



Management of occupational health and safety in European workplaces — evidence from the Second European Survey of Enterprises on New and Emerging Risks (ESENER-2)

European Risk Observatory
Report

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Table of Contents

List of figures and tables.....	4
1 Introduction.....	11
1.1 The contribution made by ESENER.....	11
1.2 The aim of this project.....	13
2 Methods.....	14
2.1 Phase 1: Factors associated with high levels of good OHS and PSR management practice and management commitment.....	18
2.1.1 Typology analyses.....	18
2.2 Phase 2: Worker representation and wider contexts.....	22
2.2.1 Worker representation.....	22
2.2.2 Wider contexts.....	23
2.3 Phase 3: Some workplace-level differences.....	24
2.4 Summary.....	24
3 Establishments where the implementation of high levels of good practice is more likely.....	25
3.1 Factors associated with high levels of good practices.....	27
3.2 Establishment typologies.....	30
3.2.1 Health risk management measures and associations with low levels of good practice and management commitment.....	32
3.3 Reasons for addressing health and safety issues and survey respondents.....	33
3.3.1 Reasons for, and barriers to, addressing health and safety issues.....	33
3.3.2 Differences by respondent type.....	39
3.4 Summary.....	42
4 The influence of worker representation and wider contexts.....	43
4.1 Worker representation.....	44
4.2 Wider contexts.....	47
4.3 Summary.....	48
5 Possible differentiating factors.....	50
5.1 Establishments that do not carry out risk assessments.....	51
5.2 Training.....	54
5.3 Summary.....	58
6 Conclusions.....	59
7 References.....	63

List of figures and tables

Table 1 Component variables for OHS management, PSR management and management commitment composite scores	15
Table 2 Establishment characteristics	18
Table 3 Respondent characteristics	21
Table 4 Proportion of establishments reporting high and low levels of management commitment by representation.....	23
Table 5 Proportion of ESENER-2 establishments in each of the country groups	23
Table 6: Most and least commonly reported elements of the three composite scores	27
Figure 1 Mean OHS and PSR management and management commitment scores by establishment size.....	29
Figure 2 Mean OHS and PSR management and management commitment scores by establishment sector	29
Figure 3 Proportion (%) of establishments reporting that workforce expectations were a major reason for addressing health and safety issues by establishment size, country group and sector....	35
Figure 4 Proportion (%) of establishments reporting that workforce expectations were a major reason for addressing health and safety issues by country group for each combination of representative arrangements.....	35
Figure 5 Proportion (%) of establishments reporting that fulfilling the legal obligation and avoiding fines and sanctions were major reasons for addressing health and safety issues by establishment size, for establishments that had and had not been visited by the labour inspectorate in the previous three years	38
Figure 6 Proportion (%) of establishments reporting that fulfilling the legal obligation and avoiding fines and sanctions were major reasons for addressing health and safety issues by sector, for establishments that had and had not been visited by the labour inspectorate in the previous three years	38
Figure 7 Proportion (%) of establishments reporting that fulfilling the legal obligation and avoiding fines and sanctions were major reasons for addressing health and safety issues by country group, for establishments that had and had not been visited by the labour inspectorate in the previous three years	39
Figure 8 Respondent type by establishment size	41
Figure 9 Respondent type by establishment sector	41
Figure 10 Proportion (%) of establishments where the respondent had not received OHS training and OHS was not a main task by establishment size and sector	42
Figure 11 Mean OHS and PSR management scores by worker representation arrangements in place combined with management commitment	45
Figure 12 Odds ratios of worker representation arrangement in place combined with management commitment for high levels of OHS and PSR management practice	47
Figure 13 Odds ratios of country groups for high levels of OHS and PSR management.....	48
Figure 14 Proportion (%) of establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks by establishment size	51
Figure 15 Proportion (%) of establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks by establishment sector.....	52

