SMEs
DG JUST	Directorate-General Justice
DK	Denmark
DNEL	Derived No Effects Level
DSE	Display Screen Equipment
DWEA	Danish Working Environment Authority
EASE	European Association for Storage of Energy
ECSA	The European Community Shipowners' Associations
EE	Estonia
EFBWW	European Federation of Building and Woodworkers
EFCI	European Federation of Cleaning Industries

EFFAT	European Federation of Food, Agriculture and Tourism Trade Unions
EHIS	European Health Interview Survey
EL	Greece
EMF	Electromagnetic Field
EODS	European Occupational Diseases Statistics
EPSU	European Federation of Public Service Unions
EQC	Evaluation question Coherence
EQE	Evaluation question on Effectiveness
EQR	Evaluation question on Relevance
ER	Employee Representative for occupational safety and health matters
ES	Spain
ESAW	European Statistics on Accident at Work
ESENER	European Survey on New and Emerging Risks
ETF	European Transport Workers' Federation
ETUI	European Trade Union Institute
ETUC	European Trade Union Confederation
EU	European Union
EU-OSHA	European Agency for Safety and Health at Work
Eurocoal	European Association for Coal and Lignite
Eurofer	European Steel Association
Eurofound	European Foundation for the Improvement of Living and Working Conditions
Eurometaux	European Association of Metals
Euromines	Recognized representative of the European metals and minerals mining industry
Europêche	Association of National Organisations of Fishing Enterprises in the European Union
Eurostat	European Statistics
EWCS	European Working Conditions Survey
FEVE	The European Container Glass Federation
FI	Finland
FIEC	European Construction Industry Federation
FR	France
FWD	Framework Directive
Glass for Europe	Trade association for Europe's manufacturers of building, automotive and transport glass
HOSPEEM	European Hospital & Healthcare Employers' Association
HOTREC	Hotels, Restaurants & Cafés in Europe
HU	Hungary
ILO	International Labour Organisation
IMA-Europe	Industrial Minerals Association – Europe
IR	Ireland
ISO	International Organization for Standardization
ISSA	International Social Security Association
ISSG	Inter-Service Steering Group

IT	Italy
IWG	Intergovernmental Working Group
JICA	Japan International Cooperation Agency
JISHA	Japan International Safety and Health Association
KR	Key requirement
LFS	Labour Force Survey
LT	Lithuania
LU	Luxembourg
LV	Latvia
MH	Manual Handling
MODERNET	Programme which aims at establishing a network for monitoring trends in occupational diseases, such as allergic and infectious diseases and reproductive hazards, and new and emerging occupational risks caused by biological agents
MQ	Mapping question
MSD	Musculoskeletal Disorder
MT	Malta
NACE	(Nomenclature of Economic Activities) is the European statistical classification of economic activities
NIR	National Implementation Report
NL	Netherlands
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSH	Occupational Safety and Health
PL	Poland
PlasticsEurope	Association of Plastic Manufacturers
PT	Portugal
RAC	Committee for Risk Assessment
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
RO	Romania
SBS	Structural Business Statistics
SCOEL	Scientific Committee on Occupational Exposure Limits
SE	Sweden
Seveso Directive	Directive 82/501/EC aimed at improving the safety of sites containing large quantities of dangerous substances, also known as the Seveso Directive (after the Seveso disaster).
SI	Slovenia

SK	Slovakia
SLIC	Senior Labour Inspectors Committee
SME	Small and Medium Enterprise
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the EU
TS	Tender Specifications
UEAPME	European Association of Craft, Small and Medium-Sized Enterprises
UK	United Kingdom
UNIZO (SME)	UNIZO's platform for growing entrepreneurs
UPEG	"Union Européenne des Producteurs de Granulats" (European Aggregates Associati)
US	United States
VOV	Virksomhedsovervågning (Monitoring Preventive Work Safety and Health Measures at Workplace Level)
WHO	World Health Organisation
WorkSafeBC	Workers' Compensation Board of British Columbia

Annex 9 - The EU Occupational Health and Safety Legislation intervention logic



Annex 10 - Summary of the findings based on the Country Summary Reports

The purpose of this Annex is to present for each Member State, based on an analysis of the elements detailed in the Country Summary Reports, the main findings regarding: 1) the general legal framework and competences in the area of OSH, 2) examples of more stringent and more detailed national measures; 3) the level of compliance by different stakeholders; 4) enforcement and 5) SMEs and micro-enterprises.

The section concerning the general legal framework and competences covers the structure of the national legal framework in the area of OSH, its scope, and the main national authorities responsible for implementation and enforcement in this area.

The section concerning more stringent, broader or more detailed requirements set out in national transposing measures is limited to an analysis in relation to the common processes and mechanisms in the EU OSH Directives, key requirements, provisions on scope, definitions and limit values. However, the purpose of this Annex is not to provide an exhaustive presentation of such requirements, but rather to highlight for each Member States certain examples. In this regard, a distinction needs to be made between : on the one hand, more "stringent" requirements, which refer to those measures more protective for workers which in line with Article 153 (4) TFEU go beyond the requirements set out in the EU OSH Directives e.g. more severe limit values; and on the other hand, more "specific" or "detailed" requirements, which relate to the extent to which national measures set out more detailed mechanisms for the implementation of EU minimum requirements. In such cases, Member States have set up more detailed rules on e.g. procedures, responsibilities, etc.

The section on enforcement presents findings in relation to the national competent authorities, strategies for inspection, the nature of the role carried out by the labour inspectors and the framework concerning sanctions.

The section on SMEs and micro-enterprises concerns measures at national level to support compliance with EU OSH legislation.

1. AUSTRIA

1.1 Legal Framework and Competences

In Austria, the main act transposing the Framework is the Federal Law on Health and Safety at Work (*ArbeitnehmerInnenschutzgesetz* – 'AschG') of 1994. That law applies to employees and temporary staff, but not to persons employed by the federal or provincial governments and local or municipal councils, the workers in the agriculture or forestry, in private households, and those who work from home. The excluded categories are covered by

measures adopted at Federal or provincial level. Although the AschG does not apply to "employees of the government, local government and community organizations, who are not employed in factories", and "workers in the federal departments to which the Federal Officials Protection Act is to apply", 72 out of the 114 regulations applying specifically to the public sector refer to the general occupational health and safety legislation (AschG) as directly applicable. The related EU OSH directives have been transposed mostly through secondary legislation, i.e. Regulations. Directive 94/33/EC has been transposed through a specific law (Federal Law on Work of Children and Young People), together with an implementing Regulation. Directive 91/383/EEC has been transposed through the Federal Law on Hiring Out, and Directive 92/85/EEC has been transposed through the Federal Law on Protection of Mothers.

Competences over OSH mainly fall under the direction of the Federal Ministry of Labour, Social Affairs and Consumer Protection, also responsible for employment-related issues including working conditions and labour inspections. Another important ministry is the Federal Ministry of Health. The Labour Inspectorate is part of the Federal Ministry of Labour, Social Affairs and Consumer Protection. In total, 19 regional labour inspectorates and one special inspectorate for construction work (only responsible for Vienna and Lower Austria) are directly responsible to the Central Labour Inspectorate.

1.2 More stringent and more detailed measures

With regard to the legislation transposing Directive 89/391/EEC, there are more specific requirements on risk assessment, preventive and protective services and information for workers. More particularly, the AschG describes in a specific manner the risks to be taken into account, as well as the content and methodology of the risk assessment. These more specific requirements from the AschG are also applicable as regards the measures transposing a large number of individual EU OSH directives. More specific requirements on risk assessment in specific national legislation are also to be found in relation to Directive 2009/104/EC (work equipment), Directive 92/58/EEC (OSH signs), Directive 2004/37/EC (carcinogens or mutagens), Directive 98/24/EC (chemical agents at work), Directive 2000/54/EC (biological agents), Directive 92/104/EEC (surface and underground mineral-extracting industries), Directive 92/91/EEC (mineral-extracting industries through drilling), and Directive 92/85/EEC (pregnant/breastfeeding workers).

The scope of the individual directive is different from the transposing national legislation with regard to Directive 92/58/EEC (OSH signs), Directive 92/57/EEC (temporary or mobile construction sites), and Directive 92/91/EEC (mineral-extracting industries through drilling).

More broader or detailed measures on information for workers are laid down in national measures transposing Directive 89/654/EEC (workplace), Directive 2009/104/EC (work equipment), Directive 98/24/EC (chemical agents at work), Directive 2000/54/EC (biological

agents), Directive 92/104/EEC (surface and underground mineral-extracting industries), Directive 91/383/EEC (temporary workers), and Directive 94/33/EC (young people at work).

Finally, more detailed provisions with regard to health surveillance are set forth in national measures transposing Directives 2003/10/EC (noise), 2000/54/EC (biological agents), and 91/383/EEC (temporary workers).

1.3 Level of compliance by different stakeholders

The information on compliance for Austria is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Austria shows a moderate level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 56% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (54.1%). ESENER-2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance only 29% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (84.6%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The external study based its conclusions on compliance only on the data provided by the labour inspectorates in the context of the 2011 labour inspection report. However, information only concerned risk assessment as no information could be gathered for the other CPMs. The level of compliance assessed across the Directives in relation to risk assessment's performance is higher in comparison to the level reported by the ESENER-2 survey. Also the study highlighted that the degree of compliance increased with the size of the companies. Finally, the study highlighted that the results of a focused inspection campaign conducted by the Austrian Labour Inspection in 2008/2009 reported that two-third of companies with less than 10 employees and nearly 90 % of companies with 10 to 50 employees performed a risk assessment[234].

1.4 Enforcement

[234] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Austria.

The Austrian OSH infrastructure is characterised by a dual system of state inspection bodies and social insurance. Enforcement of OSH-measures happens via the labour inspectorates and special units in regional governments and municipalities that have been installed to monitor safety and health of their employees. The general Labour Inspectorate (*Arbeitsinspektion*) is by far the larger of these bodies. It covers industries, services, the public sector, and transport. It is centralised and acts nationwide through 19 regional departments and one central office. Like in other countries, the Austrian Labour Inspectorate has progressively changed its approach, increasingly focusing on advisory work – although punishment keeps being one if its main tasks. Only a small proportion of companies can be reached via inspections, so the Labour Inspectorate has enabling strategies to support compliance. Austria has labour inspectors dedicated to specific tasks or groups of workers, such as protection of young workers, construction sites, pregnant and breastfeeding workers and workers in the hospitality industry[235].

1.5 SMEs and micro-enterprises

Austria has not set up any exemptions, lighter regimes or incentives to assist SMEs and micro-entreprises in the implementation of OSH requirements. The few other types of actions which have been identified are guidelines (for Directive 1999/92/EC on ATEX, Directive 2002/44/EC on vibration, and Directive 89/656/EEC on PPE). The statistical yearbook of the Chamber of Commerce indicates that most of the Austrian industry consists of SMEs. It is therefore considered that SMEs are naturally addressed within the measures taken and therefore, without the practise of special documents addressing them[236].

2. BELGIUM

2.1 Legal Framework and competences

Occupational safety and health at work is covered by the Law of 4 August 1996 on Well-Being of Workers in the Performance of their Work and its Royal Decrees. That Law, which transposes into Belgian law the Framework Directive 89/391/EEC, forms with its implementing Royal Decrees the *Code on Well-being at Work* (*Code sur le bien-être au travail*). The Code will gradually replace the previous Regulation for Labour protection *(Règlement général pour la protection du travail – "RGPT"*), which was in force since 1947.

Institutional aspects, such as the establishment and functioning of the internal and external protection and prevention services or of the consultation committees have been transposed in specific Royal Decrees. Most individual OSH Directives are transposed in one specific piece of legislation, typically a Royal Decree, adopted under the framework of the 1996 Law. Several Royal Decrees were necessary to transpose Directive 89/654/EEC (workplace) and

[235] See Table 5- 1 Enforcement authorities and Table 5-4 Type and level of sanctions of the Country Summary Report for Austria.
[236] See Table 7-2 Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for Austria.

Directive 2009/104/EC (work equipment). The main requirements of the Directive 2009/104/EC are transposed in the Royal Decree of 12 August 1993 on the use of work equipment, while individual royal decrees regulate the use of various specific equipment, respectively mobile work equipment, work equipment for lifting loads and work equipment provided for temporary work at height.

The Belgian legislation in the area of health and safety at work covers all types of undertakings and sectors, without distinction, including undertakings in the public sector and all enterprises, irrespective of size. The enforcement body competent for occupational health and safety issues and the procedures in case of infringement in the public sector are the same as in the private sector.

Employment legislation and legislation on health and safety at work are a competence of the Federal Ministry of Employment, Labour and Social Dialogue. Labour and employment policy is still an exclusive competence of the federal authorities. The main OSH Law and its implementing decisions are therefore adopted by the Federal government.

2.2 More stringent and more detailed measures

With regard to the Framework Directive 89/391/EEC, national provisions relating to risk assessment are more detailed. In particular, the employers, together with the prevention adviser and with the OSH dedicated committee, are required to prepare a global prevention plan, which is then declined in yearly action plans. Also, the national legislation lists twelve major risks to be considered, as a minimum, including psychosocial risks, such as the risk of harassment and violence.

Similarly, Belgium has set more detailed requirements in relation to the preventive and protective services referred to in Article 7 of the Directive. In particular, every employer is required to establish an internal service for prevention and protection at work (ISSP), consisting of at least one employee. The composition of the ISSP (depending of the size of the company) and competences required are regulated, as well as the external services. The Belgian legislation also details the content of the information to be provided to workers. Specific arrangements on health surveillance records are specified. The law requires an OSH dedicated committee to be established in any undertaking employing more than 50 employees, as well as for smaller undertakings in specific sectors.

With regard to Directive 89/654/EC (workplace), the Belgian legislation lays down more detailed requirements concerning the minimum health and safety requirements set in the Annexes to that Directive.

With regard to Directive 2002/44/EC (vibration), the national legislation establishes more detailed requirements concerning risk assessment, health surveillance and consultation of workers.

With regard to Directive 98/24/EC (chemical agents), a formula for determining the cumulative effect of exposure to various chemical agents is provided. Also, the national legislation sets more stringent occupational exposure limit values and additional limit values. Other additional requirements are also set concerning the measurements of chemical agents presenting a risk for workers' health.

As regards Directive 92/29/EEC (medical treatment on board vessels), the scope of the Belgian legislation is broader, as it includes warships. Moreover, the national legislation requires with regard to vessels with 300 or more people on board that the doctor responsible for the medical care of the workers on board be accompanied by a nurse.

In relation to Directive 93/103/EC (work on board fishing vessels), the Belgian legislation sets more detailed or additional requirements on information to workers, training of workers and regular checks and implementation of a dynamic risk monitoring system.

2.3 Level of compliance by different stakeholders

The information on compliance for Belgium is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study. Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Belgium shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 66% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (42.3%). ESENER-2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally.

As regards health surveillance 87% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey also indicates that a very high number of establishments (82.7%) make available to the workers a document explaining responsibilities and procedures on health and safety. A medium proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study as regards compliance are based on the annual reports from labour inspectors over the period 2007-2012 and on stakeholders' interviews. The study reported lower levels of compliance with CPMs in comparison with the data reported by the ESENER-2 survey, considering the OSH acquis as a whole (between 20-40%) and a lower, but still high, level of compliance in relation to available health surveillance (60-79%). Also

the study highlighted that the level of compliance appears significantly lower in SMEs[237]. According to the study this is due to the fact that SMEs face particular challenges as they often rely on external prevention and protection services which are relatively heterogeneous in terms of quality.

2.4 Enforcement

The main authority in charge of OSH legislation enforcement is the Directorate General for the Control of Well Being at Work under the Federal Public Service for Employment, Labour and Social Dialogue, and its eight regional directorates. Within the Directorate General for the Control of Well Being at Work, the Department for control on chemical risks is specifically responsible for chemical risks, hence for the four chemical-related OSH Directives. With regard to the two mineral-extracting directives, the competent authority for enforcement is the Federal Public Service Economy. For the two Directives on vessels, it is the Federal Public Service Mobility who is responsible.

The legislation sets both criminal and administrative sanctions for non-compliance with OSH requirements. Criminal sanctions are mostly fines, with imprisonment sanctions being the exception (for some infringements in relation to legislation on young people at work and the framework legislation in case of obstruction to inspection or non-compliance with the measures imposed by the social inspectors). In some cases, the judge may impose other type of sanctions such as operating prohibition, professional exclusion or closure of the establishment.

2.5 SMEs and micro-enterprises

The SME measures laid down in the national legislation transposing the Framework Directive are equally applicable to all of the transpositions of the other OSH individual Directives.

Different types of internal services of protection and prevention are prescribed depending on the size of the enterprise. For smaller companies, there is no obligation to set up a consultation committee. Finally, a recent legislation differentiates the price of the services provided by external services depending on the main activity and the size of the enterprise, with a smaller rate for very small companies (between 1 and 5 workers)[238].

3. BULGARIA

3.1 Legal Framework and Competences

[237] See Table 3- 1 Degree of compliance: Common processes and mechanisms of the Country Summary Report for Belgium.

[238] See Table 7- 2 Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for Belgium.

The Safety and Health at Work Act, (December 1997) – as amended and supplemented in 2007 and 2010 –transposes the Framework Directive 89/391/EC and enshrines the rights and obligations of the public authorities, the employers and workers for ensuring healthy and safe working conditions at work. The related EU OSH directives have been transposed mostly through secondary legislation, i.e. Ordinances and Regulations. Directives 98/24/EC (chemical agents at work) and 2009/148/EC (asbestos) have also partially been transposed by the 2004 *Law on Health* – as amended and supplemented in 2006[239].

The Law on Health and Safety at Work applies to all groups of employees and all enterprises and places where work or training is carried out, regardless of the form of organisation, the type of ownership or the grounds on which the work or training is performed. The Bulgarian legislation in the area of health and safety at work covers all types and sectors, without distinction, including the public sector and all enterprises, irrespective of size.

Competences over OSH are divided between the Ministry of Labour and Social Policy and the Ministry of Health. The Ministry of Labour and Social Policy carries out an integrated control of all branches and sectors through the General Labour Inspectorate Executive Agency. The latter is responsible for the overall monitoring of the implementation of labour legislation, offers assistance to employers to fulfil their legal duties, and provides the Ministry with annual data on the number of inspections carried out, decisions taken, etc.

3.2 More stringent and more detailed measures

With regard to the legislation transposing the Framework Directive 89/391/EEC, the Bulgarian legislation sets forth additional conditions for employees working from home.

As regards Directive 2004/37/EC (carcinogens and mutagens), the national transposing legislation covers also category 1A and 1B reprotoxic substances according to the classification set out in the Regulation (EC) No 1272/2008 ('CLP Regulation'). That legislation, as well as the national legislation transposing Directive 98/24/EC (chemical agents at work) include more specific information on the scope of workers' training.

With regard to Directive 93/103/EC (work on board fishing vessels), the content or form of information provided to workers is further specified in national legislation.

Finally, with regard to Directive 92/85/EEC (pregnant/breastfeeding workers), national legislation is broader in scope to the extent that it covers also those workers which are under advanced in vitro treatment procedures.

3.3 Level of compliance by different stakeholders

[239] See Table 1-1 General Legal Framework of the Country Summary Report for Bulgaria.

The information on compliance for Bulgaria is based, on the one hand, on the findings of the ESENER -2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Bulgaria shows a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 90% of establishments doing so). According to the survey, workplace risk assessments are mainly contracted to external providers (71.3%). ESENER-2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 83% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (95%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.
The results of the external study on compliance are based on the ESENER-1 survey and the reports of the General Labour Inspectorate Executive Agency (GLIEA). The study reported a general trend of improvement with regard to compliance with carrying out a risk assessment but it highlighted that stakeholders have declared during the interviews that the percentage of establishments that carry out risk assessments and risk management activities resulting from the risk assessment is lower than what is officially reported. The study also assessed the percentage of enterprises providing training to workers to be high[240].

3.4 Enforcement

The main authorities in charge of OSH legislation enforcement are the Ministry of Labour and Social Policy, the Ministry of Health, and the General Labour Inspectorate Executive Agency (GLIEA). They cover all directives, both in the private and the public sector[241]. GLIEA is the main enforcement body, which controls the application of labour relations legislation, applies a specialised control on the upholding of the Law on OSH and other laws related to work conditions and labour relations, gives prescriptions to eliminate the identified infringements, gives information and advice to employers and employees on methods and measures to be applied and informs the competent bodies on the gaps in labour legislation.

3.5 SMEs and micro-enterprises

[240] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Bulgaria.
[241] See Table 5- 1 Enforcement authorities and Table 5- 4 Result table – type and level of sanctions of the Country Summary Report for Bulgaria.

It should be taken into account that the SME measures laid down in the national legislation transposing the Framework Directive are equally applicable to all of the transpositions of the other OSH individual Directives. Bulgaria has only set up a lighter regime for those enterprises having less than five employees, as they are now exempted from the obligation to have a OSH Committee. In addition, the Working Conditions Fund co-finances OSH activities especially in SMEs, through their Programs and Guidelines for Risk Assessment of SMEs. The help from the Working Conditions Fund is very much welcomed, but OSH stakeholders emphasise that OSH legislation for micro-companies and SMEs is problematic and not effective[242].

4. CYPRUS

4.1 Legal Framework and Competences

The Framework Directive 89/391/EEC is transposed into Cypriot law by the 2002 Regulations on the Management of Occupational Health and Safety Issues and a cluster of laws brought together under the Health and Safety at Work Laws of 1996 to 2011. The Framework Directive thus is transposed by one main law which has been amended several times. The EU OSH Directives are – as a rule – each transposed in one single act, in the form of Regulations. The only exception concerns Directive 94/33/EC (young people at work), transposed through one Law on the Protection of Young Persons at Work and two regulation. Institutional aspects are also covered by separate Regulations.

The national legislation in the area of OSH covers all sectors, both public and private, and all categories of undertakings, independently of size.

The Department of Labor Inspection is the competent authority for monitoring the implementation of this legislation.

4.2 More stringent and more detailed measures

With regard to the scope of the legislation transposing the Framework Directive 89/391/EEC, the provisions of the Health and Safety at Work Laws of 1996 to 2011 cover in addition to workers, self-employed persons and, so far as is reasonably practicable, third persons not directly employed by the employer who may be affected by the business's activities. Most acts transposing the EU OSH individual directives include special provisions for the self-employed. A "self-employed person" is defined to mean a person working for gain or remuneration who is not employed by another employer. The definition of the term "employer" is also broader as it includes any person who employs workers, as well as any person who conducts an economic activity or who manages a business. In addition, with the amendment to these laws in 2011 [Law 33{I)/2011], their scope has been extended so that

[242] See Table 7- 1 Overview of measures targeting SMEs and micro-enterprises of the Country Summary Report for Bulgaria.

their provisions, and those of regulations adopted to implement them, may fully apply to private households employing domestic staff. Further, more specific requirements are set forth in the Health and Safety at Work Laws of 1996 to 2011 on risk assessment, preventive and protective services and information of workers.

With regard to Directive 89/654/EEC (workplace), more detailed requirements are set as regards for example the overcrowding and minimum available space at the workplace.

With regard to Directive 92/58/EEC (OSH signs), more detailed requirements are laid down on training of workers.

4.3 Level of compliance by different stakeholders

The information on compliance for Cyprus is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Cyprus show a moderate level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 52% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (51%). ESENER-2 shows high levels of uptake for health and safety services used, be it in-house or contracted externally. As regards health surveillance only 27% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a high number of establishments (64.3%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study on compliance are based on a survey targeting micro-enterprises conducted by the European University of Cyprus and on the data from ESENER-1. For all CPMs, the degree of compliance was assessed as medium to low and it was concluded that the national legislation transposing the Directives was generally very effective in establishments with over 10 workers and reasonably effective in establishments with less than 10 workers[243].

4.4 Enforcement

[243] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Cyprus.

In Cyprus, the main authority in charge of OSH legislation enforcement is the Department of Labour Inspection, which is part of the Ministry of Labour and Social Insurance, which covers all industrial sectors and all directives, with the exception of Directives 92/29/EEC and 93/103/EC. For the latter, the Department of Merchant Shipping enforces shipping legislation including OSH issues on board vessels. In addition, the Department of Labour has joint enforcement responsibilities with regard to the OSH directives aiming at vulnerable workers.

In Cyprus, as a rule, there are no administrative sanctions applicable to non-compliance with OSH legislation. However, the inspectors can issue 'Improvement Notices' imposing compliance requirements within a specific period of time or 'Prohibition Notices' prohibiting the use of the premises, plant or place of work or the carrying on of activities which may expose serious risks to the safety and health of the workers or/and the public, until the risk is eliminated or reduced to an acceptable level for the inspector. They also have the right to request a court's order in relation to hazardous conditions and practices in order to prohibit the use of machines, plants or workplaces, until the risk is eliminated or/and impose compliance requirements[244].

4.5 SMEs and micro-enterprises

Cyprus does not have any directive-specific guidance for SMEs or micro-enterprises. This is not surprising as SME-related guidance is not deemed to be especially helpful for the Micro — Enterprises and SMEs which make up the great majority of enterprises in Cyprus. Such enterprises require a holistic approach to OSH, not piecemeal information.

Nevertheless two EU non-binding guides (related to the ATEX Directive and related to Work at Height) have been approved as code of practice in national legislation to help SMEs. A third specific guide on Music and Entertainment has also been introduced to protect workers in SMEs. Furthermore, Cyprus has introduced a number of accompanying actions, such as awareness raising campaigns, seminars and workshops, as well as education and training activities for SMEs representatives. Cyprus has only introduced one grant scheme for SMEs, namely the grant scheme for building contractors. The objective of the scheme was to improve the metal scaffoldings industry in Cyprus, as well as to better place the metal scaffoldings industry on the market and in line with European standards. In addition, Cyprus makes use of the European OiRa tool and the national eGnosis online information system.

5. CZECH REPUBLIC

5.1 Legal Framework and Competences

The Framework Directive was mainly transposed into the Labour Code (Act No. 262/2006 Coll.), Part Five, on occupational health and safety. The Labour Code also transposes the

[244] See Table 5- 1Result table – type and level of sanctions of the Country Summary report for Cyprus.

Directive 94/33/EC (young people at work). There are significant OSH-related provisions also in other parts of Czech legislation, such as Act No. 309/2006 Coll. on further requirements on occupational health and safety ("OSH Act"), which completes the Labour Code with more specific provisions. The implementation of the remaining EU OSH individual directives is mainly regulated by the OSH Act and/or the Labour Code, while further requirements on specific aspects have been transposed through Decrees issued by the Government, the Ministry of Labour and Social Affairs or the Ministry of Health. All of the OSH Directives concerned have been fully transposed in the Czech Republic, with the exception of Council Directive 92/29/EEC (medical treatment on board vessels) and Council Directive 93/103/EC (work on board fishing vessels), given the territorial situation of the Czech Republic. Due to the traditional distinction in the Czech Republic between safety at work and occupational health, the latter is regulated by the separate Act No. 258/2000 Coll. on public health protection, Section 7 dealing with protection of health at work.

The legislation in the area of OSH covers all sectors, without distinction, including the public sectors.

While the Ministry of Labour and Social Affairs is responsible for occupational safety and labour inspection, the Ministry of Health is competent for public health, which includes occupational health and is in charge of occupational health inspection. Although the distinction between occupational safety and occupational health is also followed by the executive agencies of the two ministries, they cooperate closely on international, national and regional levels in the field of OSH.

5.2 More stringent and more detailed measures

With regard to the scope of the Framework Directive, the specific areas referred to in Article 2 (2) of the Framework Directive are regulated in the Czech Republic by specific legislation. With regard to the health surveillance provisions, according to the national transposing legislation, all workers are obliged to undergo a preventive mandatory medical examination, regardless of the level of risks to which they are exposed during their work. This obligation is established by the Labour Code, which also requires the employer to organize at least once per year an OSH audit in all workplaces and of all equipment of the employer in agreement with trade unions or OSH workers´ representatives.

The scope of application of the national legislation transposing Directive 89/654/EEC (workplace) and Directive 90/269/EEC (manual handling of loads) is broader.

More stringent limit values are noted in the national legislation transposing Directives 2002/44/EC (vibration), 2004/37/EC (carcinogens or mutagens), and 98/24/EC (chemical agents at work).

5.3 Level of compliance by different stakeholders

The information on compliance for Czech Republic is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Czech Republic shows a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 77% of establishments doing so). According to the survey, workplace risk assessments are mainly contracted to external providers (53.2%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 85% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (96.3%) make available to the workers a document explaining responsibilities and procedures on health and safety. A very high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The conclusions of the external study on compliance are based on the experience from the control activities of the labour inspectors and on data from ESENER-1 Survey. The study reported that compliance with all of the CPMs is considered to be very high to high. It highlighted as well that the degree of compliance is decreasing with the size of establishment.[245].

5.4 Enforcement

In the Czech Republic, the State Labour Inspection Office and its eight subordinated regional Labour Inspectorates are concerned with the inspection of compliance with occupational safety and health protection, as well as the control of protection of labour relations and working conditions. In addition, the state public health supervision is exercised in practice by the Regional Health Offices. There are fourteen Regional Health Offices with 79 district offices. Amongst its various public health tasks, the Offices classify works into categories, issue decisions, permits, or certificates concerning issues related to health at work and chemical safety. They perform inspections in the area of protection of health at work and surveillance of workplaces.

The enforcement bodies for public sector (professional soldiers, firemen, police, etc.) are subordinated to the Ministry of the Interior of the Czech Republic and the Ministry of Defence and Armed Forces of the Czech Republic[246].

[245] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary report for the Czech Republic.
[246] See Table 5- 1 Enforcement authorities of the Country Summary Report for the Czech Republic.

According to NIR 2013, applicable legislation stemming from the Directives in terms of compliance with legal obligations in the field of occupational safety and dedicated technical equipment is enforced by sanctions pursuant to Act No 251/2005 Coll. on labour inspectorates, as amended, and Act No 174/1968 Coll. on the state expert supervision of occupational safety, as amended. Occupational health legislation is also enforced by means of sanctions pursuant to Act No 258/2000 Coll. on the protection of public health and amending certain related laws, as amended[247].

5.5 SMEs and micro-enterprises

It must be noted that, from the perspective of small and medium-sized enterprises, Czech legislation does not distinguish between employers by size or number of employees when it comes to the adoption of measures intended to increase the standard of occupational safety and health. However, in the practical application of the Framework Directive – for example, in occupational safety, and specifically in risk prevention pursuant to Section 9(3) of Act No 309/2006 Coll. on further occupational safety and health requirements, as amended – the size of an undertaking is taken into account. The Czech Republic also promotes the involvement of small and medium-sized enterprises in the organisation of various occupational safety and health events (exhibitions, competitions, seminars, workshops, etc.)[248].

6. DENMARK

6.1 Legal Framework and Competences

Regulation of occupational safety and health has been shared among four ministries and separate legal acts are in place for work carried out on ground/land (Working Environment Act), offshore work in relation to mineral extracting industries (Offshore Safety Act), shipping/fishing (Act on Safety at Sea) and civil aviation (Act on Aviation).

The Working Environment Act ('OSH-Act') also covers ground work in relation to aviation, loading and unloading of ships including fishing vessels, shipyard work carried out on board vessels and offshore work in relation to wind turbines. With regard to work carried out on land, the OSH-act is a framework act and the main piece of legislation setting out the general principles and requirements of occupational health and safety. Additional general and specific requirements are included in the OSH Executive Orders. Also the EU OSH individual directives have been implemented in national legislation through Executive Orders. Directives 93/103/EC (work on board fishing vessels) and 92/29/EEC (medical treatment on board vessels) have been transposed in the Danish legal order through the Technical regulation on occupational health and safety in ships (or OSH-ships).

[247] See Table 5-3 Result table – type and level of sanctions of the Country Summary Report for the Czech Republic.
[248] See Table 7- 2 Description of measures targeting SMEs and micro-enterprises of the Country Summary report for the Czech Republic.

The Danish OSH legislation applies in general to both public and private enterprises, as well as to all enterprises, irrespective of size.

The Ministry of Employment is responsible for regulating the working environment when the work is carried out on land, as well as for work carried out on the loading and unloading of ships and aircraft, as well as shipyard work that takes place on board ships. The Ministry has exclusive competence for legislation and programmes in relation to labour law, safety and health at work and compensation in connection with industrial injuries. The Danish Working Environment Authority *(Arbejdstilsynet*) operates under the auspices of the Danish Ministry of Employment. The responsibilities of DWEA are based on the Working Environment Act (OSH-act) and related Executive Orders. DWEA is the authority which contributes to the creation of safe and sound working conditions at Danish workplaces through carrying out inspections of companies, drawing up rules on health and safety at work and providing information on health and safety at work. Rules are issued in the form of Executive Orders and guidelines describe how the provisions in the working environment legislation are to be interpreted.

6.2 More stringent and more detailed measures

Certain provisions in the OSH-act apply to the exceptions listed in the Framework Directive as well as to self-employed workers. Examples of such provisions include rules about performing work, technical equipment, and use of substances and materials.

Work environment councils are assigned the task of developing information and guidance material for workplace risk assessment as well as developing and carrying out information and training activities. Additional requirements are also set in relation to training of workers and health surveillance. More detailed provisions on the scope have been noted in relation to the Danish legislation transposing Directive 2009/104/EC on work equipment (which includes a detailed definition of "technical equipment"), Directive 90/269/EEC on manual handling of loads (which does not only address back injury but also focuses on the prevention of musculoskeletal disorders), Directive 2003/10/EC on noise (which is based in limiting daily noise strain, as opposed to weekly noise strain), and Directive 2004/37/EC on carcinogens or mutagens (which also includes substances classified as Carc3 and materials containing such substances in a concentration of 1% or more). In addition, the national legislation transposing Directive 89/656/EEC (PPE) does not exclude – contrary to the Directive – equipment used by emergency and rescue services, personal protective equipment for means of road transport, and PPE worn or used by other public order agencies. Further, Directive 94/33/EC (young people at work) includes work carried out in the employer's private household and work carried out exclusively by members of the employer's family, as long as it belongs to the household.

In relation to Directives 2009/104/EC (work equipment), 1999/92/EC (ATEX), and 2004/37/EC (carcinogens or mutagens), the national transposing legislation details the content

of the risk assessment. With regard to limit values, more stringent limit values are included in the national legislation transposing Directive 2003/10/EC (noise) and Directive 98/24/EC (chemical agents at work). Finally, temporary workers (Directive 91/383/EC) are covered by the same rules as all other workers in Denmark through the Executive Order on the Performance of Work.

6.3 Level of compliance by different stakeholders

The information on compliance for Denmark is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study. Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Denmark shows a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 91% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (83.2%). ESENER-2 shows high levels of uptake for health and safety services used, be it in house or contracted externally.

As regards health surveillance only 10% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (88%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study on compliance are based on the systematic surveys monitoring the status for the OSH work at enterprise level carried out since 1999 by the Danish Working Environment Authority (DWEA). As the ESENER -2 survey, the study assessed that the degree of compliance for all CPMs in Danish enterprises is high to very high, with the exception of making available health surveillance. According to the study only a very low percentage of Danish workers have access to health checks due to the fact that health care in Denmark is funded through the taxes and is accessible to all and free of charge. As regards sectors of activity, the study reported that the sectors showing the highest degree of compliance were residential care and home care, chemistry and medicine, and home and day care. On the other side, it was assessed that restaurants and bars, hairdressers and other personal care, and hotels and campings, film, press and books, and repair of machinery and equipment did not perform satisfactorily on the CPMs[249].

[249] See Table 3- 1Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Denmark.

6.4 Enforcement

In Denmark, the main authority in charge of OSH legislation enforcement on land is the Danish Working Environment Authority. The DWEA is an agency that works under the auspices of the Ministry of Employment at national and regional level, contributing to the creation of safe working conditions. It is empowered with supervision and enforcement rights, which are commonly designated to labour inspectorates in other countries. The DWEA has the authority to penalise companies which do not comply with the working environment rules. They can also issue administrative fines for clear violations of the Working Environment Act, and in cases of extreme danger, they may also order work to be suspended. Further, the DWEA is responsible for the review of OSH conditions in companies. This includes verifying that a written evaluation has been carried out, specific to that particular workplace[250].

The different forms of sanctions of the Danish Working Environment Authority, i.e. improvement notices, legal charges, administrative fines and guidelines, will depend on both the enterprise's actual working environment standards and on its own efforts. As an executive authority, the DWEA focuses in particular on enterprises with poor safety and health conditions and no serious policy in relation to working environment issues. If a company does not fulfil its obligations under the OSH-act, the DWEA can administer a time-bound injunction, a consultancy notice, a prohibition, an administrative fine or file a police report[251].

6.5 SMEs and micro-enterprises

The DWEA does not generally distinguish between small and large undertakings in its inspections although some flexibility is allowed for micro-enterprises. It is however aware that it may be difficult for small undertakings to have the necessary knowledge and abilities themselves, and has therefore launched some initiatives aimed at micro-enterprises and small undertakings. DWEA offers special guidance during inspection for the small enterprises and has developed start-up packs for new and small enterprises introducing the requirements of the OSH act. It has also established a call-center which can provide immediate response to enquiries about the working environment which may be necessary for small enterprises. It should be taken into account that the SME measures laid down in the national legislation transposing the Framework Directive are equally applicable to all of the transpositions of the other OSH individual Directives[252].

7. ESTONIA

7.1 Legal Framework and Competences

[250] See Table 5- 1Enforcement authorities of the Country Summary Report for Denmark.
[251] See Table 5- 4Level of fines issued by DWEA of the Country Summary Report for Denmark.
[252] See Table 7- 2 Overview of measures targeting SMEs and micro-enterprises of the Country Summary Report for Denmark.

Estonia has transposed the Framework Directive 89/391/EEC in one main framework law, the Occupational Health and Safety Act ('OHSA') and a series of "horizontal" implementing acts (secondary legislation) relating to preventive and protective services, external services, training of workers and medical examination. Examples include Regulations of the Minister of Social Affairs on the procedure of medical examination of workers[253] or on OSH-related training[254].

The individual EU OSH directives are as a rule transposed by one implementing regulation, typically adopted at the governmental or ministry level, while some aspects are regulated by the OHSA or the "horizontal" implementing acts. There are exceptions to this with regard to the mineral extracting-industries directives 92/91/EEC and 92/104/EEC – transposed thorough several regulations and the Mining Act, which provides for key definitions - ; the vessels related EU OSH directives, where general maritime safety legislation also applies; and Directives 92/85/EEC (pregnant/breastfeeding workers) and 94/33/EC (young people at work) transposed through several acts.

The Estonian legislation in the area of occupational health and safety covers all sectors, without distinction, including the public sector and all types of enterprises, irrespective of size.
In Estonia, the Ministry of Social Affairs takes the lead on governing occupational safety and health matters. Both the national labour inspection and occupational health affairs are under the jurisdiction of this Ministry, which also has responsibility for strategic level planning and follow-up of implementation.

7.2 More stringent and more detailed measures

With regard to the Framework Directive 89/391/EEC, national transposing legislation is broader in scope, as it covers domestic workers as well as, to a certain extent, self-employed persons (as from 1 July 2007, OSH requirements extended to the work of self-employed workers if they work at a shared workplace together with the employer's workers. A self-employed worker must also ensure the soundness and proper use of the work equipment, personal protective equipment and other equipment belonging to him or her in every work situation).

More detailed or specific requirements are set forth in relation to risk assessment (e.g. the requirement to take into account the gender and age of the workers, including special risks to pregnant and nursing women, to minors and disabled workers; as regards the content of risk assessment, the requirement to measure parameters of working environment hazards if necessary) and preventive and protective services (the national legislation defines in line with Article 7 (8) of the Framework Directive, the necessary capabilities and aptitudes for designated workers and the external services or persons). More detailed requirements are also set in relation to the training of workers and to health surveillance in regulations adopted by the Ministry of Social Affairs. Rules on the provisions of first aid in companies are set in a

[253] SoMM No 74 of 24 Apr. 2003.
[254] SoMM No 80 of 14 Dec. 2000.

separate regulation.

With regard to Directive 90/269/EC (manual handling of loads), more detailed provisions are also laid down concerning risk assessment and preventive and protective measures for women , pregnant/breastfeeding workers and young people at work.

With regard to Directive 90/270/EEC (display screen equipment), national legislation covers "computer systems mainly intended for public use" which are among the elements expressly excluded from the scope of application of the directive. In addition, several of the minimum requirements are further developed, in particular on risk assessment (in addition to the factors endangering the worker's eyesight and potential physical or mental overload at work, the employer is obliged to take into account risk factors of work environment, including lighting, noise, electromagnetic radiation and internal atmosphere of work room, as well ergonomics and suitability of design of workplace for the worker)), the duration of breaks, the conditions and periodicity of medical examinations.

7.3 Level of compliance by different stakeholders

The information on compliance for Estonia is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Estonia shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 68% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (64.7%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 75% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees.

The survey indicates that a very high number of establishments (95.4%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The external study based its conclusions on compliance on the 2013 labour inspectorate annual report for risk assessment, the Estonian Work Life Survey 2009 and on consultation with the labour inspectorate. The study assessed that the level of compliance with CPMs considering the OSH *acquis* as a whole varied from high (60-79%) for risk assessment, ensuring protective and preventive services, making available health surveillance, and even

very high (89%) for training of workers, to a medium degree of compliance in relation to information for workers and consultation of workers. It highlighted as well that the level of compliance appeared lower in SMEs, and even lower in micro-enterprises[255].

