

NOVEMBER 2015
DG EMPLOYMENT, SOCIAL AFFAIRS AND INCLUSION

EVALUATION OF THE PRACTICAL IMPLEMENTATION OF THE EU OCCUPATIONAL SAFETY AND HEALTH (OSH) DIRECTIVES IN EU MEMBER STATES

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PROJECT NO. A031983
DOCUMENT NO. 7
VERSION 3.0
DATE OF ISSUE 23 November 2015
PREPARED OSH team, LTKV
CHECKED RG
APPROVED NEO

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1 Introduction and background

The present executive summary comprises the main conclusions and recommendations derived from the project 'Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States' commissioned by the European Commission and conducted by a consortium consisting of COWI A/S, IOM and Milieu. The objective of the evaluation is to evaluate the practical implementation of occupational safety and health directives in EU Member States with a view to assessing their relevance, effectiveness and coherence, and identifying possible improvements to the regulatory framework. The evaluation covers a total of 24 OSH Directives (cf. Table 1) and their implementation and effects within 27 Member States¹ in the period 2007-2012.

Under the provisions of the 24 OSH Directives, every five years, the Member States shall submit a single report to the Commission on the practical implementation of the directives concerned. The first of these National Implementation Reports (NIRs) cover the evaluation period 2007-2012 and were submitted to the Commission by the Member States by late 2013. This obligation on the Member States to report on the practical implementation provides the opportunity to take stock of and evaluate the various aspects of the practical implementation of the directives. The evaluation is therefore based on the National Implementation Reports, on an extensive mapping and analysis of transposition and implementation of OSH legislation in each Member State, official statistics at national and EU level, scientific literature, existing studies and interviews with national and EU stakeholders.

The evaluation is reported by means of a main report that provides a comprehensive overview of crosscutting findings, conclusions and recommendations from the evaluation. The main report includes 24 directive-specific evaluation reports (enclosed in Appendix A in the main report) and 27 Country Summary Reports (CSRs) on the transposition and implementation of all directives in the Member States (enclosed in Appendix B in the main report). Furthermore, the main report is complemented by a synthesis report providing a summarised version of the key findings, conclusions and recommendations as well as the present executive summary.

The objective of the 24 OSH directives, referred to as the OSH acquis, is to establish minimum requirements aimed at securing the same minimum level of protection from work-related health and safety risks for the workers of all EU Member States. A key to achieving this objective is the establishment of six Common Processes and Mechanisms (CPMs) by means of the Framework Directive, which all employers must internalise. These CPMs include the requirements of employers to conduct risk assessments; to establish and use preventive and protective services; to provide information for workers; training of workers; consultation of workers; and conduct health surveillance. The CPMs are repeated to a varying extent within the 23 individual directives, which add key requirements pertaining to the specific hazard, workplace, or group of workers within the Directives' scope.

In the executive summary, we present the overall crosscutting conclusions drawn on the basis of the mapping exercise reported in the Country Summary Reports and the directive-specific evaluation reports. Most of the directive reports thus contain specific recommendations that are not

¹ Croatia was not a part of the EU when the evaluation was initiated and is thus excluded from the Task Specification.

duplicated here, but which should be examined and considered alongside the evidence presented in support of those recommendations.

The conclusions below, as well as the subsequent recommendations, are presented in four main clusters, which reflect their content and constitute the major points of interest in light of possible improvements to the regulatory framework. The four main themes are:

- 1 Structure and coherence of the OSH acquis,
- 2 Addressing on-going and emerging risks,
- 3 Compliance, enforcement and SMEs,
- 4 Data and monitoring of effects.

Lastly, we present the main recommendations that derive from these overall conclusions in a summarised version in Table 2.

Table 1 24 occupational safety and health Directives

Type of Directive	Directive
General Directives	<u>Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work (Framework Directive)</u>
	<u>Directive 89/654/EEC concerning minimum safety and health requirements for the workplace (Workplace Directive)</u>
	<u>Directive 2009/104/EC on the minimum safety and health requirements for the use of work equipment by workers at work (Work Equipment Directive)</u>
	<u>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 PPE Directive)</u>
	<u>Directive 92/58/EEC on the minimum requirements for the provision of safety and/or health signs at work (OSH signs Directive)</u>
Type-of-worker Directives	<u>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 Directive)</u>
	<u>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 Directive)</u>
	<u>Directive 94/33/EC on the protection of young people at work (Young People Directive)</u>
Sector-specific Directives	<u>Directive 92/57/EEC on the implementation of minimum safety and health requirements at temporary or mobile construction sites (Construction Directive)</u>
	<u>Directive 92/104/EEC on the minimum health and safety requirements for improving the safety and health protection of</u>