Figure 16 Proportion (%) of establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks by country group.....	52
Figure 17 Mean OHS management, PSR management and management commitment scores, excluding the measures related to risk assessment and other checks, for establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks	53
Figure 18 Odds ratios for establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks.....	54
Figure 19 Proportion (%) of establishments reporting various levels of training.....	55
Figure 20 Mean training score and proportion (%) of establishments providing no training and all of the expected training, by establishment size	55
Figure 21 Mean training score and proportion (%) of establishments providing no training and all of the expected training, by establishment sector.....	56
Figure 22 Mean training score and proportion (%) of establishments providing no training and all of the expected training, by country group.....	56
Figure 23 Mean OHS management, PSR management and management commitment scores by level of training provision.....	57
Figure 24 Odd ratios for training provision in relation to high levels of good OHS and PSR management practice.....	57

Executive summary

The aim of this study was to undertake a more detailed analysis of the data from the Second European Survey of Enterprises on New and Emerging Risks (ESENER-2) concerning the management of health and safety in European Union (EU) workplaces. It was commissioned by the European Agency for Safety and Health at Work (EU-OSHA) to build on the earlier findings of analyses of ESENER-1 and ESENER-2 with a view to:

- identifying measures that might foster higher levels of commitment to occupational health and safety (OHS) among establishments;
- identifying types of enterprises that are more likely to have low commitment and on which support should be focused;
- helping policy-makers to make the best use of limited resources in the prevention of health and safety risks.

To achieve this aim, our study took the following findings of previous analyses of ESENER-1 and ESENER-2 data as its starting point:

- Levels of implementation of good practice vary with establishment size and sector.
- A participative approach supported by high levels of management commitment to OHS is most strongly associated with workplace implementation of good practice in relation to prevention.
- In addition to, and independent of, these associations, there are variations in the implementation levels of good practice by country.

In essence, therefore, these earlier analyses indicated that the various local, national and international contexts in which establishments operate are influential over workplace OHS management practice. And this implies that contexts favourable to good or improved practice can be fostered. From this basis, we undertook a secondary analysis of the ESENER-2 data, as outlined below, and considered our findings against the backdrop of the wider literature on OHS management and what supports and hinders the implementation of good workplace practice.

In this report we have:

1. created composite measures of workplace practice in relation to management commitment to OHS; the management of risks to workers' safety; the management of risks to workers' health; the management of OHS in general; and the management of risks to workers' psychosocial wellbeing;
2. defined typologies of establishments among which high levels of implementation of good practice in relation to each of these measures are more likely;
3. compared these typologies to consider similarities and differences between the factors associated with high implementation levels in each area;
4. considered the further independent associations between high levels of implementation of good practice and both the presence of arrangements for worker representation and membership of countries grouped to reflect broadly similar regulatory, labour relations and other relevant contexts;
5. explored ESENER-2 measures that might be 'markers' for low commitment to OHS;
6. discussed the findings within the context of the wider literature and considered their policy implications.

Methods

Following up ESENER-1, ESENER-2 is a Europe-wide establishment survey that is intended to provide nationally comparable information on how workplaces across Europe manage health and safety. The survey was carried out in 2014 in 36 countries: the EU-28 Member States and Albania, the former Yugoslav Republic of Macedonia, Iceland, Montenegro, Norway, Serbia, Switzerland and Turkey. It collected the views and experiences in relation to OHS risks, day-to-day health and safety management

practice and policy, worker participation and sources of support for the ‘person who knows best’ about health and safety in nearly 50 000 establishments.

Taking a lead from previous analyses of ESENER-1 and ESENER-2, we grouped measures from the ESENER-2 survey into those describing good practice in terms of our understanding of what could be regarded as measures of management commitment to OHS and the management of risks to workers’ safety, health, OHS generally and psychosocial wellbeing. Multivariate analyses were then used to consider associations between high levels of reported implementation of these groups of practices and the following: establishment characteristics; reasons for and difficulties in addressing health and safety issues; use of external sources of health and safety information; arrangements for the representation of workers; and the country in which the establishment operated.