7.4 Enforcement

In Estonia, the main authority in charge of OSH legislation enforcement is the Labour Inspectorate under the Ministry of Social Affairs. The Health Board is also competent for occupational health and chemical safety related aspects. With regard to the two mineral-extracting directives, enforcement is exercised jointly by the Labour Inspectorate and the Technical Surveillance Authority under the Ministry of Economic Affairs and Communications. For the two directives on vessels, responsibility for enforcement is shared with the Maritime Administration also under the Ministry of Economic Affairs and Communications. The Labour Inspectorate is responsible for both the private and the public sectors[256].

The legislation sets both criminal and administrative sanctions for non-compliance with OSH requirements. Criminal sanctions are pecuniary sanctions and imprisonment (up to 5 years if the infringement has caused a person's death and it was committed by negligence. The Estonian legislation also provides for administrative fines[257].

7.5 SMEs and micro-enterprises

There are no specific exemptions or lighter regime provided for SMEs. However, Estonia has put in place financial incentives with the support of the European Social Funds, whereby SMEs with less than 45 workers can apply for financial support to carry out the risk assessment envisaged and to provide health surveillance to the workers on the basis of the outcomes of the risk assessment.

8. FINLAND

8.1 Legal Framework and Competences

In Finland, the Framework Directive 89/391/EEC is transposed through the Occupational Safety and Health Act (No 738/2002)[258] and the Occupational Health Care Act (No 1383/2001). The Occupational Safety and Health Act lays down the minimum level of safety and health at work, the responsibilities of employers and workers, and the cooperation of

[255] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Estonia.
[256] See Table 5- 1 Enforcement authorities of the Country Summary Report for Estonia.
[257] See Table 5- 1 Result table – type and level of sanctions of the Country Summary Report for Estonia.

[258] http://www.finlex.fi/en/laki/kaannokset/2002/en20020738.pdf.

employers and workers required to promote occupational health and safety. The Occupational Health Care Act requires employers to organize at his own expenses preventive services for all workers. Each employer is required to describe the organization and content of the services in a company-wide plan.

Most individual EU OSH directives are transposed by one Government Statute or Government Decree, apart from Council Directive 92/85/EEC (pregnant/breastfeeding workers), which is transposed by a single law : Law 55/2001 of 26 January 2001 on work contracts.

The Finnish legislation in the area of occupational health and safety covers all sectors, without distinction, including the public sector and all enterprises, irrespective of size. .

Competences in the area of OSH in the public and private sector are mainly with the Ministry of Social Affairs and Health, which – through its Department on OSH – is the highest government body for OSH administration in Finland.

8.2 More stringent and more detailed measures

With regard to the Framework Directive, more broader provisions concern its scope, as the transposing Finnish legislation applies to work carried out under the terms of an employment contract (including to work carried out in an employment relationship in the public sector or in comparable service relation subject to public law), including domestic workers. Organization of OSH is voluntary for self-employed persons.

Finland also established more detailed provisions in the Occupational Safety and Health Act (738/2002) than those of Directive 89/931/EEC and/or related directives on the following issues, for example: Section 10 – Analysis and assessment of the risks at work; Section 11 – Work that causes particular risks; Section 12 – Design of the working environment; Section 13 – Work design; Section 24 – Ergonomics of the workstation, work postures and work motions; Section 25 – Avoiding and reducing workloads; Section 27 – Threat of violence; Section 28 – Harassment; Section 29 – Lone working; Section 49 – The duty of those operating at a shared workplace to exercise care; Section 50 – Information and cooperation at a shared workplace; Section 51 – Obligations of the employer exercising the main authority at a shared workplace; Section 52 – Obligations on a shared construction site; Section 52a – Identification of persons working on a shared construction site; Section 52b – List of persons working on a shared construction site; Section 53 – Obligations of self-employed workers at a shared workplace; Section54 – Elimination of mutual hazards in workplaces.

In relation to Directive 2006/25/EC (artificial optical radiation), national legislation sets more stringent provisions in respect of health surveillance for vulnerable workers , to the extent that it requires those checks to be carried out prior to exposure.

Regarding Directive 2004/37/EC (carcinogens and/or mutagens at work), more stringent

requirements are set out in relation to benzene, to the extent that the use of benzene as a soaking agent in a confined space is prohibited.

With regard to Directive 98/24/EC (chemical agents at work), more detailed and stringent requirements are laid down in relation to measurement of hazardous chemical agents, to the extent that the competent national authorities can decide the following : how and when the measurement of chemical agents should be carried out; what measures should be used; who should be informed of the results of the measurement; the medium and the period for the keeping of the results of exposure; under what circumstances an independent measurement institute should be used.

8.3 Level of compliance by different stakeholders

The information on compliance for Finland is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Finland shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 73% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (63.8%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in-house or contracted externally. As regards health surveillance 90% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (82%) make available to the workers a document explaining responsibilities and procedures on health and safety. A medium proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees.. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study on compliance are based on a survey among safety representatives and safety managers within companies and on the work environment surveys of the years 2008 and 2009. The study assessed a very high degree of compliance for all the CPMs (80-89%). It established as well that differences could be observed between different sized companies. The study also underlined that, according to the survey among safety representatives and safety managers, many small enterprises have never performed a risk assessment[259].

8.4 Enforcement

[259] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Finland.

In Finland, the main authority in charge of OSH legislation enforcement is the Ministry of Social Affairs and Health, covering all directives. Its inspecting bodies, covering five regions in Finland, are the Occupational Safety and Health Inspectorates (Regional State Administrative Agencies). The Inspectorates provide instructions and advice on applying the regulations on occupational safety and health matters, working conditions, employment and equality, and ensure that there is adherence to these regulations and guidelines in the workplaces. The Department for Occupational Safety and Health of the Ministry of Social Affairs and Health directs the activities of the Regional State Administrative Agencies' Divisions of Occupational Safety and Health (regional OSH administration) by means of four-year framework agreements and annual performance agreement.

The Finnish legislation provides either criminal or administrative sanctions for violation of occupational health and safety (OSH) legislation. These sanctions apply to all OSH Directives. The health and safety inspectors have the right to deny hazardous work (usually certain work tasks). A case where the full workplace was shut down could not be identified[260].

8.5 SMEs and micro-enterprises

Finland has only set up an exemption regime concerning the presence of a representative of workers in companies with less than 10 workers and the presence of a safety committee in companies with less than 20 workers. There are no specific measures targeting SMEs, because the Finnish legislation includes all enterprises. There are no special financial incentives available for SMEs to help them to implement existing legislation.

9. FRANCE

9.1 Legal Framework and competences

The French system was developed prior to the adoption of the Framework Directive. The Framework Directive and other six individual EU OSH directives were transposed by Law no 91-1414 of 31 December 1991 amending the Labour Code and Public Health Code to promote prevention of occupational risks and this enabled to go beyond the basis provided in former legislative acts. Most Directives have been transposed by several Orders and Decrees amending or supplementing the Labour Code. The exceptions are Directive 90/270/EEC (display screen equipment) and Directive 2006/25/EC (artificial optical radiation), transposed through a single Decree, and Directive 2004/40/EC (electromagnetic fields), which was not transposed.

While the public sector is regulated by specific legal texts regulating health and safety at work, those texts refer explicitly to the provisions of the books I to V of the part IV of the Labour Code and to their enforcing Decrees[261].

[260] See Table 5- 1 Result table – type and level of sanctions of the Country Summary Report for Finland.

[261] See Table 1- 1 General Legal Framework of the Country Summary Report for France.

The national system for health and safety operates along three major horizontal axes: (i) the control body: Labour Inspectorate, (ii) the insurance system: the Work Accidents-Occupational Illness Branch ("AT-MP Branch") (of the CNAMTS (National Health Insurance Fund – Workers) and (iii) a screening and prevention system organized as an "occupational medicine service", responsible for the regular medical follow-up of individuals and populations, as well as for improving working conditions.

9.2 More stringent and more detailed measures

With regard to the legislation transposing the Framework Directive 89/391/EEC, additional requirements are laid down mainly in relation to organisational arrangements (e.g. operation of the joint hygiene and safety committees for specific sector), as well as health surveillance. In this area, France provides protection of workers in the public sector in relation to prevention medicine. Health surveillance is also set out by a national collective agreement for part time workers employed by an employer that is a natural person. French legislation also includes additional measures regarding sexual and moral harassment and work hardness (*pénibilité au travail*).

With regard to Directive 89/654/EC (workplace), the national legislation establishes additional requirements on the information to be provided to workers. Other additional requirements concern rules for the use of temporary and permanent electrical installations, preparation of a file for the maintenance of the workplace by the building owner, the existence of two levels of responsibility, of the building's owner and of the user.

In relation to Directive 89/656/EC (personal protective equipment/PPE), the French legislation covers PPE used by emergency and rescue services. In relation to the requirements on workers' training set forth in Article 4 (8) of that Directive, and in line with Article 12 of the Framework Directive 89/391/EEC, the French legislation requires the employer to elaborate an instruction for use of the PPE and organise periodic training in accordance with the instruction. It also sets further requirements regarding the use of and information on PPE to protect against specific risks, e.g. chemical risks, asbestos, etc…

In relation to Directive 92/58/EEC (OSH signs), additional requirements are reported with regard to traffic signs, signs used to indicate emergency roads for persons with disability and forestry vehicle drivers.

With regard to Directive 2002/44/EC (vibration), the French legislation sets more detailed or additional requirements in relation to the definition of the physical parameters characterising the exposure to mechanical vibrations, the provision of the risk assessment to national authorities on request, the minimum duration for keeping risk assessment records, the periodicity of health surveillance, the prohibition of certain hand-arm vibration work for

pregnant and breastfeeding women. Finally, national legislation provides that the labour inspectors may request measurement of exposure to mechanical vibration at the workplace.

Concerning Directive 2004/37/EC (carcinogens and mutagens/CMRs), the scope of the French legislation is broader as it applies to reprotoxic substances (category 1 A and 1 B in accordance with Annex I to Regulation 1272/2008). More stringent occupational exposure limit values are set for vinyl chloride monomer and hardwood dusts. More stringent occupational exposure limit values are also set in relation to Directive 98/24/EC (chemical agents) and its implementing Directives and Directive 2009/148/EC (asbestos).

9.3 Level of compliance by different stakeholders

The information on compliance for France is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for France shows a moderate level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 56% of establishments doing so). According to the survey, a high proportion of workplace risk assessments is conducted by internal staff (74.3%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 93% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey also indicates that 82% of establishments make available to the workers a document explaining responsibilities and procedures on health and safety. A moderate proportion of establishments declared that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The external study based primarily its conclusions as regards compliance on various surveys of the Research, Studies and Statistics Directorate of the Ministry of Labour, with particular reference to the use of health and safety service and to training and information for workers. The surveys showed a moderate degree of compliance in relation to risk assessment, ensuring protective and preventive services, a low degree for training and information for workers and a very high level for making available health surveillance and consultation of workers. As a rule, the degree of compliance increased with the size of the companies

The external study also pointed out that, on the basis of the 2012 annual report from labour inspectors and of the information obtained during interviews and of expert opinions, a mixed level of compliance was assessed in relation to each Directive, with some Directives featuring a high degree of compliance (such as the Framework or Workplace Directives), others a

medium level of compliance and one a very low degree of compliance (Directive 2006/25/EC (artificial optical radiation)[262].

9.4 Enforcement

With the exception of Directive 92/29/EEC (medical treatment on board vessels) for which the Regional Directorate of Sea and Health Services of Seafarers, under the Ministry of Ecology, Sustainable Development and Energy, is competent, the Labour Inspectorate is competent for enforcing all OSH directives. For certain sectors/activities, the Labour Inspectorate does so in coordination with other inspection services[263].

Criminal sanctions for infringement to OSH legislation include fines and imprisonment. The company can also be condemned to the payment of compensation to the worker in case of accident. The number of reported infringements increased by about 30% between 2007 and 2012, although the percentage of reported infringements without further legal action augmented by about 160%. This seems to suggest that more cases are settled before sanctions are initiated[264].

9.5 SMEs and micro-enterprises

The main instrument of public policy to support SMEs and micro-enterprises is the Occupational Health Plan, in which priority area 3 is devoted to encouraging risk-prevention initiatives in enterprises, particularly in SMEs and micro-enterprises. More specifically, objective 7 of that priority area is to raise awareness of occupational risks among occupational groups, enterprises and employees, thereby enhancing the ability of micro-enterprises and SMEs to engage in activities designed to improve working conditions.

In terms of financial assistance to companies, mechanisms exist for this purpose, such as the Fund for the Improvement of Working Conditions (FACT), which is a type of aid that can be awarded in the form of a public grant to enterprises and establishments with fewer than 250 employees that devise and implement measures which serve to improve working conditions and contribute to better prevention of occupational risks[265].

National target agreements can be concluded between the CNAMTS and business organisations or the Central Office of the Agricultural Social Insurance Fund and the farmers' and farmworkers' unions. When a national agreement on prevention targets is concluded, any company affiliated to the signatory organisation which has fewer than 200 employees may conclude a prevention contract with the regional social insurance fund. This contract enables the company to benefit from financial assistance for the implementation of projects designed

[262] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country summary report for France.
[263]See Table 5- 1 Enforcement authorities of the Country Summary Report for France.
[264] Table 5- 4 Result table – types and level of sanctions of the Country Summary Report for France.
[265] National Implementation Report 2013, Section II, Directive 89/654/EEC (EN) p. 42-43

to improve health and safety at work. One of the declared objectives of most national agreements relates to improvements in the safe use of machinery and work equipment and in the conditions governing their operation.

10. GERMANY

10.1 Legal Framework and competences

The German OSH legal system is characterised by a feature which is commonly described as "dualism". The dual system is characterised, on the one hand, by strong autonomous sector-oriented accident insurance institutions, which are constituted as bodies under public law. On the other hand, there is the public or governmental side, where the competences on occupational health and safety are split between the Federal Parliament (*Bundestag, Bundesrat*), the Federal Ministry (*Bundesminsterium für Arbeits und Soziales,* 'BMAS') and its institutions (e.g. the Federal Institute for Occupational Safety and Health), and the authorities of the 16 Federal States ("*Länder*") and their ministries and labour inspectorates. The Federal (national) layer has the legislative competence while the Federal States (regional) control their implementation in their territory under surveillance.

The Framework Directive 89/391/EEC is mainly transposed by the Occupational Safety and Health Act (*Arbeitsschutzgesetz, ArbSchG*). This act defines the basic OSH principles and OSH measures for the employer and employees. Book VII of the German Social Code - Accident Insurance (*Siebtes Buch Sozialgesetzbuch - Gesetzliche Unfallversicherung*, SGB VII) is the legal basis for accident insurance and statutory accident insurance at work. The Working Conditions Act (*Gesetz über Betriebsärzte, Sicherheitsingenieure und andere Fachkräfte für Arbeitssicherheit, Arbeitssicherheitsgesetz*, 'ASiG') is the legal basis for occupational physicians (*Betriebsärzte, Werksärzte*) and OSH specialists (*Fachkräfte für Arbeitssicherheit*).

Other key laws and regulations governing safety and health at work are the: Chemicals Acts (Gesetz zum Schutz vor gefährlichen Stoffen, Chemikaliengesetz, ChemG); Federal Mining Act (Bundesberggesetz, BbergG); Hazardous Substances Ordinance (Gefahrstoffverordnung, GefStoffV); Law on the Protection of Expectant and Nursing Mothers (Gesetz zum Schutz der erwerbstätigen Mutter, Mutterschutzgesetz, MuSchG); Ordinance on Occupational Diseases (Berufkskrankheitenverordnung, BKV); Ordinance on Safety and Health Protection at Work involving Biological Agents (Biostoffverordnung, BioStoffV); Product Safety Act (Gesetz über die Bereitstellung von Produkten auf dem Markt, Produktsicherheitsgesetz, ProdSG); Working Time Act (Arbeitszeitgesetz, ArbZG); Works Constitution Act (Betriebsverfassungsgesetz, BetrVG) and Young Workers OSH Law (Gesetz zum Schutze der arbeitenden Jugend, Jugendarbeitsschutzgesetz, JArbSchG).

10.2 More stringent and more detailed measures

In general, Germany has transposed the EU OSH Directives in a more detailed manner, both

through the specific Ordinances and the numerous Technical Rules and other rules of the statutory accident insurance.

With regard to the scope of the legislation transposing the Framework Directive 89/391/EEC, the national legislation includes expressly workers with disabilities working in sheltered workshops. More detailed requirements are set mainly in relation to the performance of risk assessment and the preventive and protective services in the sense of Article 7 of Directive 89/391/EEC. German law generally does not contain elements on the frequency of the risk assessment, but it does require the risk assessment to be updated whenever conditions or persons at the workplace change or when the current situation requires a re-check. A safety committee is obligatory in those companies with more than 20 full-time workers.

In relation to Directive 89/654/EEC (workplace), the definition of the term "workplace" is broader as it includes for example, accommodations. Also the scope of the national legislation transposing Directive 2000/54/EC (biological agents), Directive 92/104/EEC (surface and underground mineral-extracting industries), and Directive 92/91/EEC (mineral-extracting industries through drilling) appears to be broader. In addition, the national legislation transposing Directive 91/103/EC (work on board fishing vessels) includes special requirements for young workers. Finally, the Maternity Protection Act transposing Directive 92/85/EEC (pregnant/breastfeeding workers) applies to all women, includes those women employed in home-working or similar employment, and includes special requirements for all female workers of childbearing age.

10.3 Level of compliance by different stakeholders

The information on compliance for Germany is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Germany show a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 65% of establishments doing so). According to the survey, 56.7% of workplace risk assessments is conducted by internal staff. At the same time, the survey also indicates that 84% of establishments make available to the workers a document explaining responsibilities and procedures on health and safety. ESENER -2 shows medium levels of uptake for health and safety services used, be it in-house or contracted externally. As regards health surveillance 54% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study are based on the evaluation of the German Joint OSH Strategy (GDA), stakeholders' interviews and a CATI survey by TNS infratest conducted in 2011. The study reported that the highest compliance rate in German establishments could be observed in relation to training and information of workers (more than 85%). Lower compliance rates have been assessed in relation to micro-enterprises (1-9 workers), with only the 41% conducting a risk assessment. In contrast, the compliance rate in establishments with 50+ workers was assessed as higher than 90% in almost all categories[266].

In addition, according to the study, public establishments performed above average in all CPMs categories, while sector groups representing private services were always below average (often among the lowest). Also compliance in health and social work establishments, which are often in public ownership, was assessed as above average. This was considered by the external study as a reliable indicator that general OSH compliance in public establishments is quite positive in comparison to private sector establishments in Germany.

10.4 Enforcement

Enforcement of OSH legislation is delegated to the Federal States. There are 16 OSH authorities of the "Länder" which are in charge of supervision. The 16 Länder inspectorates have different areas of activity (some covering also the implementation of labour, environment legislation, or, respectively, product safety). In addition, there are special authorities for the mining and seafaring industries. The public authorities of the Federal Government are supervised by the UK Bund, the Statutory Accident Insurance Body of the Federal Authorities. Further inspections are done by the technical inspection services (TAD) of the Accident Insurance Bodies which supervise and advise each accident body's member companies[267].

Paragraph 25 and 26 of the Occupational Safety and Health Act (ArbSchG) are the central provisions that establish administrative and criminal sanctions for not complying with the law and for not fulfilling administrative orders of the labour inspectorate. Further fines for administrative actions in cases of not complying are regulated regionally by Federal States for the 16 labour inspectorates. They must respect the limit set out by the Federal laws and ordinances. Apart from the criminal or administrative sanctions, labour inspectorates can intervene in processes and shut down sites, plants or parts of the production if there is an elevated risk for the health, life or environment[268].

10.5 SMEs and micro-enterprises

Micro-enterprises (10 or less workers) are no longer treated differently with regard to the obligation to provide documentation of the risk assessment. Since 2013, risk assessments

[266] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country National Report for Germany.
[267] See Table 5- 1 Enforcement authorities of the Country National Report for Germany.
[268] **See Table 5- 4 Result table – type and level of sanctions of the Country National Report for Germany.**

must be documented by all enterprises, regardless of their size. However, any establishment can be exempted on request e.g. when only working with biological agents of risk group one. Nevertheless, there are some other regulatory provisions which are differentiated for micro- and small enterprises (less than 50 workers). The so-called "*Unternehmermodell*" (literally "entrepreneur model", sometimes referred to as "employer model") offers employers, through the statutory accident insurance bodies, the chance to qualify as a safety expert ("*Sicherheitsfachkraft*") in their own company. This doesn't take away the need to contract the OSH services, but it certainly reduces their involvement. Finally, there are no special financial measures or tax reductions adopted to support SMEs, but they can of course make use of the general financial incentives. Also some accident insurance bodies will offer special OSH services to their members, which are often SMEs[269].

11. GREECE

11.1 Legal Framework and Competences

In Greece, the legislative framework in the area of OSH was simplified through the adoption of Law 3850/2010 (Government Gazette, Series I, No 84) ratifying the "Code of Laws/Statutes for the Health and Safety of Workers" which codified several pre-existing OSH acts. This codification covers the national provisions transposing the Framework Directive 89/391/EEC and Directive 91/383/EEC (workers with a fixed-duration employment or a temporary employment relationship).That code covers a wide range of issues, including protective and preventive services, health monitoring, training of workers, employers' obligations. There are special legal provisions for the protection of pregnant workers and workers who are breastfeeding (Presidential Decree 176/97, Presidential Decree 41/2003). Furthermore, there are additional provisions established by Article 125 of Law 4052/2012, for the safety and health of workers employed through temporary agencies. Each OSH individual directive has been mainly transposed through a single Presidential Decree.

The Greek legislation in the area of OSH covers all sectors, without distinction, including the public sector, and all types of enterprises, irrespective of size. However, the definition of the term "worker" does not include domestic workers.

Competences over OSH are attributed to the General Directorate of Working Conditions and Health, which falls under the responsibility of the Ministry of Labour, Social Security and Welfare. Its activities include preparing draft legislation on OSH, as well as circulars and technical guides to assist other OSH competent administrative authorities. The Ministry of Environment, Energy and Climate Change has competence over the OSH directives on mineral-extracting industries,, while the Ministry of Mercantile Marine and the Aegean is responsible for the OSH issues relating to the shipping and fisheries sectors in the scope of Directives 92/29/EEC and 93/103/EC.

[269] Table 7- 1 Overview of measures targeting SMEs and micro-enterprises of the Country National Report for Germany**.**

11.2 More stringent and more detailed measures

The *Code of Laws/Statutes for the Health and Safety of Workers* generally sets forth more detailed requirements than the Framework Directive. With regard to the content of risk assessment, it sets out specific risks and further requirements on the data and other information to be considered when the assessment is carried out. With regard to the preventive and protective services referred to in Article 7 of the Framework Directive, companies are obliged to use the consultative services of health and safety experts, i.e. safety technicians and occupational physicians, for a minimum period of work period per year calculated on the basis of the number of workers of the company and the type of business activity. In general, every company with one or more workers must use the services of a safety technician while companies with more than 50 workers must use the services of an .occupational physician. The health and safety experts' services may be provided either by workers of the company or by external persons that have the necessary qualifications set by legislation or by licensed external preventive and protective services. Greece also made use of the possibility set out in Article 7 (7) of the Framework Directive to provide that the employer himself may exercise the duties of safety officer (following an accredited training program) for companies carrying "low risk" activities with less than 50 workers.

The national legislation sets more detailed requirements on health surveillance in relation to Directives 90/269/EEC (manual handling of loads), 90/270/EEC (display screen equipment), 2002/44/EC (vibration), 2003/10/EC (noise), 2006/25/EC (artificial optical radiation), 98/24/EC (chemical agents at work), 2009/148/EC (asbestos), 2000/54/EC (biological agents), 92/104/EEC (surface and underground mineral-extracting industries), 92/91/EEC (mineral-extracting industries through drilling), 91/383/EEC (temporary workers), and 94/33/EC (young people at work).

11.3 Level of compliance by different stakeholders

The information on compliance for Greece is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Greece shows a moderate level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 50% of establishments doing so). According to the survey, workplace risk assessments are mainly contracted to external providers (46.8%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in-house or contracted externally. As regards health surveillance only 27% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a high number of establishments (69%) make available to the workers a document explaining responsibilities and procedures on health and safety. A medium to high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to

management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study on compliance for the CPMs are based on data extracted from the LI Annual Reports for the period 2007-2012 and from the interviews conducted with stakeholders. As the ESENER-2 survey, the study reported a medium level of compliance as regards risk assessment performance and information to workers. Very low levels of compliance were assessed in relation to health surveillance and consultation of workers. In relation to training of workers, the study underlined that stakeholders indicated that numerous OSH training activities are carried out – although exact data on numbers are lacking – both intra and inter-enterprise. Intra-enterprise training is subsidised by the Special Fund for the Employment & Vocational Training (LAEK) of the Manpower Employment Organisation. It also highlighted that particularly in Public Administration (e.g. ministries) there is no OSH training for workers.

11.4 Enforcement

The main authority in charge of OSH legislation enforcement – both in the public and private sector – is the Labour Inspectorate (LI) (and the Mines Inspectorate with regard to Directives 92/104/EEC (surface and underground mineral-extracting industries) and 92/91/EEC (mineral-extracting industries through drilling)), which operates under the Ministry of Labour and Social Security. OSH legislation preparation falls under the auspices of the General Directorate for Working Conditions and Hygiene at Work, also operating under the Ministry of Labour and Social Security. OSH legislation enforcement in Greece is, however, weak and non-homogenous, due to staffing, expertise, training, equipment and administrative problems. The LI has a wide set of competences laid down in L 3996/2011. In this context, when carrying out inspections and if violations of labour law (including OSH legislation) are observed, the LI can proceed to several further actions: it can impose administrative sanctions (fines and/or cessation of activity/works) or file a report to introduce the violation into penal procedures where in some cases there are grounds for further prosecution and, furthermore, referral to penal courts. The LI includes distinctive units, one for the wider area of labour legislation (Services of Social Labour Inspectorate - '*Υπηρεσίες Κοινωνικής Επιθεώρησης Εργασίας'*) and one for the specific area of OSH (Services of Technical and Health Inspectorate - '*Υπηρεσίες Τεχνικής και Υγειονομικής Επιθεώρησης Εργασίας'*).

11.5 SMEs and micro-enterprises

Greece has set up different actions to support SMEs in implementing the OSH directives. These range from various information days to the publication of information leaflets. It is also one of the key roles of the inspectors to support the SMEs, through provision of advice on legislation and improvement of working conditions during the inspections. However, there are very few financial incentives (and no lighter regulatory regime, nor regulatory exemptions)

directed to SMEs. The LAEK fund for training of workers aims at reaching SMEs and there is some financial aid available to SMEs in the manufacturing, tourism, trade and services sectors in accordance with Commission Recommendation 2003/361/EC.

12. HUNGARY

12.1 Legal Framework and Competences

In Hungary, the structure of the national legislation on OSH is very similar to the structure of the EU OSH acquis. The main and basic legal act on OSH, which transposes the requirements of the Framework Directive 89/391/EEC is the Act XCIII of 1993 on Occupational Safety ("OSH Law"). The OSH Law is further implemented by Regulation 5/1993[270] and Decree 33/1998 of 24 June 1998 on the medical examination and assessment of aptitude for a specific job or profession and aptitude from the point of view of personal hygiene, which focuses on improving the health and safety of vulnerable workers. The individual EU OSH directives are transposed through specific ministerial decrees or joint decrees. The only exceptions relate to Directive 98/24/EC (chemical agents at work) – transposed through the Act XXV of 2000 on chemical safety and the Joint Decree No 25 of 30 September 2000 on chemical safety at work- and to Directive 92/85/EEC (pregnant/breastfeeding workers) - transposed through the Labour Code, a specific Act CCXI on the Protection of Families and the ministerial Decree 33/1998. Directive 2004/40/EC (electromagnetic fields) has not been transposed.

The Hungarian OSH legislation covers all sectors, without distinction, including the public sector and all types of enterprises, irrespective of size. It does not cover self-employed persons.

The Hungarian system of health and safety institutions is based on the WHO Constitution, the Conventions and Recommendations of the ILO and the EU OSH Directives, taking national traditions into consideration. During the modernisation of public administration in 2011, Budapest/county government offices were set up including specific administrative departments. Labour inspectorates were incorporated into the health and safety administrative departments of the Budapest and county government offices as autonomous organisational units with specific competence and responsibilities. (A total of 20 inspectorates were established to replace the 7 former regional inspectorates). With effect from 1 December 2011, the National Institute of Occupational Hygiene and Occupational Health ('OMFI') was merged with the National Health and Safety and Labour Chief Inspectorate ('OMMF') as the Occupational Hygiene and Occupational Health Department. With effect from 1 January 2012, the OMMF became an autonomous organisational unit, with specific competence and responsibilities and the designated occupational hygiene and occupational health body of the Health and Safety and Labour Directorate of the National Labour Inspectorate ('NMH MMI') established on the basis of the Occupational Inspectorate. The NMH MMI carries out

[270] Regulation of the Minister of Labour on the implementation of certain provisions of Act XCIII of 1993 on Occupational Safety (5/1993. (XII. 26.) MüM rendelet a munkavédelemről szóló 1993. évi XCIII. törvény egyes rendelkezéseinek végrehajtásáról).

occupational safety and occupational health-related administrative duties in cooperation with the Budapest/county labour inspectorates and the labour inspectors; with regard to the exercise of specific competences, it operates under the supervision of the Ministry of National Economy as the professional (functional) managing body of the labour inspectorates. With regard to the government offices, organisational management is carried out by the Ministry responsible for public administration and justice.

12.2 More stringent and more detailed measures

With regard to the scope of the Framework Directive, the Hungarian legislation appears to include a broader definition of the term ‘employer’ which covers the entity who hires employees for organized employment. Further, an employer providing employment to a hired-out employee through a placement agency, a person providing hands-on vocational training, as well as any private entrepreneur who does not employ others but performs his work solely by himself, must also be construed as an employer with regard to the provisions on the protection of persons inside the proximity of the area where the work is performed. In addition, the ‘necessary capabilities and aptitudes" of the persons in charge of the implementation of protective and preventive measures referred to in Article 7 (8) of the Framework Directive have been defined. Act XCIII of 1993 also provides for a strict reporting, investigation and registration system concerning occupational diseases and increased exposures.

With regard to Directive 89/654/EEC (workplace), the Hungarian transposing legislation includes more detailed requirements consultation of workers, given that the employer appears to be obliged to provide the possibility of a consultation between the employer and the workers and their representatives for occupational safety, in preparation of *any* decisions that need to be taken concerning the workers’ health and safety.

In relation to Directive 89/656/EEC (personal protective equipment/PPE), PPE used by emergency and rescue services is covered by Hungarian transposing legislation.

With regard to Directive 92/58/EEC (OSH signs), the national transposing decree lays down more specific provisions (concerning minimum admissible dimensions of safety signs and the punctuation marks on the supplementary signboard). Also, more "prohibition signs" were added.

With regard to Directive 90/270/EEC (display screen equipment), the Hungarian legislation sets more detailed requirements on health surveillance and other key requirements. In particular, eye and eye sight test must be to be repeated every two years. While the directive provides that workers covered by it (i.e. any worker as defined in Article 3 (a) of the Framework Directive who habitually uses display screen equipment as a significant part of his normal work) the national legislation is more specific by establishing that those tests are required for workers using at least four hours a day a device with a monitor.

With regard to Directive 2006/25/EC (artificial optical radiation), a more specific methodology for risk assessment is provided in the national legislation. Further, the periodicity of health surveillance must depend on several circumstances, including the age of the worker.

12.3 Level of compliance by different stakeholders

The information on compliance for Hungary is based exclusively on the findings of the ESENER-2 survey. Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Hungary shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 77% of establishments doing so). According to the survey, a very high proportion of establishments externalises this type of service. ESENER -2 shows very high levels of uptake for health and safety services used, be it in-house or contracted externally.

As regards health surveillance 89% of respondents to the survey declared that their establishments arranges regular medical examinations to monitor the health of the employees. The survey also indicates that a very high number of establishments (94%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

12.4 Enforcement

While previously enforcement responsibilities were shared between various bodies, namely the National Work Safety and Labour Chief Inspectorate (OMMF), the Hungarian Mining Authority and the National Public Health and Medical Office Service (ÁNTSZ) under the direction of several ministries, there is now only one authority in charge of OSH legislation enforcement, namely the National Labour Office (NMH) under the Ministry of National Economy, with an autonomous branch specifically dedicated to OSH the 'Occupational Safety and Health and Labour Inspections Directorate'. From 2007 to 2012, the number of labour inspectors, number of inspections and their frequency has decreased overall, while the number of workers per labour inspector increased from 32448 to 38019.

The National Labour Office issues annual inspection directives which set the main targets, areas and expectations for the year. Priorities are set in terms of sectors and groups of vulnerable workers. It is based on the European and national strategy on OSH and the annual reports of the labour inspections.

The Hungarian legislation sets both criminal and administrative sanctions for non-compliance with OSH requirements. Criminal sanctions are pecuniary sanctions and imprisonment (up to 8 years if the infringement has caused a person's death or a fatal mass catastrophe). The Hungarian legislation also provides for administrative fines, along with other coercive measures that the inspectors can apply such as prohibiting employees from suspending hazardous activities. These sanctions apply for infringement of all OSH-related legislation. It should, however, be noted that, with the entry into force of Act II of 2012 on offences, the offence procedure and the offence registration system, the competence of the health and safety authority concerning offences was abolished. The only fine it is now authorised to impose is a health and safety fine. Labour inspectorates now lack an appropriate administrative means in the case of the infraction of health and safety rules by workers[271].

12.5 SMEs and micro-enterprises

There is no specific lighter regime for SMEs in Hungary with the notable exception of the new rules on fining whereby, pursuant to the SME Act, unless human life, safety or health is directly endangered, damage is done to the environment or the protection of minors is infringed, the health and safety authority warns the enterprise instead of imposing a fine for the first time an infringement by a SME is detected[272].

13. IRELAND

13.1 Legal Framework and competences

The Framework Directive was transposed through the Safety Health and Welfare at Work ('SHWW') Act 1989, which was updated in 2005 to the Safety Health and Welfare at work ('SHWW') Act. This programme of regulatory reform culminated in the introduction of the Safety, Health and Welfare at Work (General Applications) Regulations 2007 (S.I. No. 299 of 2007) (SHWW General App (2007)). These Regulations replace, simplify and update 25 existing sets of regulations and orders and apply to all places of work. In addition, during the 2007-2012 period, regulations were introduced to further clarify or complete transposition of EU legislation.

Overall responsibility for occupational safety and health policy at national level lies with the Minister for Jobs, Enterprise and Innovation. The Department of Jobs, Enterprise and Innovation is responsible for formulating and developing national OSH policy. It works closely with the Health and Safety Authority (HSA) which has a statutory mandate to implement safety and health policy at all places of work, through the delegated powers from the Minister for Jobs, Enterprise and Innovation under the Safety, Health and Welfare at Work Act 2005.

[271] See Table 5- 1 Result table – type and level of sanctions of the Country Summary Report for Hungary.
[272] See Table 7- 1 Overview of measures targeting SMEs and micro-enterprises of the Country Summary Report for Hungary.

13.2 More stringent and more detailed measures

With regard to the scope of the legislation transposing Directive 89/391/EEC, the national legislation also applies to domestic workers. Additional requirements are set in relation to risk assessment, where Ireland has introduced the idea of a 'safety statement' to reflect a safe system of work.

As regards the Directive 89/656/EEC (PPE), the definition of PPE is broader, as not excluding all the categories excluded from the definition of PPE in that directive.

As regards Directive 92/85/EEC (pregnant/breastfeeding workers), on the basis of Article 2 of that directive, the national legislation defines a "post natal worker" as a worker who gave birth not more than 14 weeks preceding a material date.

With regard to Directive 2009/148/EC (asbestos), the content of the risk assessment is more detailed in the national legislation,

13.3 Level of compliance by different stakeholders

The information on compliance for Ireland is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study. Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Ireland shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 72% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (63.3%). ESENER -2 shows high levels of uptake for health and safety services used, be it in-house or contracted externally.

As regards health surveillance only 15% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey also indicates that a very high number of establishments (93.7%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study as regards compliance are based on the ESENER-1 survey, supplemented by the Report on Economic Impact of the Safety, Health and Welfare at Work Legislation (2006) with regard to estimating compliance with the risk assessment. The study reported that, in general terms, compliance in the fisheries and agriculture sector is low and that compliance increases with the size of the company. According to the study, SMEs and

micro-industries have difficulties due to their lack of resources and they seek practical (paper based and online) tools for compliance such as simplified guidance, risk assessment templates etc.

The study also pointed out that the data sources which have been identified relating to quantified estimates of compliance relating to the CPMs are limited to the percentage of employers inspected who had safety statements in the mines & quarries (78.3%); agriculture (28.9%) and construction (71.2%) sectors, with some additional data available for the construction sector on consultation and representation[273].

13.4 Enforcement

The Health and Safety Authority (HSA) is the national statutory body with responsibility for enforcing occupational safety and health law (in the private and public sector), promoting and encouraging accident prevention, and providing information and advice to all companies, organisations and individuals. In addition, the Irish Maritime Administration (IMA) has the responsibility to enforce the Irish legislation with regard to maritime safety. Inspectors of the HSA carry out reactive and pro-active inspections of workplaces. Reactive inspections may arise following an accident, incident or complaint. Pro-active inspections may be routine or targeted. Most inspections are targeted at the high risk sectors such as construction, agriculture, forestry, manufacturing, mines, quarries, transport of dangerous goods by road, or the chemical sectors. These sectors are set out in our Annual Work Programme and each inspector picks the premises to be inspected based on their local knowledge. Inspectors will collect information from inspections and record the results electronically on the Authority's GeoSmart Information Storage System. There is hence abundant statistical information available on the inspections performed, although the frequency of inspections is not known.

Sanctions are provided for under the main Safety Health and Welfare at Work Act 2005. Other legislation is prepared as Regulations under that Act and breaches are therefore regarded as breaches of the Act and sanctions do not distinguish between different Directives. The HSA allows its inspectors to take actions where statutory contraventions are observed, e.g. where there is a risk of serious potential injury or poor management of dangerous chemicals[274].

13.5 SMEs and micro-enterprises

Ireland has not introduced any exemptions, financial incentives, or a lighter regime for SMEs and micro-enterprises. The HSA nevertheless provides a series of practical information and guidance notes in relation to small businesses. Also the BeSMART tool has been developed

[273] See Table 3- 1Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Ireland.
[274] See Table 5- 4 Result table – type and level of sanctions of the Country Summary Report for Ireland.

especially for SMEs and micro-enterprises. In construction, a Safety Management Pack for Contractors Employing 20 or less workers (SMP 20) was also developed and launched. The aim of the pack is to assist small contractors in establishing and maintaining an effective safety management system.

14. ITALY

14.1 Legal Framework and competences

In Italy, Legislative Decree no. 81 of 9 April 2008 reorganised and consolidated in a single regulation the legislation on workplace health and safety. It completes the transposition of Directive 89/391/EEC and of the other individual Directives. In addition, Directives 92/29/EEC (medical treatment on board vessels), 93/103/EC (work on board fishing vessels), 92/85/EEC (pregnant/breastfeeding workers), and 91/383/EEC (temporary workers) have been transposed into national legislation through several pieces of legislative decrees and specific laws.

The provisions of the Legislative Decree no. 81 of 9 April 2008 apply to all activities, sectors and risks, as well as to all workers and self-employed persons.

At national/central level, the competences in relation to OSH are divided between the Ministry of Labour and Social Policy, and the Ministry of Health. At central level, a National Steering Committee for pro-active policies and coordination of surveillance activities, set out on the basis of the Legislative Decree no. 81 of 9 April 2008, is the body where central and regional authorities define the general principles of their respective prevention and surveillance policies. At local level, coordination of surveillance and prevention activities are entrusted primarily to the Regions and to the Autonomous Provinces of Trento and Bolzano which must plan and conduct in a standardised manner activities in their respective territories through cooperation with and the coordination of all competent agencies, local authorities and social partners.

14.2 More stringent and more detailed measures

As a general rule, the national legislation transposing EU OSH Directives presents in a more specific manner than in the relevant Directive the risks to be taken into account by the employer in the risk assessment, including those risks arising from exposure to physical and biological agents, hazardous substances/mixtures or explosive atmospheres. Standardised and simplified procedures for the performance of risk assessment apply to businesses employing up to 10 workers, but can also be used by companies employing up to 50 workers.

In addition, Legislative Decree 81/2008 sets forth more detailed provisions concerning skills, education and training required for workers, employers, the preventive and protective services and the competent medical officer.

With regard to the preventive and protective services referred to in Article 7 of the Framework Directive 89/391/EEC, Italy used the possibility given to Member States in Article 7 (7) of that Directive and defined in Legislative Decree 81/2008 the categories of undertakings in which the employer may himself take responsibility of the activities of preventive and protective services.

As regards health surveillance, the results of such surveillance must be inserted in the worker's individual health and risk record in all cases, whereas this requirement is not set forth in all EU OSH Directives. In many cases, the periodicity of health surveillance is set at once a year, but this frequency can be modified by the competent medical officer on the basis of the risk assessment. In the field of application of Directive 2002/44/EC (vibration), and in line with Article 8 (1) last indent of that directive, a preventive medical examination is mandatory for workers whose exposure exceeds the upper exposure action values, as part of general health surveillance procedures.