Type of Directive	Directive
	<p><u>workers in surface and underground mineral extracting industries (Mines and Quarries Directive)</u></p> <p><u>Directive 92/91/EEC concerning minimum requirements for improving the safety and health protection of workers in the mineral extracting industries through drilling (Drilling Directive)</u></p> <p><u>Directive 92/29/EEC on the minimum safety and health requirements for improved medical treatment on board vessels (Medical treatment on board vessels Directive)</u></p> <p><u>Directive 93/103/EC concerning the minimum safety and health requirements for work on board fishing vessels (Fishing vessels Directive)</u></p>
<p>Hazard-specific Directives</p>	<p><u>Directive 2002/44/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration) (Vibration Directive)</u></p> <p><u>Directive 2003/10/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (noise) (Noise Directive)</u></p> <p><u>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 Directive)</u></p> <p><u>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 Directive)</u></p> <p><u>Directive 1999/92/EC on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (ATEX Directive)</u></p> <p><u>Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Carcinogens or mutagens Directive)</u></p> <p><u>Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work (Chemical Agents Directive)</u></p> <p><u>Directive 2009/148/EC on the protection of workers from the risks related to exposure to asbestos at work (Asbestos Directive)</u></p> <p><u>Directive 2000/54/EC on the protection of workers from risks related to exposure to biological agents at work (Biological Agents Directive)</u></p> <p><u>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 Directive)</u></p> <p><u>Directive 90/270/EEC on the minimum safety and health requirements for work with display screen equipment (DSE Directive)</u></p>

2 Structure and coherence of the OSH acquis

The OSH acquis, comprising the Framework Directive and the 23 individual directives under evaluation, represents a comprehensive package of legislation aimed at securing the same minimum level of protection from work related health and safety risks for the workers of all EU Member States.

The Framework Directive was adopted in 1989, with most of the individual directives being adopted in the subsequent five years. Some directives existed in previous versions before the Framework Directive, while others were only added to the acquis at a later stage. The legislation has thus been in place for a considerable amount of time, which leads to an expectation that it should be possible to observe a discernible impact.

The evaluation shows very clearly that the EU OSH acquis is the reference frame for national OSH regulatory regimes. While the Member States have chosen various models for their legal implementation of the provisions of the directives, there is no doubt that the directives' requirements form the core of the national systems in one way or the other. The significance of the directives in setting the scene for OSH regulation in the EU is therefore very high, and the evaluation shows that it is relevant to maintain individual directives to address specific risks and specific sectors.

The directives currently represent a mix of on the one hand a goal-oriented legislative approach, which establishes a requirement that Member States themselves identify the most suitable means to arrive at a certain end, and on the other hand a prescriptive approach, which specifies the means to be applied. The goal-oriented approach is very strongly expressed in the Framework Directive and mirrored in some individual directives as well, and the prescriptive approach is, for instance, reflected in the very detailed and specific requirements in the annexes of some directives. Some Member States place an emphasis on the goal-oriented approach in their national implementation, whereas others prefer a stronger reliance on the prescriptive approach. This national preference seems, at least partially, to depend on the existing regulatory traditions of the individual Member States. The evaluation indicates that the EU OSH legislation, mainly through the Framework Directive, has contributed to a development towards application of the goal-oriented approach and a stronger focus on the risk management cycle in the Member States.

On the overall level, the evaluation shows that, although some individual Directives adopt at least elements of a more prescriptive approach, the goal-orientated approach enshrined in the Framework Directive and in the CPMs is relevant, works effectively, and provides a clear overall structure for implementing OSH management. However, although the overall approach and structure provides a relevant framework for OSH management, this should not be construed as endorsing all of the detailed provisions. The evaluation points to a number of recommendations, which would contribute to bringing the individual directives up to date and to ensuring coherence and consistency across the acquis.

Initially, it should be noted that the analysis of the 24 OSH directives has not resulted in the identification of major legal coherence issues. There are no contradictory provisions and very few overlaps between the OSH directives. The legal articulation between OSH directives through in-built mechanisms (e.g. specific scope, 'without prejudice' clause, exemptions, *lex specialis* principle) has in most cases contributed to avoiding overlaps and contradictions between provisions from a legal perspective. Furthermore, among the few overlaps identified, a large

majority do not result in double regulation in practice (e.g. double reporting requirements) and therefore do not lead to additional cost when applied by employers.

However, while this mix of the goal-orientated approach and the prescriptive approach embedded in the directives does not generally give rise to legal incoherence, it is conceptually inconsistent. It poses a challenge to the definition and understanding of the overall objectives of directives as well as complicating their transposition into national legislation. The legal articulation between OSH Directives transposing measures is not always done in a systematic fashion and, in practice, cross-references are not always sufficient to ensure a coherent and cohesive approach across national legislation. However, the different national approaches to OSH management in the MSs and the large variety of hazards, workers and workplaces that are covered by the directives pose a significant challenge when seeking to identify which one consistent approach should be adopted.

For instance, comments from national bodies, stakeholders, NIRs, etc. suggest a need for a more flexible (i.e. less-prescriptive) approach in the Biological Agents Directive; a less 'activity-based' approach to the Manual Handling Directive; that a goal-oriented OSH Signs Directive without prescriptive annexes may contribute to a higher degree of continued, future relevance; and that there is a desire for the Drilling Directive to move towards a goal-oriented approach.