Findings

The findings of our analyses were consistent with those of previous explorations of the ESENER-1 and ESENER-2 data and with the wider literature. They indicated that the reported implementation of measures to manage risks suggests a hierarchy, with highest implementation levels in relation to safety, followed by health and then psychosocial risk. In addition, establishments with high implementation levels in these areas and in relation to management commitment to health and safety are generally:

- larger firms, often those that are part of a wider group (rather than an independent establishment);
- those in particular sectors (the productive and manufacturing sectors for OHS management, the services and public sector for psychosocial risk management, and the productive and public sectors for management commitment to OHS);
- aware that they need to manage a combination of traditional (i.e. safety), health and psychosocial risks;
- of the view that meeting workforce expectations and maintaining or increasing their productivity are major reasons for addressing health and safety (with fulfilling legal obligations and avoiding fines and sanctions also associated with high levels of OHS management and maintaining their reputation also associated with high levels of psychosocial risk management);
- those that use external sources of OHS information;
- those that have made OHS someone’s main task and provided that person with OHS training.

In addition, and independent of these other associations, high levels of implementation of good practice were strongly associated with arrangements for worker representation and with the establishment’s country of operation. Specifically:

- Establishments in which the combination of arrangements for the representation of workers and high management commitment to OHS were present were over seven times more likely to have high levels of implementation of good OHS management practice and almost five times more likely to have high levels of implementation of good psychosocial risk management practice than establishments without this combination of factors.
- Establishments from the British Isles and Nordic and southern/Latin groups of countries were more likely than those from elsewhere in the EU to have high levels of implementation of good practice.

The ESENER-2 data show that reported levels of the implementation of a whole range of individual measures related to workplace OHS management are generally high, and, in fact, higher than various other studies show is likely to be the case among establishments in the EU generally. As is the case in most telephone surveys in which respondents are asked to self-assess their own activities, the two main reasons for this are, first, that the sample is most likely to represent the ‘better end’ of the population as a whole (i.e. the proportion of the population that is most committed), and second, when these participants are asked to self-assess their performance they are also more likely to subjectively over-rate it than to under-rate it. However, even among this sample, substantial minorities of respondents indicated that their establishment did not carry out risk assessments (23 %) or provide any OHS-related

training (6 %). Such establishments were generally micro or small enterprises, operating in the services sector, and had low levels of implementation of OHS and psychosocial risk management measures.

Conclusions

The findings of our analyses are consistent with previous research. They suggest that the majority of establishments report implementing many of the arrangements for health and safety management that would be expected among those that were compliant with EU and national level regulations in this regard. However, they also indicate that there is room for improvement in relation to both the implementation of these measures across all workplaces and the use of best practice in workplace operation.

Again in keeping with previous findings, our analyses also suggest that good OHS management practice is supported by the will and capacity of employers to deliver a competent participatory approach to OHS management:

- in which arrangements for worker participation and engagement play an important role;
- that is based around assessing workplace risk and implementing systems to manage the risks thus identified;
- within a regulatory framework that provides the parameters within which this can be done.

These key findings also relate to the core requirements of current EU regulation on OHS. As has been well-established in previous studies, establishments with the capacity to devote resources to these matters are more likely to have both higher levels of good practice on OHS and to understand OHS as fundamental to their business success. This also provides an important link to EU policy on OHS. And it is encouraging to note how recent EU policy has sought to further support the implementation and operation of such approaches in all EU Member States. Recent EU statements are indicative of this. The EU Strategic Framework on Health and Safety at Work 2014-2020 identifies challenges for OHS in the EU as including:

- improving the implementation of existing health and safety rules, in particular by enhancing the capacity of micro and small enterprises to put in place effective and efficient risk prevention strategies.

As is abundantly clear from the analysis in this report, there are enterprises within the EU that are doing this already, but there remains room for significant improvement. This is especially so in relation to smaller firms, and our findings therefore lend some support to the direction of current EU policies. They also provide a useful position from which to undertake future evaluations in this respect.

The framework also calls for strategies:

- to improve the prevention of work-related diseases by tackling new and emerging risks without neglecting existing risks.

Our analysis of the ESENER-2 data in relation to the management of psychosocial risks shows that there are areas of good practice that have been adopted in some enterprises in relation to new and emerging risks, but here, again, strong indications are provided of the need for further improvements, as well as lessons to be learned concerning the coordination of efforts to manage new risks with those aimed at more well-established concerns on OHS. In general, our findings suggest that a constellation of good practice in participative management of OHS can be extended to effectively embrace emerging risks while at the same time addressing existing risks.