Furthermore, in line with Article 15 of the Framework Directive 89/391/EEC, Legislative Decree 81/2008 provides that the employer shall adapt the protective and preventive measures to take care of specific needs of exposed workers who are particularly sensitive to risk (i.e. pregnant women and minors).

Finally, Legislative Decree 81/2008 provides for a national information system for prevention in the workplace.

In relation to Directive 92/58/EEC (OSH signs), the employer is required, in line with Article 12 of the Framework Directive 89/391/EEC on training, to take the proper measures to provide information or instructions on dangerous situations that are not covered by means of signs, according to good practices, specific characteristics of the activity and experience.

In relation to scope of Directive 92/85/EEC (pregnant/breastfeeding workers), which defines a "worker who has recently given birth" and "worker who is breastfeeding" to mean respectively a worker who has recently given birth and a worker who is breastfeeding "within the meaning of national legislation and/or national practice (…)", pursuant to the national transposition measures the provisions for the protection of the health and safety of pregnant and breastfeeding workers also apply to women who have taken in adopted or foster children until they turn seven months; the breastfeeding period lasts up to seven months after giving birth.

In the field of application of Directive 90/270/EEC (display screen equipment), in relation to health surveillance, and in line with Article 14 of the Framework Directive 89/391/EEC, workers are entitled to a more comprehensive medical examination which includes musculoskeletal disorders. More specific provisions are laid down as regards "daily work routine" in the sense of Article 7 of that directive, as workers who use display screen equipment are entitled at least to a break of fifteen-minutes every two hours.

With regard to occupational exposure limit values for hazardous chemicals set forth in EU OSH relevant directives, the national legislation generally establishes more stringent limit values.

14.3 Level of compliance by different stakeholders

The information on compliance for Italy is based, on the one hand, on the findings of the ESENER-2 survey and on the other hand on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Italy show a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 94% of establishments doing so). According to the survey, a high proportion of establishments externalises this type of service. ESENER-2 shows high levels of uptake for health and safety services used, be it in-house or contracted externally. As regards health surveillance, 88% of respondents of the survey declared that their establishment arranges regular medical examinations to monitor the health of employees. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SMEs and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

Lower, though still good, levels of compliance with the CPMs, were reported through the external study, which based its conclusions on surveys and information obtained during stakeholders interviews (between 60-79%). The study assessed the level of compliance in the public sector to be lower, as compared with the private sector, because of less stringent surveillance. A lower level of compliance was also expected for micro-enterprises and SMEs, although the study assessed that micro and small enterprises affiliated with the employers' organizations scored better in their level of compliance. The external study pointed also to some factors which, despite high levels of formal compliance, might affect the effectiveness of the legislation: avoiding fines as the main driver for compliance with the OSH requirements, as a consequence the management framework being very bureaucratic, lower likelihood for the less threatening risks to be tackled by effective actions, externalisation of services to allow a cost reduction [275].

14.4 Enforcement

The inspection activities related to the hygiene, health and safety at the workplace are carried out by Local Health Agencies (ASL) acting under the responsibility of Regional Directorates

[275] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Italy.

for Prevention[276]. The inspections related to compliance with health and safety legislation are also carried out by the Inspectors under the Ministry of Labour in undertakings in the field of construction or civil engineering, diving work and underwater caisson work and undertakings involving particularly high risks[277].

The strategies for inspections are developed by the DG for Inspection Activities of the Ministry of Labour and Social Policies and their implementation is reviewed on a yearly basis. The Standing Advisory Committee on Health and Safety at Work delivers this annual programme for the inspection activities.

Labour inspectors can also act as advisors of the enterprises, providing guidelines on the application of general labour standards, circulars, directives, and all others instructions received by the Ministry of Labour and Social Policies.

As regards sanctions, the Italian legislation sets primarily criminal sanctions for non-compliance with OSH requirements. Criminal sanctions vary from the imposition of fines to imprisonment and every kind of infringement has a different sanction attached to it. Administrative sanctions are hardly ever applicable.

14.5 SMEs and micro-enterprises

Different risk assessments and different requirements apply to enterprises employing up to 10 workers, which until now have carried out the risk assessment with self-certification, as well as to other businesses employing up to 50 workers. INAIL (Italian Workers compensation authority) also foresees several types of funding, especially directed to SMEs, and has established the Fund to Support the Small and Medium Enterprise. In order to favour the implementation of OSH management systems, especially by SMEs, INAIL makes available application models for specific industries. These models are based on the OSH management system guidelines published in 2001 by the International Labour Organization – ILO[278].

15. LATVIA

15.1 Legal Framework and Competences

The legal framework in the area of health and safety at work in Latvia comprises laws and regulations issued by the government based on these laws. The majority of those laws and regulations were adopted before its accession to the European Union and, where necessary, were brought into line with the relevant EU OSH directives.

[276] See Table 5- 1 nspections by Local Health Services - Statistical data 2007-2011 of the Country Summary Report for Italy.
[277] See table 5-2 Inspections by Labour Inspectors - Statistical data 2007 – 2012 of the Country Summary Report for Italy.
[278] See table 7-2 Description of measures Description of measures targeting SMEs and micro-enterprises of the Country summary report for Italy.

The provisions of the Framework Directive are incorporated in the Labour Protection Law (*Darba aizsardzības likums*) adopted on 20 June 2001, which is the main legal act in this area. In addition to the Labour Protection Law, the Labour Law adopted on 20 June 2001 covers, together with relevant regulations, the transposition of Directive 92/85/EEC (pregnant/breastfeeding workers), Directive 91/383/EEC (temporary workers) and Directive 94/33/EC (young people at work). Under the Labour Protection Law there are more than twenty different Regulations that set out in more detail its particular requirements. All EU OSH individual directives are transposed through one regulation, with the exception of the following directives, which are transposed by multiple regulations: Directive 2009/104/EC (work equipment), Directive 2004/37/EC (carcinogens or mutagens), Directive 92/29/EEC (medical treatment on board vessels) and Directive 93/103/EC (work on board fishing vessels).

The Latvian laws and regulations in the area of OSH apply to any employer that is employing at least one employee, to all sectors, including the public sector and to all categories of undertakings, independently of their size.

Competences regarding OSH in the public and private sector are mainly with the Ministry of Welfare, which is responsible for policy and legislation on employment and OSH. The Ministry also supervises the work of the State Labour Inspectorate which ensures the compliance with labour and OSH legislation in practice.

15.2 More stringent and more detailed measures

With regard to the Framework Directive 89/391/EEC, the national transposing legislation applies to all groups of persons in employment; Latvian laws and regulations in the area of OSH do not exclude domestic servants from their scope.

As regards risk assessment, the Labour Protection Law specifically lists the risks to be taken into account and specifies in more detail the content of risk assessment. A specific form to be considered when carrying out a risk assessment is laid down in the Internal Supervision Regulation. That regulation also sets out the general rules regarding the persons that should be in charge of the risk assessment and the conditions for resorting to external preventive and protective services.

With regard to Directive 89/654/EEC (workplace), the Latvian Workplaces Regulation is in various aspects more detailed than the requirements of the directive, in particular as regards the minimum requirements on temperature and natural and artificial lighting. For instance, the regulation lists minimum level of lighting for 23 workplaces, further differentiating between specific tasks. It also sets forth requirements specifying the range of air humidity and air movement rate, as well as the period of time for which work is permissible in cold temperatures.

Regarding Directive 92/58/EEC (OSH signs), it was reported that the national transposing

legislation provides the use of additional signs.

With regard to Directive 2002/44/EC (vibration), the national legislation sets more specific requirements regarding the methodology and persons responsible for the conduct of the risk assessment. The Labour Inspectorate has the prerogative to request any relevant information from employers, including on risk assessment.

In relation to Directive 92/57/EEC (temporary or mobile construction sites), Latvian legislation provides an exhaustive list of works to which OSH requirements apply, which appears to be broader than the non-exhaustive list of provided in Annex I of the directive. It also lays down more detailed or broader requirements for health and safety coordinators (e.g. the coordinator must have obtained a certificate in relation to architecture or construction, have basic knowledge of OSH matters or have a higher professional education in the field).

15.3 Level of compliance by different stakeholders

The information on compliance for Latvia is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Latvia shows a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 81% of establishments doing so). According to the survey, workplace risk assessments are conducted mainly by internal staff (56.1%). ESENER -2 shows high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 77% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (96.7%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.
The conclusions of the external study on compliance are mainly based on data from the national survey “Working conditions and risks in Latvia 2012-2013”. The study reported very low to medium levels of compliance in relation to risk assessment and consultation of workers, while the other CPMs were assessed as having a high or very high degree of compliance. Large differences were found between different types of sectors and size of establishments; the study also assessed that compliance among micro and small companies was significantly lower compared to large companies[279].

[279] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Latvia.

15.4 Enforcement

In Latvia, the main authority in charge of OSH legislation enforcement is the State Labour Inspectorate, which is subordinated to the Ministry of Welfare and which covers all directives (both public and private sector). Latvian legislation also provides certain powers, e.g. to carry out inspections, to specialised institutions in case of certain conditions or requirements. These institutions either work together with the State Labour Inspectorate, or the State Labour Inspectorate requests support from The Health Inspectorate, The State Fire and Rescue Service and the Consumer Rights Protection Centre.

The local building authorities are in charge of enforcement of OSH legislation related to construction works and control of work on construction sites, which covers Directive 92/57/EEC (temporary or mobile construction sites). The Maritime Administration of Latvia is responsible for enforcement of OSH legislation on ships; Directive 92/29/EEC (medical treatment on board vessels) and Directive 93/103/EC (work on board fishing vessels). Finally, the State Inspectorate for Protection of Children's Rights is the administrative body subordinated to the Ministry of Welfare, which supervises and controls legal requirements concerning children's rights, including working permits, working hours and working conditions (Directive 94/33/EC (young people at work))[280].

Depending on the seriousness of offences, the Latvian legislation provides either criminal or administrative sanctions for violation of occupational health and safety (OSH) legislation. These sanctions apply to all OSH Directives and, for example, the administrative law provides as a general principle that a violation of any of the OSH requirements could lead to administrative punishment. The few exceptions where potential damage is more significant include OSH signs, PPE, risk assessment, training of workers, not sending workers for health surveillance, hiding of the occupational accidents and use of faulty work equipment.

15.5 SMEs and micro-enterprises

Latvia has only set up a lighter regime concerning OSH services that may be carried out by an employer himself in undertakings of less 10 employees and provided that the employer has had special training (article 9, part 3, of the Labour Protection Law). Similarly, a lighter regime applies to companies with less than 10 workers concerning the involvement of external OSH experts (article 9, part 5, Labour Protection Law). Moreover, the Work Safety Law amended in 2010 in order to remove the obligation for enterprises of 50 and more workers to appoint several work specialists or to set up a work safety unit. This amendment

[280] See Table 5- 1Enforcement authorities of the Country Summary Report for Latvia.

was particularly targeted to SMEs, which were then able to appoint only one work safety specialist only when not exposing workers to hazardous substances[281].

16. LITHUANIA

16.1 Legal Framework and Competences

In Lithuania, the hierarchy of legal acts in relation to occupational health and safety consists of three distinct levels: the Laws and the Labour Code which are issued by the Parliament (*Seimas*); further implementation is developed through Resolutions of the Government (second level) and then through Orders of Ministers (lowest level).

The main legal acts in the area of OSH are the Labour Code and the Law on Safety and Health at Work. These acts transpose into Lithuanian law the Framework Directive 89/391/EEC. They are supplemented by related regulations covering different OSH sub-areas. The EU OSH individual directives are transposed through individual legal acts (Resolutions of the Government with regard to Directive 92/85/EEC (pregnant/breastfeeding workers) and Directive 94/33/EC (young people at work)) and, for the rest, mainly through Orders of Ministers).

National OSH legislation applies to all employers who employ at least one worker and to all undertakings established in the national territory. That legislation applies to all sectors, without distinction, including the public sector, and to all enterprises, irrespective of size.

Within the Ministry of Social Security and Labour, the Working Environment Division of the Labour Department is responsible for OSH policy. The Minister of Social Security and Labour also represents the interests of the Republic of Lithuania related to safety and health at work in other countries and in international organisations.

The performance of occupational safety and health requirements at enterprises is controlled by the State Labour Inspectorate (http://www.vdi.lt/), which is a state control body functioning under the Ministry of Social Security and Labour. The body consists of the administration and 10 regional inspection units managed by the Chief State Labour Inspector. The functions, rights and responsibilities of the Labour Inspectorate are laid down in the Law on the State Labour Inspectorate (http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=350626).

16.2 More stringent and more detailed measures

More detailed requirements on risk assessment are generally laid down in all national acts transposing the OSH individual Directives. This is the case in relation to Directives 89/654/EEC (workplace), 2009/104/EC (work equipment), 89/656/EEC (PPE), 1999/92/EC

[281] See Table 7- 1 Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for Latvia.

(ATEX), 90/269/EEC (manual handling of loads) 90/270/EEC (display screen equipment) and 94/33/EC (young people at work). In respect of Directives 2002/44/EC (vibration), 2003/10/EC (noise), 2004/40/EC (electromagnetic fields) and 2006/25/EC (artificial optical radiation), the national legislation requires employers to submit risk assessment to national authorities on request.

With regard to Directive 98/24/EC (chemical agents at work) and its implementing directives, the national transposing legislation sets forth for some chemical agents more stringent occupational exposure limit values that the EU limit values.

16.3 Level of compliance by different stakeholders

The information on compliance for Lithuania is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Lithuania shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 76% of establishments doing so). According to the survey, workplace risk assessments are contracted mainly to external providers (61.5%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 87% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (96.9%) make available to the workers a document explaining responsibilities and procedures on health and safety. A very high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The external study based its conclusions on compliance on a study on occupational health care activities in Lithuanian enterprises, on stakeholders' experienced views, and the annual reports from the State Labour Inspectorate over the period 2007-2012. The study assessed that very important differences existed between micro- and small establishments and large establishments. In particular, it reported that the vast majority of medium-sized enterprises had OSH departments - which were not present in micro- and small enterprises - where the employees regularly raised their skills in various assessment considerations of occupational risks[282].

[282] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Lithuania.

16.4 Enforcement

In Lithuania, the main (and only) authority in charge of OSH legislation enforcement is the State Labour Inspectorate of the Republic of Lithuania SLI, which covers all directives in the private and public sector. Remit of the State Labour Inspectorate under the Ministry of Social Security and Labour includes the prevention of accidents at work, occupational diseases and violations of occupational safety and health requirements of standard acts on labour law. It also covers the control of compliance of the Labour Code of the Republic of Lithuania, laws and other standard acts regulating occupational safety and health as well as labour relations in enterprises, institutions, organisations or other organisational structures, irrespective of their forms of ownership, type, nature of activity, also in these cases when an employer is a natural person.In 2013, thirteen Tripartite Labour Dispute Commissions were established under the State Labour Inspectorate territorial divisions. The main task of these Commissions is to resolve individual conflicts between an employer and an employee. Decisions of the Labour Dispute Commissions are obligatory for both sides of the conflict. If any side disagrees with the Commission decision they can appeal to the Administrative Court[283].

16.5 SMEs and micro-enterprises

Lithuania has only set up a lighter regime as to the requirement to organise an internal service of occupational health and safety. OSH committees should be established and their work should be organized in those undertakings which employ more than 50 workers. If less than 50 workers are employed in an undertaking, the committee may be established on an initiative of the employer or the workers' representative, or on a proposal of more than half of workers of the undertaking. There are further no particular exemptions or incentives directed to SMEs and micro-enterprises in Lithuania[284].

17. LUXEMBOURG

17.1 Legal Framework and Competences

The Framework Directive 89/391/EEC was transposed by the Laws of 17 June 1994 on respectively the safety and health of workers at work and on occupational health services. The related EU OSH Directives have been transposed mostly through secondary legislation, i.e. Grand-Ducal Regulations. Solely Directive 92/29/EEC (medical treatment on board vessels) has been transposed through a specific law, together with an implementing Grand-Ducal Regulation. Finally, provisions transposing the three Directives on specific groups of vulnerable workers (Directive 92/85/EEC on pregnant and workers who have recently given birth or are breastfeeding; Directive 91/383/EEC on temporary workers and Directive 94/33/EC (young workers)) are incorporated directly in the Labour Code.

[283] See Table 5- 1 Enforcement authorities of the Country Summary Report for Lithuania.
[284] See Table 7- 1 Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for Lithuania.

The public sector is regulated by distinct laws and regulations, specific to public servants and employees of public establishments. Safety in the public sector was first regulated in Luxembourg by a 1979 Grand-Ducal Regulation and more largely implemented in a 1988 Law that created the public sector's entity on prevention of occupational risks. Pursuant to the transposition of the Framework Directive, these texts were revised by the OSH Public Sector Law of 1994 and complementing Grand-Ducal Regulations of 1995.

Competences on OSH in the private sector are divided between the Ministry of Health, in charge of coordinating occupational medicine services, and the Ministry of Labour and Employment, under which the Labour and Mines Inspectorate (ITM) is in charge of enforcing OSH legislation. For the public sector, the Ministry of Civil Service is the main authority, with two distinct departments in charge of, respectively, occupational medicine and safety at work. OSH services are organised in a dual system. All private companies are providing occupational health services internally, through inter-company medical services managed by trade unions or the Multi-Sector Occupational Health Service (STM), a public body, under the Ministry of Health.

17.2 More stringent and more detailed measures

With regard to Directive 89/391/EEC, the national implementing legislation covers domestic workers. More detailed requirements are set mainly in relation to organisational arrangements (e.g. on the competencies of 'designated workers' or 'safety representatives'), as well as health surveillance (internal service of occupational health is compulsory for companies employing more than 5000 employees as well as those with than 3000 employees with at least 100 occupying a position with risks; smaller companies may use one of the four inter-enterprises services or join the Multi-sector Occupational Health Service (STM) or create their own internal service; provisions on the frequency of medical examinations).

For both Directives, 2004/37/EC (carcinogens and mutagens) and 98/24/EC (chemical agents), similar more detailed requirements are laid down in relation to health surveillance. The legislation transposing Directive 2004/37/EC also establishes a more stringent occupational exposure limit value for hardwood dusts. In relation to Directive 98/24/EC, the national legislation establishes a limit value also for nicotine. The legislation transposing Directive 2009/148/EC (asbestos) sets more detailed requirements on training of workers, in terms of frequency in particular. With regard to Directive 92/57/EEC (temporary or mobile construction sites), national legislation sets more detailed requirements on health and safety coordinators for sites where at least two companies are operating. Other more stringent requirements were established in the transposition of Directive 92/85/EEC (pregnant/breastfeeding workers).

17.3 Level of compliance by different stakeholders

The information on compliance for Luxembourg is based exclusively on the findings of the ESENER-2 survey.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Luxembourg shows a low level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 37% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (66.6%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in-house or contracted externally. As regards health surveillance 70% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a high number of establishments (67.7%) make available to the workers a document explaining responsibilities and procedures on health and safety. A medium proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

17.4 Enforcement

In Luxembourg, the main authority in charge of OSH legislation enforcement is the Labour and Mine Inspectorate (ITM), which covers all directives but only in the private sector. The ITM is under the responsibility of the Ministry of Labour and Employment. There is no inspection as such for the public sector, as the Departments in charge of OSH are tasked with ensuring compliance with OSH requirements in the public sector. However, the National Service of Occupational Safety of the Public Sector is vested with generic competence on monitoring the security of normal operation and the maintenance and control of installations and equipment of the public sector. Moreover, it carries out expertise in order to homologate public establishments facilities during their lifetime. This service is therefore competent to inspect equipment but not personnel[285].
Criminal sanctions for infringement to OSH legislation include fines and imprisonment. The inspectors may also impose administrative sanctions, in particular emergency measures to stop non-compliance[286]. Inspectors can ask companies to comply within deadlines. When this compliance is not effective, companies can be ordered (*mise en demeure / injunction*) to comply and eventually be brought to court.

17.5 SMEs and micro-enterprises

Luxembourg has only set up a lighter regime as to the requirement to organise an internal service of occupational health is compulsory only for larger companies. In addition the AAA has set up a labelling programme on occupational safety for SMEs with less than 50 employees. Apart from these, the rules are general and applied to all enterprises regardless of

[285] See Table 5- 1Enforcement authorities of the Country Summary Report for Luxembourg.
[286] See Table 5- 4 Result table – type and level of sanctions of the Country Summary Report for Luxembourg.

their size. As mentioned by the National Implementation Report for Luxembourg, 'The measures taken by the competent authorities are the same for all enterprises in Luxembourg and do not depend on size'[287]. However, given the high proportion of SMEs in Luxembourg, they are indeed the primary recipient of all documents and measures on OSH[288].

18. MALTA

18.1 Legal Framework and Competences

The Framework Directive is transposed by the Occupational Health and Safety Authority Act, No XXVII, Cap 424, published on 17 November 2000 and entered into force on 29 January 2002 (OHSA Act), which is the foundational piece of national legislation in the area of occupational health and safety in Malta. That Act enshrines the principles of protection of health and safety at the work into national law and establishes the national Occupational Health and Safety Authority. It applies to all workplaces, sectors of activity, both private and public, and work activities. However, certain activities carried out by members of the armed forces, the police force or of the civil protection services appear to be excluded. The OSHA Act empowers the responsible Minister to lay down regulations regarding any matter that may affect health and safety, after seeking the Authority's advice.

The legal principles established in that that act are applicable to all downstream legislation. Most EU OSH individual Directives are transposed in one specific piece of legislation adopted on the basis of the OHSA Act, with the exception of Directive 92/29/EEC (medical treatment on board vessels) and Directive 93/103/EC (work on board fishing vessels).

The main competent authority is the Occupational Health and Safety Authority (OHSA), established within the institutional framework of the Ministry for Social Dialogue, Consumer Affairs and Civil Liberties. OHSA, which is composed of a tripartite Board including representatives of the government, trade unions and employers, plays a central role in developing and driving national level occupational health and safety strategies, programmes, initiatives and policies. In matters related to fishing vessels, the main regulatory authority is Transport Malta.

18.2 More stringent and more detailed measures

With regard to the scope of the Framework Directive 89/391/EEC, the national legislation applies to domestic workers and to self-employed persons (the term "worker" is defined as

[287] See the Ministry of Health, Luxembourg National Implementation Report regarding Directive 89/391/EEC, its specific Directives and Directives 2009/148/EC, 91/383/EEC, 92/29/EEC and 94/33/EC, 2014, Part A, Section 2.7.
[288] See Table 7-2 Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for Luxembourg.

"*any person employed by an employer to perform work, or who provides a service to another person under a contract of service or for service, and includes a trainee, an apprentice and a self-employed person*"). In addition, the scope of risk assessment is wider, as employers must also consider the risks to visitors at the workplace. In respect of preventive and protective services, Malta made use of the option laid down in Article 7(8) of the directive by providing that the Occupational Health and Safety Authority may determine the capabilities, aptitudes and level and type of training required. Finally, the workers' representative in the area of OSH must not carry out, or be involved with, any work which can give rise to a conflict of interest in the discharge of his functions.

As regards Directive 2006/25/EC (artificial optical radiation), national transposing legislation sets out a more specific methodology for risk assessment by establishing requirements for a "suitable medium" for the record of risk assessment in accordance with Article 4 (4) of the directive.

Employers are also encouraged, in the risk evaluation, to consider workers' exposure to *natural* optical radiation, for instance from the sun. This is particularly relevant for those workers who work outdoors and are exposed to the sun's radiation, especially in summer.

18.3 Level of compliance by different stakeholders

The information on compliance for Malta is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Malta show a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 65% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (44.4%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance only 25% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a medium number of establishments (50.9%) make available to the workers a document explaining responsibilities and procedures on health and safety. A medium to high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The conclusions of the external study on compliance are mainly based on the study entitled "Occupational Health and safety in Malta: A Snapshot of prevailing standards published by the OHSA in 2011". The study reported that only half of the surveyed workers declared that a risk assessment was carried out (whether regularly or not), and that 24% of the workers did

not remember. The study assessed that 80% of workers had been offered occupational health and safety information, and only less than 60% of them could rely on health surveillance during their employment[289].

18.4 Enforcement

In Malta, the main authority in charge of OHS legislation enforcement is the Occupational Health and Safety Authority OHSA. The enforcement body competent for occupational health and safety issues and the procedures in case of infringement in the public sector is the same as in the private sector. The OHSA Act does not distinguish between the public sector and the private sector with respect to enforcement of occupational health and safety legislation in Malta. Transport Malta ensures the application of the required occupational health and safety measures on board fishing vessels. Transport Malta is the regulator and not OHSA in this case.

The Maltese legislation sets both criminal and administrative sanctions for non-compliance with OHS requirements. Criminal sanctions include fines and imprisonment up to two years. Due to recent legislation, the Maltese view on administrative sanctions has changed. It has been decided that, in the event of admission of guilt, payment of a fine, and the taking of remedial action, the Authority shall not take judicial action in the courts of law[290].

18.5 SMEs and micro-enterprises

OHSA does not distinguish on the basis of size of the enterprise. The only exception is in the case of construction sites, where Prior Notice and the Health and Safety Plan are only required in the case of construction sites on which work is scheduled to last longer than thirty working days and on which more than twenty workers are occupied simultaneously, or on which the volume of work is scheduled to exceed five hundred person-days.

The Financial Incentives, which are tax credits given to SMEs for investing in OHS capacity building, are hence given to all Maltese enterprises, even though they are in fact directed to SMEs. The scheme, called MicroInvest and launched by Malta Enterprise (the national development agency responsible for development and growth of Maltese enterprises), introduced a scheme with which microenterprises and the self-employed are encouraged to invest in their businesses, to innovate, expand and implement directives and develop their operations. In this scheme, microenterprises and self-employed are helped by means of tax credits that represent a percentage of eligible expenditure and the wages of employees and newly engaged apprentices. Following discussions between OHSA and ME, the scheme has been restructured to include occupational health and safety on the list of eligible activities for tax credits.

[289] **See Table 3-1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Malta.**

[290] See Table 5- 1 Result table – type and level of sanctions of the Country Summary Report for Malta.

With regard to other specific actions for SMEs, it can also be noted that all initiatives taken by OHSA, both those concerning enforcement actions and those involving dissemination of information or raising awareness, have already been largely addressed to SMEs[291].

19. NETHERLANDS

19.1 Legal Framework and competences

The main Dutch legal texts regarding health and safety at work consist of the Working Conditions Act (*Arbeidsomstandighedenwet / Arbowet)*, the Working Conditions Decree (*Arbeidsomstandighedenbesluit / Arbobesluit)* and the Working Conditions Regulation (*Arbeidsomstandighedenregeling / Arboregeling)*.

The Working Conditions Act sets out the general provisions for employers and workers concerning OSH and provides certain powers to the Labour Inspectorate. The Act is the main legal instrument that, together with the Medical Examinations Act, transposes the Framework Directive (together with the Working Conditions Decree and Regulation). It also transposes partially Directive 92/85/EEC (pregnant/breastfeeding workers), Directive 94/33/EC (young people at work) and Directive 91/383/EEC (temporary workers). The Working Conditions Decree covers a more specific range of OSH topics and directly transposes the following directives: Directive 1999/92/EC (ATEX), Directive 90/269/EEC (manual handling of loads), Directive 2002/44/EC (vibration), Directive 2003/10/EC (noise), Directive 2006/25/EC (artificial optical radiation), Directive 92/57/EEC (temporary or mobile construction sites) and Directive 92/104/EEC (surface and underground mineral-extracting industries).

The Working Conditions Regulation contains very specific provisions, and transposes, together with the Decree, the following directives: Directive 2009/104/EC (work equipment), Directive 92/58/EEC (OSH signs), Directive 90/270/EEC (display screen equipment), Directive 2004/37/EC (carcinogens or mutagens), Directive 98/24/EC (chemical agents at work), Directive 2009/148/EC (asbestos) and Directive 2000/54/EC (biological agents). The remaining EU OSH individual directives are transposed by the Working Conditions Act, Decree and/or Regulation, in combination with other national legislation specific to the OSH topic addressed.

The Dutch legislation in the area of health and safety at work covers all types of undertakings and sectors, without distinction, including the public sector and all enterprises, irrespective of size. In particular, the Working Conditions Act does not distinguish between private and public sectors. Some exceptions are mentioned by the Act concerning matters of state security.

[291] See Table 7- 1Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for Malta.

Employment legislation and legislation on occupational health and safety are the competence of the Ministry of Social Affairs and Employment (*'Ministerie van Sociale Zaken en Werkgelegenheid', 'SZW'*). Also all OSH policies are the responsibility of the Ministry of SZW.

19.2 More stringent and more detailed measures

The personal scope of the national legislation is broader as it covers in certain cases self-employed persons[292].

The evaluation found that in recent years, several more detailed or broader requirements have been withdrawn. At some point, a deliberate choice was made to have more stringent requirements, concerning professional services, certification and expertise, sexual intimidation, aggression and violence and psychosocial disorders, limit values for several carcinogenic substances and the substitution of volatile organic solvents. According to the employers, there are a number of more stringent requirements in the Working Conditions Act. Examples are the Additional Risk Assessment obligation (ARIE) for high risk companies, certification schemes for fork lift trucks, cranes, elevators, certification schemes for professional skills, requirements concerning health surveillance in relation to privacy and professional confidentiality, specific requirements for maintenance of tank ships. More stringent requirements are also set for pregnant workers.

19.3 Level of compliance by different stakeholders

The information on compliance for Netherlands is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study. Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Netherlands shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 73% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (57.3%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance only 24% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (78.5%) make available to the workers a document explaining responsibilities and procedures on health and safety. A medium proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME

[292] See the Decree of 13 June 2012 amending the Working Conditions Decree in relation to further protection for self-employed workers, location-independent work and the introduction of the general obligation for employers to digitally report data. Cf. also National Implementation Report, Chapter 1, 1, (EN) p.8.

and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study on compliance with the CPMs are based on annual data monitor reports of the Labour Inspectorate ('Arbo in bedrijf') and the Employers Survey on Labour ('Werkgeversenquête Arbeid'). For all CPMs, as well as in relation to each individual Directive, the study assessed a degree of compliance varying between very low to high, and it concluded that overall, the national legislation transposing the Directives is generally effective in medium or large companies compared to small or micro enterprises. The study reported that compliance is higher in the public sector. It also underlined that in sectors such as agriculture, wholesale, retail and construction, significantly less risk assessments are conducted compared to sectors such as industry, energy supply, water management and waste disposal. Finally, as regards the information for workers, the study assessed that more information is provided in sectors with high risk levels, such as construction, agriculture, fishery, industry, financial, and utility sectors and in the public services[293].

19.4 Enforcement

The Ministry of Economic Affairs has two inspecting bodies: the 'State Supervision of Mines', in charge of the inspection and enforcement of OHS law in the mineral extracting industries, and the 'Netherlands Food and Consumer Product Safety Authority', in charge of the inspection and enforcement of OHS law in the catering and recreational sectors. Finally, the 'Human Environment and Transport Inspectorate' of the Ministry of Infrastructure and Environment is in charge of the inspection and enforcement of OHS law in transport by rail, on the road and on rivers and seas[294].

Co-ordination between the different inspectorates at the general level takes place within the structure of the Inspectorate Council. This coordination concerns the overall strategic orientation of inspectorates and the development of common general methods, tools (e.g. for data exchange), trainings, etc... It does not concern specific inspection and enforcement issues at content level. The enforcement bodies competent for occupational health and safety issues and the procedures in case of infringement are the same for the public and private sector. The Dutch sanctions system for infringement of the Arbowet is based primarily on administrative sanctions. Criminal sanctions are only invoked in cases the employer knowingly risks the life of workers, or ignores or refuses orders of the Inspectorate to shut down operations[295].

19.5 SMEs and micro-enterprises

[293] See Table 3- 1Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for the Netherlands.
[294] See Table 5- 1Enforcement authorities and Table 5-4 Inspections statistical data of the Country Summary Report for the Netherlands.
[295] See Table 5-4 Result table – type and level of sanctions of the Country Summary Report for the Netherlands.

There are no specific measures adopted by the Dutch national authorities in order to assist SMEs and micro-enterprises in the implementation of OSH requirements, other than the lighter regime concerning the obligation to have the risk assessment checked by an external service, which does not apply to employers with 25 or less workers if it is based on a model risk assessment. Additionally, the NIR mentions four other measures in support of SMEs. These include Digitising HIRA tools for the SME, a project to reinforce the safety culture in SMEs; the 'Gezond bedrijf' (Healthy Undertaking) project; and the Arboportal – which is the major website on OSH designed for (also) SME's.

20. POLAND

20.1 Legal Framework and Competences

The Labour Code of 1974 (with subsequent amendments) and its implementing acts (Ordinances) regulate the rights and duties for both parties of the employment relationship, the consequences for violating the health and safety regulations, supervision over the working conditions, procedures in case of accidents at work and occupational diseases as well as their respective benefits and payments. The majority of the employers' duties are described in Section X of the Labour Code entitled "Work safety and hygiene", Section VIII "Employees' rights connected with parenthood" and Section IX "Employment of young adults". The Labour Code establishes delegation of power to adopt Ordinances concerning detailed provisions in respect of health and safety at work. Each individual EU OSH Directive has been transposed through the Labour Code and a specific Ordinance.

The Polish legislation in the area of occupational health and safety covers all sectors, without distinction, including the public sector and all enterprises, irrespective of size.

The main competent authority is the Ministry of Labour and Social Policy, as it is the main body responsible for the development and implementation of OSH national strategy and policies. The Ministry of Health has also a very important role to play, as it is responsible for issues related to occupational health (medicine) and the monitoring of the occupational medicine service. The bodies which serve to supervise and control the compliance with legal requirements are the National Labour Inspectorate, the State Sanitary Inspectorate, and other sector-specific authorities.

20.2 More stringent and more detailed measures

With regard to the scope of the Framework Directive scope, the Polish legislation includes domestic servants, since the term "employee" is defined as "*an individual employed on the basis of a contract, appointment (nomination), choice or a co-operative contract of employment*". Hence, as long as the work of a natural person is based on any of the aforementioned forms of employment, the activity falls within the scope of the national legislation transposing the Framework Directive. Poland has also set more specific

requirements in relation to preventive and protective services. In particular, in instances where the employer employs more than 100 employees, it is compulsory for him to establish a work safety and hygiene service. If the number of workers varies between 100 and 600, the employer is further obliged to establish a separate work safety and hygiene unit (operated by one or more individuals) or employ a person to perform the duties of the service. In instances where the employer employs more than 600 workers, one representative of the service must be employed on a full-time basis per every 600 workers. In instances where there are less than 100 employees, the respective tasks are normally performed by a member of the staff.

Finally, with regard to consultation of workers, national transposing legislation specifies that, in instances where the employer employs over 250 employees, it is obliged to establish an internal 'OSH Commission' (advisory body). The Commission consists of employers' representatives (including the representatives of the work safety and hygiene service, and an occupational physician) and the representatives of employees (including the social labour inspector). Meetings of the Commission should not take place less frequently than once per every quarter of the year.

In relation to Directive 90/270/EEC (display screen equipment), the definition of the term "worker" provided in the main national implementing ordinance refers to a habitual use of display screen equipment by a worker for at least half the time of his daily working routine (as opposed to the referral to a "significant part" in the directive).

More stringent limit values are set with regard to Directive 2003/10/EC (noise), and also with regard to Directive 2004/37/EC (carcinogens or mutagens) in the national implementing legislation. In relation to Directive 2004/37/EC, the transposing legislation obliges employers to keep a register of works the execution of which requires the employee to handle chemical agents, their preparations or technological processes with carcinogenic or mutagenic effects. The employer is obliged to inform the territorially-due sanitary and labour inspector, immediately after the commencement of business activity and, ever since every year. The employer is obliged to keep such register for 40 years. Similar requirements are set in the legislation transposing Directive 2000/54/EC (biological agents).

20.3 Level of compliance by different stakeholders

The information on compliance for Poland is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Poland shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 67% of establishments doing so). According to the survey, workplace risk assessments are mainly contracted to external providers (60.8%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 94% of the respondents to the survey declared that their establishment arranges regular medical

examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (98.2%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The conclusions of the external study on compliance are based primarily on the findings of ESENER1 survey, supplemented by the estimates taken up in the reports of the National Labour Inspectorate (for certain individual OSH Directives) and by the findings of stakeholder interviews.

The study assessed that in general, Polish enterprises formally display a high level of compliance with due regulations, although certain reservations should be made with regard to the quality of the practical implementation of the CPMs. The study underlined that the least satisfactory is the situation in establishments employing less than 10 workers. It reported that the National Labour Inspectorate, in reports prepared by the Chief Labour Inspector, stated every year that employers often have a very formalistic approach and do not sufficiently appreciate the importance of the CPMs in the creation of safe work conditions. One area that was ranked worst across all directives was the consultation of workers, which, according to the study, largely depends on the size of establishments and the existence of trade unions (very rarely present in micro and small enterprises).

20.4 Enforcement

In Poland, both the National Labour Inspectorate and the State Sanitary Inspectorate supervise whether OSH provisions (laid down mainly in the Labour Code Act) are fulfilled by the employers. The former is subordinate to the lower House of Parliament and supervision of the inspectorate is exercised by the Labour Protection Council, whereas the latter is headed by the Chief Sanitary Inspector, who, contrary to the Chief Labour Inspector, is a body of governmental administration. NLI is the main inspection body responsible for the supervision of compliance with labour law and regulations concerning work safety and hygiene, while the SSI is the main inspection body responsible for the supervision of compliance with public health and environmental regulations as well as with sanitary conditions of the establishments. According to Article 283 of the Labour Code, failure to observe the provisions and rules which govern work safety and hygiene may result in an administrative sanction, that is an imposition of a fine from PLN 1,000 (ca. € 250) to PLN 30 000 (ca. € 7,500) on the entity responsible for the offence. In practice, this responsibility can concern any of the following entities: the employer, person in charge of other employees or an employee responsible for work safety and hygiene at the workplace. In order for an OSH offence to arise on administrative grounds, it is enough for an entity not to observe the provisions and rules, which govern work safety and hygiene. In other words, it does not matter if the offence

endangers the health or life of an individual or whether it causes any material losses[296].

20.5 SMEs and micro-enterprises

Generally, in Poland, there are no specific legal measures adopted in order to assist SMEs and micro- enterprises in the implementation of OSH requirements. The existing measures and accompanying actions are available for all enterprises, irrespective of their size. Nevertheless, measures that can be especially relevant to SMEs can be found in the Polish legislation transposing Directives 2002/44/EC (vibration), 2003/10/EC (noise), 2004/37/EC (carcinogens or mutagens), 98/24/EC (chemical agents), and 2009/148/EC (asbestos). In addition, the Central Institute of Labour Protection- National Research Institute (CIOP- PIB) is the coordinator and main executor of the long-term 'Programme for the improvement of work safety and work conditions', under which several pieces of research were conducted and soft measures have been elaborated. The latter include, in particular, guidelines, control procedures, checklists, textbooks and IT applications[297].

21. PORTUGAL

21.1 Legal Framework and competences

Law 102/2009 of 10 September 2009 on the legal framework of the promotion of safety and health at work - as amended by Law 3/2014 of 28 January 2014 – is the main piece of legislation setting out the general OSH principles and requirements. Occupational health and safety for the public sector is covered by separate laws, which are Law 59/2008 of 11 September 2008 approving the Scheme of Employment Contract in Public Functions and Law 35/2014 of 20 June 2014 approving the General Law on Employment in Public Functions.

The requirements of the remaining directives have mainly been transposed through specific legislation, which are further implemented or regulated by other pieces of legislation. Directive 2003/10/EC (noise) has been transposed in the Decree Law 182/2006 of 6 September 2006, and also in the regional legal order of Azores by Regional Decree Law 23/2010/A of 30 June 2010. Directive 2004/37/EC (carcinogens and mutagens) has been transposed by the Decree-Law n. 301/2000 of 18 November 2000. In the field of Directive 2004/20/EC (electromagnetic fields), Portugal considered that transposition was not necessary and Law 30/2010 of 2 September 2010 regulates the mechanisms and defines the limits of human exposure to magnetic, electrical and electromagnetic fields deriving from electrical lines, installations and equipment.

Law 102/2009 applies to all branches of activities in the private and social or cooperative sectors, to workers and employers, including non-profit organisations, and to self-employed

[296] See Table 5- 1 Result table – type and level of sanctions of the Country Summary Report for Poland.
[297] See Table 7- 1 Overview of measures targeting SMEs and micro-enterprises of the Country Summary Report for Poland.

workers.

In Portugal, employment legislation and legislation on health and safety at work are a competence of the Ministry of Solidarity, Employment and Social Security. The Ministry approves and implements policies related to employment, vocational and qualification training, labour market and industrial relations through the Directorate-General for Employment and Labour Relations and the Working Conditions Authority. The Directorate-General for Employment and Labour is responsible for supporting the development of policies, legislation and regulations on employment and vocational training and on industrial relations, including working conditions and health, safety and welfare at work. It is also responsible for the legal framework for transposition of European and international legal instruments namely the OSH Directives. The main authority with competences in the framework of the enforcement and implementation of the directives is the Working Conditions Authority.