The complexity of some new and emerging risks, not already explicitly covered by individual directives, adds further to the argument. Serious OSH issues such as those MSDs not already covered and psychosocial risks do not readily present themselves as being amenable to a prescriptive approach (and yet there is a clear view from some stakeholders at least, endorsed by ESENER-2 findings that non-legislative measures are insufficient).

The adoption of a more goal-based approach to the OSH acquis is consistent with current thinking within the wider EU. Thus, in his opening statement as President-Elect of the European Commission, Mr Jean-Claude Juncker stated: "We must not stifle innovation and competitiveness with too prescriptive and too detailed regulations..."² Furthermore, the goal-oriented approach is in line with better regulation principles³, which emphasise that regulation should, as far as possible, be general in nature and cover the objectives, periods of validity and essential requirements, while technicalities and details should be left to the Member States to decide.

Finally, the prescriptive approach brings with it a requirement to regularly revisit the legislation to bring it up to date. The evaluation finds that the directives of a prescriptive nature have generally failed to have incorporated such updates (for example, technological advances in DSE over the last 25 years have not been reflected in amendments to the DSE Directive). In areas where prescription is necessary, it can be advantageous to establish co-regulation measures linking up with existing widely recognised standardisation mechanisms to avoid incoherence and to have an efficient updating process. However, such instruments seem not to have been taken advantage of in the current set-up of the acquis.

On the other hand, one point of criticism of the goal-setting approach is that the absence of prescriptive intermediate goals makes compliance harder to verify and, in the absence of that verification procedure, also harder to enforce (especially in OSH cultures with a history of the

² <http://www.eesc.europa.eu/resources/docs/jean-claude-juncker---political-guidelines.pdf>

³ http://ec.europa.eu/smart-regulation/guidelines/ug_chap1_en.htm

prescriptive approach). Additionally, a goal-setting approach requires enterprises to have a greater degree of OSH understanding and knowledge, which might be particularly challenging for SMEs.

A degree of prescription is unavoidable, for example in setting exposure limits for physical (and perhaps chemical) agents. The latter case is slightly different however in that the limits are predominantly indicative rather than mandatory. However, where there is less clarity is in the extent to which MSs need to be 'told' how to achieve those limits. Of course, given a more prescriptive goal-setting directive, it remains open to any individual MSs to incorporate those goals into prescriptive national legislation.

The deeper challenge however is the fact that the two approaches are embedded in national practices and that changing from one to the other will not be easy. Although the EU-OSHA Risk Observatory report (2013) suggests that a goal-setting approach is more effective in achieving better OSH management, it might be more accurate to say that a certain group of MSs appear to have better OSH management and one feature they share is a more goal-setting approach to such management. On the basis of the evidence reviewed as part of the present study, it is not possible to unequivocally endorse one approach over the other. Yet, it can be stated that the mixture of approaches in the current OSH acquis appears to be unhelpful and that a more consistent approach would probably therefore be beneficial. It can also be stated that some of the more complex hazards and risk factors are less readily presented in a prescriptive fashion than they would be in a goal-setting vehicle. On this basis, we recommend developing the acquis more in the direction of the goal-oriented regulatory approach, although it appears that some form of dialogue over the future approach of directives would be of value in ensuring the overall ongoing future relevance of the OSH acquis.

Moving to the structure of the acquis, analysing the interlinkages of the CPMs across Directives, and thus their suitability to work in tandem and collectively increase the safety and health of workers, the evaluation found that, although the overall approach is relevant, the collected OSH legislation is unnecessarily complex, in part, due to a seemingly unstructured and unsystematic inclusion (or lack thereof) of CPMs into the individual Directives. Consequently, when OSH directives have been transposed into national law, these problems are often conveyed into the national legal frameworks, preventing a fully coherent and cohesive approach. This, in turn, has caused some confusion at enterprise level, and particularly amongst SMEs, leading to misinterpretations of the provisions of legislation or directives. It should be noted that these concerns reflect the manner in which the CPMs have been included rather than any concerns regarding the integrity of the CPMs themselves. Some concerns have been expressed (for example amongst OSH professionals) that this leads to additional effort (and therefore costs) on the part of employers.

The evaluation has also identified a number of requirements within individual directives that could apply to all risks, workers and workplaces, and which could therefore be transferred to the Framework Directive. 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. Such a consequential review of the Framework Directive would be justified by the fact that it has not been significantly amended since its adoption in June 1989, whereas individual directives have been amended throughout the years. Some have even recently been adopted (e.g. Directive 2013/35/EU on electromagnetic fields). Indeed, a majority of the identified provisions that could be streamlined in the Framework Directive are found within recently adopted or amended directives.

One prominent example of such broad provisions, which could be incorporated into the Framework Directive to ensure consistency and appropriate coverage, is the requirement to address the specific needs of vulnerable groups of workers. The evaluation shows that vulnerable groups are not addressed in a consistent manner in the current acquis. Some groups (young workers, pregnant workers, temporary workers) are addressed by specific individual directives, 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 the current legal structure is not suitable to ensure their incorporation in a flexible manner.