The Strategic Framework indicates that such challenges should be addressed with several inter-related strategies including further consolidation of national health and safety strategies, through for example, policy coordination and mutual learning, requiring practical support for small and micro enterprises to help them to better comply with health and safety rules, as well as improvement of enforcement by Member States, and simplifying existing legislation, where appropriate, while preserving a high level of protection for workers' health and safety. The ESENER-2 analysis suggests that these policy

considerations have some salience in relation to current practices, as well as providing an important baseline with which to gauge the future impact of these strategies.

Other important EU policy developments, such as the establishment of the European Pillar of Social Rights, adopted in June 2017, and the Communication of the European Commission in January 2017 on the Modernisation of EU Occupational Safety and Health Legislation and Policy, also envisage high levels of protection for workers from risks to health and safety at work and urge Member States and employers to go beyond minimum requirements to get as close as possible to an accident-free and casualty-free working environment. Again, they argue that this means not only applying the rules, but also establishing ever-improving health and safety policies with the help of risk assessments and dialogue with workers and workplace suppliers, all of which should be supported by guidance and feedback. The evidence from ESENER-2 analysed in the present report relates directly to many of these aspirations and provides a baseline against which to measure their development.

Therefore, it is possible to discern a degree of synergy between current policy and the practice identified in the analysis of ESENER-2, which offers evidence of opportunities on which to build and consolidate improvements. At the same time, it also needs to be acknowledged that there are elements of change in the structure of the EU economy that are not effectively measured in the analysis of the data collected in ESENER-2 and these too have an impact on the presence of preconditions for the delivery of good practice. As we point out several times in the report, it is likely that most of the data collected in ESENER-2 have come from respondents in relatively stable and successful organisations. The analysis of such data does not provide substantial information concerning the health and safety conditions of work in those parts of the economy that are less stable and successful and which, according to other economic analyses, are a growing presence in the EU overall. Future studies will need to take this into account if they are to provide a more complete picture of OHS practice in the EU.

Overall, however, the present report and its analysis provides an important comparative picture of the state of play in relation to OHS management in the Member States of the EU and an indication of the current contexts, in terms of nation, sector and size, that help to determine it.

1 Introduction

This report presents the findings of a secondary analysis of the data from the Second European Survey of Enterprises on New and Emerging Risks (ESENER-2). It was commissioned by the European Agency for Safety and Health at Work (EU-OSHA).

Thinking on the means to improve preventive approaches to occupational health and safety (OHS) in the enterprises of the European Union (EU) and elsewhere has, for many years now, highlighted the importance of process-based approaches in which responsibility for OHS is clearly identified and systematic means of identifying, assessing and controlling risks are emphasised. From a regulatory perspective, this has involved a shift from prescriptive to process-based standards — a trend originating in the Nordic countries and the United Kingdom in the late 1960s and early 1970s, spreading to other north-western European countries and eventually forming the basis of EU regulatory strategies on OHS embraced by the EU Framework Directive 89/391/EEC. This shift was driven, at least in part, by identification of the ossification that was taking place around the way the regulation of OHS was operating in practice and a desire to create a more dynamic, appropriate and effective approach — such as was famously identified by the Report of the Committee of Inquiry into Safety and Health at work in the United Kingdom in 1972 (Robens 1972). In addition, it reflected an effort to ensure that the existing responsibility for OHS as belonging to the employer was even clearer. At the enterprise level, this approach has been expressed through the growth of more systematic methods of managing risks to health and safety.