21.2 More stringent and more detailed measures

With regard to the scope of the legislation transposing the Framework Directive, national legislation covers domestic workers and self-employed persons. The national legislation also sets more detailed and/or stringent requirements with regard to risk assessment, preventive and protective services, worker information training and consultation and health surveillance. Additionally, Law 102/2009 refers to psychosocial risks, providing that the employer must ensure that exposure to psychosocial risks is limited and that the safety and health of workers is not at risk. Furthermore, the national legislation specifies the reporting requirements, the authorities in charge of controls at the workplace and sets out detailed provisions regarding the appointment of OSH committees and representatives within companies.

21.3 Level of compliance by different stakeholders

The information on compliance for Portugal is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study. Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Portugal shows a good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 77% of establishments doing so). According to the survey, a high proportion of establishments externalises this type of service (68.5%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in-house or contracted externally.

As regards health surveillance 93% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey also indicates that a very high number of establishments (84%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the

thematic coverage of the training provided to employees.. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study as regards compliance are based on the ESENER -1 survey and on "*Relatório Único*" (Single Report), which is an administrative information source that every employer - working on the mainland of Portugal and in the private sector (the public administration is not bound to complete the report and it also does not cover services and agencies that fall within the scope public functions) is obliged to complete.

On the basis of the Single Report, the study assessed a very low degree of compliance in relation to admission to medical examination, a medium degree of compliance in relation to periodical examination and a very low degree of compliance concerning training of workers. The above mentioned results differ substantially from the ones assessed in ESENER-2 and ESENER-1 survey. However the study also mentioned that, on the basis of consultation with workers organisation, OSH experts and other stakeholders, data on compliance based on the Single Report were deemed to be not accurate and representative of the reality by different stakeholders. While for the private sector the study reported higher levels of compliance with the CPMs, in relation to the public sector it pointed out that the level of compliance with OSH legislation is generally considered to be low[298]. According to the study, this is due to a number of factors, in particular the lack of action on OSH in this sector, and of organized and fully implemented OSH services in most Public Administration entities.

Furthermore the study underlined coordination problems between different public organisations in order to ensure the implementation of occupational health and safety legal orientations[299].

21.4 Enforcement

The main authority in charge of OSH legislation enforcement and implementation is the Working Conditions Authority (ACT), which is under the responsibility of the Ministry of Solidarity, Employment and Social Security and which covers all directives, with the exception of Directive 92/29/EEC on medical treatment on board vessels. For this Directive, the Directorate-General of Port, Shipping and Maritime Transport enforces relevant legislation. This Directorate-General is, together with the ACT, also responsible for the enforcement of Directive 93/103/EC (work on board fishing vessels). The Directorate-General of Health is in charge of the enforcement of OSH legislation, together with the ACT, of

[298] This conclusion is based on a study by Baptista C., Anjos C., Gago da Silva M.: *Portuguese Strategy for Occupational Safety and Health 2008 - 2012 for Public Administration: Priorities for action, progress in the implementation of the proposed measures and their impact on occupational safety outcomes*, INA, 2011.

[299] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Portugal.

Directive 89/391/EEC (Framework Directive), Directive 2004/37/EC (carcinogens or mutagens) and Directive 2000/54/EC (biological agents). Finally, Regional Delegations of Industry and Energy enforce, together with the ACT legislation related to Directive 92/104/EEC (surface and underground mineral-extracting industries) and Directive 92/91/EEC (mineral-extracting industries through drilling)[300].
In the case of very serious administrative offences or repeated serious administrative offences, which are committed intentionally or with gross negligence, the sanctions applied to the offender are published in website of the Ministry of Labour; in case the administrative offences above are committed repeatedly, the offender can be prohibited of exercising activities in the establishment, plant or site for a period of up to two years and/or prohibited of participating in public tenders for a period of up to two years[301].

21.5 SMEs and micro-enterprises

There are no specific measures adopted by the Portuguese national authorities in order to assist SMEs and micro-enterprises in the implementation of OSH requirements, other than the lighter regime concerning OSH activities that may be carried out by the employer or designated worker(s) in undertakings of less than 10 workers and with no high risk activity. Apart from these, the rules are general and applied to all enterprises regardless of their size.

However, in 2010, the ACT established a protocol, together with the Portuguese Confederation of Micro, Small and Medium Enterprises (CPPME), which aimed to stimulate micro-enterprises and SMEs to comply with labour law and OSH requirements in particular. Under this protocol, the ACT is able to support and fund studies, awareness raising actions and other proposals made by the CPPME. Additionally, the ACT has provided financial support to employers and trade union structures to promote projects aimed at promoting safety and health at work. These entities have developed publications to disseminate the general principles of prevention of occupational risks, the duties and rights of employers and workers, as well as the methodologies for assessing occupational risks, which are placed at the disposal of enterprises and their workers, with special focus on micro- and small enterprises[302].

22. ROMANIA

22.1 Legal Framework and Competences

In Romania, the main act in the field of occupational health and safety is Law 319/2006 of 14 July 2006 on Safety and Health at Work, which transposes Framework Directive 89/391/EEC ('Law 319/2006'). Law 319/2006 is implemented through the Government Decision

[300] See Table 5- 1 Enforcement authorities of the Country Summary Report for Portugal.
[301] See Table 5- 4 Result table – type and level of sanctions of the Country Summary Report for Portugal.
[302] See Table 7- 2 Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for Portugal.

1425/2006, *Approving Methodological Norms for the Implementation of Law 319/2006* ('Government Decision 1425/2006'). Particular aspects related to health surveillance, fire-fighting at work and emergency situations are regulated by separate laws, government decisions and methodological norms. The individual EU OSH Directives are transposed through specific Government Decisions. Directive 92/85/EEC (pregnant/breastfeeding workers) is transposed through a Governmental Ordinance and a Government Decree, while Directive 91/383/EEC (temporary workers) is transposed through two Government Decrees and the Labour Code.

Law 319/2006 applies to every employer, worker and workers' representative and to all sectors, both private and public.

The Ministry of Labour, Family, Social Protection and the Elderly together with the Ministry of Health are the central authorities having specific attributions in the field of health and safety at work. Generally, the Ministry of Labour, Family, Social Protection and the Elderly is mainly focused on ensuring the necessary legal and institutional framework for the protection of safety at work, while the Ministry of Health is primarily responsible for ensuring the necessary protection of health at work. The Labour Inspection is the competent authority regarding the enforcement of legislation on health and safety at work;

22.2 More stringent and more detailed measures

With regard to the scope of the Framework Directive, Law 319/2006 contains a broader definition of the term "worker" which has been extended to "other participants to the work process" (that is to say people at the company and/or establishment with the permission of the employer during the preliminary verification of the professional skills for employment; persons visiting; people providing community services or activities on a voluntary basis; unemployed persons during their professional retraining or refresher engaged in the activity for which they are prepared; people who do not have a work contract concluded in written form, and for whom the contractual provisions and the services performed can be proven by any other means of evidence). The Government Decision 1425/2006 regulates in more detail the content of the risk assessment process and defines, in implementation of Article 7 (8) of the Framework Directive, the capabilities and aptitudes that must be fulfilled by the designated workers or the external services or persons in the area of safety at work and their training. With regard to workers' information, a health and safety committees must be organized and must function at the employer's level. This is, however, not compulsory for undertakings employing less than 50 workers. As regards training, Government Decision 1425/2006 provides that the interval between two training sessions may not be longer than 6 months. Training shall be repeated in addition to that periodically programmed in case of occurrence of amendments of health and safety norms.

With regard to Directive 2003/10/EC (noise), national legislation establishes a list of the maximum values of noise for specific jobs involving neuro-psychical fatigue and increased or special psycho-sensorial fatigue.

In relation to Directive 2004/37/EC (carcinogens or mutagens), more stringent requirements are set in relation to health surveillance, which must be performed prior to exposure, as well as at regular intervals thereafter, independently of whether or not this is "appropriate" (while the Directive sets out in Article 14 (2) that each worker shall be able to undergo such health surveillance "if appropriate").

With regard to Directive 92/85/EEC (pregnant/breastfeeding workers), transposing legislation obliges employers to submit the risk assessment to the occupational physician from the territorial public health authority as well as to the territorial labour inspectorate within 5 working days as of the date when the risk assessment was drafted. The risks to be taken into account in the assessment are set forth more specifically in the *Methodological Norms for the enforcement of the provisions on maternity protection*[303].

22.3 Level of compliance by different stakeholders

The information on compliance for Romania is based exclusively on the findings of the ESENER-2 survey.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Romania shows a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 89% of establishments doing so). According to the survey, workplace risk assessments are mainly contracted to external providers (55.9%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in-house or contracted externally. As regards health surveillance 91% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (98%) make available to the workers a document explaining responsibilities and procedures on health and safety. A medium/ high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

22.4 Enforcement

In Romania, the enforcement of OSH legislation is attributed to two authorities. While the Territorial Labour Inspectorates are the main interface for the enforcement of the OSH obligations and are primarily oriented towards the control and sanctioning of the undertakings, Public Health Directorates are primarily focused on offering to all stakeholders holding an interest in this field the necessary counselling, guidance and technical expertise in

[303] Government Decision No 537/2004 approving the Methodological Norms for the application of Government Emergency Order No 96/2003 on maternity protection at workplaces.

order to determine the proper means for ensuring an effective protection of the workers' health at the workplace. With regard to the two Fishing Vessels Directives, the Romanian Naval Authority has the main responsibility with regard to inspection, control and supervision[304].
When an infringement of OSH legislation is established, the labour/public health inspectors draft a formal report on the infringement. On this basis, the inspectors can order specific remediation measures, administrative sanctions (warning or administrative fine) and/or complementary administrative measures (such as cessation of using specific equipment, temporary suspension of activity etc.). Also, the inspectors can file a complaint to the criminal authorities in case the infringement has a criminal nature. The Romanian legislation therefore sets both criminal and administrative sanctions for non-compliance with OSH requirements. Administrative fines generally range from approx. EUR 1,100 to approx. EUR 2,200, while the maximum time of imprisonment seems to be 3 years.

22.5 SMEs and micro-enterprises

Romanian legislation is not particularly focused on SMEs and micro-enterprises from an OSH perspective. The main OSH obligations (such as drafting a risk evaluation, elaborating health and safety instructions) are the same for all undertakings, irrespective of its size, the sector of activity and the risks which can be associated therewith. The only legal differentiation, which could be construed as a lighter regime for SMEs and micro-enterprises, is related to the manner in which undertakings can organize the services of protection and prevention, in which case specific differences in regime are made depending on the size of the enterprise[305]. Stakeholders have indicated that they are not aware of specific financial supporting programs dedicated to SMEs.

23. SLOVAK REPUBLIC

23.1 Legal Framework and Competences

In Slovakia, the Framework Directive 89/391/EEC is transposed through the Act No. 124/2006 on Occupational Safety and Health ("OSH Law"). Due to the traditional distinction between workplace safety and health at work, protection of health is regulated in chapter three of the separate Act No. 355/2007 on the protection, promotion and development of public health ("Public Health Act").

The large majority of the EU OSH individual directives has been transposed by individual Government Regulations. The only exception is Council Directive 91/383/EEC (temporary workers), which is transposed by way of specific provisions in the Labour Code. The Labour Code also transposes partially Council Directive 94/33/EC (young people at work) and Directive 92/85/EEC (pregnant/breastfeeding workers). The Public Health Act also contains general requirements on the protection of workers against physical and chemical risks, which

[304] See Table 5- 1 Enforcement authorities of the Country Summary Report for Romania.
[305] See National Implementation Report 2013, Part A, Section II, (EN) p. 21-22.

partially transposes the relevant directives, although these general requirements are complemented by specific Government Regulations.

The legislation in the area of OSH covers all sectors, without distinction, including the public sectors.

In Slovakia, occupational safety and health issues fall within the competence of the Ministry of Labour, Social Affairs and Family of the Slovak Republic (‘Ministry of Labour’), while occupational health issues are covered by the Ministry of Health. Employment legislation and legislation on occupational safety and health are a competence of the Ministry of Labour. Decisions about the implementation of OSH laws are thus taken and adopted by the Slovak Government. Moreover, this Ministry is responsible for the preparation and implementation of state policy documents, such as the national Occupational Health and Safety Strategy. The National Labour Inspectorate is a state administration body with nation-wide competence that oversees tasks concerning labour inspection, manages and supervises the Regional Labour Inspectorates (8), and unites and rationalizes their working methods, acting under the Ministry of Labour.

23.2 More stringent and more detailed measures

With regard to the scope of the Framework Directive, the national transposing legislation sets forth a broader definition of the term "employer", as it does not include the condition related to having the responsibility for the undertaking laid down in that directive. Also, according to the Occupational Safety and Health Act, occupational safety and health requirements also apply to self-employed persons to the extent necessary to ensure occupational safety and health in relation to the nature of the activities they perform.

In general, the Occupational Safety and Health Act sets forth more detailed requirements than the Framework Directive, aiming at a concrete implementation in practice of that directive's general principles and requirements. For example, with regard to the protective and preventive referred to in Article 7 thereof, an employer who employs more than 100 employees must establish a Commission for safety and health protection at work as his advisory body. Also, that law further specifies the content and form of information to workers.

Regarding Directive 89/656/EEC (PPE), more detailed requirements are laid down in the national transposing legislation. All documents related to the purchase of PPE must be made available to the Safety Technical Service and OSH Committee. Moreover, an instruction note must be provided with instructions on the functioning, use, maintenance, storage, end date and inspections of the PPE.

With regard to Directive 90/269/EEC (manual handling of loads), the Slovak legislation specifies that the "load" includes humans and animals. Additional measures on work with loads are also included reflecting occupational safety and health regulations adopted before

the transposition of the Directive.

With regard to Directive 90/270/EEC (display screen equipment), Article 9 of that directive is transformed into the employer's obligation to arrange for assessments of the medical fitness of workers to work with display screen equipment and the content of these preventive medical examinations for workers working with display screen equipment is laid down in Annex 6 to the Instruction published in the Journal of the Ministry of Health, Volume 58, on 1 March 2010. More detailed requirements in relation to the eye tests referred to in Article 9, which must be repeated every two years (whereas the directive refers to "regular intervals").

With regard to Directive 2002/44/EC (vibration), the Slovak legislation sets additional requirements in relation to risk assessment, health surveillance, consultation of workers and other key requirements. Very similar requirements have been noted with regard to the legislation transposing Directive 2003/10/EC (noise).

With regard to Directive 2004/37/EC (carcinogens or mutagens), the Slovak legislation prohibits the use of carcinogens and mutagens in teaching at primary and secondary schools, while the use of carcinogens and mutagens at higher-education institutions and research institutions is subject to an assessment by a public health body. With regard to Directive 98/24/EC (chemical agents at work), the Slovak legislation sets additional requirements in relation to risk assessment, information for workers and consultation of workers. It also includes more stringent limit values. National legislation implementing Directive 2009/148/EC (asbestos) is more detailed in respect of risk assessment, health surveillance, and other key requirements.

Finally, Slovakia has transposed the provisions of the Directive 94/33/EC (young people at work) into national law and supplemented them to include the obligation to draw up a list of work and workplaces that are prohibited to young workers.

23.3 Level of compliance by different stakeholders

The information on compliance for the Slovak Republic is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for the Slovak Republic shows a moderate level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 59% of establishments doing so). According to the survey, workplace risk assessments are mainly contracted to external providers (54.8%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in-house or contracted externally. As regards health surveillance 60% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (97.4%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments

declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The conclusions of the external study on compliance are based on the annual reports of labour inspection and on interviews with relevant OSH stakeholders. For all CPMs, the degree of compliance is estimated between medium to high. In terms of effective risk assessment performance and carrying out of risk management activities resulting from the risk assessment, the study pointed out that many employers do not perform risk assessment because they are not persuaded that it can help them to decrease the amount of work accidents or improve working conditions. It further reported that in micro-companies risk assessment is rarely performed, and where it is performed, only formally. A higher degree of compliance in the OSH field was assessed in large undertakings as opposed to SMEs.

Furthermore, the study reported that, on the basis of the interviews with inspectors from the National Labour Inspectorate, compliance was found higher in the public sector compared with the private sector. According to the study, an explanation may lay in the increased responsibility of public institutions (public administration and government) for compliance with the laws and obligations in the field of OSH[306].

23.4 Enforcement

The National Labour Inspectorate manages and controls the eight regional labour inspectorates and unifies and rationalises working methods of the labour inspectors, who are civil servants. Inspections aim at adherence to legal provisions in several fields of OSH: safety at work, safety of technical equipment, working environment agents, nuclear equipment, major industrial accidents, chemicals, and market surveillance of certain products. The National Labour Inspectorate works closely together with the Public Health Authority of the Slovak Republic. The Public Health Authority supervises the performance of occupational health services and carries out specialized tasks focused on monitoring of health status of employees in relation with working conditions. In addition, the State Mining Office is the competent authority ensuring performance in the area of state mining administration. State defence, police and armed forces have their own labour inspection bodies.

The legislation only sets administrative sanctions for non-compliance with OSH requirements. These administrative sanctions include imposed fines up to 200,000 EUR in relation to the OSH Directives falling under the authority of the National Labour Inspectorate, and fines from 1,659 EUR to 33,193 EUR in relation to those OSH Directives transposed

[306] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for the Slovak Republic.

through the Public Health Act. Neither the Criminal Code nor any other legal regulation provides for criminal sanctions for violation of OSH regulations. In addition, labour inspectors are authorised to prohibit certain works, to order the elimination of certain deficiencies, to propose certain measures, depending on the gravity of the ascertained facts[307].

23.5 SMEs and micro-enterprises

In the Slovak republic, certain exemptions are applicable to smaller enterprises depending on the number of workers. For smaller companies, there is, e.g., no obligation to set up an OSH Commission or to prepare a written corporate OSH policy. There are no further financial measures directed towards micro-companies and SMEs[308].

24. SLOVENIA

24.1 Legal Framework and Competences

In Slovenian law, the Framework Directive 89/391/EEC is transposed by the "Health and Safety at Work Act" ('OSH Act'). The other OSH individual Directives have been transposed into the Slovenian legal order through one specific piece of legislation, typically Rules, which are adopted on the basis of the OSH Act. Directives 92/104/EEC (surface and underground mineral-extracting industries), 93/103/EC (work on board fishing vessels), 92/85/EEC (pregnant/breastfeeding workers) and 94/33/EC (young people at work) have been transposed through several pieces of primary and secondary legislation. Directive 2004/40/EC (electromagnetic fields) has not been transposed.

The Health and Safety at Work Act applies to every employer who employs at least one worker, to every person that is present in the work process, to the private sector and to public services.

The two main competent authorities are the Ministry of Labour, Family, Social Affairs and Equal Opportunities and the Ministry of Health. Two advisory bodies, the Economic and Social Council and the Council for Safety and Health at Work, support the government.

The Labour Inspectorate within the Ministry of Labour is responsible for the supervision of the implementation of the OSH Act and of the regulations as on safety and health at work.

24.2 More stringent and more detailed measures

With regard to scope of the Framework Directive, the definition of the term "employer" is broader, as that term covers a person who on any other legal basis ensures work to a worker, as well as a natural person who performs a gainful or other activity. Provisions relating to

[307] See Table 5- 1Enforcement authorities of the Country Summary Report for the Slovak Republic.
[308] See Table 7- 1 Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for the Slovak Republic.

risk assessment are more detailed in national legislation, which expressly provides in particular that third-party violence and all forms of psychosocial risks must be included in the risk assessment. Risk assessment must be revised every time the preventive protection measures in place are insufficient or no longer adequate, data or information on which the assessment was based is no longer valid or the assessment can be improved or complemented. The employer is required to publish the risk assessment document in the ordinary manner and communicate it to workers in the part applicable to them following each revision or review, as well as to the newly-employed and all other persons present at the workplace upon the commencement of work. The information to be provided to workers is also regulated in more detail.

With regard to Directive 92/58/EEC, the Rules on Health and Safety at Work Signs[309] were supplemented in 2010 with reference to Directive 2006/25/EC (artificial optical radiation), with a special safety sign ('Optična sevanja'/Optical radiation) being added that is not set out in the Directive. The aim is to give workers clearer and more detailed information on those areas in which there is a danger of exposure to artificial optical radiation.

In relation to Directive 2003/10/EC (noise), practical guidelines have been prepared for workers and employers in the music and entertainment sector, as provided in that directive. The Slovenian transposing legislation sets forth more details on the measurement methods and procedures for the risk assessment.

In relation to Directive 2004/37/EC (carcinogens or mutagens), Slovenia has adopted more protective provisions with regard to occupational exposure limit values and with regard to the safety data sheets. This is also the case for the legislation transposing Directive 98/24/EC (chemical agents), which establishes occupational exposure limit values for other substances than set at EU level. With regard to the risk assessment, the employer must submit to the Labour Inspectorate all information on the concentration of hazardous chemical agents at the workplace.

24.3 Level of compliance by different stakeholders

The information on compliance for Slovenia is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Slovenia shows a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 94% of establishments doing so). According to the survey, workplace risk assessments are mainly contracted to external providers (87.1%). ESENER-2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 97% of the respondents to the survey declared that their establishment arranges regular medical

[309] Ur. list RS, 89/99, 39/05, 34/10.

examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (98%) make available to the workers a document explaining responsibilities and procedures on health and safety. A very high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.
The results of the external study on compliance are based on the annual reports from the labour inspectorate for 2012, on data from the ESENER-1 survey and on stakeholder interviews. The study assessed that the level of compliance with CPMs considering the OSH *acquis* as a whole is generally high (between 60 and 79%), with the exception of the appointment of a workers' representative and the provision of information to workers. It pointed out that larger companies have safety sections and/or experts employed and responsible for OSH and invest substantial time, personnel and financial resources in creating a healthy and safe working environment., while smaller and especially micro-companies often neglect OSH because of their lack of resources. The study further assessed that, with regard to the risk assessment, RA documents in larger companies are generally based on insider analysis of a specific situation in companies, while smaller employers usually outsource preparation of risk assessment, leading to only minimal OSH standards[310].

24.4 Enforcement

Supervision over the implementation of the OSH Act and other regulations governing OSH, and the safety measures specified in general acts of the employer or collective agreements are carried out by the Labour Inspectorate, under the authority of the Ministry of Labour, Family, Social Affairs and Equal Opportunities. The Energy and Mining Inspectorate is in charge of mining operations and underground construction works using mining operation methods. The Port State Control carries out supervision on commercial seagoing vessels entered in the Slovene Ship Register, with the exception of supervision on fishing vessels. The body competent for aviation safety supervises aviation operations and other airborne aviation activities and the inspectorate competent for protection against natural and other disasters supervises the implementation of fire safety, rescue and evacuation measures. The enforcement body competent for health and safety issues and the procedures in case of infringement in the public sector is the same as in the private sector[311].

The Slovenian legislation sets both criminal and administrative sanctions for non-compliance with OSH requirements. Administrative sanctions are, depending on the type of violation, directed towards the employer, the employer's responsible person committing the violation, the worker, the self-employer person, or the legal entity. The fines range from 100 EUR to 40.000 EUR. It is possible to bring a case to the Administrative Court against the final

[310] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Slovenia.
[311] See Table 5- 1Enforcement authorities of the Country Summary Report for Slovenia.

decision in the administrative procedure. Criminal sanctions relate to causing danger to human life and/or resulting in serious injury and vary between less than one year and up to eight years imprisonment. Prison sentences up to two or three years are laid down with regard to harassment in the workplace. It is possible to bring a case to the Offense court against the final decision issued in offense proceedings. The Labour Court has jurisdiction in individual labour disputes concerning the rights and obligations of industrial property arising between workers and employers on the basis of the employment relationship[312].

24.5 SMEs and micro-enterprises

In Slovenia, the only lighter regime having SMEs in mind relates to the number of safety officers that have to be present in the enterprise. This number shall depend on the size of the enterprise. Even though there are generally no other exemptions, lighter regime or incentives aimed to assist SMEs in implementing the requirements of the OSH directives, some specificity can be found. The OSH law explicitly allows for employers to carry out health and safety at work tasks themselves. The purpose of this provision is primarily to allow smaller employers whose work process involves less dangerous activities to compile a risk assessment themselves and to adopt appropriate measures where required, to attend to the safety at work training of workers and issue appropriate instructions on safety at work themselves, and to perform other tasks to ensure OSH at work. However, the trade union respondents as well as the representatives of the national authorities qualified this practice as a risk to OSH in SMEs and micro-enterprises[313].

25. SPAIN

25.1 Legal Framework and competences

In Spain, the Framework Directive 89/391/EEC is mainly transposed by Law 31/1995 on the Prevention of Work-Related Risks, which establishes the general principles for health monitoring of all workers, with the exception of domestic workers and self-employed.

Law 31/1995 is complemented by various Decrees and some general Laws. Some of these Decrees are complemented by Technical Instructions (see e.g. the transposition of Council Directive 92/104/EEC (surface and underground mineral-extracting industries)) and Orders (see e.g. the transposition of Council Directive 92/29/EEC (medical treatment on board vessels)). Finally, provisions transposing the three directives on specific groups of vulnerable workers (Directives 92/85/EEC (pregnant/breastfeeding workers), 91/383/EEC (temporary workers), and 94/33/EC (young people at work)) are incorporated directly in the Law 31/1995 and their transposition is further complemented by one or more specific decrees.

[312] See Table 5- 4 Result table – type and level of sanctions of the Country Summary Report for Slovenia.
[313] See Table 7- 1Overview of measures targeting SMEs and micro-enterprises of the Country Summary Report for Slovenia.

In Spain, employment and OSH legislation are a competence of the Ministry of Employment and Social Security. OSH Laws are enacted at national level by the Parliament and implemented through various mechanisms such as Royal Decrees which are among the most important means of enactment. Regional authorities (Autonomous Communities) and local municipalities may establish regional/local departments to deal with OSH issues. However, the national laws are generally implemented by the authorities in the seventeen Autonomous Communities (Comunidades Autónomas) under the surveillance of the central authorities.

25.2 More stringent and more detailed measures

With regard to the scope of the legislation transposing the Framework Directive 89/391/EEC, for the specific activities referred to in Article 2 (2) of Directive 89/391/EEC, e.g. police, security, armed forces and military activities, as well as civil protection, separate acts have been adopted to cover workers performing these activities. Additional or more specific requirements are set in relation to risk assessment, preventive and protective services, and the content and form of information related to workers' and training. The content, methodology and persons responsible for the risk assessment are laid down in more detail.

The national legislation requires the Spanish National Institute for Health and Safety at Work (*Instituto Nacional de Seguridad e Higiene en el Trabajo*/'INSHT'), which belongs to the Ministry of Labour, to develop and update a technical guide on the evaluation and prevention of risks addressed in the national legislation transposing the EU OSH individual Directives.

Also, the national legislation establishes that where as a result of health surveillance, a worker is found to have an identifiable disease or adverse health effect which is considered to be the result of exposure to risks addressed in the national legislation transposing the EU OSH Directives, the employer is required to review the risk assessment carried out as well as the measures aimed at eliminating or reducing the risk. The employer is also required to consider the recommendations provided by the health surveillance department and provide continuous monitoring of the health of the concerned worker as well as other workers that may have been similarly exposed.

25.3 Level of compliance by different stakeholders

The information on compliance for Spain is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study. Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for Spain show a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 89% of establishments doing so). According to the survey, a high proportion of establishments externalises this type of service (78%). ESENER-2 shows high levels of uptake for health and safety services used, be it in-house or contracted externally.

As regards health surveillance 93% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey also indicates that a very high number of establishments (96%) make available to the workers a document explaining responsibilities and procedures on health and safety. A very high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

Very high levels of compliance with the CPMs were reported as well through the external study, which based its conclusion on the Labour and Social Security Inspectorate Annual Reports and on several stakeholders' surveys. It also highlighted that SMEs have major shortcomings in complying with basic OSH requirements (with exception of the requirements established by Council Directive 89/656/EEC (PPE)), in particular regarding risk assessment, workers participation in training, and specifically in primary sectors such as agriculture, livestock and construction. It finally pointed out that Spanish legislation was recently adapted to ensure better compliance of SMEs with the OSH requirements[314].

25.4 Enforcement

The main authority in charge of OSH legislation enforcement is the Ministry of Employment and Social Security. Under the responsibility of this Ministry, the Labour and Social Security Inspectorate LSSI (*Inspección de Trabajo y Seguridad Social, ITSS*) is responsible for general labour relations and compliance with social security regulations and also observes and controls risk prevention regulations. Despite being a national authority, the labour inspectorate is organised in local branches: each of the 50 provinces has teams of labour inspectors. They follow Action Plans that are set up by the governments of the Autonomous Communities. These action plans define priorities as well as inspection goals.
With regard to Council Directive 92/104/EEC (surface and underground mineral-extracting industries) and Council Directive 92/91/EEC (mineral-extracting industries through drilling), the General Directorate of Mines (MINETUR), under responsibility of the Ministry of Industry, Energy and Tourism, is responsible for improving safety in mining workplaces, as well as promoting technological development and competitiveness of the mining sector.

All infringements concerning OSH requirements are typified in Royal Legislative Decree 5/2000 of 4 August 2000, which establishes fines and infringements concerning the social order, which also includes OSH compliance. This RD establishes that minor OSH infringements shall prescribe after one year, major infringement shall prescribe after three

[314] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Spain.

years, and severe infringement shall prescribe after five years, from the date of the infringement. Furthermore, Royal Decree 597/2007 of 4 May 2007 establishes the procedure of publication of penalties for severe infringements concerning OSH.

According to Article 26 of Royal Decree 928/1988, of 14 May, amending the General Regulation on procedures for the Imposition of sanctions for social and labour infringements as well as Article 53 of the OSH Law, it is established that the Central Government or, if applicable, the Regional governments, when exceptionally serious breaches in safety and health at work occur, may order the suspension of work activities for a specified time or, in extreme cases, the closure of the corresponding work place without prejudice to the payment of wages or compensations and the procedures for their guarantee. However, these "serious breaches" or/ and "extreme cases" are not typified in the regulations[315].

25.5 SMEs and micro-enterprises

A considerable number of measures have been taken to assist SMEs and facilitate fulfilment of their statutory obligations, and these measures have taken various forms. First, the OSH Law and the OSH RD define the categories of establishments where the employer has the necessary capacity and can personally assume certain functions – in line with the Framework Directive. The OSH administrative procedures for SMEs have also been simplified in order to facilitate compliance with OSH requirements. Also, occupational risk prevention management has been simplified and now it is possible that those enterprises with less than 50 workers also implement occupational risk prevention plan, risk assessment and preventive activity planning in a simplified manner, provided that this does not entail any reduction in the level of protection for the health and safety of workers. Financially, small companies have access to a reduction in their contribution – under certain conditions – when they improve the prevention of accidents at the workplace[316].

Between 2007 and 2012, the National Institute of Hygiene and Safety at Work (INSHT), in collaboration with the Autonomous Communities, has launched "Prevención 10", a free public advice service on prevention of occupational risks for micro companies and self-employed. This is an important tool to help employers and self-employed learn the measures to be taken in order to prevent occupational risks and comply with the Law on Occupational Risks Prevention.

26. SWEDEN

26.1 Legal Framework and Competences

The main legal act that governs occupational health and safety in Sweden is the Work Environment Act (WEA), which is a framework law.

[315] See Table 5- 1 Result table – type and level of sanctions of the Country Summary Report for Spain.
[316] See Table 7- 2 Description of measures targeting SMEs and micro-enterprises of the Country Summary Report for Spain.

The Swedish Work Environment Authority is authorized to issue and enforce secondary regulations. These secondary regulations are compiled in the Authority's own Statute Book (*Arbetsmiljöverkets författnings samling*, AFS) which defines more closely the requirements to be met concerning the work environment. As a rule, the EU OSH individual directives are all transposed through a specific AFS. The only exception is the transposition of Directive 93/103/EC (work on board fishing vessels), which is transposed through a large number of secondary regulations. Most of the AFS are further complemented by several other specific regulations.

The Work Environment Act applies to all sectors without distinction, including the public sector and to all enterprises, irrespective of size.

The Swedish Work Environment Authority (SWEA), which includes the labour inspection, is responsible for specifying the requirements of the Work Environment Act (WEA) and for promoting their implementation. The Ministry of Employment only occasionally intervenes in this process. SWEA is thus the key actor responsible for the transposition of EU Directives on the work environment. With regard to Directives 92/29/EEC (medical treatment on board vessels) and 93/103/EC (work on board fishing vessels), the Swedish Transport Agency supervises all shipping vessels, including working conditions on ships/vessels.

26.2 More stringent and more detailed measures

With regard to the scope of the Framework Directive, the Swedish legislation applies to every activity in which employees perform work on behalf of an employer, including to domestic servants. In addition, the following persons are to be treated as employees for the purposes of parts of the national legislation : persons undergoing education or training, with the exception of children in preschool and pupils in out-of-school centres; persons in institutional care performing work that they have been assigned; persons serving under the National Total Defence Service Act (1994:1809) and other persons performing duties prescribed by an act or voluntarily participating in education or training for activities within the scope of the total defence. As regards the territorial scope, the national legislation also applies to work on ships even when a Swedish ship is used for maritime transport outside the territorial waters of Sweden. Generally, the Swedish legislation includes more detailed requirements than the Framework Directives as employers need to integrate OHS within their general management control and as their OHS provisions are then improved through yearly audits.

With regard to Directive 90/269/EEC (manual handling of loads), the Swedish transposing legislation covers all risks within musculoskeletal ergonomics, all combination of work movements, postures, positions and workloads. The scope of that legislation is hence much broader, with the handling of loads constituting a part of that legislation. The Swedish legislation also provides that risks are to be assessed alone and in combination, with particular notion of their duration, intensity and frequency. More detailed provisions are set out in relation to the content of information for workers and the scope of training of workers.

With regard to Directive 90/270/EEC (display screen equipment), some of the items excluded from the scope of that directive are included in the Swedish legislation, such as drivers' cabs or control cabs for vehicles or machinery, computer systems on board a means of transport and computer systems mainly intended for public use. Also, the national legislation sets more detailed provisions on risk assessment, which is to be reviewed once a year. Eyesight tests at regular intervals are also foreseen for all employees who normally work more than one hour per day at display screens.

In relation to Directive 2004/37/EC (carcinogens or mutagens), national implementing legislation sets more detailed provisions on risk assessment, information for workers and health surveillance. The transposing legislation also sets more stringent limit values for benzene, vinyl chloride and hardwood dusts.

With regard to Directive 92/29/EEC (medical treatment on board vessels), the obligation to provide a sick-bay is broader, as it is mandatory for all ships over 500 tonnes, but applies also in respect of all ships between 200 and 500 tonnes, as long as this is reasonable considering the ships' construction.

As regards Directive 93/103/EC (work on board fishing vessels), the scope of the national transposing legislation is broader, as it applies to all fishing vessels managed by employers.

26.3 Level of compliance by different stakeholders

The information on compliance for Sweden is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.

Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for the Sweden shows a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 80% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by internal staff (82.5%). ESENER -2 shows very high levels of uptake for health and safety services used, be it in house or contracted externally. As regards health surveillance 51% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey indicates that a very high number of establishments (83%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The conclusions of the external study on compliance are based on a large research review of

how Swedish employers implement the provision on Systematic Work Environment Management (SWEM, Sweden's transposition of the Framework directive) ordered and published by the Swedish Work Environment Authority (SWEA). The study assessed that although the overwhelming majority of employers tries to comply with the CPMs, they hardly ever fully comply, bringing the compliance rates to low or even very low. As an example, the study reported that the majority of large private and public employers (who employ some 3/4 of employees) have documented RAs that cover most technical risks, i.e. for accidents, noise, chemical and vibrations, while they are much poorer for organizational risks, for stress, threats and violence, harassments and macro-ergonomic risks. Furthermore, the study reported that a difference between fairly often assessing risks and much less preventive measures against such risks is especially notable in public employers[317].

26.4 Enforcement

In Sweden, the only authority in charge of OHS legislation enforcement is SWEA, the Swedish Work Environment Authority. SWEA operates under the Work Environment Act WEA. This enforcement body is competent for all health and safety issues at work and supervises both the private and public sector. With regard to Directives 92/29/EEC (medical treatment on board vessels) and 93/103/EC (work on board fishing vessels), the Swedish Transport Agency supervises all shipping vessels, including working conditions on ships/vessels[318].

The Swedish legislation sets both criminal and administrative sanctions for non-compliance with OHS requirements. Although a prison sentence up to one year is legally prescribed for violating an injunction, this will only be considered – and then also rarely – in case of an accident. The violation of OHS provisions is therefore nearly always linked to administrative penalties, but these cannot be imposed on governmental employers. Even though the law does not include a maximum amount for these administrative penalties, an established praxis is normally followed. Finally, a violation of the more technical directives can directly be prosecuted.

26.5 SMEs and micro-enterprises

In Sweden, the national legislation has barely adopted any measures in order to assist SMEs and micro-enterprises in the implementation of OHS requirements. There are only some exemptions foreseen with regard to the Framework Directive, Directive 92/57/EEC (temporary or mobile construction sites), and Directives 92/29/EEC (medical treatment on board vessels) and 93/103/EC (work on board fishing vessels). In particular, enterprises with less than ten employees are exempted from the obligation to provide written risk assessment

[317] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for Sweden.

[318] See Table 5- 1 Enforcement authorities of the Country Summary Report for Sweden.

documentation. There are no special financial incentives or lighter regulatory norms directed to SMEs and micro-enterprises[319].

27. UNITED KINGDOM

27.1 Legal Framework and competences

The core of the United Kingdom's regulatory framework for health and safety is contained in the Health and Safety at Work etc. Act 1974 (with further significant modifications in 2008) and the Management of Health and Safety at Work Regulations. The Health and Safety at Work Act sets out the general duties that employers and the self-employed have towards employees and members of the public, and employees have to themselves and to each other. The Act provides a unified institutional structure and legal framework for health and safety regulation and has proved to be both robust and enduring.

The Framework Directive 89/391/EEC is primarily implemented in the United Kingdom by the Management of Health and Safety at Work Regulations 1999, which established broad obligations for employers to evaluate, avoid and reduce workplace risks.

Most OSH individual Directives are transposed in one specific piece of legislation, typically regulations, often adopted under the framework of the Health and Safety at Work Act. There are, however, a few exceptions. Especially, Council Directive 92/104/EEC (surface and underground mineral-extracting industries) and Council Directive 92/91/EEC (mineral-extracting industries through drilling) have been transposed through various regulations on offshore installations, quarries, mines. Also the requirements of Council Directive 92/29/EEC (medical treatment on board vessels) have been transposed in several acts and regulations. Several transposing regulations are supplemented by other relevant applicable legislation, such as Fire Precaution Regulations or Building Regulations.

In the United Kingdom, the Secretary of State for Work and Pensions, advised by the Health and Safety Executive ('HSE'), has primary responsibility for the health and safety of workers. The HSE is concerned almost exclusively with OSH.

27.2 More stringent and more detailed measures

With regard to the Framework Directive, in relation to risk assessment, the national implementing legislation provides that employers must also assess the risks to the health and safety for persons not employed by the employer arising from, or in connection with the conduct by him of his undertaking. Similarly, every self-employed person is required to make a suitable and sufficient assessment of the risks to which he is exposed whilst he is at work, as well as for persons not in his employment in relation to risks arising from or in connection with the conduct by him of his undertaking.

[319] See Table 7- 1 Overview of measures targeting SMEs and micro-enterprises of the Country Summary Report for Sweden

As regards Directive 89/654/EEC (workplace), the national is more specific providing that a suitable seat shall be provided for each person at work whose work can or must be performed sitting.

More detailed requirements with regard to the regular review of the risk assessment have been signalled in relation to the legislation transposing Directives 90/269/EEC (manual handling of loads) and 90/270/EEC (display screen equipment).

Health surveillance prior to exposure is required in the legislation transposing Directives 2002/44/EC (vibration) and 2003/10/EC (noise), if the risk assessment indicates that there is a risk to the health of the employees who are, or are liable to be, exposed to vibration or noise, respectively.

Continued health surveillance, also after the end of exposure, is required (if appropriate) in the case Directive 2006/25/EC (artificial optical radiation). The legislation transposing this Directive also specifies the arrangements for health surveillance records. With regard to Directive 2004/37/EC (carcinogens or mutagens), the legislation details the content of the risk assessment. The risks to be taken into account in the assessment are also described in a more specific manner in the UK legislation transposing Directive 2009/148/EC (asbestos). And, with regard to the latter Directive, UK legislation provides that a periodic medical examination must take place at intervals of at least once every 2 years.

Finally, the scope of legislation in relation to Directive 92/29/EEC (medical treatment on board vessels) differs from the Directive's in the following: the legislation requires a sick-bay in which medical treatment can be administered under satisfactory material and hygienic conditions on every ship carrying more than 15 crew members on a voyage of more than 3 days (with scope for relaxing the requirement for a vessel operating exclusively on coastal voyages) – therefore not including the weight restriction set by the Directive. Also, the legislation requires vessels to have a doctor responsible for medical care on board for vessels with 100 or more persons on board – while the Directive requires a crew of 100 or more workers and engaged on an international voyage of more than three days. It is indicated that these national provisions are in line with the International Labour Organization's 2006 Maritime Labour Convention (MLC) and previous ILO conventions which the UK has ratified.

27.3 Level of compliance by different stakeholders

The information on compliance for United Kingdom is based, on the one hand, on the findings of the ESENER-2 survey and, on the other hand, on the results of the external study.
Concerning the provisions referred to as the common processes and mechanisms (CPMs), the ESENER-2 results for United Kingdom shows a very good level of compliance as regards the obligation to carry out workplace risk assessments regularly (with 91% of establishments doing so). According to the survey, workplace risk assessments are mainly conducted by

internal staff (74.8%). ESENER-2 shows high levels of uptake for health and safety services used, be it in house or contracted externally.