Furthermore, other possibly vulnerable groups with even less OSH protection include the self-employed and home workers who are excluded from the provisions of the OSH acquis, either entirely or partly. The latter group presents particular challenges because developments in display screen equipment (DSE) and related technologies mean that DSE users might for instance perform their work at home, or at other remote locations, which are not covered in the scope of the OSH acquis. The same applies for those whose workplace per definition is within the home setting, i.e. domestic workers. In such cases, protection could almost be regarded as a 'Member State lottery' in that the extent to which workers are offered protection, if at all, depends on which Member State he or she is employed in as some Member States have already exercised their right to make more detailed provisions and extend OSH protection to such groups.

Lastly, 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, as discussed above, they do add to the complexity of the legal framework. In addition, the current directives relating to vulnerable groups contain provisions on workers' rights as well as OSH related provisions. While there are clear links between the two, it could reasonably be argued that provisions on workers' rights belong to a separate acquis.

Finally, the evaluation also identified interfaces between the OSH Directives and other EU measures and/or policies, where amendments to either the OSH acquis or other EU measures or policies may improve consistency, remove overlaps leading to application of contradictory requirements, improve legal clarity (which may otherwise cause confusion) or possibly enhance synergies.

3 Addressing on-going and emerging risks

The second cluster of prominent conclusions and recommendations pertains to their suitability to address both current and emerging risks. An important step in drawing conclusions on this topic during the evaluation was to assess whether the implementation of the OSH acquis has translated into less exposure to risk factors at EU workplaces and, as a result, into fewer accidents at work and fewer work-related diseases.

The data on work-related accidents and diseases shows in general that the incidence of accidents has decreased during the evaluation period. Data on exposure to risks provides a conflicting picture. At the general level, indications are that workers generally appear to consider their health and safety to be less at risk (2013) than they did previously (2007) and that they are less likely to report that their work (adversely) affects their health across the same time period. However, indications from more specific analyses, conducted as part of the individual Directive reports suggest that indices related to various occupational diseases have remained constant or increased, except for a few specific cases.

Quantitative material is less readily obtained. That which is available is patchy, incomplete, and not readily related to the OSH directive acquis. However, it is a key concern that exposure to risks related to various occupational diseases have typically either remained stable or increased during the implementation period.

In this regard, the OSH acquis is challenged by the fact that the design and specific content of the directives are a result of a comprehensive tripartite policy dialogue, which means they have been subject to considerable discussion and debate when they were written. The directives are thus based on available knowledge at the time of their conception and the possible political compromises, but not always backed by clear data and scientific research. Stakeholders are apparently generally reluctant to reopen the debate about directives for fear of losing out in the process of revising it. This evaluation suggests that the (at times cumbersome) process of tripartite dialogue, on the one hand, contributes to the relevance and effectiveness of the directives because they represent the viable compromise between three parties and their combined knowledge. At the same time, there is a level of conservatism and inertia in the system, because it is sometimes very difficult to reach an agreement and because the parties are reluctant to reopen agreements already reached. Consequently, the relevance and effectiveness of the OSH acquis for dealing with specific risk factors are not adequately maintained. This evaluation points to two issues of particular concern, namely work factors creating a risk of musculoskeletal disorders (MSD) and psychosocial risks.

Stress and MSDs are the two most prominent work-related diseases, and exposure to related risk factors have both increased substantially during the evaluation period. On the subject of stress, this is perhaps understandable, given the fact that there are currently no specific OSH provisions that address psychosocial risks. Contrarily, two specific directives currently address two of the major hazards contributing MSDs, i.e. the Display Screen Equipment Directive and the Manual Handling Directive.

Evidence from a number of sources suggest that there is a need to better address those work factors creating a risk of musculoskeletal disorders which are not addressed by the two current directives. However, there is a lack of consensus on what form any action should take. The evaluation shows that the complexities of managing the risks of non-manual handling MSDs are unlikely to be compatible with a prescriptive directive. Although the scientific evidence points towards redesigning the directive along the more goal-oriented lines, there is a lot of support for (and against) such an approach. Ultimately, the collated available evidence does not permit a conclusive outcome at this stage.

On the subject of psychosocial risks, given their considerable negative impact on health, it is clear (and appears to be generally if not universally accepted) that some form of action is required to address the growing issue of ill-health arising from exposure to psychosocial risk factors in the workplace. What is not clear is the nature of such action. Many of the factors giving rise to such problems are well known. However, given their complexities and interactions they clearly do not readily lend themselves to the type of prescriptive directives favoured by some Member States (possibly incorporating 'exposure limits'). Equally, some stakeholders are strongly opposed to what they see as 'just' guidance.

Clearly, some action in this area is desirable, given the high incidence of work-related problems associated with psychosocial risks. Apart from no action at all (there seems to be agreement that this is not an option), three possible approaches can be outlined (although there are undoubtedly more). These are a non-legislative approach based on the use of (agreed) guidance; goal-setting

legislation; and prescriptive legislation. Although there are currently two tripartite agreements in place addressing aspects of psychosocial risks (covering 'stress' and 'violence and harassment'), there is a widespread message from MSs that these are not sufficient to address psychosocial risks.

It is also argued by some that Article 5(1) of the Framework Directive ("The employer shall have a duty to ensure the safety and health of workers in every aspect related to the work.") provides a sufficient legal basis. Again, the implicit message from the Member States would seem to suggest otherwise given the extensive comments (in the NIRs and elsewhere) for a need to address psychosocial risks. At the Validation Seminar, the option of amending the Framework Directive to explicitly mention psychosocial risks (to make their inclusion as risks explicit), and addressing the issue by information and guidance was not universally well received, although some participants did endorse a fully non-legislative approach. Others, however, expressed a preference for a more detailed legislative solution.

The extensive research literature on psychosocial risks, including the interaction between occupational and non-occupational factors, makes this a complex field in which to enact legislation. However, comments and responses collected during the course of this study, again supplemented by comments from OSH experts, suggest that there is less motivation for ameliorative action in the absence of legislation, implying that guidance alone is less likely to be effective. This is supported by survey results that show legislative requirements as the primary driver for OSH action for many employers.

Apart from MSDs and psychosocial risks, this evaluation has also identified a number of directives, which have failed to keep abreast of developments in the workplace resulting in the relevance of those directives to have decreased. One example is that of the Display Screen Equipment (DSE) Directive where advances in new technology and knowledge of relevant workplace hazards and risks appear to warrant considerable change.

Another issue related to the management of risks was identified during the analysis of the legal coherence of the Carcinogens or Mutagens Directive, the Asbestos Directive and the Chemical Agents Directive. The evaluation identified a number of different individual areas of legal inconsistency or a lack of coherence between the three Directives causing a certain level of confusion regarding the provisions particularly under the Carcinogens or Mutagens Directive and the Chemical Agents Directive pointing to a need for action to ensure coherent coverage of risks related to various chemical agents. It is widely recognised that the Asbestos Directive reflects a very different scenario and series of highly specific control measures (and there appears to be little support from any source for its merger with the Chemical Agents Directive).

However, one solution encountered during the evaluation with regard to the remaining two was that of merging them into a single directive. There have been numerous comments and suggestions made, from a variety of different sources, both for and against such a suggestion. The evaluation shows that, other than the argument for greater legal clarity through rationalisation, there is no evidence-base on which to argue for or against such a move. Thus, other than acknowledging the issue, no clear conclusions or recommendations can be drawn from this work. However, clarification of legal requirements might well serve to address some of the concerns about a lack of clarity and a certain level of confusion regarding the provisions under the Chemical Agents Directive and Carcinogens or Mutagens Directive to ensure coherent coverage of risks related to various chemical agents.

Related to the debate over these two directives are ongoing concerns about the possible health effects of nanoparticles and nanomaterials. There is no current consensus over whether these concerns are best addressed through the existing Chemical Agents and Carcinogens or Mutagens Directives (possibly with amendment) or whether a new Directive is required. However, it is clear that action is required to address this area, at least to clarify the situation. There appears to be a balance to suggest that existing legislation is sufficient, although clearly actions will be necessary to convince all stakeholders of this and to provide guidance on this matter.

Finally, on the subject of risks addressed by the OSH acquis, the evaluation has found that it is relevant to maintain the directives addressing physical agents, as there are differences in the risk involved, the approaches to risk management and the setting of different limit values, which justify the existence of distinct directives. However, some provisions in certain physical agent directives could apply to all workers exposed to such agents. More consistency in the way CPMs are drafted across the various physical agent directives would facilitate their application at the workplace.

4 Compliance, enforcement and SMEs

The evaluation provides evidence to suggest that SMEs are less compliant with the requirements of the OSH directives than large establishments. Although SMEs display lower incidence rates of accidents at work, and also show a decreasing trend in the number of accidents at work similar to large establishments, the evaluation indicates that an increased compliance in SMEs is likely to entail additional benefits in terms of avoiding work-related accidents and diseases. The evaluation thus clearly suggests that exemptions for SMEs and microestablishments would be inexpedient, as this would lead to a lowering of the levels of protection for some workers.

Rather, the evaluation shows that continuing the further development and dissemination of already existing effective tools is pivotal. Particularly the Online Interactive Risk Assessment (OiRA) tool specifically targeting SMEs is highlighted. This points to the important role of EU-OSHA in ensuring that the experience already gathered is effectively used, e.g. that Member States can learn from each other and avoid unnecessary cost in developing custom-made tools and approaches.

The key challenge to increasing compliance in SMEs is to identify how to reach and encourage them to make the necessary changes. The data collected for the evaluation indicates 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 OSH services to a greater extent than large establishments. Furthermore, compliance costs (measured per worker) tend to be higher for SMEs, and they are less likely to perceive OSH as a financial investment. SMEs are best targeted through a more personalised approach, combining enforcement and guidance. Clearly, it would be burdensome for inspectorates to target SMEs using conventional approaches to inspection, so the challenge is to find new and innovative ways of reaching the SMEs in an efficient and effective manner in order to encourage the development of risk prevention strategies and overall OSH compliance.