As regards health surveillance only 18% of the respondents to the survey declared that their establishment arranges regular medical examinations to monitor the health of the employees. The survey also indicates that a very high number of establishments (98%) make available to the workers a document explaining responsibilities and procedures on health and safety. A high proportion of establishments declared as well that training on how to manage health and safety was performed (training available to management, to persons who know most about health and safety in the establishment). Differences could be observed when considering the thematic coverage of the training provided to employees. SME and microenterprises were less likely to have the necessary OSH management structure in place as compared with larger establishments.

The results of the external study as regards compliance are based on ESENER-1 survey and on stakeholder interviews. It reported approximately the same levels of compliance with the CPMs assessed by the ESENER-2 survey. In addition, the study pointed out that HSE does not routinely collect compliance information and reported a view, expressed in the National Implementation Report by the main worker stakeholder (TUC) and by various expert interviewees, that there are inadequate resources devoted to the inspections which provide the main check on risk management and, by inference, compliance. The study also considered that the main driver for the completion (and retention) of risk assessments is the threat of civil litigation, where documentary evidence of such assessments is routinely sought[320].

27.4 Enforcement

In the UK, HSE and Local Authorities (LA) mainly share responsibility for regulating health, safety and welfare for those at work and for those affected by work activity, including the public sector. The Health and Safety at Work etc. Act and associated regulations do not apply to seamen working on board ships under the control of the ship's master. Comparable Merchant Shipping Health and Safety Regulations do apply to ships' crew and are enforced by the Maritime and Coastguard Agency (MCA) where there are separate provisions for sanctions and penalties[321].

The enforcing authorities use a mixed intervention approach with duty-holders in which enforcement of the law is only one factor, alongside the provision of good practice advice, the use of awareness campaigns and work with stakeholders to influence behaviour change.

The Health and Safety at Work etc. Act 1974, section 33 (as amended) sets out the offences and maximum penalties under health and safety legislation. These apply to all regulations

[320] See Table 3- 1 Degree of compliance: Common processes and mechanisms (across Directives) of the Country Summary Report for United Kingdom.
[321] See Table 5-1 Enforcement authorities in Great Britain of the Country Summary Report for United Kingdom.

enacted under this Act. Inspectors also have to power to serve improvement notices, prohibition notices, and Crown notices. Sanctions vary between a maximum of £20 000 and/or 12 months' imprisonment in the Lower court, and an unlimited fine and/or 2 years' imprisonment in the Higher court[322].

27.5 SMEs and micro-enterprises

The UK has not adopted any specific measures (apart from guidance documents) to assist SMEs and micro-enterprises in the implementation of OSH requirements.

[322] See Table 5- 4 Result table – type and level of sanctions of the Country Summary Report for United Kingdom.

Annex 11 – Summary of the findings of the evaluation for OSH Directives

This annex presents a summary of the main findings of the evaluation for each of the OSH Directives, assessed, based on Article 17a of the Framework Directive. Those findings are presented for each of the Directives according to the following structure: Objectives and main provisions; State of transposition and implementation; Relevance; Effectiveness; Coherence and Main Conclusions. Findings in relation to efficiency are presented in the main report.

1. Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work (Framework Directive)

Objectives and main provisions

The objective of the Framework Directive is to introduce measures to encourage improvements in the safety and health of workers at work. To that effect it applies to all sectors of activity, both public and private, but it is not applicable where characteristics peculiar to certain specific public service activities, such as the armed forces or the police, or to certain specific activities in the civil protection services inevitably conflict with it. However, in that case, the safety and health of workers must be ensured as far as possible in the light of the objectives of the Framework Directive. Furthermore, it does not apply to domestic servants.

State of transposition and implementation

Overall, the Framework Directive is implemented and complied with.

A first evaluation of the practical implementation of the Directive was conducted and finalised in 2004[323].

Numerous infringements concerning the transposition of the Framework Directive have been initiated since 1990[324]. However, most of the early stage issues have been overcome and only a few minor cases of incorrect transposition in the national transposing legislation remain. Also, all Member States have established more detailed or stringent requirements than those laid down in the Framework Directive.

The findings of the external study and the results of the ESENER-2 survey indicate that the level of compliance with the Framework Directive is good among undertakings in the

[323] See the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions on the practical implementation of the provisions of the Health and Safety at Work Directives 89/391 (Framework), 89/654 (Workplaces), 89/655 (Work Equipment), 89/656 (Personal Protective Equipment), 90/269 (Manual Handling of Loads) and 90/270 (Display Screen Equipment), COM(2004)62 final.

[324] See Chapter 5.1 of the report for more details.

Member States. Compliance levels are higher in large establishments when compared to SMEs and microenterprises[325].

This good compliance level is supported by a number of accompanying actions at both Member State and EU level towards the achievement of the safety and health targets of the Framework Directive. However, there are indications of information gaps, particularly for SMEs, and of uncoordinated and unsystematic information.

Furthermore, all Member States enforce the Framework Directive provisions through competent enforcement authorities and through criminal and administrative sanctions.

In order to improve compliance, some stakeholders indicated that the division of responsibilities for carrying out preventive and protective services as it results from Article 7 of the Framework Directive could be further clarified.

Relevance

The European statistics on accidents at work, as well as work-related health problems (see main report) clearly demonstrate the current relevance of the Framework Directive in helping to improve workplace safety and health. Work-related injuries and ill-health have caused, and are still causing, burdens to the individual workers, to their employers, and to the wider society.

The evaluation shows that the Framework Directive remains relevant for the future. While progress is seen and is expected to continue as regards the management of certain traditional workplace hazards (exposure to chemical agents, carcinogens and mutagens, physical agents, biological agents, hazards related to the poor design of work equipment and processes etc.), exposures to those risk factors in the EU still occur. Furthermore, new risks emerge, related for example to the use of nanotechnologies and nanomaterials, green technologies and alternative energy sources. In addition, the exposure to risks leading to MSDs and psychosocial risks are one of the main challenges for OSH management for the future (see main report).

Labour market trends which could be observed since the entry into force of the EU OSH Directives, such as the ageing of the EU workforce, increasing labour market participation of women, trends in migration, and an increased use of atypical and non-standard forms of employment suggest an increased need for addressing the specific issues affecting vulnerable groups – although this is already partly done through a number of specific Directives.

However, the contributions from the National Implementation Reports and the findings of the evaluation study indicate that the scope of the Framework Directive could be considered in relation to:

- The exclusion of **domestic servants**[326];

[325] See Chapter 5.2 of the report for more details on the compliance with the common processes and mechanisms enshrined in the Framework Directive.

- The inclusion of **self-employed** and in particular those **self-employed working alongside workers**;

- The exclusion from the scope of application of the Directive related to specific public service activities (Article 2 (2));

In addition, the evaluation found that psychosocial and musculoskeletal disorders (MSDs) appear to be a growing occupational health and safety concern. Some NIRs and the external study included as one of the possible solutions to tackle these risks, the suggestion to mention those risks explicitly under the Framework Directive, while issuing further guidance and providing for other non-legislative measures.

Effectiveness

In this regard, the evaluation – including the views of both national and EU stakeholders consulted during this evaluation – suggests that the Framework Directive has positively affected enterprises' behaviour in ensuring occupational safety and health in the Member States leading to positive workplace impacts as well as safety and health impacts. This has in particular been the case for the large enterprises and less for SMEs and microenterprises where the impacts are lower due to difficulties in complying with provisions on account of insufficient financial resources, lack of safety and health expertise and cultural issues. The main areas were the Framework Directive combined with other EU OSH legislation has been seen as less effective are the prevention of psychosocial risks and MSDs.

Both national stakeholders and EU stakeholders tend to attach relatively higher importance to risk assessment as it is seen as a foundation for developing a risk prevention culture rather than taking a more reactive approach to safety and health.

Furthermore, the evaluation shows that sanctions and other related enforcement measures and activities are a factor contributing to the effectiveness of the Framework Directive. The most effective measures seem to be combining enforcement with guidance measures.

Efficiency

The assessment of efficiency was mainly done at the level of the EU OSH acquis – i.e. for the 24 OSH Directives together. Efficiency was assessed by looking at the benefits – including the broader benefits in society and the economy– and the costs that arise to society and the employers as a result of fulfilling the requirements of the Framework Directive.

Coherence

Since the general principles contained in the Framework Directive form the basis for the provisions in the other OSH Directives, there is naturally high synergy between the Framework Directive and the other OSH Directives. However, some provisions overlap or are duplicated across the Framework Directive and the individual directives. While theoretically it could be possible to streamline the EU legal framework, there are significant concerns about

[326] This would imply also the consideration of reviewing the way an employer is defined.

the added value of such an exercise (due, inter alia, to the fact that many MS transposed the legislation following the same structure as the EU acquis and a possible streamlining could trigger for them a new complex transposition process).

The general principles of the Framework Directive are in line with other EU legislative and non-legislative measures as well as non-EU international instruments.

Main conclusions

The evaluation confirmed the relevance of the Framework Directive, though –based on the findings of the evaluation study and the National Implementation Reports- consideration could be given to those recommendations pertaining to its scope of application, i.e.: the extensions of its scope to domestic servants, the self-employed (in particular those working alongside workers); clarification of the scope of exclusion under Article 2(2).

While the evaluation confirmed that the Framework Directive has led to many positive workplace impacts, psychosocial risks and MSDs continue to be a source of growing OSH concern. It has however to be acknowledged that MSDs and psychosocial risks fall already under the scope of the Framework Directive and that the complex nature of those risks does not easily lend itself to a legislative response at the EU level. Further guidance and other accompanying tools developed at the EU level could provide useful support for different legislative or non-legislative measures developed in this respect at national level[327]. There is a large consensus that further action in order to tackle those risks is needed and a dialogue on the possible policy options should be initiated, having regard to their socioeconomic impacts.

As regards coherence, the OSH acquis structure as it is – i.e. with a Framework Directive and specific Directives - should be maintained.

2. Directive 89/654/EEC concerning the minimum safety and health requirements for the workplace (workplace)

Objectives and main requirements

The Directive establishes minimum requirements for the workplace with the objective of guaranteeing a better standard of safety and health.

According to Article 2 of the Directive 'workplace' means the place intended to house workstations on the premises of the undertaking and/or establishment and any other place within the area of the undertaking and/or establishment to which the worker has access in the course of his employment. The Directive provides for a distinction between workplaces used for the first time after 31 December 1992 which, according to Article 3 thereof, must satisfy the minimum safety and health requirements laid down in Annex I, and workplaces already in

[327] As regards psychosocial risks, a number of solutions including legislative and non-legislative measures have been adopted so far across the Member States including: defining psychosocial risk in the legislation, actions for better psychosocial risks prevention developed at labour inspectorate level, collaboration initiatives between social partners to prevent those risks, non-binding guidance, branch-level agreements etc.

use before 1 January 1993, which according to Article 4 thereof must satisfy the minimum safety and health requirements laid down in Annex II (Article 4 of the Directive).

Certain types of workplaces are excluded from its scope of application, namely: the means of transport used outside the undertaking and/or the establishment, or workplaces inside means of transport; temporary or mobile work sites; extractive industries; fishing boats; fields, woods and other land forming part of an agricultural or forestry undertaking but situated away from the undertaking's buildings.

State of transposition and implementation

A first evaluation of the practical implementation of the Directive was conducted and finalised in 2004[328].

Most of the Member States implemented the Workplace Directive through several acts. The majority of the Member States established more detailed requirements or extended the scope of application of the requirements. This is in particular the case for Articles 1 (scope of application) and 2 (definition of the term 'workplace'), as well as Articles 7 (information of workers) and 8 (consultation of workers and workers' participation).

Specific provisions for workplaces related to vulnerable groups are reported from four Member States covering pregnant workers, ageing workers, young workers, migrant workers, part-time workers or disabled workers.

Few Member States seem to have developed specific measures to support SMEs and microenterprises. Among these, one Member State provides for an exemption for SMEs or microenterprises and four Member States provide for lighter regimes and financial support, although these do not appear to be Directive-specific.

Guidance documents appear to be the most employed accompanying actions at Member State and EU level. The level of compliance with the common principles and requirements (CPMs) appears to be high – the majority of estimates from available sources being over 50% to 84%. The findings of a separate study support this, reporting that both employers and workers considered the provisions of the Directive to have been wholly or largely implemented.

Relevance

The provisions of the Workplace Directive are relevant to all Member States and to an important share of the EU-27 workforce[329].

However, the evaluation shows that changes in the nature of some modern workplaces are likely to diminish the relevance of the Directive (and possibly its effectiveness) in the future

[328] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions on the practical implementation of the provisions of the Health and Safety at Work Directives 89/391 (Framework), 89/654 (Workplaces), 89/655 (Work Equipment), 89/656 (Personal Protective Equipment), 90/269 (Manual Handling of Loads) and 90/270 (Display Screen Equipment).
[329] Assessment based on the information provided in the NIRs and the results of the evaluation study, including the EU and national stakeholders' interviews.

in the absence in particular of a redefinition of the term 'workplace', to reflect the changing nature of modern workplaces and of different methods of working (e.g. remote or teleworking). This was one of the recurrent suggestions from the NIRs. The first findings of the EWCS 2015 show that while most workers – 62% of men and 78% of women – have a single main place of work where they work almost all of the time[330], nearly a third of workers (30%) divide their working time across multiple locations, working at least several times a week at each different place of work. The ESENER-2 data shows that slightly over 10% of establishment report having employees working from home. At the same time only 29% of those establishments include workplaces at home in the scope of their risk assessments. The evaluation study put also forward suggestions as regards the reconsideration of the scope of certain exclusions under Article 1(2) of the Directive.

In order to bring the Directive up-to-date (but also increase its effectiveness) some NIRs proposed as well to update the Annexes of the Directive and to consider the development at the EU level of guidelines for the application of the Directive detailing the terms "adequate, sufficient, appropriate" and to specify in clear values or ranges of values such parameters as: proper temperature; sufficient natural lighting; sufficient area, height and air in the working areas; dimensions in pathways and traffic etc.

Effectiveness

Finding suitable data to monitor the effectiveness of the Workplace Directive is a particular challenge. Many provisions of the Directive are directed towards the general welfare or wellbeing of workers, and indicators for monitoring those provisions are not available. In this respect, a previous study concluded, based on the opinions of the stakeholders interviewed that the Workplace Directive contributes more globally to the working conditions and well-being seen as a whole. Some of them perceived an improvement in terms of occupational accidents[331]. As regards the safety aspects, since the Workplace Directive covers workplaces as defined in Article 2, with notable exceptions mentioned under Article 1 (2), EU data on the causes and circumstances of accidents at work was analysed in order to determine the trend in accidents at work in different working environments covered by the Directive[332]. The information presented below was based on data from 16 MSs for which this type of information was available[333]. The greatest share of accidents in 2013 occurred on industrial sites (around 40% of all accidents). Between 2008 and 2013 the number of accidents in this working environment dropped by 34.1%. Accidents happening in a tertiary activity area or office represented 17.4% of all accidents, followed by accidents in public areas (the result for this working environment includes a high proportion of accidents happening on boards of means of transport in the course of work excluded from the scope of the Workplace Directive). The decline in the number of accidents at work in the aforementioned working

[330] Generally their employer's premises (or their own if self-employed).
[331] WPD Analysis Report based on the Generic Methodology for the evaluation of the EU OSH Directives, Prevent- Kooperationsstelle Hamburg IFE- TNS Infratest, 2012.
[332] Even though some studies suggest that only a small proportion of those could be attributed to the Directive. WPD Analysis Report based on the Generic Methodology for the evaluation of the EU OSH Directives, Prevent-Kooperationsstelle Hamburg IFE- TNS Infratest, 2012
[333] Eurostat, ESAW, Phase III, Variable Working Environment.

environments equalled -10.8% and -13.6% respectively. Other Working Environments accounting for an important share of all accidents in 2013 were accidents occurring in environments largely not covered by the Workplace Directive: construction sites, construction, open cast quarry, open cast mine (10.4% of all accidents)[334] and farming, breeding, fish farming, forest zone (3.1% of all accidents).The decline in the number of accidents between 2008 and 2013 in those sectors equalled -49.6% and -11.6% respectively. While accidents in health establishments accounted for almost 6% of all accidents, each of the other working environments categories[335] did not exceed 2% of the total. In those categories, between 2008 and 2013 a decline in the total number of accidents at work could be observed for all working environments except: the health establishments; sports area; accidents in the air, elevated, excluding construction sites (those include accidents aboard aircrafts); accidents in high pressure environments excluding construction sites.

As a conclusion, the number of accidents at work in most working environments covered by the Directive has decreased between 2008 and 2013. It has, however, to be acknowledged that other factors than the Directive itself have contributed to this result. Those statistics cover only the safety aspects of the Directive and information on the health impacts was not available to the Commission's services at the time this report was drafted.

In this context, the assessment made by the external evaluation study provides valuable additional information. According to the stakeholders interviews conducted in the framework of the study, the Workplace legislation has fulfilled its objectives to a large extent. Stakeholders also generally found that the Directive had a large impact on larger companies (average score of 4.0), while microenterprises have struggled to implement the workplace provisions (average score 2.3).

Coherence

With regard to the coherence between the Workplace Directive and the other OSH Directives no major issues were identified, even though some overlaps exist between the Workplace Directive and other sectorial directives as regards minimum health and safety requirements for workplaces. Similarly, with other non-OSH EU and international instruments, no major issues were identified. Thus, no major issues were identified with regard to the coherence between the Workplace Directive and instruments such as the European Commission policy on workplace innovation; the Framework Agreement on Telework (2002); and the ILO Hygiene (Commerce and Offices) Convention, 1964 (No. 120).

Main conclusions

The Workplace Directive remains relevant to all Member States and to an important share of the EU workforce. However, due to changes in working methods over the last years (remote or teleworking, 'green' technologies etc.) a number of Member States in their National

[334] Those environments are however regulated under separate EU legislation, namely the Construction sites Directive, the Mining and quarrying Directive.
[335] Those categories are: Work in the home; Sports area; Work in the air, elevated, excluding construction sites; underground, excluding construction sites; on/over water, excluding construction sites; in high pressure environments, excluding construction sites.

Implementation Reports seemed to suggest that a reappraisal of the definition of a workplace could be considered. Certain exclusions under Article 1(2) could also be reconsidered.

The recommendations from the NIRs as regards the Annexes of the Directive and the development of the EU level guidelines for the application of the Directive should be given further attention.

There are challenges to monitoring the effectiveness of those provisions of the Directive aiming at improving the well-being and health of workers. As regards safety aspects, during the period 2008-2013 the number of accidents at work in most workplaces covered by the Directive has decreased. According to the evaluation study, the Directive is generally well considered in most MS and assessed as meeting its objectives. This view is supported by the findings of a previous evaluation study[336], which indicated that both employers and workers considered the provisions of the Directive to have been implemented.

3. Directive 2009/104/EC on the minimum safety and health requirements for the use of work equipment by workers at work (use of work equipment)

Objective and main requirements

Directive 2009/104/EC lays down minimum safety and health requirements for the use of work equipment by workers at work. The main objective of the Directive is a reduction in the incidence of accidents, injuries and ill-health associated with the use of work equipment.

The Work Equipment Directive places general obligations on the employer to take the measures necessary to ensure that the work equipment made available to workers in the undertaking or establishment is suitable for the work to be carried out or properly adapted for that purpose and may be used by workers without impairment to their safety or health. The provisions of the Directive are twofold: on the one hand, it lays down general minimum requirement applicable to work equipment which address in general terms the risks to safety and health arising from the use of work equipment; on the other hand, it includes additional detailed minimum requirements relating to three areas of work and work equipment, namely working at a height, mobile work equipment and equipment for lifting loads.

State of transposition and implementation

The Directive have been implemented into either one piece of legislation or multiple pieces almost equally across MSs, with only few MSs establishing more detailed provisions (regarding for instance definitions or specifications).

Guidance appears to be the main accompanying action to encourage the implementation of the Directive, at Member State level. At EU level four accompanying actions were identified from EU-OSHA, together with two from the Commission.

[336] WPD Analysis Report based on the Generic Methodology for the evaluation of the EU OSH Directives, Prevent- Kooperationsstelle Hamburg IFE- TNS Infratest, 2012.

No conclusive data on the levels of compliance with the different provisions of the Directive could have been gathered through the evaluation process.

Relevance

The provisions of the Work Equipment Directive are sufficiently broad to be unquestionably relevant to all Member States. Workers are exposed to risks related to the use of work equipment and/or other risks covered by the Directive in relation to work equipment and therefore the Directive remains relevant to workers in all sectors in all EU Member States.

As regards safety aspects, an important share of accidents still occurs due to work equipment risks covered by the Directive. As an example, in 2013, in those Member States collecting information on the deviation factor of accidents at work, accidents due to the loss of control[337] constituted overall the largest share of all fatal accidents (36.2%) and of non-fatal serious accidents (24.6%)[338]. During the same year, accidents due to slipping – stumbling and falling, including the fall of a person to a lower level, had also a relatively high share in the total number of accidents[339]. Looking more specifically at the statistics on the material agent with which the victims came into contact when injured, accidents happening while in contact with different types of work equipment[340] had again a high share in the overall number of accidents in 2013[341].

In the context of the evaluation several suggestions and recommendations were made in the NIRs and by national stakeholders and experts relating to anticipated changes in working practices, new or emerging risks, or other factors which might impact on the future relevance of the Directive. As regards emerging risks, changes in the work equipment used by the workforce brought by technological development affect the risks the worker is exposed to. In particular, the EU-OSHA Risk Observatory identified a number of areas relating to machinery, work processes and technologies considered to constitute 'emerging risks'.

Effectiveness

The monitoring of the effectiveness of the Directive based on available statistical datasets is difficult in the absence of up to date incidence figures and the existing design of the classification of the causes and circumstances of accidents at work, not always adapted to study the effectiveness of this specific Directive. Data about the deviation factor of accidents at work in the EU show that between 2008 and 2013 the number of fatal accidents due to the

[337] This accident category encompasses the loss of control (total or partial) of machine, means of transport or handling equipment, hand tool, object but also animal.
[338] Eurostat, ESAW, PHASE III , Variable Deviation, data for the reference year 2013 for the 22 MS providing for this type of information.
[339] The Directive sets out, among others, provisions concerning the use of work equipment provided for temporary work at height.
[340] Including such equipment type as: motors, systems for energy transmission and storage; hand tools (not powered); hand-held or hand –guided tools (mechanical); other hand tools without specification of power source; machines and equipment; conveying, transport and storage systems; land vehicles; other transport vehicles; machine or vehicle components or debris; safety devices and equipment; office, personal equipment, weapons, domestic appliances.
[341] Eurostat, ESAW, PHASE III, Variable Material Agent of the Contact Mode of Injury, data for reference year 2013, for the 18 MS providing the variable.

loss of control[342] decreased in 16 out of 21 Member States providing for this information for both years. Similarly, the number of serious accidents due to this deviation factor deceased in the aforementioned period in most of the MS providing this type of information. From 2008 to 2013 in most MS from which such data was available a decrease in the number of accidents due to the falls from height was registered[343]. Changes in the number of work accidents when in contact with different types of work equipment between 2008 and 2013 point - with some exceptions - to the effectiveness of the Directive. However, the situation in this regard differs considerably from Member State to Member State[344] depending on the equipment type considered. Similar conclusions can be drawn when analysing data on the material agents involved in the abnormal event leading to an accident

In order to assess the effectiveness of the Directive, the evaluation study relied mainly on the stakeholder's assessment. A mean of 3.9 (scale of 1–5) suggests that, according to national stakeholder organisations, their national work equipment legislation has been effective and has fulfilled its objectives to a reasonable extent.

The main suggestions/recommendations from the NIRs as regards the effectiveness of the Directive were to adopt a uniform approach towards old and new equipment, to define "specific risk" and to define criteria for inspection of work equipment and competence of persons charged with inspection referred to in Article 5 of the Directive (inspection of work equipment). As regards the notion of 'specific risk', the NIRs show that some Member States do not define the notion of ‘specific risk’, some define it as those risks covered specifically by the Directive (i.e. those concerning working at height, mobile plant and lifting equipment etc.), and some MSs define it in terms of severity of the risk. Adopting a clearer definition would possibly reduce the inconsistencies in its interpretation, might improve its future implementation and, through that, its effectiveness.

Coherence

No major internal coherence issues were identified with the exception of some potential overlaps related to training requirements on work equipment between on one hand, the Work Equipment Directive and, on the other hand, the Mines and Quarries Directive, the Drilling Directive and the Fishing Vessels Directive.

Concerning external coherence, positive synergies were identified between the Machinery Directive (2006/42/EC) and the Work Equipment Directive. In its opinion of 27/05/2015, the SLIC recommended enhancing synergies between the two Directives , in particular, through the clarification of the interplay between these two Directives in relation to modification or adaptation of a machine provided to workers in for the first time before or on 31 December 1992; the alignment of certain requirements in the Annex I to Directive 2009/104/EC to

[342] See footnote 310 for details of the underlying classification.
[343] Eurostat, ESAW, PHASE III, Variable Deviation, based on data for 20 MS for which such information was available.
[344] Eurostat, ESAW, Phase III, Variable Material Agent Associated with the Contact Mode of Injury, based on data of 17 MS providing information for both years.

Directive 2006/42/EC; the adaptation of existing guidance to take into account the current state of the art in terms of standardisation.

Main conclusions

The Work Equipment Directive remains relevant to safeguard the health and safety of workers in the EU.

The available statistics on the causes and circumstances of accidents at work point to the conclusion that the Directive has been broadly effective, though the situation differs considerably from Member State to Member State depending on the work equipment type considered. The stakeholders' interviews conducted in the framework of the evaluation study also suggest that the Directive has been effective in achieving its objective.

The main suggestions/recommendations from the NIRs were to adopt a uniform approach towards old and new equipment, to define the notion of "specific risk" used in the Directive and to define criteria for inspection of work equipment and competence of persons charged with inspection referred to in Article 5 of the Directive (inspection of work equipment).

Furthermore, based on the conclusions of the evaluation study and the recommendations made by SLIC, further consideration should be given to enhancing synergies between the Work Equipment Directive and Directive 2006/42/EC.

4. Directive 89/656/EEC on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace (use of personal protective equipment/PPE)

Objectives and key requirements

The Directive lays down minimum requirements for personal protective equipment used by workers at work in order "to guarantee better health and safety for the user of personal protective equipment". According to Article 3 of the Directive, the PPE which is an individual protective measure shall be used "when the risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization".

With a view to achieve its objectives the Directives lays down general provisions on selection and use of PPE, assessment of PPE and the obligation of Member States to establish rules for use of PPE. The Directive requires in particular employers to ensure that PPE is appropriate for the risks involved (without itself leading to any increased risk), corresponds to existing conditions at the workplace, takes account of ergonomic requirements and the worker's state of health and fits the wearer correctly after any necessary adjustment.

For the purposes of the Directive ‘personal protective equipment’ means all equipment designed to be worn or held by the worker to protect him/her against one or more hazards likely to endanger his safety and health at work, and any addition or accessory designed to

meet this objective. However, this definition excludes: ordinary working clothes and uniforms not specifically designed to protect the safety and health of the worker; equipment used by emergency and rescue services; PPE worn or used by the military, the police and other public order agencies; PPE for means of road transport; sports equipment; self-defence or deterrent equipment; portable devices for detecting and signalling risks and nuisances.

State of transposition and implementation

A first evaluation of the practical implementation of the Directive was conducted and finalised in 2004[345].

The Directive has been implemented either in one or several piece of legislation equally across MSs. A majority of Member States adopted more detailed requirements than those foreseen in the Directive. This is in particular the case for Articles 1 and 2 (scope and definition) and 7 (information for workers).

Relevance

The Directive is relevant to approximately 40% of the EU workforce[346]. Out of the persons employed being required to wear personal protective equipment in their job, 91% report doing so.

Concerns over a lack of awareness and knowledge amongst the workforce on the importance of the correct selection and use of PPE were reported in the context of the evaluation study, in particular as regards SMEs. This however was seen to be more of an issue of the implementation of the Directive, rather than a deficiency of the Directive's provisions.

One finding of the evaluation study is that the exclusion from the definition of PPE of equipment used by emergency and rescue services might need to be reconsidered. Indeed approximately 20% of Member States have not excluded this equipment. Given the potentially severe environments in which such personnel normally operate it does not seem appropriate not to provide for the ergonomic requirements in the use of PPE as it has been shown that failure to do so can lead to injury.

Effectiveness

The available data considering the impact of individual provisions common to EU OSH Directives was drawn from the EU and national stakeholder interviews conducted for this evaluation. Overall, the extent to which national stakeholders from EU Member States consider the transposed PPE legislation to have fulfilled its objectives was very high. Twenty stakeholder groups from seven different Member States provided a score from 1 – 5. The total average score of 4.1 indicates that the PPE legislation is considered to have fulfilled its objectives to a large extent.

[345] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions on the practical implementation of the provisions of the Health and Safety at Work Directives 89/391 (Framework), 89/654 (Workplaces), 89/655 (Work Equipment), 89/656 (Personal Protective Equipment), 90/269 (Manual Handling of Loads) and 90/270 (Display Screen Equipment).
[346] Eurofound, European Working Conditions Survey (2010).

Coherence

No major internal coherence issues were identified with the exception of potential overlaps related to training requirements on PPE between the Use of PPE Directive and the Noise, AOR, Carcinogens or Mutagens, Asbestos, and the Biological Agents Directives.

Concerning external coherence some positive synergies have been identified between the Use of PPE Directive and the Machinery Directive and the PPE Product Directive.

Main conclusions

The Use of Personal Protective Equipment Directive remains relevant for around 40% of the EU workforce.

Even though the stakeholders interviewed in the framework of the evaluation study assessed that overall the Directive fulfils its objectives to a large extent, some concerns were expressed as regards the awareness of the provisions of the Directive and certain difficulties with its implementation, in particular for SMEs. This fact points to a potential need for further guidance in relation to the Directive. The external evaluation study suggested that consideration be given to the preparation of freely available EU-level guidance on the selection and use of PPE, possibly targeted at SMEs. This guidance material could be a cross-cutting guidance which combined aspects both of the present Directive (89/656/EEC) and that on the free movement of PPE (89/686/EEC).

The exclusion of firefighters and other emergency workers has attracted considerable adverse comment and has not been implemented within a number of MSs. Some MSs also encompass PPE used by the military. The evaluation study recommended that consideration be given to amending the definition of PPE contained in Article 2 of the Use of PPE Directive to remove the exclusion of equipment used by emergency and rescue services and possibly also that in relation to its use by one or more of the police, military or other public order agencies.

5. Directive 92/58/EEC on the minimum requirements for the provision of safety and/or health signs at work (safety and health/OSH signs)

Objectives and main requirements

The Directive lays down minimum requirements for the provision of safety and/or health sign at work. It repealed previous EU legislation in this area - Council Directive 77/576/EEC. According to Article 2 (a) of Directive 92/58/EEC "safety and/or health signs means signs referring to a specific object, activity or situation and providing information or instructions about safety and/or health at work by means of a signboard, a colour, an illuminated sign or acoustic signal, a verbal communication or a hand signal, as the case may be". However, the Directive does not apply to "signs for the placing on the market of hazardous substances and

mixtures, products and/or equipment, unless other Union provisions make specific reference thereto", as well as to "signs used for regulating road, rail, inland, sea or air transport".

Employers must provide or ensure that safety and/or health signs are in place in accordance with the Directive where hazards cannot be avoided or adequately reduced by techniques for collective protection or by measures, methods or procedures used in the organization of work. To that effect, employers are required to take into account all risks identified through the risk assessment carried out in accordance with the Framework Directive. The Directive is thus expected to address both long-term health problems and acute health effects. It is a horizontal Directive always operating in tandem with other Directives.

The annexes to the Directive lay down minimum requirements for the different categories of safety and health signs at work.

State of transposition and implementation

The Directive has been transposed in all Member States and two thirds of the Member States have established more detailed or stringent requirements. Most Member States had existing legislation in place transposing Directive 77/576/EEC, but Directive 92/58/EEC had some impact on national legislation since it supplemented, broadened or updated the existing legal framework. There are no observed cases of incorrect transposition and no infringement proceedings have been launched on that account.

Existing evidence strongly suggests that the Directive is generally complied with to a large extent, and the rationale for the Directive is widely accepted across MSs and establishments. This seems to be the case for all establishments, regardless of size, yet with better compliance levels in large establishments than in smaller ones.

The majority of the Member States report that SMEs do not have specific problems in complying with the Directive. However, some Member States point to challenges in compliance for SMEs concerning the maintenance and renewal of signs, thus highlighting traditional challenges for SMEs (e.g. lack of financial resources, necessary expertise, knowledge of specific requirements etc.).

Manufacturers, labour inspection and insurance companies were identified as the three potential sources of information for establishments on requirements concerning the instalment of OSH signs.

Relevance

In essence, OSH signs are used to warn or advise workers on a wide variety of hazards and risks, courses of action etc. Since such hazards and risks remain present, OSH signs as a general concept remain relevant. The Directive is therefore relevant in all Member States and to all EU workers.

Effectiveness

Generally, national stakeholders and Member States find that the Directive has positively contributed to the prevention of accidents and the protection of the safety and health of workers. The possibility to apply for derogations was used by a minority of Member States and it does not seem to have had an adverse impact on the effectiveness of the Directive.

Coherence

No issues of internal coherence were identified between the OSH signs Directive and the other OSH Directives. With regard to external coherence, no double legislation or overlap has been identified between the OSH signs Directive and other EU and international policies and legal instruments.

However, the legal hierarchy between the OSH signs Directive and the EN ISO 7010 seems to be unclear in several MSs, which complicates national implementation and in some MSs causes confusion amongst manufacturers. Legally, establishments are required to abide by the provisions of the OSH signs Directive and may choose to do so by implementing the EN ISO 7010 standard, which constitutes a best practice standard and thus fulfils the minimal requirements of the Directive.

Nevertheless, during the evaluation, several MSs and national stakeholders have raised an issue of alignment and expressed the view that the OSH signs Directive should to be reviewed and brought into line with the most recent standards on safety signs (cf. national stakeholder interviews and several NIRs). Furthermore, in the NIRs, several MSs report that they have experienced confusion over misalignments between the OSH signs Directive and the (EN) ISO standard although one is minimum requirements and the other is best practice.

Apart from the seeming misperception in some MSs related to the legal hierarchy, the confusion is caused by the degree of interpretation that is allowed in the Directive through the formulation in section 1.3, annex 1 that the pictograms used may be slightly different from or more detailed than those shown in the Directive as long as a corresponding meaning is maintained. This raises a question of the extent to which general derogations are allowed from the Directive.

Main conclusions

The OSH signs Directive remains relevant to all MSs. The national stakeholders and Member States interviewed in the framework of the evaluation study assessed that it contributes positively to the prevention of accidents and the protection of the safety and health of workers.

A main finding of this evaluation is the fact that the legal hierarchy between the OSH signs Directive and the EN ISO 7010 is unclear in several Member States. Although the minimal requirements established in the Directive are not legally incompatible with the best practice of the normative EN ISO 7010, the deviations between the EN ISO signs and the signs depicted in the Directive Annexes causes confusion in the MSs as to what can be regarded as "the correct sign". This confusion is exacerbated by the degree of interpretation that is allowed in the Directive, which raises a question of the extent to which general derogations are allowed

from the Directive. Several MSs call for updates of the signs depicted in the annexes and for alignment with EN ISO 7010, indicating a lack of clarity regarding the interrelationship between the Directive and the EN ISO standard. This confusion, both at MS and establishment level, essentially arises from the coexistence of the EN ISO standard and the minimal requirements. It is likely to have administrative costs in the MSs and warrants additional guidance and clarification.

In order to accommodate these issues, further consideration to the possible policy options should be given, as a follow-up of the evaluation, including the option of replacing the current provisions relating to the pictograms in the Directive by a reference to the relevant EN ISO 7010 standard.

6. Directive 91/383/EEC supplementing the measures to encourage improvements in the safety and health at work of workers with a fixed-duration employment relationship or a temporary employment relationship (temporary workers)

Objectives and main requirements

The Directive applies to employment relationships governed by a fixed-duration contract of employment (where the end of the contract is established by objective conditions such as: reaching a specific date, completing a specific task or the occurrence of a specific event) and temporary employment relationships between a temporary employment business, which is the employer and the worker, where the latter is assigned to work for and under the control of an undertaking and/or establishment making use of his services

The Directive aims at ensuring that temporary workers are afforded the same level of protection as other workers with regard to safety and health at work. Article 2 clearly states that the existence of an employment relationship governed by a fixed-duration contract or a temporary employment should not justify different treatment in respect to working conditions relating to health and safety, especially with regard to access to personal protective equipment.

State of transposition and implementation

The latest evaluation of the practical implementation of the Directive was finalised in 2011[347].

All Member States have transposed the Directive into their national legislation. The Directive is often transposed either through a specific act and secondary legislation or directly through the national framework act on OSH or the Labour Code. Member States have invariably adopted specific rules regarding workers employed by a temporary employment agency. As to fixed-term workers, the majority of Member States have implemented the Directive by adapting their general rules on health and safety, specifying that they apply also to the said category of workers.

[347] http://ec.europa.eu/social/main.jsp?catId=706&langId=en&intPageId=200.

The majority (18 of 27) of Member States implemented more detailed or stringent requirements. These are most common for the provision of medical surveillance, followed by ensuring protective and preventive services and information for workers. Some requirements still appear to be inadequately implemented in many enterprises.

As regards accompanying tools, about ten Member States have developed guidance documents to support the Directive's implementation.

Relevance

In 2014, the proportion of employees in the EU-28 with a contract of limited duration (fix-term employment) was 14.0 %. The share of employees with this type of contact was the highest in Poland (28.1 %) and lowest in Romania (1.5%). The considerable range in the propensity to use limited duration contracts between EU Member States may, at least to some degree, reflect national practices, the supply and demand of labour, employer assessments regarding potential growth/contraction, and the ease with which employers can hire and fire.[348]

Large differences in costs and workers' rights implied by the use of permanent and non-standard work, contracts may encourage companies to opt for the latter also in the future. At the same time, non-standard work contracts (among which fixed-term contracts and temporary agency work can be classified) rarely provide for a sufficient access to lifelong learning, social protection and monetary protection in case of termination without fault[349].

A body of literature confirms that temporary work is related to OSH problems. These workers often perform hazardous jobs, work under poorer conditions, and often receive less health and safety training than permanent employees. This increases the risk of work-related accidents and health problems[350]. Data from the EWCS 2010 shows that temporary workers are more likely to report higher job insecurity. The review study of Virtanen et al.[351] also suggests higher psychological morbidity among temporary workers compared to permanent employees. Underhill and Quinlan[352] found in a range of studies that precarious employment is associated with adverse health and safety outcomes. Among the temporary workers, the temporary agency workers are most vulnerable. They experience a higher incidence of workplace injury and a greater likelihood of more severe injuries[353]. Other studies support as well the thesis that workers on temporary contract, if subject to a workplace accident, are more likely to be confronted with severe injuries than permanent workers[354].According to the

[348] Eurostat, EU-LFS.
[349] DG EMPL, Employment and social situation in Europe, 2014.
[350] European Parliament, Policy Department Economic and Scientific Policy, *New Forms of Physical and Psychosocial Health Risks at Work*, 2008.
[351] Virtanen, M., Kivimäki, M., Joensuu, M., Virtanen, P., Elovainio, M. Vahtera, J., *Temporary employment and health: a review*, International Journal of Epidemiology, Vl. 34, No 3, 2005, pp. 610-622.
[352] Underhill, E.M., Quinlan, M.G., *How Precarious Employment Affects Health and Safety at Work: The Case of Temporary Agency Workers*, Relations Industrielles/Industrial Relations, Vol. 66, No 3, 2011.

[353] https://oshwiki.eu/wiki/Temporary_Workers
[354] See as example in Matteo Picchio and Jan van Ours, *Temporary Jobs and the Severity of Workplace Accidents*, IZA Discussion Papers from Institute for the Study of Labour No 10121.

findings of the EU-LFS ad hoc module 2013, 3.11 % of temporary workers in the EU-27 reported at least one accident at work during the 12 month preceding the survey (3.02% for permanent contracts)[355].

The aforementioned factors confirm the continued relevance of provisions aiming at the protection of this vulnerable group.

Effectiveness

As regards workplace impacts, while the formal compliance with the core processes and mechanisms of the Directive as assessed in Country Summary Reports of the evaluation study seems to be medium to high, several areas where a better implementation could enhance the effectiveness of the Directive were identified. This concerns, for example, such requirements as information and training, medical surveillance. Though a large majority of temporary and fixed-term workers declares to be very well or well informed about the safety risks to the performance of their job, they are still not as well informed in this respect as workers on permanent contracts[356]. Work insecurity continues also to be an issue for temporary workers.

Statistical data on accidents and work-related ill-health supporting the assessment of the effectiveness of the Directive at the EU level is limited and the development of better evidence base for the monitoring of the Directive could be one possible action for the future. From 2007 to 2013 in the majority of 8 MSs for which comparable data could be found the percentage of temporary workers reporting having at least one work-related health problem has decreased[357]. As regards accidents at work, comparable information between the two years was available from only 5 MS[358]. Two MSs showed a negative trend, two an increasing one and in one the percentage of temporary workers reporting at least one accident at work over the 12 months preceding the survey remained stable. Those developments cannot however be attributed exclusively to the Directive, due to other factors influencing the results. When interviewed in the framework of the evaluation study, the EU stakeholders were unsure of the safety and health impacts of the Directive and were therefore reluctant to make an assessment. However, the employer organisations were slightly more positive, even though the assessment was made based on a limited number of interviews.