In this regard, the evaluation indicates that a shift away from the traditional focus on inspections of individual establishments to a broader catalytic approach exploiting extended supply chains and targeting of upstream actors could provide part of this solution. Another option could be to tap into existing business networks and facilitate mutual learning processes among participants. The evaluation highlights the benefits that could be gained from drawing on experience from some MSs in certain industries. For example, there is evidence from the UK of the benefits of the 'cascade

approach' to OSH, which has been applied on large-scale construction projects during which SMEs learn from their involvement.

Likewise, the evaluation highlights approaches adopted in some MSs to 'simplify' OSH and thereby make the essential requirements more accessible to SMEs. One example is the potential of the 'control banding' approach to managing chemical hazards such as 'Stoffenmanager' developed in the Netherlands (cf. the Chemical Agents Directive Report).

Generally, the evaluation shows that there is a large degree of variation in the number and frequency of inspections across Member States. In effect, the directives are not enforced to the same extent in all Member States, which in turn leads to a concern about whether there in fact is a level playing field for EU undertakings and equal OSH conditions for workers across Member States. Having emphasised this issue, it has to be noted that as the directives only set minimum requirements, they do not as such aim to achieve a completely level playing field. Likewise, the requirement to enforce the legislation transposing the directives is not very clearly articulated in the current provisions in the directives. Nevertheless, it is clear that legal requirements and inspection are both key determinants in explaining why establishments develop OSH policies and take OSH action. The evaluation thereby 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.

Although compliance varies significantly from Directive to Directive, from MS to MS and across establishment size, analysis of compliance with the CPMs specifically across MSs and establishment sizes shows that compliance with training of workers and health surveillance is moderate, while compliance with information for workers and preventive and protective services is good. Compliance with risk assessments is moderate to good and compliance with consultation of workers ranges from poor to moderate or good compliance depending on the chosen method applied to analyse available data. Strong evidence suggests that employee representation has a noticeable influence on the proportion of establishments performing risk assessments and an even more pronounced impact on other key requirements.

However, the assessment of compliance strictly pertains to 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. Yet, compliance is not achieved solely by producing the required output. 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, as the Directives contain requirements which are essentially quality and content oriented rather than activity oriented. As these aspects cannot be assessed by means of available data, the extent of effective compliance is likely to be less.

The evaluation also calls attention to evidence, from some MSs at least, that a sole focus on risk assessment may divert attention from risk management, particularly in SMEs. This illustrates the impact of non-recognition of non-compliance, 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 and, even in large organisations, the risk management measures adopted may not be the most appropriate. Evidence from OSH practitioners, supported by material examined during this study (such as NIRs), suggests that the quickest, easiest, cheapest solution might be that which is chosen for implementation, rather than the most effective measure. As a specific example, a

number of NIRs report that, in response to identified manual handling risks, organisations frequently resort to manual handling training, whether or not it is the most appropriate measure.

In addition, in several cases, the evaluations of individual directives have resulted in conclusions regarding inadequate or insufficient risk assessment procedures, which do 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 sufficiently managed.

One factor that tends to cause risk assessments to have a smaller impact on the risk management policy of a given establishment is whether that risk assessment was carried out in-house or by external service providers. The evaluation indicates that externally conducted risk assessments may have a lower effect on OSH management than internal ones because risk assessments performed by external service providers reduce the need to maintain in-house expertise and more often result in a lack of subsequent anchoring of OSH principles in the establishment in comparison to risk assessments performed by internal staff. This is likely to impact on the position of health and safety generally within an organisation's business and priorities.

Furthermore, data reveals considerable differences across MSs in the frequency of the two approaches. Clearly, different kinds of advice and guidance are required in relation to these two approaches, and with evidence pointing to significant differences in risk assessment quality, this difference constitutes room for improvement and increased effectiveness of the CPM. The evaluation suggests that it may be beneficial to promote the use of internally conducted risk assessments or establish minimum requirements on management participation when using external services, which might ensure co-ownership and competence development in management. In extension, the evaluation repeats the need for an answer to the fundamental question previously raised in the European Risk Observatory of "how the use of external services to carry out risk assessments fits within the Framework Directive's principles of prevention and protection through a coherent overall policy"⁴.

5 Data and monitoring

The last cluster of conclusions concerns data and monitoring, which have given rise to considerable challenges during this evaluation. The evaluation shows very clearly that there is very limited data at EU-level to assist in assessing the effects of the directives and the extent to which they each achieve their objectives, particularly on the subject of occupational diseases. There is a need for better, more consistent data recording systems at national and EU level with a better reflection of causal factors to be able to follow up on whether the legislation works as intended. A necessary step in this process is to further clarify what meeting the objectives actually entails for each directive, as monitoring systems cannot be sufficiently targeted to the purpose without this clarification.