Coherence

No internal coherence issues were identified between the Temporary Workers Directive and other OSH Directives. Likewise, no external coherence issues were identified between the Directive and other EU texts and international instruments.

[355] Eurostat, EU-LFS ad hoc module 2013 on accidents at work and work-related health-problems.
[356] *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States, COWI, 2016*.
[357] Eurostat, EU LFS ad hoc modules 2007 and 2013, Data for AT, CY, DK, FI, HU, IE, PL and UK. A decrease in percentages between the two years could be observed in all those MS, except in AT, FI (upward trend) and IE (stable situation).
[358] Eurostat, EU LFS ad hoc modules 2007 and 2013. Data for AT, DK, FI, IT, UK.

Main conclusions

Whereas all Member States have transposed the Directive into national law, the majority have done so by stating that general health and safety requirements also apply to temporary workers. At enterprise level, ambiguity about the role of the user company and that of the temporary employment agency may lead to inadequate compliance in some enterprises. Moreover, medical surveillance is particularly challenging for this group.

Temporary workers often perform hazardous jobs, work under poorer conditions, and often receive less health and safety training than permanent employees. They also experience high levels of job insecurity, which is a risk factor for developing mental health problems. For that reason the evaluation study recommended that the Directive could focus more on job insecurity and mental health. No recurrent recommendations/suggestions on this issue were reported in the National Implementation Reports (NIRs). While psychosocial risks are a source of major concern (for temporary but also for other workers), the evaluation highlighted that their complex nature does not easily lend itself to a legislative response. The possible future actions in this field should therefore be subject to a careful assessment. Actions developed for temporary workers should be part of a broader policy response in view of better psychosocial risks prevention and inclusive labour markets with appropriate transitions between different forms of labour contracts.

Another point relates to the scope of the Directive. Research has shown that temporary workers are a very heterogeneous group of workers. This implies that they are exposed to very different working conditions.

The Directive focuses on information to temporary workers. According to the findings of the EWCS 2010, temporary workers are not afforded the same level of information as other workers. Further accompanying actions, developed in collaboration with or by the social partners, could therefore be considered in order to ensure a better implementation of the Directive.

Finally, common findings for the vulnerable workers-specific Directives are outlined in the Main Report.

7. Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding (pregnant/breastfeeding workers)

This evaluation exercise is limited to those rules of the Directive which protect the health and safety of pregnant workers by addressing the risks of exposure to harmful chemical, physical and biological agents and hazardous industrial processes and working conditions including night work. In particular, it does not extend to the rights to maternity leave and to the prohibition of dismissals pursuant to Articles 8 and 10 of the Directive. Those aspects which are clearly distinguishable and intrinsically related to the protection of pregnant workers against discrimination are currently under review in the context of the preparation of a

Commission initiative to improve the work-life balance for working parents and caregivers together with other family leaves and will be addressed in that context.

Objectives and main requirements

The Directive aims at implementing measures to encourage improvements in the safety and health at work of pregnant workers (where pregnant worker means a pregnant worker who informs her employer of her condition, in accordance with national legislation and/or national practice); workers who have recently given birth (where a worker who has recently given birth means a worker who has recently given birth within the meaning of national legislation and/ or national practice and who informs her employer of her condition, in accordance with said legislation and/or practice) and workers who are breastfeeding (where worker who is breastfeeding means a worker who is breastfeeding within the meaning of national legislation and/or national practice and who informs her employer of her condition, in accordance with that legislation and/or practice).

The Directive aims to implement measures to encourage improvements in the safety and health of pregnant/breastfeeding workers. At the same time, the Directive also addresses equal treatment of pregnant women and ensures the right to maternity leave, as well as protection from discrimination. In the preamble, it states that the protection of pregnant/breastfeeding women should not work to the detriment of EU Directives on equal treatment of men and women in the labour market.

The Directive addresses risks related to exposure to agents, processes and working conditions considered hazardous for the safety and health of pregnant/breastfeeding workers and/or her unborn child. These risks might cause a range of adverse pregnancy outcomes, such as premature birth, low birth-weight and congenital anomalies as well as pregnancy related health problems for the pregnant/breastfeeding worker like pre-eclampsia, high blood pressure and inability to breastfeeding. The main group of risks are physical agents, biological agents, chemical agents, industrial processes and underground mining work. On this background, the Directive establishes in particular the obligations for the employer to assess any risk, to decide what measures should be taken and to inform the workers about those; a three-tiered approach for action further to the result of the assessment is set up: the priority is to eliminate the risks and prevent them at the source; if this is not feasible to accommodate the working conditions, if this is not feasible – to move the worker to another job and if this is not feasible neither - to grant the worker leave).

The Directive foresees cases where employers may not oblige pregnant/breastfeeding workers to perform duties for which the risk assessment has revealed a risk of exposure to agents (listed in Annex II) which would jeopardize their safety or health. These cases differ for pregnant and breastfeeding workers (see Art. 6).

State of transposition and implementation

All Member States have transposed the Directive into national legislation, often either through a specific act and secondary legislation or directly through the national framework act

on OSH or the Labour Code. The majority of Member States have established more stringent or detailed requirements. For instance, some Member States have included women undergoing advanced in-vitro procedures and women who adopt/foster children. Several Member States already had provisions in place, but a previous evaluation assessed that the Directive has increased protection for pregnant/breastfeeding workers in several Member States.

The analysis of the accompanying measures to support implementation shows that the majority of Member States have developed guidance documents and support tools, for instance checklist and guidelines for risk assessment. Finally, there are several measures at EU-level, including the Commission Guidelines to facilitate risk assessment in this area.

Relevance

In 2014, there were approximately 98 million women in employment. Though employment rates are higher for men than for women (70.1% and 59.6 % respectively in 2014), a longer-term comparison shows that while the employment rate for men in 2014 was below its corresponding level 10 year earlier, there was a marked increase in the proportion of women in employment[359].

When pregnant or breastfeeding, women are a particularly vulnerable group of workers. The main focus of the Directive is on exposure that could have potentially negative effects on the pregnancy and/or the child. Thus, the reach of the Directive extends beyond the woman. Those factors confirm the relevance of provisions aiming at the protection of this group of workers in all Member States.

Effectiveness

Trends in adverse pregnancy outcomes are not only affected by work, but also by factors related to lifestyle, health care and other environmental factors. While it is not possible to assess the extent to which the Directive has affected trends in adverse pregnancy related outcomes with available data, according to the external study the Directive may have had an effect on the health and well-being of the mother in general. The EU stakeholders' interviews made in the framework of the external study assessed that the Directive has been quite effective in achieving positive health and safety impacts.

Coherence

Apart from findings related to the coherence between the Pregnant/breastfeeding workers Directive and the Framework Directive described and addressed in the Directive report on the Framework Directive, no internal coherence issues were identified with the exception of provisions on pregnant workers under various OSH Directives that could be streamlined under Pregnant/breastfeeding workers Directive.

[359] Eurostat, EU-LFS.

The analysis also reveals several interfaces with other EU legal acts related to, on the one hand, chemical exposure (REACH, CLP) and, on the other hand, EU-employment rights (e.g. Directive 2003/88/EC on working time). No coherence issues were identified.

Main conclusions

The Directive has improved the protection of pregnant/breastfeeding workers in some Member States, but many Member States already had provisions in place before transposing the Directive. Moreover, the implementation is hampered by shortcomings in compliance at the enterprise level. Enterprises find it difficult to identify special risks for pregnant workers (hence to conduct the risk assessment) and to find suitable work accommodations.

Trends in adverse pregnancy outcomes are not only affected by work, but also by factors related to lifestyle, health care and other environmental factors. While it is not possible to assess the extent to which the Directive has affected trends in adverse pregnancy related outcomes with available data, according to the external study the Directive may have had an effect on the health and well-being of the mother in general. The EU stakeholders' interviews made in the framework of the external study assessed that the Directive has been quite effective in achieving positive health and safety impacts. The available scientific literature shows that paternal exposure also affects the health of the child. Moreover, the Directive only provides provisions for women with a recognised pregnancy (and who have reported her pregnancy to her employer), however, exposure to chemical agents in the first trimester also has a substantial impact on the health of the child. The evaluation study recommended revisiting the risk factors listed in the annexes.

To ensure better clarity and avoiding that provisions on pregnant workers are spread across different Directives, the streamlining of these provisions under the Pregnant/breastfeeding workers Directive could be considered while maintaining full respect for the principle of equal treatment between women and men:

- review of the Pregnant/breastfeeding workers Directive to streamline the provisions on pregnant workers and breastfeeding workers under other OSH Directives ;

- alignment of the terms nursing mothers and breastfeeding workers in the Directives;

- streamlining of the provisions on night work concerning pregnant workers under Directive 2003/88/EC (working time);

- such streamlining or revision should take full account of the Commission's ongoing new start initiative on possible action addressing the challenges of work-life balance faced by working parents and caregivers.

Any other aspects that are not directly related to the protection of pregnant workers against risks of certain agents, processes and working conditions will not form part of the streamlining exercise as considered in this document.

8. Directive 94/33/EC on the protection of young people at work (young people)

Objectives and main requirements

The Framework Directive (Art. 15) provides that particularly sensitive risk groups must be protected against the dangers which specifically affect them. Within this context, children and adolescents were considered to be specific risk groups requiring measures to be taken with regard to their safety and health.

The Young People Directive has as its objectives to prohibit work by children; regulate and protect work by adolescents; guarantee young people working conditions which suit their age; ensure that young people are protected against economic exploitation and against any work likely to harm their safety, health or physical, mental, moral or social development or to jeopardize their education. To that effect it establishes a series of measures including prohibiting the employment of children, and the employment of adolescents in a variety of types of work (including, for example, night work). It also places constraints on the employment of young persons in respect of rest breaks, and annual holidays. The Directive also makes provisions for the adoption of five of the provisions common to EU OSH Directives (conducting a risk assessment; establishing internal and/or external preventive and protective services; information and training of workers; health surveillance).

State of transposition and implementation

The Directive has been implemented in all MSs. Most of them have implemented the Directive in various pieces of legislation and fewer implemented it in one piece of legislation.

The majority of the MSs have implemented more detailed requirements in particular with respect to Art. 2 (scope) -14 MSs- and conducting a risk assessment (Art.6(2)), involving preventive and protective services (Art. 6(4)), information for workers (Art 6(3)) and training of workers (Art. 6(2)) - 22 MSs.

At MS level, actions have been taken in relation to guidance documents, awareness raising campaigns, support tools and education and training in order to support the implementation of the legislation transposing the Directive. In relation to compliance with the information requirements, it appears that young people consider themselves not so well informed as their older work colleagues about health and safety at work risks, even though the Directive puts emphasis on information for young people. The external study identified consequently that there is a need to improve the knowledge and awareness of the risks of young people and of their obligations, therefore perhaps suggesting a need for additional accompanying actions in the area. At EU-level, five documents were identified. Those are four e-facts or factsheets from EU-OSHA, together with guidelines developed by the Commission.

Relevance

Children and adolescents are a vulnerable group in need of special protection as a consequence of their lack of experience, of absence of awareness of existing or potential risks and of the fact that young people are not fully mature and that their bodies are developing.

Several studies show that youngest workers are at higher risk of accidents, in particular severe, non-fatal injuries[360]. According to the EWCS 2015, young workers are more exposed to work intensity, shift work, adverse social behaviour and job insecurity than other workers.

In the light of these increased, but also other risks, provisions aiming at the protection of this vulnerable group of workers remain therefore more relevant than ever, especially in the context of the demographic developments in the EU over the last decades. With ageing EU societies, provisions ensuring the protection of youngest workers and children to set the basis for their functioning in good health and safety conditions throughout their careers are essential.

Effectiveness

The EWCS data show a downward trend in the proportion of young people considering their health and safety at work being at risk. The same survey show also that the proportions of young workers reporting exposure to vibration and noise, chemicals, smoke, fumes or dust, high and low temperatures, tiring positions and lifting of heavy loads have decreased[361]. ESAW statistics show a downwards trend in the incidence and number of accidents at work for young people in the EU-27 over the period 2008-2012[362].

EU-stakeholders interviewed in the framework of the evaluation study were, in general, moderately positive in their assessment of the impact of the Directive. In general, the EU stakeholders on average assess risk assessments as being of highest relative importance to the effectiveness of the Directive, followed by preventive/protective equipment and information provided to workers. However, the EU-stakeholders differ in their assessment of whether the directive has fulfilled its objective. Employer organisations were more negative in their assessment than worker organisations, authorities and other stakeholders. Authorities were most positive in their assessment.

Coherence

The Young People Directive contains additional risk assessment requirements to other Directives in relation to young people due to them being more vulnerable to certain risks due to potential lack of maturity and or experience. However, these provisions did not result in any legal conflict of lack of coherence between the different OSH Directives.

According to ILO Convention No. 77 of 1946 on the Medical Examination of Young Persons (Industry), young persons under the age of 18 cannot be employed unless they have been

[360] In 2012, the incidence of accidents at work leading to an absence of more than 3 days for workers under 18 years old in the EU-27 equalled 2,018.83, compared to 2,301.35 in 2008. Eurostat, ESAW (online data code hsw_n2_03).
[361] *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States,* COWI, 2016.
[362] Eurostat, ESAW (online data code hsw_n2_03).

found fit for the work by a thorough medical examination, which must be repeated at least once a year. ILO Convention No. 78 of 1946 on the Medical Examination of Young Persons (Non-Industrial Occupations) provides for identical requirements, which do not have an equivalent in the Young People Directive, while ILO Convention No. 124 of 1965 on the Medical Examination of Young Persons (Underground Work) contains similar requirements for work underground in mines under the age of 21.

Ratification of these Conventions by all MSs, or their adoption within the Young People Directive, would introduce more specific provisions than at present. Some MSs have already chosen to ratify these (for example the ILO No. 77 of 1946 has been ratified by 13 EU MS). However, overall the Young People Directive contains stringent provisions. It notably obliges Member States to prohibit the employment of young people in a number of circumstances where their safety and health are at risk. It also provides that where the employer's assessment of the hazards to young people in connection with their work shows that there is a risk to their safety, physical or mental health or development, an appropriate free assessment and monitoring of their health shall be provided at regular intervals. Therefore, the need for adopting the additional provisions contained in the above-mentioned ILO Conventions and the benefits that would accrue from doing so are not clear.

Main conclusions

The Young People Directive has been transposed and implemented in all MSs, with several Member States going beyond the requirements of the Directive.

The provisions of the Young People Directive remain relevant to all Member States.

In relation to compliance with the specific CPM on information, it appears that young people consider themselves not so well informed as their older work colleagues, even though the Directive puts emphasis on information for young people.

In response to this, consideration could be given to the preparation of guidance on health and safety risks at work, specifically focussed on young people, with the involvement of social partners and EU-OSHA. Information and guidance could be delivered, inter alia, via such communication channels as social media and other modern communication channels.

Finally, common findings for the vulnerable workers-specific Directives are outlined in the Main Report.

9. Directive 92/57/EEC on the implementation of minimum safety and health requirements at temporary or mobile construction sites (temporary or mobile construction sites)

Objectives and main requirements

The Directive lays down minimum safety and health requirements for temporary or mobile construction sites. It specifically aims to tackle unsatisfactory architectural and/or

organizational options, poor planning of the works at the project preparation stage or inadequate coordination which have played a role in more than half of the occupational accidents occurring on construction sites, particularly where various undertakings work simultaneously or in succession at the same temporary or mobile construction site. The Directive supplements the principles of the Framework Directive with more stringent and specific provisions.

At the time the Directive was adopted, the construction sector was an important sector of EU economies, accounting for a large share of all occupational fatal injuries. Furthermore, the construction sector reported high levels of exposure to ergonomic risk factors, biological, chemical and noise/temperature risk factors.

The Directive aims to prevent risks by establishing a chain of responsibility, linking all parties involved. Being a sector-specific Directive does not mean that it establishes minimum requirements for all potential risks occurring at temporary or mobile construction sites, but rather that the Directive describes some specific risks to be evaluated which are not (or insufficiently) covered by other Directives.

Hence, the Directive lays down minimum requirements for the sector at a fairly general level in order to increase focus on the prevention of occupational risks. At the more specific level, it contain Annexes that refer to particular types of work and common risks such as slipping, stumbling, falling and loss of control of hand-held tools and objects.

State of transposition and implementation

With few observed cases of incorrect transposition and infringement proceedings since 1993, the evaluation found that the national transposition of the Directive has been smooth. Furthermore, most MSs have implemented more detailed or stringent requirements. However, ten MSs have derogated from the requirement to draw up a safety and health plan.

Although there seems overall to be good compliance with the Directive provisions among the establishments in the MSs, compliance is relatively poor among the smallest establishments. This is partly due to the fact that several of these are sub-contracted construction companies, many of which are SMEs or even self-employed workers.

A number of accompanying actions have been taken at both MS and EU level to encourage the achievement of the safety and health targets of the Directive. These include guidance documents, support tools, awareness-raising campaigns, education, training activities and financial incentives. A few stakeholders have pointed to gaps in these actions, although without providing specific recommendations.

Relevance

The factors leading to the adoption of the Directive are still relevant today. Workers on construction sites are exposed to major hazards, among which: the risk of accidents (In 2012 in the construction sector, the incidence rate of accidents at work was about two times higher as compared with the incidence for all NACE sectors for non-fatal accidents and more than 3

times higher for fatal accidents[363], the construction sector ranked first as regards the share of all fatal accidents and second just behind the manufacturing sector as regards the share of all serious non-fatal accidents at work happening in the EU-27[364], looking more specifically at the situation on construction sites as such, accidents happening in this working environment appear also to constitute a large share of all accidents[365]), exposure to chemicals, carcinogens and mutagens, high levels of exposure to noise and vibration, extreme temperatures, exposure to risks leading to MSDs etc. Furthermore, the complex sub-contracting relationships on construction sites[366] and high occurrence of dependent self-employment in construction[367] confirm the continued relevance of the rationale behind the Directive calling for a better coordination between the various parties concerned in the construction process.

The provisions of the Directive are relevant for all MS, which is confirmed labour market data. Though affected in recent years by the 2009 crisis, the construction sector is still one of the most important economic activity sectors in the EU, accounting for almost 7% of the overall EU employment[368]. But work on construction sites involves also often the participation of workers from other sectors.

All these factors confirm the continued relevance of the Directive.

Effectiveness

The external study found that the Directive has achieved its stated objective of introducing measures to encourage improvements in terms of safety and health at work. At the same time, the evaluation has found that securing occupational safety and health tends to be a greater challenge in SMEs and microenterprises, often acting as sub-contractors on construction sites. The Directive has led to positive workplace impacts as well as safety and health impacts, and it has contributed to levelling the playing field by setting common standards for occupational safety and health in the EU.

This assessment is also supported by information available from EU datasets. As regards construction, the incidence rate for non-fatal accidents at work in that sector dropped from 3,735.24 in 2008 to 3,112.08 in 2012 in the EU-27. A decline was also observed in the number and incidence of fatal accidents at work in the EU27[369].The available data for the period starting in 1994 for the EU-15 show also a declining trend for both fatal and non-fatal accidents in construction since the entry into force of the Construction Directive. Available data on the trend in accidents in specific working environments, also confirm a very important

[363] Eurostat, ESAW (online data codes hsw_02_01 and hsw_02_02).
[364] Eurostat, ESAW (online data code hsw_02_04).
[365] Eurostat, ESAW, Phase III, variable Working Environment, reference year 2013, results for 16 MS for which data was available.
[366] EU SMES and sub-contracting, EIM Business & Policy Research, 2009, p.24.
[367] DG EMPL, Employment and Social Developments in Europe 2015, Chapter 1.1. Self-employment and entrepreneurship.
[368] Eurostat, EU LFS, online data code lfsa_egan2.
[369] Eurostat, ESAW (online data codes hsw_n2_01 and hsw_n2_02).

decline in the number of accidents happening on construction sites in the period 2008-2013[370].

However, areas for potential improvements were also identified in the framework of the evaluation. One of the main recommendations from the NIRs in relation to this Directive, was to clarify the status of the coordinator and reinforce his function, namely to clarify the services expected to be provided by coordinators, especially with regard to project design, and to set out the qualifications coordinators should have.

Coherence

While there are no significant internal coherence issues related to the Construction Directive, certain overlaps exist between the minimum requirements for workplaces in the Construction Directive and the Workplace Directive (in particular in relation to Annex IV). In addition, the evaluation identified issues in relation to inspection requirements on work equipment with Directive 2009/104/EC (work equipment).

Safety and health on construction sites are addressed by other EU policies, hereunder other non-OSH Directives, action plans and strategies. Furthermore, other international organisations – in particular the ILO – pursue improvements to construction site working conditions. For example, the ILO Safety and Health in Construction Convention (No. 167) sets additional requirements related to inspection and reporting of occupational accidents and diseases.

Main conclusions

The Construction Directive has been transposed and implemented in all Member States and only a few cases of incorrect transposition and infringement proceedings were observed since 1993. The overall level of compliance with the Directive is good, though some challenges have been reported in the framework of the evaluation as regards compliance for smallest enterprises, acting often as sub-contractors on construction sites.

In the light of existing health and safety risks linked with work on construction sites still today, the complex sub-contracting relationships between enterprises in this working environment and given the economic importance of construction activities in the EU, the Directive is still relevant today.

The available accident at work statistics and the results of the evaluation study allow assessing that the Directive has achieved its stated objective of introducing measures to encourage improvements in terms of safety and health at work and has led to a reduction in the number and incidence of accidents at work in the EU. However, a recurrent suggestion from the national implementation reports in order to improve the impact of the Directive was to clarify the status of the coordinator and reinforce his function, namely to clarify the services expected to be provided by coordinators, especially with regard to project design, and to set out the qualifications coordinators should have.

[370] Eurostat, ESAW, Phase III, variable Working Environment, data for 16 MS.

Based on the conclusions of the evaluation study, it could be considered to assess if there is a need to better ensure the articulation between Directives 92/57/EEC and 2009/104/EC as regards for instance the inspection of work equipment such as scaffolding.

A strategy to further enhance synergies could include the promotion of safety and health education, and training and capacity building programmes within the construction sector. Such programmes could specifically target safety and health coordinators on construction sites. Due to problems with compliance for smallest enterprises identified in the framework of the evaluation, there should be a greater emphasis on the safety and health within SMEs and microenterprises on mobile constructions sites in the future.

Finally, other international organisations – in particular the ILO – pursue improvements to construction site working conditions. For example, the ILO Safety and Health in Construction Convention (No. 167) sets additional requirements related to inspection and reporting of occupational accidents and diseases. Hence, there could be a need to assess if relevant provisions of the ILO Convention could serve as basis for further improvement of the workers protection of the workers protection in the construction sector.

10. Directive 92/104/EEC on the minimum health and safety requirements for improving the safety and health protection of workers in surface and underground mineral extracting industries (extractive industries - mines and quarries)

Objectives and main requirements

This Directive aims at addressing the well- recognised safety and health risks associated with this sector. The text of the Directive does not however detail the relevant hazards and risks to workers (with the exception of the provisions on protection from fire, explosions and health endangering atmospheres).

In accordance with the Directive, the employers are in particular required to take the following measures to safeguard the health and safety of workers by ensuring that certain requirements in relation to workplaces are fulfilled; that workplaces are designed, constructed, equipped, commissioned, operated and maintained in such a way that workers can perform the work assigned to them without endangering their safety and/or health and/or those of other workers; that the operation of workplaces takes place under the supervision of a person in charge, work involving a special risk is only carried out by competent staff in accordance with employers' instructions, all safety instructions are comprehensible to workers, appropriate first-aid facilities are available, any relevant safety drills are performed regularly; that a document concerning safety and health ("safety and health document"), covering the relevant requirements laid down in the Framework directive, is drawn up and kept up to date. In addition, where workers from several undertakings are present at the same workplace, the employer in charge of the workplace, coordinates the implementation of all the measures concerning the safety and health of the workers – such coordination does not affect the responsibility of the individual employers as provided for in the Framework directive.

The Annex to the Directive lays down common minimum requirements for the workplaces applicable to surface and underground mineral-extracting industries and to ancillary surface installations (part A), and special minimum requirements applicable to surface mineral-extracting industries (part B) and to underground mineral-extracting industries (part C).

The mineral-extracting industries through drilling within the meaning of Directive 92/91/EEC (extractive industries - drilling) are excluded from the scope of the Directive.

State of transposition and implementation

Most MSs have implemented the Directive through several pieces of legislation, only fewer using a single piece.

The majority of Member States have implemented more detailed requirements than those laid down in the Directive, in particular with regard to Art. 3 (2) (safety and health document) and Art. 8 (health surveillance).

Evidence from the ESENER-2 survey suggests very good levels of compliance with the obligation to perform regular risk assessments in the mining and quarrying sector. According to the survey, regular medical examinations are performed by 94% of establishments in that sector. The sector ranks also high as regards the use of different health and safety services (in particular occupational health doctors, generalists on health and safety, experts in accident prevention) and information to workers[371].

Relevance

Though a decline in employment in surface and underground mineral-extracting industries in the EU could be observed since the adoption of the Directive, the industries falling under its provisions are present to some extent in all Member States, covering in 2012 approximately 0.34% of the total EU-27 workforce[372].

During the same year, fatal accidents incurred by workers in the industries covered by the provisions of the Directive accounted for approximately 2% of all fatal accidents at work in the EU-27 economies. Workers in those industries continue to be at a higher risk of accidents at work, as compared with workers in many other sectors of the EU economies. The incidence rates, in particular, as regards most serious accidents at work in the main divisions of the mining and quarrying sector covered by the provisions of the Directive continue to be the highest among all sectors in the EU (in 2012, the fatal accidents incidence rate for mining and quarrying activities equalled 10.65 against an average incidence rate of 1.93 for all economic activities. For the different divisions potentially concerned by the provisions of the Directive, the incidence was the following: mining of coal and lignite – 10.71; mining of metal ores - 18.44; other mining and quarrying activities – 15.85; mining support service activities – 2.58). Exposure of workers in those working environments to the risk of falls of mine roofs, face and sides (ribs), work with mineral-extracting machinery, an increased risk of injuries, explosions,

[371] Second European Survey of Enterprises on New and Emerging Risks (ESENER-2), Overview Report: Managing Health and Safety at Work, European Risk Obesrvatory, EU-OSHA, 2016.
[372] Data for the reference year 2012, Eurostat, EU LFS (online data code lfsa_egan22d).

fires, risk of ignitions of methane which can explode during coal cutting, exposure to toxic and irritating gases (such as carbon monoxide and nitrogen oxides), risk of flooding, are among the most important factors leading to this state of play.

But workers in surface and underground mining are also exposed to agents that can potentially lead to a number of severe work-related diseases, including: physical agents (high exposure to noise, vibration, humidity, extreme temperatures, ionising radiation, and insufficient light), chemical agents and dust (such as coal, silica and metal dusts and mixtures thereof, skin irritating agents etc.), biological agents as well as a number of ergonomic and psychosocial factors linked to work-organisation. As a result, the surface and underground mineral-extracting industries register one of the highest incidence rates of occupational diseases as compared with other sectors of economy[373].

Despite the fact that workers in industries concerned by the provision of the Directive represent a relatively low share in overall EU employment, the high severity and number of risks to which workers in surface and underground mining are exposed to supports the need for minimum EU requirements and standards to protect them. Additional communication and specific guidance on emerging risks within those industries, deriving from technological and operational changes to processes and/or the sector workforce may be required.

Effectiveness

A decrease in the rate of accidents for most industry sectors concerned by the provisions of the Directive from 2008 to 2012 could be observed[374]. The declining trend in accidents can also be observed from the longer time series available at national level. As regards work-related diseases, it is difficult to attribute existing trends to the Directive, due to long latency periods of certain types of work-related ill-health linked with work in surface and underground mineral-extracting industries and other confounding factors. In particular, the interaction between Directive 92/104/EEC, the physical agents' directives, the chemical agent and the carcinogens and mutagens at work directives as well as other non-legislative measures needs to be taken into account when analysing the impact on specific types of work-related ill-health. The evaluation study assessed that the improvements in surface and underground mineral-extracting industries could, at least partially, be attributed to the Directive, triggering

[373] In Poland, accounting for around 30% of EU-27 employment in the mining and quarrying industries in 2012, the incidence rate of occupational diseases recognised for the mining and quarrying activities is 10 times higher than the one for the entire economy (based on Occupational Diseases in Poland (2007-2009 editions), Instytut Medycyny Pracy im. Prof. J. Nofera). This data does not distinguish, however, between surface and underground mineral extracting industries and mineral extracting industries through drilling.

[374] The incidence rate of serious non-fatal accidents at work per 100,000 persons employed for the mining of coal and lignite industry in the EU-27 equalled 1,679.06 in 2012 against 1,999.79 in 2008; for the mining of metal ores 1,527.87 in 2012 against 1,742.17 in 2008 and for other mining and quarrying activities – 2,737.32 in 2012 against 3,131.33 in 2008. For mining support service activities, it evolved from 248.79 in 2008 to 270.83 in 2012 (Eurostat, ESAW, online data code hsw_n2_01). The incidence rate of fatal accidents at work per 100,000 persons employed for the mining of coal and lignite industry in the EU-27 equalled 10.71 in 2012 against 14.79 in 2008; for the mining of metal ores 18.44 in 2012 against 14.05 in 2008, for other mining and quarrying activities – 15.85 in 2012 against 16.67 in 2008 and for mining support service activities, it evolved from 4.56 in 2008 to 2.58 in 2012. Care however should be taken as regards the interpretation of trends in fatal accidents in some mining and quarrying divisions due to low number of underlying cases. (Eurostat, ESAW, online data code hsw_n2_02).

improvements in the behaviour of establishments in providing safer and healthier working conditions.

Coherence

No major internal coherence issues were identified in relation to the Mines and Quarries Directive, though certain overlaps exist as regards the minimum health and safety requirements for workplace between this Directive and the Workplace Directive. Suggestions from the national implementation reports in relation to this Directive included considering the merging of Directive 92/104/EEC with Directive 92/91/EEC.

Conclusions

The Directive has been transposed and implemented in all Member States, with often more detailed provisions developed at national level.

Despite the fact that workers in industries concerned by the provision of the Directive represent a relatively low share in overall EU employment, the high severity and number of risks to which workers in surface and underground mining continue to be exposed supports the need for minimum EU requirements and standards to protect them. Additional communication and specific guidance on emerging risks within those industries, deriving from technological and operational changes to processes and/or the sector workforce may be required. Available statistics and results of the evaluation study confirm that the Directive has been broadly effective. Suggestions from the national implementation reports in relation to this Directive included considering the merging of Directive 92/104/EEC with Directive 92/91/EEC.

11. Directive 92/91/EEC concerning minimum requirements for improving the safety and health protection of workers in the mineral extracting industries through drilling (extractive industries - drilling)

Objectives and main requirements

The Directive is a sector-specific Directive, which applies to mineral-extracting industries through drilling. Some risks, which are prevalent in the industry, are also covered by other EU OSH Directives. This is the case for risks from physical agents (vibration and noise), chemical agents, as well as risks related to manual handling and use of equipment, protective equipment and signs. The Directive focuses specifically on the risks related to the arrangements and organisation of the workplace but taking into account the particular risks prevalent in workplaces where mineral extraction through drilling takes place (Directive 89/654/EEC (workplace) does not apply to extractive industries).

In accordance with the Directive the employers are required to take the following measures to safeguard the health and safety of workers by ensuring that certain requirements in relation to workplaces are fulfilled; that workplaces are designed, constructed, equipped, commissioned,

operated and maintained in such a way that workers can perform the work assigned to them without endangering their safety and/or health and/or those of other workers; that the operation of workplaces when workers are present takes place under the supervision of a person in charge, work involving a special risk is entrusted only to competent staff and carried out in accordance with employers' instructions, all safety instructions are comprehensible to all the workers concerned, appropriate first-aid facilities are provided, any relevant safety drills are performed at regular intervals; that a document concerning safety and health ("safety and health document"), covering the relevant requirements laid down in the Framework directive, is drawn up and kept up to date. In addition, where workers from several undertakings are present at the same workplace, the employer in charge of the workplace, coordinates the implementation of all the measures concerning the safety and health of the workers – such coordination does not affect the responsibility of the individual employers as provided for in the Framework directive.

The risk of major accidents – for example at oilrigs such as the 2010 Deepwater Horizon Blowout and Explosion in the Gulf of Mexico – is a major concern in relation to this industry. In Europe, there have been no such major accidents since the North Sea Piper Alpha accident (1988), which spurred the elaboration of the mineral extraction through drilling directive, but there have been near misses.

Apart from this major risk factor, there are also other important risk elements in relation to the industry related to the nature of the work. The oil and gas industries are highly capitalized; much of the manual work has been replaced by automation, but significant parts of oil and gas operations still rely on human input. There is a significant risk of serious accidents (fatal and non-fatal) resulting from explosions and fires, vehicle and helicopter accidents, falls and confined spaces.

State of transposition and implementation

Member States have generally correctly transposed the requirements on common processes and mechanisms in the Directive.

The Commission services have issued two reports on the practical implementation of Health and Safety at Work Directives 92/91/EEC (mineral extraction through drilling) and 92/104/EEC (surface and underground mineral extraction) in 2009 and commissioned in 2011 an external study for the analysis and evaluation of the effects of the practical application of national legislation related to safety and health at work in mineral extraction through drilling as a result of the Deepwater Horizon incident.

The data gathered for the evaluation gives a solid basis for concluding that compliance with the requirements of the Directive is high. The data collected for the evaluation indicates that special measures to support SMEs are not used by the Member States. This is probably due to the fact that most activity in the sector is associated with large establishments – primarily large international oil companies.

There is a lack of guidance and information on implementation and requirements in relation to the Directive. A possible reason for the lack of accompanying actions might be that other global actors such as the ICMM is developing international guides to good practice in the industry.

Relevance

The Directive can be regarded as relevant to approximately 0.04% of the EU workforce[375], though drilling activities are not conducted in all Member States.

Although the drilling sector appears to have a good safety record when it comes to non-fatal accidents, the incidence of fatal accidents (even though very volatile from year to year) still remains high as compared with the average EU incidence rate. In addition, drilling remains an industry often functioning in highly challenging environments (especially offshore) where the risks to safety are ever-present. Similarly, work technologies and working practices mean that there are a wide variety of hazards to health present within the sector (again especially but not exclusively offshore) and it appears from the information available that the Directive is and will remain relevant.

Effectiveness

Major accidents is a key risk factor and data shows that no major accidents have occurred since the adoption of the Directive and that indicators on risks of major accidents depict a falling trend reflecting continuous improvement in safety management.

The provisions common to EU OSH Directives are regarded as important and as part of a safety management culture and systems approach, which is widely practised in the industry.

This multi-national industry is to an extent 'self-regulating' with a global application of comprehensive and standardised certification systems to manage safety are used in the vast majority of cases. These systems have requirements regarding control and verification, which can be seen as a form of enforcement.

Some NIRs recommended in relation to the Directive to clearly define who is responsible for producing health and safety statements and reducing the Annexes to the Directive from three to two, so that one Annex applies to onshore drilling and the other to offshore drilling.

Coherence

While no major internal coherence issues were identified in relation to this Directive certain overlaps and synergies exist between Directive 92/91/EEC and other EU OSH Directives (in particular Directive 92/104/EEC and Directive 89/654/EEC. Suggestions from the NIRs in relation to this Directive included considering the merging of Directive 92/104/EEC with

[375] Data for the reference year 2012, Eurostat, EU LFS (online data code lfsa_egan22d).

Directive 92/91/EEC. A number of suggestions related as well to a better alignment of Directive 92/91/EEC in relation to Directive 2013/30/EU on safety of offshore oil and gas operations.

The external evaluation study formulated the following recommendations to improve the internal and external coherence of the Directive:

- Streamline of the training provisions on work equipment in Council Directive 92/91/EEC (mineral-extracting industries through drilling) under Directive 2009/104/EC (work equipment).

- Review Directive 98/58/EC (pregnant workers) to streamline the provisions on pregnant workers and breastfeeding workers under the OSH workplace Directives (including 92/91/EEC)

- Clarify the reporting requirements under Directive 2013/30/EU (safety of offshore oil and gas operations) and Directive 92/91/EEC (mineral-extracting industries through drilling) through guidelines (see above).

Main conclusion

To enhance relevance and effectiveness of the Directive, it could be considered to:

- Follow up on the specific recommendations made in the 2013 evaluation report on the Directive, especially those relating to bringing the Directive up to date with current safety practises in the industry. This could potentially be done through guidelines or a revision of the Directive. It is suggested that this is considered in cooperation with industry and Member State representatives.

- Issue specific EU guidelines on the implementation of the Directive specifying the types of activities, situations and workers to be covered by the Directive. Also, consider whether such guidelines should incorporate guidelines for good inspections, i.e. be targeted at industry as well as at national inspection bodies.

- Discuss the potentials for enhancing the dialogue and learning forums for inspectors specialising in inspection of the drilling industry across Member States.

- In a dialogue with the industry consider how the current safety management culture can be further developed to embrace the health aspects as well – this could also to an extent be addressed through guidelines, but would probably need additional awareness raising efforts.

- Give consideration to coherence issues identified in the national implementation reports and the evaluation study.

12. Directive 92/29/EEC on the minimum safety and health requirements for improved medical treatment on board vessels (medical treatment on board vessels)

Objectives and main requirements

The objective of this Directive is to improve medical assistance on board vessels which constitute workplaces involving a wide range of risks. It supplements the Framework Directive by introducing minimum requirements as regards medical supplies and medicine chests, to encourage improvements of the safety and health of workers on board vessels

The Directive applies to the safety and health of workers on board any vessel flying the flag of a Member State, or registered under the plenary jurisdiction of a Member State. However, the Directive excludes port pilots and shore personnel carrying out work on board a vessel at the quayside in its definition of workers. However, the Directive contains requirements that only apply to vessels of more than 500 gross registered tonnes, with a crew of 15 or more workers and engaged in a voyage of more than three days. Furthermore, the Directive contains specific requirements for vessels with a crew of 100 or more workers, engaged in an international voyage of more than three days, requiring the presence of a doctor, responsible for medical care, on board.

The Medical Treatment on Vessels Directive does not seek to prevent or eliminate exposure to potentially dangerous working conditions. In contrast, the Directive aims to ensure adequate health care in case of an accident and illness. Such diseases are not only restricted to occupational diseases. For instance, cardiovascular diseases (CVDs) are one of the most common reasons for serious medical emergencies (apart from accidents) at sea. Serious and potentially life threatening accidents and diseases require a fast diagnosis and initiation of proper treatment. This is clearly a challenge in a workplace characterized by geographical isolation. On this background, the Directive includes the obligations for each Member State to ensure that every vessel flying its flag or registered under its plenary jurisdiction always carries on board medical supplies which meet at least, in terms of quality, the specifications of the Directive; to ensure that the quantities of medicinal products and medical equipment to be carried depend on the nature of the voyage - in particular ports of call, destination, duration - the type or types of work to be carried out during the voyage, the nature of the cargo and the number of workers; to ensure that the content of the medicines and medical equipment included in the medical supplies shall be detailed on a checklist corresponding at least to the general framework laid down in the Directive; to ensure for each of its life-rafts and life-boats, that every vessel flying its flag or registered under its plenary jurisdiction carries a watertight medicine chest at least containing the medical supplies specified in the Directive; to ensure that every vessel flying its flag or registered under its plenary jurisdiction, of more than 500 gross registered tonnes, with a crew of 15 or more workers and engaged on a voyage of more than three days, has a sick-bay in which medical treatment can be administered under satisfactory material and hygienic conditions; to ensure that every vessel flying its flag or registered under its plenary jurisdiction, with a crew of 100 or more workers and engaged on an international voyage of more than three days, has a doctor responsible for the medical care of the workers on board.

State of transposition and implementation

All MS concerned have transposed the Directive and about half have more detailed/stringent requirement, for instance regarding sick bays and medical doctors on board vessels. Most Member States with a fishing or merchant fleet already had legislation setting requirements regarding the availability of medical supplies and medical assistance on board. Likewise, in some MS, radio-consultation services already existed and compulsory training in health were also in place.

Finally, the analyses show that, in general, MSs have not developed specific measures to support SMEs in the maritime sector.

Data on compliance collected in the framework of the evaluation study is too limited to draw definitive conclusions. In their replies in NIRs several MSs report implementation problems in terms of medical supplies.

Relevance

The Directive covers a relatively narrow group of workers[376].While it does not aim directly at preventing accidents, the consequences of not getting fast treatment after, for instance, a serious accident, a heart attack or another critical condition can have severe and even fatal consequences for the worker. In addition, the provisions of the Directive have not only implications for the crew, but also for the passengers, which widens its impact. Workers on board vessels are subject to a number of hazards, which without fast medical intervention can lead to severe negative health outcomes (increased risk of accidents (in particular for workers in the fishing industry), long or irregular working hours, isolation, shift work, extreme weather conditions, work with heavy machinery, exposure to biological and chemical agents are only some of the important risk factors to be mentioned.

The suggestions from the NIRs as regards the relevance of the Directive point to the need for updating of the medical supplies listed in the Directive to take account of advances in pharmacy and therapeutics, imponderables relating to the selling of some medicines and in particular, constraints involved in the operation of passenger vessels.

New technological opportunities in telemedicine can provide for an important support for the provisions of the Directive for the future. Technological advances have opened new possibilities for instance by broadening the scope from radio counselling to video conferences and exchange of bio-medical data and images.

Effectiveness

The information collected in the context of the evaluation on the effectiveness of the Directive is limited. As regards workplace impacts, the evidence collected from a limited number of interviews does not allow to draw definitive conclusions.

[376] In 2012, the number of persons employed in sectors for which the Directive is most relevant (fishing and aquaculture and water transport) equalled 164.9 thousands and 301.7 thousand s respectively. On one hand, not all workers from these sectors will fall under the scope of the Directive, given the exclusions under its Article 1 and the fact that not all workers classified as workers of that sector work on vessels, on the other hand it is likely that a small proportion of workers from other sectors might be concerned. Eurostat, EU-LFS (online data code lfsa_egan22d).

As regards safety impacts, the evaluation study based its assessment on research data from selected Member States, including: Denmark, Poland and the UK. National data from these Member States shows that the incidence of fatal accidents has fallen among seafarers in the merchant fleet. While fatal accidents have fallen in several MSs, this downward trend was initiated before the introduction of the Directive, suggesting that other factors have played a role as well, such as a considerable change in the working and living conditions of the seafarers. Downward trends in fatal accidents at work in the main sectors concerned by the provisions of the Directive between 2008-2012 could also be observed from the UE datasets[377].

As the number of injuries has decreased, cardiovascular diseases (CVD) have become the most common cause of death on board. In the 1980s and the 1990s, deaths due to CVD accounted for 55-70% of all natural causes of death among seamen on British and Danish Merchant ships.

In this context, the accompanying actions identified in the framework of the evaluation could further support the achievement of the objectives of the Directive.

Coherence

The suggestions from the NIRs as regards this Directive concerned a better alignment with some international standards (for ex. International Maritime Organisation (IMO) – Life Saving Appliances (LSA) Code 4.15.1.8; ISO 3864-1:2011 "Graphical symbols – Safety colours and safety signs; International Labour Organisation's 2006 Maritime Labour Convention and the Convention on Work in Fishing).

The evaluation study has not identified any issues of internal coherence between the Medical treatment on board vessels Directive and the other OSH Directives. With regard to external coherence, a few inconsistencies and overlaps were found between Directive 92/29/EEC and Directive 2009/13/EC implementing the Social Partners Agreement on the MLC, Directive 2008/106/EC on Minimum level of training of seafarers and the Social Partner Agreement concerning the implementation of the ILO Work in Fishing Convention of 2007.

The evaluation points to external inconsistencies in the legislation. These inconsistencies and gaps suggest the potential need to remove the provisions of Directive 2009/13/EC and Directive 2008/106/EC on Medical treatment and to align the provisions of Directive 92/29/EEC on Medical treatment on board vessels with the relevant provisions on medical treatment of the ILO MLC, 2006, the ILO Work in Fishing Convention, 2007 and the STCW.

Main conclusions

The available evidence shows that the Directive has been transposed and well-implemented in the national legislation. Many MSs already had provisions in place before transposing the Directive, and medical treatment on board vessels is also covered in international agreements

[377] Results should be interpreted with caution due to the relatively low number of cases reported. Eurostat, ESAW (online data code hsw_02_02).

and conventions. The limited evidence gathered in the framework of the evaluation study does not allow drawing definitive conclusions on the overall levels of compliance with the provisions of the Directive. However, contributions received in the NIRs point to implementation problems as regards medical supplies. In this context and having regard to the progress in pharmacy and therapeutics, the recurrent suggestions from the NIRs as regards the possibility of reviewing the compulsory list of medical supplies should be considered.

The Directive does not address preventive measures, but it could have had some effects on survival rates after accidents and serious illness.

However, considered that CVD is the most common cause of death on board vessels, further emphasis should be placed on preventive initiatives to reduce risk factors related to CVDs, i.e. in terms of ensuring healthy nutrition and physical exercise on board ships. Moreover, medical courses could also put additional focus on the prevention and treatment of CVDs. Utilising new technological equipment to improve treatment and diagnosis of disease and/or prevention of accidents is a possible option for larger vessels. The advances in telemedicine could therefore help reduce mortality on board vessels.

The coherence issues related to the Directive, highlighted in the national implementation reports, should be given consideration.

13. Directive 93/103/EC concerning the minimum safety and health requirements for work on board fishing vessels (fishing vessels)

Objective scope and main requirements

The objective of the Directive is to set minimum safety and health requirements for the protection of workers on board fishing vessels used for commercial purposes either for catching or catching and processing fish or other living resources from the sea. For the purposes of the Directive, workers are defined as any person carrying out an occupation on board a vessel, including trainees and apprentices but excluding shore personnel carrying out work on board a vessel at the quayside and port pilots. The Directive applies to workers on any fishing vessel with a length between perpendiculars of fifteen metres or over (new vessels) or 18 metres or over (existing vessels), which flies the flag of a Member State or is registered under the plenary jurisdiction of a Member State.

The Directive does not enumerate specific risks or types of occupational accidents or diseases which it is aimed to address, but the annexes thereto lay down detailed minimum safety and health requirements for the fishing. Thus, the Directive addresses the overall risks of flooding, fire, being struck or crushed by a moving object (such as trawl equipment), physical risks of manual work, the risk of tripping and slipping (e.g. caused by greasy ladders and decks, loose equipment, hoses and vessel structures), falls overboard and falls caused by working alongside an open hatch or other openings in a vessel's structure, the noise and the risk of breathing polluted gases in the engine room. Finally, potential socio-psychological issues are

also addressed to a minor extent, by establishing minimum requirements for the living quarters. However, socio-psychological risks caused by fatigue, long working hours, isolation, etc. are not addressed by detailed provisions.

State of transposition and implementation

Five of the MS are landlocked and do not have a maritime fishing fleet[378]. The Directive has been transposed in the other twenty two MSs, of which two thirds have transposed more detailed or stringent requirements. The most prevalent additional requirements are related to the training and information of workers. Eleven MSs had pre-existing legislation to some degree. Data also show that the cases of incorrect transposition are limited. The EC launched infringement procedures against Spain, Italy and Cyprus for non-conformity. Transitional periods have been applied by twelve MS, two of which have transgressed their deadlines.[379]

The challenges faced during the assessment of levels of **compliance** were the fact that compliance generally is not systematically monitored in the MSs, the existence of different characteristics of fishing fleets across the EU and the lack of data sources for the fishing sector. In general technical and mechanical aspects of the Directive have good levels of compliance, due to the fact that those aspects are subject to in-port systematic inspections. On the other hand, OSH requirements on information, training and consultation of workers, as well as the required risk assessments on a regular basis, seem to be complied in a smaller scale. It is likely that it could be a result of limited financial resources and a lack of skilled personnel, which often pay less attention to safety and health management. Finally, even though national guidance is more likely to reach individual workers than EU level guidance, accompanying actions at MS level seem to be rather limited and insufficient.

Relevance

The Directive only covers approximately 9.6% of the EU fishing fleet (because it is limited to new vessels of 15 metres or over and existing vessels of 18 metres or over). The workforce coverage roughly corresponds to the proportion of the 0.05% of the total labour force that works on those 9.6% of vessels that fall under the scope of the Directive. Nevertheless, a mapping of the NIR reveal that very few MSs make any specific reference to extending the scope of the Directive (or at least some of its provisions) to smaller vessels. There seems to be an indication that incidence rates for accidents tend to be higher on small vessels[380].

The Directive is highly relevant in terms of the severity and number of risks that workers on fishing vessels are subject to. Considering the whole fishing and aquaculture sectors (both small and big vessels), the incidence rate of fatal accidents[381] is 9.27 times higher and the

[378] Austria, Czech Republic, Luxembourg, Hungary and Slovakia.
[379] Portugal and Slovenia.
[380] ref. e.g. Jensen et al., 2014)
[381] ref. e.g. Jensen et al., 2014)

incidence rate for non-fatal accidents is double, comparing with the average of all sectors combined[382]. In addition, the prevalence of work-related health problems and exposure to risk factors that can adversely affect mental wellbeing is higher in the fishing sector than for most other sectors (increased ergonomic risks in relation to the heavy manual work, psychosocial and social risks due to prolonged isolation and work in a confined environment, intense work for long hours unevenly divided between periods, exposure to chemical agents (including carcinogens), noise etc.).

Effectiveness

As regards workplace impacts the evaluation study assessed that the Fishing vessels Directive is well complied with as regards the technical and mechanical aspects, mainly due to an effective system of in-port technical inspections. Provisions with a lower impact are those for which non-technical inspections by labour authorities are undertaken.

Furthermore, relevant literature and EU stakeholders' interviews seem to suggest that overall awareness on OSH has increased in the fisheries sector and several NIRs highlight increased awareness as the most important outcome of the Directive[383]. But the external study found also that a majority of interviewed stakeholders had more knowledge of the ILO conventions and pieces of legislation than the specific provisions of the Directive.

As regards safety impacts, the evaluation study observed that incidence rates of fatal accidents have decreased[384], but at the same time assessed that the improvements might have been also caused by the requirements of the national legislations going far beyond the requirements of the Directive. The incidence rate for non-fatal accidents in the fisheries and aquaculture sector has also decreased as observed based on longer time series provided for in the evaluation study and based on EU data for the evaluation period[385].

Coherence

No coherence issues were identified between the 93/103/EC Directive and the other OSH Directives. With regard to external coherence, the Directive is coherent with the IMO International Convention on Standards of Training, Certification and Watch keeping for Fishing Vessels (STCW-F) and the ILO Work in Fishing Convention (C188), but not as detailed and stringent. A general alignment between the Fishing Directive and IMO and ILO conventions would be preferable, because the Social Partners in the European Union's sea-fisheries sector adopted a Social Partners Agreement aiming at the implementation of the ILO

[382] Note: there are reported fatalities from only 11 out of 22 MSs. *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States,* COWI, 2016

[383] *Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States,* COWI, 2016.

[384] Based on data from UK, PL and DK in order to account for longer time series. EU level data start only in 2008. From 2008 to 2012 a decline was also observed in the incidence rate for fatal accidents in the EU27 based on ESAW data (from 21.25 to 16.72 in 2012) though those figures should be treated with caution due to a relatively low number of underlying cases. Unlike some national figures, the EU figures do not provide for a distinction by vessel size. Eurostat, ESAW (online data code hsw_n2_02).

[385] The incidence rate for non-fatal accidents for the fisheries and aquaculture sector for the EU27 dropped from 2,805.83 in 2008 to 2,739.1 in 2012. Eurostat, ESAW (online data code hsw_n2_01).

Convention 188, on 8 May 2013. The Agreement aims to ensure that ILO 188 Convention's clauses are in line with the relevant existing EU acquis. The Commission awaits the findings of an external study on the impacts of the Agreement before addressing a proposal for the adoption of an EU Directive to implement the Agreement.

Main conclusions

The Directive has been transposed in all MS concerned by its provisions, with national provisions going often beyond the general requirements of the Directive. The results of the evaluation show that provisions most complied with are those covering the technical and mechanical aspects, due to an effective system of in-port technical inspections. Provisions with a lower impact are those for which non-technical inspections by labour authorities are undertaken. The analysis shows that considerable challenges are linked to performing satisfactory risk assessments on fishing vessels as required by Articles 6(3) (a) and 9 (1) of the Framework Directive. It may be one of the reasons for the low level of compliance. As risk assessments are often performed in harbour, on board risks, such as weather hazards, are not reflected. Ultimately, these challenges call for specific requirements to be embedded in the development of risk assessments in the fisheries sector along with resilience on the provisions of the Framework Directive may not be sufficient. The provisions of the Directive could gain benefit if tailored to the specific workplace of fishing vessels. This would be an effective tool for ensuring compliance and improving OSH on board fishing vessels and for risk assessments.

Working on board fishing vessels continue to be a high risk activity (both as regards safety and health aspects), justifying the relevance of provisions aiming at ensuring minimum requirements for the protection of safety and health of workers in this working environment.

Both fatal and non-fatal incidence rates in the fisheries and aquaculture sector have decreased over the last years, though it is difficult to assess to what extent these changes can be attributed to the EU, and to what extent to the national, often more detailed legislation and other factors. Relevant literature and EU stakeholders' interviews seem to suggest that overall awareness on OSH has increased in the fisheries sector and several NIRs highlight increased awareness as the most important outcome of the Directive

As regards coherence, the NIRs recommend to combine Directive 93/103 /EC with Directive 97/70/EC on setting up a harmonised safety regime for fishing vessels of 24 metres and over and to align the Directive with the standards of the ILO's Maritime Labour Convention and Convention on Work in Fishing.

14. Directive 2002/44/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration)

Objective and main requirements

Directive 2002/44/EC was one of the first in a set of OSH Directives aiming at the protection of workers against risks arising from exposure to physical agents. The awareness was first raised by the European Commission (1989) in a Communication stating that physical agents such as vibration can lead to unacceptable risks, and that health damaging effects could only be observed later in time.

The Directive has the objective of minimising the incidence of diseases and accidents caused by workers' exposure to vibration. The focus is on long term health issues, rather than acute accidents, although some acute risks to safety are also identified. It does so by laying down minimum requirements for the protection of workers from risks to their safety and health arising or likely to arise from exposure to either whole-body or hand-arm vibration – in particular muscular/bone structure, neurological and vascular disorders, namely by setting up exposure limit values and action values in respect of the daily exposure to vibration.

The Directive sets out several obligations for the employer such as to determine and assess the risks, to avoid and reduce exposure, to inform and to ensure appropriate training to the workers exposed relating to the outcome of the risk assessment.

State of transposition and implementation

With only few observed infringement proceedings regarding non-communication, it is concluded that the national transpositions of the Directive have been smooth. Furthermore, most Member States have implemented more detailed or stringent requirements. However, derogations regarding sea and air transport or regarding occasionally high vibration are applied in more than half of the Member States.

Although there seems overall to be good **compliance** with the Directive provisions among the establishments in the Member States, it is relatively low among the smaller establishments. Lower compliance among the smaller establishments is partly due to financial burdens and lack of information and expertise.

A number of **accompanying actions** have been taken at both Member State level and EU level to encourage the achievement of the safety and health targets of the Directive. These include guidance documents, support tools, awareness-raising campaigns, education and training activities, and financial incentives. However, these types of actions are unlikely to have been of significant importance for the overall effectiveness of the Directive.

Relevance

According to the findings of the sixth European Working Conditions Survey around 20% of the EU workforce is exposed at least a quarter of the time at work to vibration from machinery and hand-held tools[386][387]. Exposure to vibration mostly occurs in construction;

[386] http://www.eurofound.europa.eu/surveys/data-visualisation/sixth-european-working-conditions-survey-2015

manufacturing, mining; agriculture and fishing; electricity gas and water supply; transport and communication, but a variety of other sectors are also concerned. Available national data shows that those industries use still often machines and equipment that may expose operators above action or limit values as set by the Directive[388]. The exposures to vibration when above certain levels and/or duration of exposure, can lead to several severe and invalidating forms of work-related ill-health, such as osteoarticular diseases of the hands and wrists, angioneurotic diseases as well as other diseases[389]. Those factors confirm the continued relevance of the Directive, despite the expected decrease in high levels of vibration over time in relation to technological progress (better design of machines, automation of many production processes, less interaction of workers with equipment that vibrates).

Effectiveness

The Directive is assessed to have affected enterprises' behaviour regarding securing occupational safety and health – particularly for the larger enterprises, but less for SMEs and microenterprises (explained by a lack of resources and a lack of awareness of occupational safety and health). These improvements in behaviour have resulted in that since 2001 there has been a decreasing degree in exposure at work to vibrations from hand tools, machinery etc. – although this development should, as just mentioned above, be seen in the light of modernisations of machines and production processes.

Although common processes and mechanisms and the other key requirements work in tandem to produce impacts, there seems to be a number of barriers to effectiveness linked to the CPMs and other KRs work. These include lack of theoretical and practical knowledge/assistance with the risk assessment process, and problems with complying with limit values. However, it is found that in some cases the transposition of the Directive has represented an advancement of the national legislation with emphasis on increasing the protection of workers from vibration. Moreover, the Directive provides a good foundation for effectively reducing risks related to vibration, due to the fact that employers assess vibration magnitudes, and as this is considered an efficient strategy for managing risks. Hence, while the Directive provides a solid foundation for managing the risks related to vibration, the evaluation study found that there are indications that there are some issues regarding effective implementation in the workplaces.

Coherence

Although there are overlapping requirements with the other physical agents Directives on noise, optical radiation and electromagnetic field, none of the EU stakeholders interviewed

[387] This statistic only gives general information about the existence of the risk, though they cannot provide information about the level of exposure as compared with the daily exposure action value and daily exposure limit value as set by the Directive.

[388] Based on EU-OSHA, Workplace exposure to vibration in Europe: an expert review, 2008, information from the NIRs and the evaluation study

[389] There is moderate evidence that contracture of palmar aponeurosis may occur as an effect of hand-arm vibration. The prevalence of musculo-skeletal diseases of upper limb, shoulder or neck is increased in HAV-exposed but it has not been possible to separate the effect of HAV from the effect of other physical factors, i.e. force, repetition and posture. Based on "Information notices on occupational diseases: a guide to diagnosis", European Commission, DG EMPL, 2009, p. 439-240.

identified major internal coherence issues. A number of possible adjustments were identified based on the comparative study made between the Vibration Directive and other physical agents directives. These encompassed in particular the review of the risk assessment procedure or to ensure that the procedure of adoption/amendment of limit values and action values is clarified and where relevant harmonised with the other physical agent directives.

Similarly, the review of coherence with non-OSH EU instruments has not revealed any overlaps or inconsistencies, but some synergies with Directive 2006/25/EC (machinery). In terms of coherence with international instruments, the most relevant act is the ILO Working Environment (Air Pollution, Noise and Vibration) Convention (No. 148).

Main conclusions

The Directive remains relevant and has fulfilled its objectives. This said, the evaluation study made a number of recommendations for the way forward when developing the Directive:

- Limit values – Limit values can be revised due to the fact that modern machines in general emit less vibration and that many production processes have been automated. Some limit values may be reduced as low-cost technical solutions have become available to reduce vibration. Others may become less important to address as fewer and fewer workers are exposed to certain types of vibration. Consequently, it is recommended that the procedures of adoption/amendment of limit values and action values are clarified and where relevant are harmonised with the other physical agents Directives.

- Review the risk assessment procedure under the Directive to include the provision of Directive 2003/10/EC (noise) requiring employers to give particular attention to the extension of exposure beyond normal working hours under the employer's responsibility.

- Review the risk management measures derived from the risk assessment under the Directive to ensure that they include measures on the limitation of the duration and levels of the exposure, implementation of follow-up measures in case of exceedance of limit values (appropriate work schedules with adequate rest periods).

- Based on the ILO approach, consider using a common instrument for vibration and noise. Hence, in order to ensure a level playing field between Member States, one could consider aligning with the more stringent requirements set by the 1977 ILO Working Environment (Air Pollution, Noise and Vibration) Convention (No. 148) through encouraging ratification by Member States or considering their integration in the OSH acquis.

15. Directive 2003/10/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (noise)

Objectives and main requirements

The Directive, adopted in 2003, replacing the Directive 86/188/EEC, applies to all sectors covered by the Framework Directive, where workers are or are likely to be exposed to noise.

The main objective of the Directive is to prevent workers from impairing/losing their hearing, as well as any condition which might arise from exposure to noise, for example permanent ringing in the ears (tinnitus). It includes obligations for implementation of the common processes and mechanisms set out in the Framework Directive and provides a set of exposure limit values and exposure action values in respect of the daily noise exposure levels and peak sound pressure. Furthermore, it requires that measures to eliminate or reduce exposure to noise are introduced and provides a set of principles to be taken into account. In addition, Member States shall consult social partners and make a code of conduct providing practical guidelines for workers and employers in the music and entertainment sectors.

According to Article 17(2) of the Directive, Member States were entitled if necessary to have an additional period (five years) to implement the provisions of Article 7 of the Directive with regard to the personnel on board seagoing vessels, as well as to make use of a transitional period (two years) for the transposition of the Directive with regard to music and entertainment sector on the condition that during this period the levels of protection already achieved in individual Member States, with regard to the personnel in these sectors, were maintained.

State of transposition and implementation

All Member States have transposed the Directive and four Member States have adopted more detailed/stringent requirements in respect to limit values. The available evidence on compliance at the enterprise level is limited, but the existent data concludes for a reasonable level. However, when considering the music and entertainment industry compliance is low – probably with a few exceptions of large and well-established orchestras. The data indicates that some Member States have put considerable effort into developing comprehensive codes of conduct for the music and entertainment industry whereas others have merely referred to the EU level guidance on the Directive or other guidance and have taken only a limited action in this field.

Relevance

Over a quarter of the EU workforce across all Member States is exposed to loud noise at work at least a quarter of the time[390][391]. Exposure to noise mostly occurs in construction; manufacturing; waste management, water and electricity supply; mining and quarrying; agriculture, forestry and fishing, but a number of other economy sectors are also concerned. Exposure to noise, when above a certain level, can lead to acute effects such as dizziness, tinnitus or even acute hearing loss (acoustic shock). In addition, prolonged exposures at a certain levels can lead to chronic effects, i.e. partial or total hearing loss. Furthermore, the disruption to speech communication in noisy environments and the poor perception of

[390] Eurofound, Sixth European Working Conditions Survey (2015).
[391] This statistic only gives general information about the existence of the risk, though they cannot provide information about the level of exposure as compared with the exposure limit values as set by the Directive.

warning signals lead to an increased accident risk[392]. Those factors confirm the continued relevance of the Directive to workers in all Member States, despite the expected reduction in levels of exposure to noise in industries where high levels of exposure to noise traditionally occurred.

Consideration should be given to exploring the possible implications of trends regarding the aging of the workforce on the relevance of the Directive.

Effectiveness

The limited existent data indicates that the Directive has had tight effect in terms of reducing exposure and noise-induced hearing damages. The evaluation has not found scientific evidence, which would strongly argue for a change in the limit values provided in the Directive.

According to the evaluation study, the levels of exposure and hearing problems seem to be fairly stable, indicating that the issue is under a certain level of control. According to the EU LFS ad hoc modules, the percentage of persons reporting a hearing disorder as their most serious work-related health problem equalled 1.1 in 2013 against 2.2 in 2007[393] in the EU-27. A study analysing work-related ill-health data for 8 EU countries from 2000 to 2012 found that while an increasing trend in the incidence of noise-induced hearing loss was reported in Belgium, Spain and the Netherlands, a decreasing trend was found in the remaining EU Member States (Czech Republic, Finland, France, Italy and UK)[394].

Data on the music and entertainment industry indicates that the Directive has had little or no effect in this sector. This indicates that the Directive is not entirely fulfilling its objective of protecting workers from risks to their health and safety arising or likely to arise from exposure to noise in that industry.

Risk assessments targeting noise risks and implementation of collective/preventive (rather than individual/protective) measures should imply in a higher compliance with the Directive's provisions.

Coherence

Although there are overlapping requirements with the other physical agents Directives on vibration, optical radiation and electromagnetic field, none of the EU stakeholders interviewed identified major internal coherence issues. A number of possible adjustments were identified based on the comparative study made between the Noise Directive and other

[392] https://oshwiki.eu/wiki/Noise

[393] Those results should however be interpreted with caution due to differing definitions between the two modules in some MS. EU LFS ad hoc modules 2007, 2013 (online data code: hsw_pb5).

[394] *Trends in incidence of occupational asthma, contact dermatitis, noise-induced hearing loss, carpal tunnel syndrome and upper limb musculoskeletal disorders in European countries from 2000 to 2012*, Journal of Occupational & Environmental Medicine, (Occup Environ Med 2015;72:294-303 doi:10.1136/oemed-2014-102534).

physical agents directives. These encompassed: review of the risk assessment procedure to give particular attention to the extension of exposure beyond normal working hours under the employer's responsibility; review the Directive to include an obligation to inform workers on the nature of the risks and to inform workers at particular risk.

The Directive refers to ISO 1999 on daily and weekly noise exposure levels. A new version - ISO 1999: 2013 - is available, providing for minor changes to the equations. The external study suggested considering to update the Directive to reflect the most recent version of ISO 1999.

No overlaps or inconsistencies were found between the Directive and non-OSH EU legislation. There is an interaction with the Directive 2006/42/EC (machinery), as this Directive includes several requirements to ensure noise reduction from machinery and equipment.

Main conclusions

The Directive is generally relevant in its current form. The evaluation has not identified a need for major amendments of the Directive, for example concerning exposure limit values.

However, in order to enhance relevance of the Directive, the evaluation study recommended:

- An amendment to the Directive to refer to the most recent version of ISO 1999.

- Supporting knowledge building in relation to the ageing workforce and the possible implications for regulation of risks of exposure to noise[395].

- Ensuring a better implementation of existing requirements in the Directive through awareness raising activities and strengthened inspection and guidance regimes

- A dialogue with the Member States and the social partners on how to achieve a better implementation of the Directive in music and entertainment sectors.

- A review and streamline of worker information requirements under the physical agents directives and the review of the health surveillance provisions, to ensure consistency across the four physical agents directives;

- Adoption of measures to ensure that the procedure of adoption/amendment of limit values and action values is clarified and harmonised with the other physical agents Directives.

16 Directive 2004/40/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields/EMF)

[395] i.e. to determine needs for future amendments of Directive or of guidance material to take into account the specific risks related to noise exposure and the aging workforce.

Directive 2004/40/EC has been **repealed and replaced** by the Directive 2013/35/EU[396], with a transposition deadline of 1 July 2016. The review and reporting on the new Directive will fall under Article 17a of Directive 89/391/EEC and will be subject to future evaluations of the OSH legislation based on this Article.

17. Directive 2006/25/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (artificial optical radiation/AOR)

Objectives and main requirements

The Directive lays down minimum requirements for the protection of workers from risks to their health and safety arising or likely to arise from exposure to artificial optical radiation. It places obligations on the employer, in the case of workers exposed to artificial sources of optical radiation, to assess and, if necessary, measure and/or calculate the levels of exposure to optical radiation to which workers are likely to be exposed so that the measures needed to restrict exposure to the applicable limits can be identified and put into effect.

The principle impact of the Directive is intended to be a reduction in the incidence of injuries associated with AOR. It aims to do so by laying down minimum requirements for the protection of workers from risks to their health and safety arising or likely to arise from exposure to artificial optical radiation during their work by setting up exposure limit values and action values in respect of the exposure to artificial sources of optical radiation.

State of transposition and implementation

All MSs have implemented the Directive, mostly within one piece of legislation (which facilitated its application in a coherent manner) with fewer implementing it in several pieces. There have been no infringement proceedings for non-conformity issues.

Data on levels of **compliance** with the requirements of the Directive within MSs is limited as most national authorities do not monitor levels of compliance in a directive-specific way. For those three MSs for which data was available, the level of compliance with the provisions common to EU OSH Directives can be regarded as moderate[397]. Despite recognition of this complexity, MS level supporting actions are relatively sparse compared to some other Directives. However, there is an EU non-binding guide to good practice for implementing Directive 2006/25/EC to provide some assistance.

[396] Directive 2013/35/EU of the European Parliament and of the Council of 26 June 2013 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (20th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) and repealing Directive 2004/40/EC, OJ L 179, 29.6.2013, p. 1.

[397] Two MSs (Slovakia and Romania) reported compliance levels of 45% across all of the articles (estimated by the national expert). A third, Estonia, reported 71% compliance with the requirement for risk assessments, but provided no further information regarding any of the other articles

Relevance

Artificially generated optical radiation is present in most workplaces, but particularly in such sectors as: hot industries like glass and metal working; print industries; arts and entertainment; non-destructive testing; shop floor and warehousing industries; medical treatment; cosmetic treatment; pharmaceuticals and research; sewage treatment; metal working including welding or plastics manufacturing involving laser bonding and a number of other industries in all MS. The evaluation study estimated, using two different approaches a range of 1.6-3.3%, of the EU workforce potentially at highest risks to health and safety from AOR exposure. The possible effects of optical radiation depend on the levels and duration of exposure for each radiation type. Excessive short-term exposure to ultraviolet radiation can cause erythema, while the most serious long-term effect of UV radiation is the induction of skin cancer. Chronic exposure to UVR can also cause photoageing of the skin and might affect immune responses. Responses of the human eye to acute overexposure of UVR include photokeratitis and photoconjunctivitis. Chronic exposure to UVA and UVB can cause cataracts due to protein changes in the lens of the eye. Visible radiation can cause heat strain from thermal stress the skin and sever visual handicaps. IRA, IRB and IRC can also have a number of adverse effects on the skin and the eyes. The severity of potential risks in relation to this agent and the variety of sectors concerned across all MS confirm the relevance of the Directive.

As regards the recommendations from the external study, a number of national stakeholders expressed a variety of sometimes conflicting views. These included: the Directive was insufficient in that it did not cover outdoor work and the associated increased risk of skin cancer (a view shared by a multinational expert group on skin cancer); awareness-raising via guidelines would have been preferable to legislation; the Directive had great relevance, in particular for the health sector, where the problem was prevalent in their MS; the Directive brought no additional benefit to the MS, an opinion which was echoed by a subject matter expert; although AOR presented hazards, it was considered that both were already generally well managed and that the actual degree of risk was relatively low and the AOR Directive should be rescinded; the Directive was not relevant at present and that its relevance would reduce further with technological advances. The external study also suggested that the existing ELVs could be subject to a possible review in the light of new scientific evidence.

As regards the recommendations from the NIRs, two Member States suggested the extension of the scope of application of the Directive to natural optical radiation.

Effectiveness

National stakeholders gave an average score of 4.3 (scale 1-5) on whether the Directive had fulfilled its objective, indicating that it was to a large extent.

On health issues, although it is widely accepted that exposure to AOR can have adverse health effects, no appropriate data sources on occupational diseases/injuries have been found. Current EU databases do not provide any classification appropriate for AOR and the majority of scientific papers tend to focus on other issues such as solar UV. To aid future evaluations

of the effectiveness and impact of the AOR Directive, further development of data to monitor the effectiveness of the Directive is required.

Coherence

Although there are overlapping requirements with the other physical agents Directives on noise, vibration and electromagnetic field, none of the EU stakeholders interviewed identified major internal coherence issues. A number of possible adjustments were identified based on the comparative study made between the AOR Directive and other physical agents directives. These encompassed: review of the risk assessment procedure to give particular attention to the extension of exposure beyond normal working hours under the employer's responsibility; review the Directive to include an obligation to inform workers on the nature of the risks and to inform workers at particular risk; ensure that the procedure of adoption/amendment of limit values and action values is clarified and where relevant harmonised with the other physical agent directives.

Main conclusions

The AOR Directive remains relevant in the light of severe risks related to high levels and/or long term exposure to (artificial) optical radiation. It should however be noted that during the evaluation process (evidence from the NIRs and the evaluation study) the Directive attracted most contradicting comments as regards its relevance, with some stakeholders advocating for a broadening of its provisions to natural optical radiation and others suggesting the repealing of the Directive.

The stakeholders interviewed in the framework of the evaluation study assessed that the Directive has met its objectives to a large extent. As regards its impact on the health and safety of workers, better quality data on the both acute and chronic effects of workers' exposure to AOR in the EU should be developed in order to assist the Commission's services in future evaluations of the effectiveness of the AOR Directive.

In addition, the evaluation study recommended a review of the ELVs enshrined in the Directive. This should be considered having regard to the recent (2013) ICNIRP guidance and up-to-date scientific evidence. Consideration should also be given to the suggestions of the evaluation study as regards its scope and synergies between the provisions of the Directive and the emergence of harmonised standards on products emitting AOR which include health and safety aspects.

18 Directive 1999/92/EC on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (explosive atmospheres workplace/ATEX Workplace)

Objectives and main requirements

The Directive lays down minimum requirements for the safety and health protection of workers potentially at risk from explosive atmospheres.

The Directive obliges the employer to take technical and/or organisational measures appropriate to the nature of the operation, in order of priority and in accordance with the basic principles of prevention of the formation of explosive atmospheres, or where the nature of the activity does not allow that, of the avoidance of the ignition of explosive atmospheres, and of the mitigation of the detrimental effects of an explosion so as to ensure the health and safety of workers.

The risk of explosions arises as a result of uncontrolled effects of flame and pressure, the presence of noxious reaction products and consumption of the oxygen in the ambient air. Explosion risks should be assessed overall. The Directive, thus, sets out requirements on conducting a risk assessment, training of workers, explosion protection document, written instructions and permits to work, measures to prevent and protect against explosions, duty of coordination.

State of transposition and implementation

All Member States transposed the Directive into their national legislation. Nineteen MSs implemented more detailed or stringent requirements, especially regarding the risk assessment requirement. Infringement procedures for non-communication of national implementing measures were launched against 12 Member States and all of them are now closed.

Data on compliance at enterprise level is weak and fragmented. The available data from MSs shows that compliance is medium but it varies from MS to MS. Moreover, there is a considerable inadequacy in the implementation in SMEs and microenterprises in most Member States. These problems are particularly related to risk assessments, assessment of hazardous zones and explosion protection documentation.

There is a good level of information developed at EU level to ease implementation of the Directive and the majority of Member States have developed guidance documents. However, these are not tailored specifically to the needs of SMEs and Member States rarely make use of support tools, awareness raising campaigns, education and training and financial incentives. Moreover, several Member States report information gaps.

Relevance

Directive 1999/92/EC is relevant to a variety of economic activity sectors in all MSs, but in particular to manufacturing, where almost 1/3 of all accidents at work due to explosion currently occur. Other sectors concerned in particular are: wholesale and retail trade, repair of motor vehicles and motorcycles, construction. As regards fatal accidents, the sector most concerned is again manufacturing (44% of all fatal accidents due to explosion), but also wholesale and retail trade, repair of motor vehicles and motorcycles, mining and quarrying as well as administrative and support service activities[398]. This confirms the continued relevance

[398] Based on Eurostat, ESAW, PHASE III, variable deviation, EU-18, 2013.

of the Directive. The external study highlighted that it is important to note that researchers have strongly criticised the fact that the Directive does not adequately differentiate between dust clouds and gasses/vapours, which reduces the relevance of the Directive.

Effectiveness

Eurostat's data for 18 MS, for which a trend analysis was possible, show that the number of serious accidents with the explosion deviation factor decreased from 1,211 in 2008 to 828 in 2013. The total number of fatal accidents due to explosion dropped from 50 to 21 over the same period[399]. It is not possible to assess in a scientifically robust way to what extent this reduction is due to the provision of the Directive and to what extent to other EU/national policy measures and external factors. No information in this respect was available from the stakeholders interviews" conducted in the framework of the evaluation study.

Coherence

With regard to internal coherence, no major issues were identified apart from inconsistencies between the provisions of Directive 1999/92/EC and Directives on extracting industries. Concerning external coherence, several non-OSH Directives complement Directive 1999/92/EC.

Some simplification suggestions were provided in the NIRs – inclusion of the explosion protection document as an integral part of the document on workplace risk assessments discussed in Article 9 of Directive 89/391/EEC.

Main conclusions

The external study recommended in relation to this Directive:

- The inclusion of relevant ATEX aspects in the EU level databases, registers and surveys.

- Increasing the level of support for SMEs at the national level.

- The revision of the Directive in order to make clear: a) the ways that explosive gas/vapours and dust clouds are generated and sustained; b) to include smouldering dust fires as a hazard in its own right; c) to include combustible dust layers in the definition of hazardous areas.

- A review of: a) information for workers under Directive 1999/92/EC to include relevant information requirements on explosive atmosphere under Directive 92/104/EEC and Directive 92/91/EEC; b) the definition of zones to ensure similar interpretations in Member States to avoid barriers to the free movement of ATEX equipment; c) guidelines for the application of Directive 1999/92/EC to equipment and protective systems placed on the market before the entry into force of Directive 94/9/EC (ATEX equipment) and equipment not falling under the scope of this Directive.

- To combine existing explosion risk assessment documents or other reports to minimise the administrative burden.

[399] Based on Eurostat, ESAW, PHASE III, variable deviation, EU-18, 2008-2013.

- To simplify the Directive by including the explosion protection document as an integral part of the document on workplace risk assessments referred to in Article 9 of Directive 89/391/EEC.

19 Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (carcinogens and mutagens/CMD)

Objectives and main requirements

Directive 2004/37/EC aims at the protection of workers from risks arising or likely to arise from exposure to carcinogens and/or mutagens during their work. It constitutes specific law for those chemicals, causing this type of adverse health effect and also covered by Directive 98/24/EC (CAD) which applies to any hazardous chemical agents within the meaning of Article 2(b) thereof.

Directive 2004/37/EC establishes a hierarchy of risk control measures and also sets out obligations for the employers, being the substitution of the carcinogen or mutagen by "a substance, preparation or process which, under its conditions of use, is not dangerous or is less dangerous to workers' health or safety", the priority measure to implement, to eliminate or reduce the risks provided that this is technically possible. Other provisions are related to unforeseen exposure and foreseeable exposure; hygiene and individual protection measures; information and training of workers; information for workers; consultation and participation of workers; health surveillance and record-keeping. Moreover, it lays down provisions for the establishment of binding occupational exposure limit values on the basis of the available information, including scientific and technical data, in respect of all those carcinogens or mutagens for which this is possible, and, where necessary, other directly related provisions. The Directive, as codified in 2004, sets occupational exposure limit values for three agents[400].

State of transposition and implementation

The provisions of the Directive have been transposed through multiple pieces of legislation in twenty eight MS. No infringement proceedings for non-communication of transposing measures were initiated against any of the MSs.

As regards compliance, no conclusive assessment was possible, based on existing data. With regards to SMEs and microenterprises, only three of the MSs provide specific lighter regimes

[400] Benzene, Vinyl Chloride Monomer and Hardwood dust.

or financial support for SMEs and microenterprises. Furthermore, only two of the MSs have included specific exemptions for SMEs or microenterprises.

Considering **accompanying actions** adopted in the MSs, guidance documents were by far the most employed action[401] . At the EU level a considerable number of accompanying actions were identified. A general approach to vulnerable groups is adopted amongst the MSs.

Relevance

Estimates made in the framework of the evaluation study show that the Directive is potentially relevant to 12.3% of the EU workforce. Chemicals classified as carcinogens and mutagens continue to be manufactured across the EU[402] and workers in manufacturing but also downstream users continue to be exposed to them. In some industries, process generated agents continue to be a source of major concern.

A number of issues were identified in the framework of the evaluation as regards the relevance of the CMD in the light of scientific progress and new working methods. Several stakeholders considered the need to incorporate the prevention of potential risks of exposure to nanomaterials in the provisions of this Directive. However, it is noted that there are uncertainties regarding the health effects of nanoparticles and nanomaterials. One consequence of this is that some advocate their inclusion in the CAD, some in the CMD, some in both and some in a separate Directive. Discussions with subject matter experts tended to the view that nanomaterials should be considered under the CAD. A study commissioned by DG EMPL supported the view that they are already under the scope of CAD on the basis of article 2(b)(iii)[403].

The issue related to substances toxic for reproduction was raised by the stakeholders as expressed in an Opinion of the ACSH and has been the subject of a Commission review. Some MSs already include some if not all the chemical agents classified as R1A and R1B under the CLP Regulation ((EC) No 1272/2008) within their transposition of the provisions of the CMD. According to the NIRs, some few MSs support extending the scope of the CMD to substances toxic for reproduction.

The CMD assumed, at the time it was adopted, that threshold limits cannot be identified for carcinogens and mutagens below which there is no risk to health. Hence, there is a strong focus on measures such as substitution and the use of closed systems (as well as an explicit requirement for exposure levels to be reduced as low as technically possible). However, the scientific knowledge has evolved since the adoption of the CMD in 2004 and currently SCOEL (Scientific Committee on Occupational Exposure Limits) is able to recommend in certain cases, based on evidence, and on the mode of action of the chemical, 'mode of action

[401] Sixteen MSs having developed at least one guidance document
[402] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Production_of_toxic_chemicals,_EU-28,_2004%E2%80%9313_(%C2%B9)_(million_tonnes)_YB15.png
[403] *Nanomaterials in the Workplace: assessing the need for modifications to existing EU OSH Legislation*, European Commission, DG EMPL, 2013.

based', safe thresholds for certain carcinogenic substances[404]. The existence or not of a safe threshold for exposure to the chemical was the main difference between CAD and CMD and the reason for adopting more stringent provisions in the latter, and also not including substances toxic to reproduction, because for those substances health-based threshold limits can be identified. As far as this principle seems not valid in all cases anymore, there may be a need for better alignment between the two directives, as expressed by some MSs in the NIRs, including the possibility of merging both pieces of legislation.

Effectiveness

The data at EU level on which to base any assessment of the effectiveness of the CMD, as for example occupational diseases or occupational exposure data, are difficult to collect. Subjectively, among EU stakeholders, there was the view that the CMD has had a moderate effect on the safety and health of EU workers. Employers and experts rated the effect higher than workers organisations.

Data on the impact of the CMD on health outcomes was not available because of the long latency period for most cancers and the difficulties in data reporting and data collection on occupational diseases at national and EU level. However, it is recognised that cancer is the first cause of work-related deaths in the EU. In 2012, an estimated 2.7 mln new cases of cancer were diagnosed in EU Member States[405], and 7.2 mln people were living with cancer (within 5 years of diagnosis)[406],[407]. The number of deaths attributed to occupational cancer in the EU is reported to be 79,700 (range: 57,700-106,500) in 2012[408].