Particularly, cost-benefit analyses provide important information for policy makers, but better national data on both costs and benefits is essential. Moreover, to conduct cost-benefit analyses at

⁴ EU-OSHA (2013), European Risk Observatory, Analysis of the determinants of workplace occupational safety and health practice in a selection of EU Member States

the EU level, more in-depth examination of existing country-specific literature and databases, analyses of structural differences between MS and a standardisation of national methodologies are all needed. To ensure a sufficient level of accuracy in the analysis, this exercise will require considerable resources and efforts. However, the goal-setting requirements in many directives, including the Framework Directive means that assessing the actual costs of compliance is very difficult. Therefore, alternative cost-benefit analyses, based on case studies from the enterprise perspective, might be a more realistic option. Currently, most of the available literature either focuses on costs or benefits. We caution against initiating cost-reducing measures without assessing the benefits, because a more costly activity could also bring about larger benefits making it more profitable than a less costly measure (as shown in the literature on profitability).

Most of the directives are encompassed by the general requirement to report to the Commission about their implementation every five years⁵. This evaluation report should be seen in conjunction with this procedure as it builds on the National Implementation Report submitted by the Member States by December 2013. Having a report every five years from the Member States on the implementation of all these directives hence also constitutes a unique opportunity for collecting data and filling gaps where existing data sources (such as ESENER, ESAW and EWCS) do not give sufficient insight. Our experience from working with data in the NIRs is that, while they do provide some valuable information, the quality varies between directives and between Member States. This is partly because respondents in the Member States have taken different interests in answering the questions posed in the questionnaire devised by the Commission⁶. However, part of the reason is the fact that the questions are often phrased in an open and ambiguous manner and can be (and have been) understood in different ways. For this reason, responses from the Member States are often not comparable and reflect different interpretations of the question posed, which considerably reduces the value of the NIRs as a data source.

As a general principle, for those directives that currently already require employers to collect data, a requirement for employers to remit that data to the authorities (rather than on request) could be included, as this should not generate any significant additional burden on employers. Perhaps initially on a voluntary basis, as proof of concept, this data could be collected and remitted to the EU and could provide the feed data for an EU-wide collation. Non-legislative agreements could provide guidance on the data requirements to facilitate compatibility between data sets. This would provide for a more efficient use of those existing databases and registers, which are already in place in the MSs.

As part of providing for better monitoring by improving data collection as a step towards making the directives 'fit for purpose', it is necessary to clearly define and effectively execute the monitoring plan for the directives. This includes considering the three key questions also posed in the better regulation guidelines: 1) Which evidence needs to be collected?; 2) When and how should evidence be collected?; 3) Who will collect the evidence and from whom?

⁵ Cf. Framework Directive (89/391/EEC), Article 17a

⁶ Cf. Commission Decision C(2011) 9200 final of 20.12.2011

6 Recommendations

Based on the conclusions presented above, a number of recommendations emerge from the evaluation. These recommendations provide a cross-cutting overview and are presented in Table 2 below.

Table 2 Recommendations for possible improvements to the regulatory OSH framework.

Cluster 1: Structure and coherence of the OSH acquis	
1.1	Maintain structure of acquis with a Framework Directive and individual directives
1.2	Develop the acquis more in the direction of the goal-oriented regulatory approach
1.2a	Directives with a highly prescriptive content could be reviewed and annexes shortened or removed and relevant elements of the annexes be transferred to updated guidance documents.
1.2b	Directives with a potential for alignment with standardisation mechanisms could be updated in this respect (in particular relevant to consider for the Signs Directive and the Drilling Directive).
1.2c	When amending directives, an analysis of the intervention logic of the directives could be performed, and goals against which the performance of the directive should be measured could be clarified (building on intervention logics of this evaluation where relevant).
1.3	Streamline the application of the CPMs
1.3a	References in individual directives to the CPM provisions in the Framework Directive, which contain no additional requirements, could be removed.
1.3b	The Framework Directive could be reviewed to include requirements, which although set under individual directives only, could apply to all risks, workers and workplaces.
1.4	Strengthen the external coherence of the directives
1.4a	Health and safety education, training and capacity building programmes could be developed and promoted in the construction sector to enhance synergies between the Construction Directive and the Strategy for the sustainable competitiveness of the construction sector and its enterprises. Programmes could specifically target health and safety coordinators at construction sites.
1.4b	The scope of Directive 2010/32/EU (sharp injuries) could be extended to cover all workers exposed to the risk of suffering sharp injuries that may lead to infections by biological agents.
1.4c	Provisions could be included into either REACH and/or the Chemical Agents Directive to coordinate the adoption of OELs and DNELs and/or to clarify which value must prevail. Other options would be to: <ul style="list-style-type: none"> › Enhance the cooperation between SCOEL and ECHA (RAC) when establishing limit values as required under Article 95(1) REACH and Article 5(5) COM Decision 2014/113/EU in order to clarify the potential scientific divergences. › Re-evaluate the methodologies used to define OELs and derive DNELs in order to obtain comparable results. › Ensure that REACH registrants take into account OELs recommended by SCOEL when deriving DNELs without being challenged in other regulatory processes. › Reconsider Member State competence to set higher or stricter OELs in order to allow the applications of harmonised OELs across the EU.
1.4d	The articulation of the reporting requirements under the Drilling Directive and Directive 2013/30/EU on safety of offshore oil and gas operations could be clarified through the adoption of guidelines on the interface between the two directives.
1.4e	Provisions that set specific employment conditions and rights for pregnant/breastfeeding workers and young people at work under the current EU labour legislation (e.g. Working Time Directive) could be streamlined for better clarity. This streamlining should at least apply to the provisions setting employment rights that are not directly linked to the health and safety at work of young people and pregnant workers
1.4f	Requirements on medical treatment under Directive 2009/13/EC (maritime labour) and Directive 2008/106/EC (training of seafarers) which are already covered by the Medical treatment on board vessels Directive could be removed.
1.4g	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 could be reintroduced.
1.4h	The definition of zones in the ATEX Directive and Directive 94/9/EC (ATEX equipment) could be reviewed to ensure similar interpretations in Member States and avoid barriers to the free movement of ATEX equipment.
1.4i	Awareness raising campaigns could be conducted (e.g. through the REACH helpdesks and/or EU-OSHA) to inform employers on how to use the Safety Data Sheets under REACH for their risk assessment and extract relevant information from the SDSs to fulfil their obligations under the Chemical Agents Directive and the Carcinogens or Mutagens Directive.
1.4j	Additional requirements under international instruments in the relevant EU OSH legislation could be incorporated to ensure a level-playing field across the different Member States. As an alternative (or a first step), the adoption of a Council Decision authorising the ratification of the relevant convention by Member States and to further promote ratification should be envisaged (when it is not yet the case).
1.5 Reconsider how to address vulnerable groups	
1.5a	The requirements for employers to address the specific needs of vulnerable workers and general prohibitions could be more clearly reflected into the Framework Directive, coupled with additional guidance on how to implement this in practice, targeted at various vulnerable groups.
1.5b	Existing directives on vulnerable groups could be repealed, and relevant provisions transferred to other directives: <ul style="list-style-type: none"> › Provisions relating to risk-specific prohibitions or other risk-specific provisions could be transferred to the relevant risk-specific directives. › Provisions on workers' rights could be transferred to directives pertaining to workers' rights.
Cluster 2: Addressing on-going and emerging risks	
2.1 Address risks related to MSDs	
2.1a	Consideration could be given to commissioning an ergonomics assessment of the feasibility of generating prescriptive material relating to MSDs not related to manual handling or DSE work.
2.1b	At least as an interim measure, consideration should also be given to the option of detailed guidance (for which potential examples are already available nationally) supporting enabling legislation, possibly in the form of an amendment to the Framework Directive.
2.2 Address psychosocial risks	
2.2a	As the prescriptive approach appears to be that favoured in the majority of MSs, it is suggested that consideration be given to commissioning a scientific assessment of the feasibility of generating prescriptive material (suitable for legislation) relating to psychosocial risks, to indicate whether or not such an approach could be viable.
2.3 Give attention to updating of relevant Directives	
2.4 Streamline provisions dealing with chemical agents to ensure coherent coverage of risks	
2.5 Streamline provisions dealing with physical agents to ensure coherent coverage of risks	
Cluster 3: Compliance, enforcement and SMEs	
3.1 Increase compliance of SMEs	
3.1a	Continue the further development and dissemination of existing effective tools, in particular the OiRA tool. Ensure that the experience already gathered is used in the most effective way, e.g. that Member States can learn from each other and avoid unnecessary cost in developing custom-made tools and approaches.
3.1b	Find ways to target SMEs with a personal approach without over-exerting the resources of the inspectorates.
3.1c	Investigate the promotion of economic incentives, especially in SMEs, such as favourable insurance conditions if certain OSH criteria are met.
3.1d	Consider Introducing measures to reduce costs for SMEs.
3.2 Aim for a greater harmonisation in the way the legislation is enforced	
3.2a	Consider whether a clearer reference to the obligation to enforce the requirements should be included in the Framework Directive.
3.2b	Strengthen existing coordinating mechanisms for enforcement and inspection, potentially coupled with a

	stronger emphasis on competence building and guidance to inspectorates.
3.3	Strengthen focus on risk management
3.3a	Guidance on implementation of the CPMs embedded in the Framework Directive could be updated and disseminated focusing not only on risk assessment but on the entire plan-do-act cycle.
3.3b	Consider which provisions of support match the different challenges associated with risk assessments conducted in-house compared to risk assessments performed by external service providers.
3.3c	Consider promoting the use of internally conducted risk assessments or establishing minimum requirements on management participation when using external services, which might ensure co-ownership and competence development in managements.
3.3d	Consider whether the requirements regarding the availability of preventive and protective services should be further enhanced in the Framework Directive.
3.3e	Consider revisiting the provisions for health surveillance in the Framework Directive in order to streamline the approaches in national provisions across Member States.
Cluster 4: Data and monitoring	
4.1	Improve monitoring systems to obtain better information on effects of the Directives
4.1a	Consideration should be given to developing better, more consistent data recording systems at national and EU level which better reflect causal factors.
4.1b	For those directives that currently require employers to collect data, a requirement for employers to remit that data to the authorities (rather than on request as at present) could be included.