Some national data on the prevalence and/or level of occupational exposure are available. For example, data from Finland suggests that the proportion of the workforce exposed to most chemical agents, including some carcinogens (and including benzene and wood dust covered by the CMD) has decreased substantially across a period from 1970 – 2008 and predicts that exposures in 2020 will remain low – or decrease further. One study (SHEcan) provided estimates for some substances, suggesting considerable potential for exposure and this, supplemented by estimates from national studies suggests that workers in the EU continue to be potentially at risk from exposures to carcinogenic and mutagenic substances and that there is therefore an ongoing need to control such exposures to remove or reduce the risks. Data reported in the NIRs present a limited and mixed picture of trends in outcomes (deaths/cases)

[404] *Strategy of the scientific committee on occupational exposure limits (SCOEL) in the derivation of occupational exposure limits for carcinogens and mutagens*, 2007.
[405] *Health at a glance*, European Commission, 2014.

[406] IARC, cancer fact sheets, http://globocan.iarc.fr/Pages/fact_sheets_cancer.aspx

[407] Data for more recent years (2013,2014) are available only for a limited number of Member States, which does not allow compilation of estimates for EU totals (according to Eurostat's guidance an estimate for an EU total can be compiled only if the available figures cover 90% of the EU population).

[408] W.P. Jongeneel et al, *Work-related cancer in the European Union. Size, impact and options for further prevention*. RIVM Letter report 2016-0010.

with some showing upward tendencies and others little consistent change in recent years. It is estimated that although a significant decrease in exposure has occurred for some chemicals in certain uses, for some others or in other exposure situations they remain of concern and further efforts to reduce exposure should be made. The need to set new binding OELs or revise the existing ones in the CMD was stressed by some MSs in the NIRs.

The on-going study Hazchem@work, managed by DG EMPL, is intended to identify exposure data sources in the EU and to provide occupational exposure data to a list of selected chemicals in the EU and EFTA countries. The outcome of this work should facilitate future policy discussions.

The overall opinion of stakeholders on how effective the enforcement activities have been across the industry types was that they have had an effect slightly greater than the midpoint (average 3.6) in terms of a 1-5 rating scale.

Coherence

The external study did not identify any major **internal coherence** issues in the CMD. However, there are identified tensions between CAD and CMD. While the CAD applies to any hazardous chemical present at work, the CMD constitutes specific legislation for a subgroup of chemicals (carcinogens and mutagens) with serious adverse health effects resulting from exposure. Thus, it establishes a more stringent framework of prevention and protection measures.

Current scientific knowledge is able to discern among different modes of action for carcinogenesis, and can identify health-based limit values in some cases. This means that they could fit under the provisions of CAD without lowering the level of protection for workers. On the other hand, it is challenging to identify safe thresholds for certain substances (e.g., respiratory sensitizers, currently under the CAD), and therefore they could be better managed under a stricter regime as provided for in the CMD. The issue of **simplifying** the regulation of chemicals (including carcinogens and mutagens) by merging the CMD and CAD was discussed amongst stakeholders attending a validation seminar held as part of the evaluation project. The conclusion was in the sense that merging the two directives would provide a **more coherent legal framework** for the management of all chemical substances.

There is scope for examining whether merging CAD & CMD into a single directive would lead to a simplified and more effective approach resulting in practical benefits in controlling chemical risks at the workplace. This would necessitate a systematic examination of a number of issues including those presented above.

Concerning **external coherence**, the main issues identified concern the interface between **REACH Regulation and the CMD,** more specifically, the potential overlaps and discrepancies between exposure limit values set under the two pieces of legislation. There is a need to review the process of identifying and managing risks to health, ideally to formulate a common approach between the CMD and REACH, but also to bring into the discussion the use of data for this purpose.

Main conclusions

The CMD is of high relevance. While some data on occupational exposures is available at national level, a systematic assessment of the effectiveness of the Directive will necessitate the development of better data on occupational exposures to different carcinogens and mutagens. This should be one of the action points for the future.

Following concerns raised by different stakeholders' groups in the evaluation process and in the NIRs the following issues in relation to the CMD will need to be considered:

- The need to adopt limit values for more substances for better chemical risk management in the future, based on duly justified reasoning. For this purpose an updated, simplified and quicker legal procedure for the adoption of OELs could be considered. The adoption of these OELs should be based on the substance prioritisation approach established and with the scientific advice of SCOEL. Threshold and non-threshold issues need to be addressed and a more detailed explanation of how feasibility factors are taken into account need to be provided.

- The simplification of the procedures to set occupational limit values at EU level could also lead to improving the management of interface and further enhance synergies between OSH and other EU requirements such as REACH and CLP, facilitating implementation if the registrant could use OELs as DNELs, or conversely, if OELs were set at the same level as DNELs .

- The need to consider the most appropriate approach to managing risks that may arise from exposure to reprotoxic substances;

- The need to consider if and how biomonitoring could be used more effectively for workplace risk management;

- The need to consider the potential adverse effects arising from exposure to dusts with low specific toxicity;

- As regards nanomaterials, clarifying that the existing OSH Directives already cover the known risks;

- Clarifying some aspects of the interface between CMD/CAD with other pieces of EU legislation on chemicals, mainly the REACH Regulation and CLP.

- Considering developing EU guidance on a range of topics, such as practical risk management, using modern communication methods and tools;

- Better alignment of CAD and CMD, including the possibility of merging them into a single Directive, with a possible single list of OELs.

20. Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work (chemical agents/CAD)

Objectives and main requirements

The Directive lays down minimum requirements for the protection of workers from risks to their safety and health arising, or likely to arise, from the effects of chemical agents that are present at the workplace or as a result of any work activity involving chemical agents. It places obligations on the employers to determine whether any hazardous chemical agents are present at the workplace and to take steps to assess and reduce any risk to the safety and health of workers arising from the presence of those chemical agents at the workplace. Exposure to chemical agents can lead to many potential health consequences, ranging from acute effects – such as accidental burns from strongly acidic or alkaline materials – to long-term insidious (long-latency) effects such as respiratory or skin diseases, e.g. silicosis.

The requirements of the CAD embody the principles of risk assessment, with a preference for either elimination or substitution of hazardous chemicals: elimination of the need to use the chemical, or substitution with a different (safer) chemical or substitution with a different physical form of the same chemical. Where the nature of the activity does not permit the risk to be eliminated by substitution, employers are required to adopt protective and preventive measures including, in order of priority: design of appropriate work processes and engineering controls; application of collective protection measures at the source of the risk; application of individual protection measures including personal protective equipment.

State of transposition and implementation

Most MSs have implemented the CAD in one rather than several pieces of legislation. A number of Member States had some apparent discrepancies between the Directive and national legislation. However, in most cases, this is related to the setting of occupational exposure limit (OELs) values which differed from the EU indicative OEL that are adopted in Commission Directives under the procedure foreseen in CAD. Nonetheless, indicative OELs are not binding, as regards their exact numerical value, and therefore these differences do not constitute a failure in transposition. All MSs have some more stringent requirements than those set out by the Directive, again mainly relating to limit values and/or more detailed specification for the risk assessment, embodying features which, in other MSs, might be included within guidance material.

Data on levels of **compliance** with the requirements of the Directive is quite scarce. The study did not arrive at concluding results as regards the assessment of the level of compliance with the Directive. Opinions are divided as to the extent to which SMEs had problems with complying. No information is available regarding differences in compliance between sectors or between public and private enterprises.

Guidance documents are by far the most common action undertaken by Member States to support the implementation of the legislation transposing the CAD, although awareness

campaigns and support tools are both commonly actioned. No evidence is available over the usage of such material or how beneficial it was found to be in practice. Some few MSs have expressed in the NIRs the need for additional accompanying actions, in particular in the areas of SMEs, measurement of airborne concentrations, and risk assessment and management measures.

The findings from the national studies show that most Member States have general approaches to vulnerable groups, which are not targeted by specific Directives (except the following Directives, which are specifically designed to address vulnerable groups: Temporary Workers Directive; Pregnant Workers Directive; Young People Directive).

Relevance

According to the EWCS 2015 17% of the EU workers declare being exposed to chemical products or substances at least a quarter of the time[409]. Large quantities of those continue to be manufactured[410], imported and used across the EU, being an important source of possible workplace exposures and potentially adverse health effects where such exposures are not adequately controlled. Exposure to chemical agents above certain concentrations (normally via inhalation or dermal exposure) and/or duration of exposure can lead to both acute and chronic adverse health effects. The nature of the potential adverse health effects depends on the specific properties of each chemical and may include: poisonings, damage to the nervous and immune system, impairment of reproductive function, organ-specific damage, skin diseases and respiratory diseases. The severity of potential effects of exposure if not appropriately controlled and the important proportion of workers potentially exposed justify the high relevance of the Chemical Agents Directive.

A number of issues were identified in the framework of the evaluation as regards the relevance of the Directive in the light of scientific progress and new working methods. According to the intervention logic used at the time the EU OSH chemicals legislation architecture has been designed, the existence of a safe threshold of exposure is the main difference between the agents covered only by CAD and those also under the scope of the CMD, which were thought not to have a safe threshold at the time of adoption of the Directive. However, according to the current scientific knowledge a safe threshold can be defined for certain carcinogens and mutagens. Consequently their inclusion under the CAD could be justified. This issue is further discussed under the coherence chapter.

[409] This statistic does not provide thought details about the exposure to different agents nor about the average level of exposure.
[410] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Production_of_toxic_chemicals,_EU-28,_2004%E2%80%9313_(%C2%B9)_(million_tonnes)_YB15.png

Regarding the question of how best to deal with nanoparticles and other nanomaterials, discussions with subject matter experts tended to the view that nanomaterials should be considered under the CAD. A study commissioned by DG EMPL supported the view that they are already under the scope of CAD on the basis of article 2(b)(iii)[411].

A third issue considered was the setting of limit values and the procedure for their adoption and, related to this, the issue of dealing with the risks associated with chemical mixtures. In the NIRs, some MSs raised the need to revise the occupational exposure limits for lead and its inorganic compounds currently set in Annex I and II of the CAD in the light of new scientific evidence.

Finally, the topic of the distinction between OSH OELs and REACH DNELs is also examined within the evaluation report, concluding that more clarification between the interrelation and use of both types of limits is needed. Some stakeholders suggested that the speedy adoption of more OSH OELs would facilitate REACH implementation if the registrant could use OELs as relevant DNELs.

Effectiveness

The assessment of the effectiveness of the CAD is challenging due to the scarcity of data on the populations exposed to different chemical agents and the levels of exposure (including temporal trends). Some databases exist at national level (see also the report for CMD), however the data is not readily available and when available it is not necessarily comparable due to different national data collection systems. In this context, there is an identified need to improve the knowledge base on current exposures to chemicals in the EU workplaces.

Interviewees at EU and MS level were asked to provide an assessment on a scale of 1-5 of the extent to which the CAD has been successful in achieving its objectives (indicating ratings from 'very low' to 'very high'). Stakeholders representing employers and 'other' stakeholders at MS level gave relatively high average scores of 3.9. Worker organisations were markedly more positive and provided an average score as high as 4.3. These can be compared to the mean rating amongst EU stakeholders of 3.4, with no separate EU stakeholder groups giving ratings higher than 4.0. In interviews, EU employer organisations generally assessed the CAD to have had a higher impact on the overall safety and health of workers (3.75), compared to worker organisations, who considered the effectiveness of the CAD to be markedly lower (2.75). In contrast, stakeholders in the 'others' category (SLIC and OSHA) responded that the CAD has had a high impact (4) on the safety and health of workers.

In the context of the evaluation, different stakeholders highlighted a need for a simpler and quicker legal procedure for the adoption and revision of OELs for more substances at the EU level in order to better manage the risks related to the exposure to chemical agents.

Coherence

[411] *Nanomaterials in the Workplace: assessing the need for modifications to existing EU OSH Legislation*, European Commission, DG EMPL, 2013.

The external study did not identify any major **internal coherence** issues in the CAD. However, there are identified tensions between CAD and CMD. While the CAD applies to any hazardous chemical present at work, the CMD constitutes specific legislation for a subgroup of chemicals (carcinogens and mutagens) with serious adverse health effects resulting from exposure. Thus, it establishes more stringent framework of prevention and protection measures.

Current scientific knowledge is able to discern among different modes of action for carcinogenesis, and can identify health-based limit values in some cases. This means that they could fit under the provisions of CAD without lowering the level of protection for workers. On the other hand, it is challenging to identify safe thresholds for certain substances (e.g., respiratory sensitizers, currently under the CAD), and therefore they could be better managed under a stricter regime as provided for in the CMD. The issue of **simplifying** the regulation of chemicals (including carcinogens and mutagens) by merging the CMD and CAD was discussed amongst stakeholders attending a validation seminar held as part of the evaluation project. The conclusion was in the sense that merging the two directives would provide a **more coherent legal framework** for the management of all chemical substances.

There is scope for examining whether merging the CAD and the CMD into a single directive would lead to a simplified and more effective approach resulting in practical benefits in controlling chemical risks at the workplace. This would necessitate a systematic examination of a number of issues including those presented above.

Concerning **external coherence**, the main issues identified concern the interface between **REACH Regulation and the CAD,** more specifically, the potential overlaps and discrepancies between exposure limit values set under the two pieces of legislation. There is a need to review the process of identifying and managing risks to health, ideally to formulate a common approach between the CAD and REACH, but also to bring into the discussion the use of data for this purpose.

Main conclusions

The CAD continues to be a highly relevant Directive. Determining the effectiveness of the Chemical Agents Directive is challenging because of the scarcity of data that could show the temporal trends in occupational exposure. In conclusion, there is an identified need to improve the knowledge base on current exposures to chemicals in the EU workplaces. Some databases exist at national level, however the data is not readily available and when available it is not necessarily comparable due to different national data collection systems. In relation to this, the Commission services have launched a pilot study (the HazChem@Work project) in order to assess the feasibility of developing a better evidence base on occupational exposure to priority chemicals in the future.

Following concerns raised by different stakeholders' groups in the evaluation process and in the NIRs the following issues in relation to the CAD will need to be considered:

- The need to adopt values for more substances for better chemical risks management in the future, based on duly justified reasoning. For this purpose an updated, simplified and quicker legal procedure for the adoption of OELs could be considered. The adoption of these OELs should be based on the substance prioritisation approach established and with the scientific advice of SCOEL. Threshold and non-threshold issues need to be addressed, a more detailed explanation of how feasibility factors are taken into account need to be delivered. This will include the revision of occupational exposure limits for lead established in Annex I and III of the CAD;

- The simplification of the procedures to set occupational limit values at EU level could also lead to improving the management of interface and further enhance synergies between OSH and other EU requirements such as REACH and CLP, facilitating implementation if the registrant could use OELs as DNELs, or conversely, if OELs were set at the same level as DNELs ..

- Better alignment of CAD and CMD, including the possibility of merging them into a single Directive, with a possible single list of OELs.

- The need to consider the most appropriate approach to managing risks that may arise from exposure to reprotoxic substances;

- The need to consider if and how biomonitoring could be used more effectively for workplace risk management;

- The need to consider the potential adverse effects arising from exposure to dusts with low specific toxicity;

- As regards nanomaterials, to reconfirm that the existing OSH Directives, in particular CAD, already cover the known risks;

- Clarifying some aspects of the interface between CMD/CAD with other pieces of EU legislation on chemicals, mainly the REACH Regulation and CLP;

- Considering developing EU guidance on a range of topics, such as practical risk management, using modern communication methods and tools;

21. Directive 2009/148/EC on the protection of workers from the risks related to exposure to asbestos at work (asbestos)

Objectives and main requirements

The Directive aims at the protection of workers against risks to their health, including the prevention of such risks, arising or likely to arise from exposure to asbestos at work. It lays down limit values for the exposure, as well as other specific requirements.

Asbestos has been and remains one of the main occupational health challenges facing Europe. The widespread uncontrolled use of asbestos, particularly in Western Europe has resulted in hundreds of thousands of workers dying prematurely from mesothelioma, lung cancer, and other asbestos-related diseases.

The Directive, targets the risk arising from exposure to asbestos at work through defining a series of measures including: prohibiting certain activities using asbestos; prohibiting other uses of asbestos; introducing measures to reduce exposure to asbestos to a minimum (and in any case below the limit value laid down); establishing maximum limits for exposure to asbestos; requiring the measurement of asbestos exposures; in the case of certain activities such as demolition, asbestos removal work, repairing and maintenance, taking the appropriate measures to ensure protection of the workers while they are engaged in such activities; monitoring the health of those working with asbestos.

State of transposition and implementation

The Directive has been transposed and implemented in all MSs. As regards compliance, no conclusive assessment was possible, based on existing data.

Guidance, and other supporting material, has been prepared at both MS and EU level, and the views expressed from individual MSs suggest that this is sufficient. Very little support for SMEs relating specifically to asbestos has been identified.

Relevance

A considerable number of deaths from asbestos-related diseases are registered every year across the EU, which reflects the effect of past exposures, given the long latency of most asbestos-related diseases, but also confirms the severity of the consequences of exposure to this hazard. Looking further ahead, available projections suggest that asbestos-related deaths will start to decline, as protective measures taken previously begin to have an effect. However, the available data from some national occupational exposure databases, registers and asbestos notifications made to the national competent authorities show that asbestos is still present (for ex. in existing infrastructures) and that the exposure to this carcinogen still occurs among the EU workforce. This confirms the continued relevance of the Directive.

Recommendations from the NIRs pointed to the need of assessing, in the light of current scientific knowledge, if the current limit values in the Directive are appropriate to protect workers (recommendation pertaining also the effectiveness of the Directive).

Effectiveness

Quantitative determination of the effectiveness of the Directive in terms of health benefits is difficult, because of the issue of the latency of asbestos-related diseases and the scarcity of exposure data at EU level. However, the available evidence from some Member States regarding the levels of exposure to asbestos over time and other data, such as the very important reduction in the use of asbestos and articles containing asbestos across the MSs,

supports the view that the Directive has been effective (although care should be taken over attribution because of measures in addition to the Directive).

It would seem likely that the prohibition of asbestos by means of the spraying process and working procedures that involve using low-density insulating or soundproofing materials which contain asbestos and of the activities which expose workers to asbestos fibres during the extraction of asbestos or the manufacture and processing of asbestos products or the manufacture and processing of products containing intentionally added asbestos are the most effective aspects of the Directive although there are no data sources which enable the determination of the effectiveness of other component parts.

The external study recommended that a further emphasis should be put on collecting more comprehensive data on workers' exposure to asbestos and the asbestos-related cases of (recognised) ill-health in the EU. This should allow for better monitoring of the effectiveness of the Directive's provisions for the future.

Coherence

Some coherence issues were identified between the Directive and the Chemical Agents and Carcinogens or Mutagens Directives. A number of amendments could be considered to better align their provisions although, in each case, any amendment would be to the 'other' Directive not the Asbestos Directive. A positive synergy can be identified between the OSH Directive 2009/148/EC (**protection of workers from asbestos exposure**) and Directive 87/217/EEC on the protection of the environment from asbestos whereby the former contributes to the meeting of the objectives of the latter, in particular in respect of activities involving the demolition of buildings, structures and installations containing asbestos and the removal therefrom of asbestos and of products containing asbestos involving the releases of asbestos fibres or dust.[412]

Main conclusions

The Asbestos Directive remains highly relevant. Though the use of asbestos has been considerably limited in the EU, inter alia, as a consequence of its implementation, workers in some sectors (such as construction or maintenance) are still potentially exposed to it.

Together with the absence of detailed knowledge about exposure patterns, the long latency of asbestos-related diseases does not allow to monitor yet fully the effectiveness of the Directive through ill-health data. The available national data/research results suggest a decreasing of asbestos exposure, tough this information is not available systematically from all Member

[412] Concerning the Directive 2009/148/EC on the protection of workers against asbestos exposure, a deeper analysis is required to determine whether the combined implementation of the provisions of Directive 2009/148/EC in particular on the demolition of buildings containing asbestos and asbestos-added products and on the removal therefrom of these raw material and products (Article 12(c)), and of the provisions set out in other Union instruments (e.g. Regulation 1907/2006 (REACH)) ensure the full achievement of the objective of Article 7(2) of Directive 87/217/EEC (protection of human health and the environment against asbestos).

States. Further development of a proper evidence base for the future monitoring of the effectiveness of the Directive (exposure, ill-health) should be one of the actions to be considered in the future.

In the light of scientific progress and in order to increase the effectiveness of the Directive for the future, the lowering of exposure limits as set in the Directive should be considered, the consultation of SCOEL on this issue being the 1st important step.

The external study recommended regarding the issue of incidental exposure, to request owners of public or commercial buildings to:

(a) screen buildings for the presence of asbestos-containing materials;

(b) prepare plans to manage the risks they present;

(c) ensure that such information is available to the public and workers who may disturb such materials in the course of their professional activities and others not so concerned, but occupying the premises.

22. Directive 2000/54/EC on the protection of workers from risks related to exposure to biological agents at work (biological Agents)

Objectives and main requirements

The Directive has as its aim the protection of workers against risks to their health and safety, including the prevention of such risks, arising or likely to arise from exposure to biological agents at work. It applies to all workers exposed – intentionally or unintentionally – to harmful biological agents at work. According to Article 2 biological agents mean micro-organisms, including those which have been genetically modified, cell cultures and human endoparasites, which may be able to provoke any infection, allergy or toxicity. They represent a risk because they can be infectious and toxic, but also because they can cause allergic reactions such as hypersensitivity pneumonitis, allergic rhinitis, some types of asthma and organic dust toxic syndrome (ODTS). In addition, some agents may have a carcinogenic effect after a chronic infection.

The Directive lays down minimum requirements for the protection of workers from risks related to exposure to biological agents at work. The objective of the Directive is thus to protect workers against risks to their health and safety and the prevention of such risks arising or likely to arise from exposure to biological agents at work by building on a hierarchy of measures whereby the first priority is to avoid the use of biological agents the second is to substitute dangerous substances with less dangerous ones, and, thirdly, if this is not possible, to introduce measures that reduce the exposure to biological agents.

State of transposition and implementation

The Directive has been transposed in all Member States. The majority of Member States transposed more detailed or stringent requirements most of which concern health surveillance and the content and form of worker information.

The evidence on **level of compliance** with the Directive is weak and fragmented. The data indicates that compliance is generally at a medium to high level with 50 – 90% of establishments being in compliance. Based on the data, it seems that the level of compliance relies to an extent on sectors rather than on size of establishment, with the sectors comprising intentional users or handlers of biological agents (laboratories, health care facilities, etc.) being most aware and thus most in compliance. Stakeholders, who assess the importance of the Directive, generally recognise that the Directive has played a role, but some NIRs also consider that national measures were in place before the adoption of the Directive.

Relevance

Exposure to biological agents can occur whenever people are in contact at work with natural or organic materials such as: soil, clay, plant materials (hay, straw, cotton, etc.), substances of animal origin (wool, hair, etc.), food, organic dust (e.g. flour, paper dust, animal dander), waste, wastewater, blood and other body fluids. They are therefore potentially encountered in a wide variety of occupational groups and sectors represented in all Member States and so the Directive remains relevant in all Member States.

The cumulative evidence from ill-health associated with infection from biological agents is that biological agents remain a significant potential cause of work-related ill-health. However, it is apparent that the classified list of biological agents is out of date and should be updated to improve the relevance of the Directive. There is also evidence to suggest that the prescriptive approach to identifying correct measures in Annex V is not suitable and a more flexible approach scoping the measures in accordance with the results of the risk assessment would be more appropriate.

Effectiveness

The data does not allow for firm conclusions about the effect of the Biological Agents Directive on occupational safety and health. Workplace impacts are assessed as medium-high and there is there is good reason to believe that the Biological Agents Directive has also led to positive safety and health impacts. However, based on the available data it is not possible to quantify this impact.

The data indicates that implementation is strongest where biological agents are intentionally used. It points to a high degree of objective achievement in the sectors and workplaces which handle biological agents as part of the work processes, e.g. health care sector, test laboratories, etc. It is likely that awareness and compliance in these sectors are higher precisely because these sectors comprise intentional users of biological agents or professionals who through their occupation and training are aware of the risks (e.g. doctors, nurses, laboratory workers).

However, the Directive does not encompass all biological agents, and as such, it does not provide for an all-encompassing protection against risks associated with biological agents. In addition, the Directive does not include limit values for exposure to various biological agents (and neither does it include methods for measuring biological agents), which gives rise to uncertainty about whether workers are sufficiently protected.

Coherence

The Directive contains a detailed risk assessment procedure. Despite the differences between chemical agents and biological agents and the differences on the risk control measures for these two distinct agents, several requirements under Directive 98/24/EC (chemical agents) could also apply to the risk assessment of biological agents as they are not specifically tailored for chemical agents.

The definition of biological agents under Directive 2000/54/EC includes micro-organisms that have been genetically modified. However according to Article1 of Directive 2000/54/EC (biological agents) must apply without prejudice to Directive 90/219/EEC on contained use of genetically modified micro-organisms[413]. There are overlaps between the Biological Agents Directive and Directive 2010/32/EU (sharps injuries) concerning obligations to offer vaccines to workers. However, these do not lead to double regulation in practice. Despite the close links with Directive 2000/54/EC (biological agents), the scope of Directive 2010/32/EU (sharps injuries) does not cover all the categories of workers that might be exposed to infection through sharp injuries (e.g. workers dealing with special/ contaminated waste management treatments, cleaners, police or researchers in laboratories). The broadening of the scope to all workers exposed to sharp injuries could have a positive impact on limiting worker exposure to biological agents.

Main conclusions

To enhance the relevance and effectiveness of the Directive, it could be considered to:

-update Annex III with the list of biological agents to ensure that it covers comprehensively and clearly all relevant biological agents;

-amend the Directive to ensure a procedure which allows for a more flexible approach to future updates of the list of biological agents;

-consider whether the contents of Annex V in the Directive should be taken out and instead form part of a guidance material, which elaborates more on the measures to be decided based on the classification and risk assessment;

-support further knowledge building on cause-effect relationships between exposure to various biological agents and occupational diseases; and the use of knowledge for development of better tools and techniques for measurement, criteria and protocols for assessing exposure to hazardous biological substances as well as occupational exposure limits;

[413] This Directive was repealed by Directive 2009/41/EC on the contained use of genetically modified micro-organisms

-develop guidance on implementation of the Directive, especially on risk assessment and ensure that models and tools developed in some Member States are shared to the extent feasible and possible;

-support awareness raising so that sectors with unintentional use/contact with biological agents become more aware of the risks involved and can take appropriate action;

To enhance the coherence of the biological agents Directive with other Directives, it could be considered to:

- review the risk assessment procedure under Directive 2000/54/EC to include several requirements from Directive 98/24/EC (chemical agents), such as the obligations to take into account the effect of preventive measures, to obtain additional information from suppliers, to take into account conclusions to be drawn from health surveillance, to include activities with foreseeable exposures in the risk assessment and include a justification by the employer that the nature and extent of the risks make a further detailed assessment unnecessary;

- review the worker information provisions under Directive 2000/54/EC to include the obligation to inform workers on how to detect health effects of exposure and how to report them;

- review the health record requirements under Directive 2000/54/EC to include the obligation to update these;

- review the scope of Directive 2010/32/EU to cover all workers exposed to sharp injuries leading to infections by biological agents and/or merge it with Biological Agents Directive;

The main suggestions/recommendations from NIRs consist of suggestions/recommendations:

-to adapt the Directive in order to include the increasing number of situations outside laboratories involving a threat of biological agents;

-to update the Directive's classification of pathogens and the Directive's microbial classification;

-to revise the Directive's classification of biological agents in four risk groups in order to include the risk of allergic reactions and toxic and carcinogenic risks;

-to revise the definition of an accident at work/accident in service of any case where workers are found to have been accidentally exposed to pathogenic biological agents (in order to make it unequivocal)

-to reconsider the notification requirement;

-to adopt a clear approach towards allergens (currently certain allergenic agents are specified as such and others are not classified as allergens, this constitutes poor guidance in relation to the risks);

-to adopt guidelines.

23. Directive 90/269/EEC on the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers (manual handling of loads)

Objectives and main requirements

This Directive lays down minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers with a view to avoid or to reduce these risks. According to Article 2 thereof 'manual handling of loads' means "any transporting or supporting of a load, by one or more workers, including lifting, putting down, pushing, pulling, carrying or moving of a load, which, by reason of its characteristics or of unfavourable ergonomic conditions, involves a risk particularly of back injury to workers".

Employers are in particular required to take appropriate organizational measures, or use the appropriate means, in particular mechanical equipment, in order to avoid the need for the manual handling of loads by workers. Where the need for the manual handling of loads by workers cannot be avoided, employers are required to take the appropriate organizational measures, use the appropriate means or provide workers with such means in order to reduce the risk involved in the manual handling of such loads, having regard to Annex I (reference factors).

State of transposition and implementation

A first evaluation of the practical implementation of the Directive was conducted and finalised in 2004[414].

The provisions of the Directive have been fully implemented in all Member States, in most Member States in one piece of legislation. Some MS have adopted more stringent or detailed measures as regards in particular the provisions on risk assessment and proper training on the manual handling of loads, or provisions on weight limits.

Data on levels of **compliance** with the requirements of the Directive is quite sparse with relatively few Member States having numerical data available. Such data as were sourced made no distinction between private undertakings and public-sector bodies, across different sectors of economic activity, or across different sizes of companies. The level of reported compliance with the common processes and mechanisms is very varied – ranging from 8% up to 90% and since these values were reported from the same Member States it is unlikely that the lower levels are attributable to a lack of awareness of the legal duties. No conclusive data on compliance was either available from the NIRs.

[414] See the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions on the practical implementation of the provisions of the Health and Safety at Work Directives 89/391 (Framework), 89/654 (Workplaces), 89/655 (Work Equipment), 89/656 (Personal Protective Equipment), 90/269 (Manual Handling of Loads) and 90/270 (Display Screen Equipment)

Very few Member States have developed particular measures to support SMEs and microenterprises in the implementation of their legislation transposing the Directive. No Member State has any Directive-specific guidance specifically for SMEs.

In all Member States the enforcement of the Directive typically comes under the general authority responsible for OSH inspections/enforcement. There are no specific tools or approaches which focus in particular on vulnerable groups and the risks associated with the Directive. However, a small number of Member States do make special provisions.

Relevance

According to the EWCS 2015 32% of EU workers declare being exposed to carrying or moving heavy loads at least a quarter of the time. 10% declare lifting or moving people[415]. 47% of EU enterprises declare that lifting or moving people or heavy loads is among risk factors present in their establishment[416]. Workers are affected in a variety of sectors. A number of risk factors that make manual handing of loads hazardous increase the risk of musculoskeletal injury. These risk factors may independently contribute to the development of musculoskeletal disorders, but the risk is greater if several risk factors are present at the same time[417].

The Manual Handling Directive is likely to remain **relevant in the future**. Occupational risks associated with manual handling activities are expected to persist and it is expected that the aging of the EU workforce will lead to an increased susceptibility to such risks.

According to the findings of the LFS ad hoc module 2013, MSDs are today the most prevalent type of work-related health problem and also the first cause of work-related absenteeism.

They cover a broad range of problems ranging from discomfort, minor aches and pains to more serious medical conditions which can lead to permanent disability The causes of work-related MSDs are multifactorial and there are numerous work-related risk factors for the various types of MSDs. Physical factors contributing to the development of the disorders include the risk factors associated with the handling heavy loads but also other physical risks factors[418]. In addition psychosocial and individual factors also seem to contribute to the development of those disorders. Consequently, many MSD-related risks factors are not specifically addressed by the existing Manual Handling of Loads, DSE and Vibration Directives, nor do these Directives exhaustively address all work situations where such risks can occur.

In this context a recurrent suggestion from the NIRs was to explore ways to better address the MSDs-related risk-factors.

[415]http://www.eurofound.europa.eu/surveys/data-visualisation/sixth-european-working-conditions-survey-2015
[416] https://osha.europa.eu/en/surveys-and-statistics-osh/esener/2014
[417] ttps://oshwiki.eu/wiki/Risk_factors_for_musculoskeletal_disorders_in_manual_handling_of_loads#cite_note-4
[418] https://oshwiki.eu/wiki/Introduction_to_musculoskeletal_disorders

The evaluation found that a variety of approaches of addressing MSDs has been adopted in the Member States. Many of them have prepared relevant guidance material (including risk assessment aids) and the results of the evaluation study suggest that the wider preparation and distribution of such material, combined with some form of enabling legislation offers a potentially effective and efficient solution. At the same time the study highlighted the challenges related with adopting a prescriptive approach at the EU level and called for further feasibility studies in this area.

Effectiveness

It is suggested that there is a clear need for the collection of data better suited to address the question of the effectiveness of this and other OSH Directives. From the limited data, there has been little change in the incidence of either reported accidents or ill-health relating to manual handling, or of musculoskeletal disorders, either collectively, or specifically addressing back problems. EU stakeholders considered that the legislation transposing the Manual Handling Directive has only moderately achieved its objective. There is a perception that the Directive has had a good impact on worker health and safety in larger establishments, but that any effect is markedly diminished in smaller and especially micro-businesses[419].

No statistics are available to enable the separate objective examination of the contribution of the different common processes and mechanisms to the effectiveness of this Directive. However, opinions provided by national stakeholders during interviews suggest that risk assessment/analysis and training play the main roles. There is a general agreement among stakeholders interviewed that the Directive has had a reasonably high impact on agenda setting and influencing national priorities, on learning/increasing OSH knowledge, on motivation of workers, on quality of products/services, and on environmental effects.

In order to enhance the effectiveness of the Directive, suggestions from the national implementation reports included: modernising the Directive, by including more contemporary risks, such as work postures and one-sided and repetitive work, updating the Annex to the Directive, if possible- adopting limit values at EU level.

Coherence

No inconsistencies were identified across and between the Manual Handling Directive and the EU OSH Directives or other measures and/or policies at European or International level. However, some suggestions from the national implementation reports related to combining of Directives 90/269/EEC (manual handling of loads) with Directive 90/270/EEC (display screen equipment) in order to better take into account all risks related to ergonomics.

Main conclusions

The Manual Handing of Loads Directive remains relevant in the light of high prevalence of exposure to risk factors potentially leading to MSDs and high prevalence of this type of work-related problems. The causes of work-related MSDs are multifactorial and the existing OSH

[419] External study findings from interviews with national stakeholders.

Directives (Manual Handling of Loads, DSE and Vibration) do not address specifically all the potential risk factors, nor do they address all the work activities where such risk factors can occur. In this context, the suggestions expressed in many NIRs to explore ways to better address these risks and the recommendations of the evaluation study should be given further consideration.

The evaluation study identified the following possible adjustments to the current Directive (excluding those which might relate to wider considerations of the role and function of CPMs within the general OSH milieu). Given the evidence from the scientific literature for the ineffectiveness of manual handling training, supported by the views from NIRs and stakeholders, the study recommended that Article 6(2) should be revised. Whilst education to raise awareness of the risks arising from handling activities remains of value, the text should be amended to diminish the perceived requirement for training in manual handling techniques.

To accompany this 'downgrading' of the 'requirement' for training in manual handling techniques it would seem advisable to clarify the risk-based approach embodied in Article 3 to emphasise the hierarchy of:

- Risk prevention;
- Risk reduction;
- Risk (personal) protection.

In this hierarchy, manual handling training could correctly be seen as a potential adjunct to workplace design improvements (prevention & reduction of risks) and as a personal protection approach.

24. Directive 90/270/EEC on the minimum safety and health requirements for work with display screen equipment (display screen equipment/DSE)

Objectives and main requirements

The Directive lays down minimum safety and health requirements for work with display screen equipment. According to the Directive employers are required in particular: to perform an analysis of workstations in order to evaluate the safety and health conditions to which they give rise for their workers, particularly as regards possible risks to eyesight, physical problems and problems of mental stress; to take appropriate measures to remedy the risks found on the basis of that evaluation; to plan the worker's activities in such a way that daily work on a display screen is periodically interrupted by breaks or changes of activity reducing the workload at the display screen. The Directive also foresees that workers should be entitled to an appropriate eye and eyesight test. The Annex to the Directive lays down the minimum requirements to be met by workstations.

Exposure to risk factors related to the use of display screen equipment at work can result in both musculoskeletal disorders (notably of the upper limbs and shoulder and neck regions) and display screen vision conditions (a group of eye and vision related predicaments derived from extensive display screen equipment or computer use - most common symptoms including eyestrain, headache, blurred vision and dry eyes).

State of transposition and implementation

A first evaluation of the practical implementation of the Directive was conducted and finalised in 2004[420].

The Directive has been transposed in all MSs, in one or several pieces of legislation (in almost equal number). All MSs adopted additional material to support implementation of the national measures, mainly in the form of guidance. However, few of them have any material tailored specifically for SMEs. The majority of Member States have adopted more detailed requirements, particularly in regard to Articles 3 (risk assessment) and 9 (protection of workers' eyes and eyesight).

The evaluation suggests that the level of **compliance** with the Directive is not satisfactory. Evidence is available from very few Member States relating to compliance with national legislation by employers and the available data appears to suggest that approximately 60-70% of employers do comply. However, other material seems to suggest that compliance with the requirements of the Directive by employers is not strong, with some Member States reporting less than 50% compliance with the requirement to perform risk assessment and a general view that more information and training on ergonomics aspects of the workplace (which could include DSE-related material) was required. Material from expert ergonomists interviewed suggested that compliance by workers was also deficient, possibly as a result of the inadequate implementation of the requirements on information and training.

Relevance

The Directive remains relevant though both the NIRS and the external study highlighted strongly the need to update it in the light of the modern working methods and technological progress. In terms of relevance related to the **state of technological and workplace developments**, as reported in a large majority of the national implementation reports, the minimum requirements which all DSE workstations must meet (Articles 4 and 5 and the related Annex), are widely recognised to be outdated and to not adequately reflect modern computing technologies or ways of working. A number of recommendations related as well to the exemptions granted in Article 1(3) of the Directive which need to be reviewed to ensure that they are up to date.

[420] See the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions on the practical implementation of the provisions of the Health and Safety at Work Directives 89/391 (Framework), 89/654 (Workplaces), 89/655 (Work Equipment), 89/656 (Personal Protective Equipment), 90/269 (Manual Handling of Loads) and 90/270 (Display Screen Equipment)

In terms of relevance related to the **state of scientific knowledge**, the DSE Directive includes provisions aimed at the "Protection of workers' eyes and eyesight" (Art. 9) while scientific literature indicates that work with computers does not cause any damage to the eyes or eyesight.

Several suggestions from the NIRs pertaining to this Directive related to the need to better tackle psychosocial risks and MSDs.

Effectiveness

In general, opinions amongst stakeholders regarding the extent to which the Directive has met its objectives are rated as a little above average, although as a group, workers are less convinced than other stakeholders (e.g. government, employers) that this is the case. There is a perception that the Directive has had less strong impact amongst smaller enterprises, although this view is not entirely supported by data from some national studies. Actual data on the effectiveness of the Directive in terms of the main intended outcome of a reduction in MSDs is not very clear and not particularly reliable. In part this is due to the fact that data sources do not enable the determination of attribution, or even confirmation that a worker reporting an injury or ill health actually worked with DSE. Some national studies seem to suggest that it has not had a strong impact, if any.

Coherence

Some suggestion from the national implementation reports related to combining of Directives 90/269/EEC (manual handling of loads) with Directive 90/270/EEC (display screen equipment) in order to better take into account all risks related to ergonomics.

Main conclusions

In order to improve the relevance and effectiveness of the Directive, the external study recommended: to revise the Annex to the Directive in order to take account of changes to both the technology used and the manner in which it is used. It has also recommended to adopt a less prescriptive form (for example adopting a more 'enabling' approach that required employers to provide furniture and equipment 'sufficient to enable the worker to adopt a good working posture' which does not hinder the development and introduction of further technological solutions) or at least agreeing a mechanism to allow it to be updated more easily in the future should technological advances warrant it.

On the other hand, there is currently no reliable scientific or medical evidence of damage to eyesight in using DSE (although it can give rise to transient visual symptoms – see above). There is therefore the need to investigate the impact of the relevant scientific and medical evidence on Article 9 ('Protection of workers' eyes and eyesight'). Additionally deletion of the word 'visual' in the third sub-clause might be beneficial, as problems might not directly manifest themselves as visual difficulties (as in the case of adverse postures).

Also, while some aspects of DSE work can contribute to psychosocial risks and mental stress, the evidence suggests that the risk of such problems is no greater amongst DSE users than

other workers. A possible revision of the Directive should therefore take into consideration the case for a better definition of risks and related health conditions - essentially limiting this to risks related to repetition, duration and poor postures, while discarding mental stress as a no specific risk factor.

The requirement within the Directive to ensure that workers have the opportunity for periodic breaks or changes of activity should be reinforced, as should the need to provide information and training. Good quality information and training to correctly educate the workforce is required. In addition, to authoritative guidance on what constitutes a good working posture (and how to achieve it), consideration should be given to the preparation of further EU guidance on this (possibly with training material) to supplement the existing EU-OSHA e-facts and provide further support for MSs and employers.

[i] ESENER, EWCS, EU LFS ad hoc module on accidents at work and other work-related health problems.