Apace with these developments, both regulatory policies and research on good practice have identified and advocated a number of key practices and procedures and the means of supporting them. In addition, a substantial body of research into practice has helped evaluate the effectiveness of such approaches across a wide range of sectors and national contexts. As a result, it is widely acknowledged that good practice in designing, implementing and operating arrangements for health and safety within organisations is likely to share several key features that help operationalise the strong emphasis on employers ensuring competent assessment and management of workplace risks by systematic means. Importantly, such approaches are expected to promote clear and strong leadership on OHS at the highest levels within organisations — thus demonstrating a strong management commitment to OHS as essential to the core business of the enterprise. Approaches are further likely to include, for example, written statements of policy, plans and responsibilities for OHS; systematic arrangements and procedures for the assessment and management of risk; workplace and incident inspection, investigation, reporting, recording and follow-up; and other ways of monitoring, receiving feedback and taking appropriate actions on OHS, including, in some cases, arrangements for reviewing and improving OHS management systems themselves. Further, measures to ensure communication with workers, their rights to withdraw from dangerous work, and their training and the provision of information on OHS to workers, supervisors and managers, as well as measures to ensure their collective representation and consultation on OHS matters, are also regarded as essential for good practice at the enterprise level.

This widely accepted body of knowledge on good practice helped to inform many of the questions asked in ESENER-2, and in this secondary analysis we have identified groups of these questions that we think, in combination, help to give a clearer picture of the factors supporting good practice that it is possible to identify from the survey.

1.1 The contribution made by ESENER

In 2009, EU-OSHA carried out its first European Survey of Enterprises on New and Emerging Risks (ESENER-1) (EU-OSHA 2010). Data were collected using computer-assisted telephone interviewing (CATI) of managers and health and safety representatives from establishments with 10 or more employees in the (then) EU-27 Member States and in Croatia, Turkey, Norway and Switzerland. A little under 36 000 individuals (28 649 managers and 7 226 health and safety representatives) took part. In addition to an overview of its main findings (EU-OSHA 2010), a number of in-depth secondary analyses of the data were carried out (EU-OSHA 2012a, b, c, d, 2013a, b).

Following this, ESENER-2 was launched in 2014 (EU-OSHA 2015). Although ESENER-2 was extended to establishments with five or more employees and to establishments from the agriculture, forestry and fishing sector, both surveys used the same approach to data collection and covered the same core topics by collecting respondents' experiences in relation to risks, day-to-day health and safety management practice and policy, worker participation and sources of support. However, there was an important methodological difference for the second wave of ESENER, as the survey was limited to the person 'who knows best' about health and safety. As a result, respondents were a mix of managers, health and safety representatives and others.

In total, just under 50 000 establishments (49 320) across the (then) EU-28 Member States and Albania, the former Yugoslav Republic of Macedonia, Iceland, Montenegro, Norway, Serbia, Switzerland and Turkey took part in ESENER-2. Again, a number of secondary analyses and follow-up studies were commissioned (EU-OSHA 2016, 2017a, b), and a number of other projects are ongoing (focusing on areas including psychosocial risk management, the assessment of the expansion of the survey universe and an *ex post* evaluation).

As the only ongoing Europe-wide survey of workplace health and safety management practice, ESENER has already made an important and substantial contribution to the occupational health and safety evidence base. This is not to say that ESENER, and therefore its follow-up studies and secondary analyses, are without their limitations. Perhaps the greatest of these, particularly for the purposes of this project, is its self-selection bias. As EU-OSHA has acknowledged, and we have discussed previously (EU-OSHA 2012b, 2016, 2017a), those who agree to take part in a survey about health and safety are likely to be those that regard themselves as both compliant with OHS requirements and active in their approach to workplace OHS management. Further, the survey is reliant on respondents' self-assessment of their OHS practices and responses — and for the most part those respondents were managers. As a result, as is recognised to be the case with surveys using similar data collection methods, the absolute levels of implementation of various practices apparent in ESENER-1 and -2 are recognised as generally being considerably higher than national measures of the same indicators and as predominantly reflecting the management view. Nevertheless, the previous analyses of both surveys have shown consistency in relation to their comparative findings, indicating, for example, that smaller firms and those in some groups of countries consistently implement fewer good practices than their larger counterparts and those operating elsewhere (EU-OSHA 2013a, 2016). This indicates that ESENER offers the potential for considerable insight on a large scale when used and interpreted appropriately.

The following findings from previous follow-up studies and secondary analyses of ESENER-1 and -2 have shaped the development of this project:

- A participative approach supported by high levels of management commitment to OHS is most strongly associated with workplace implementation of good practice in relation to prevention (EU-OSHA 2012a, 2017a).
- Levels of good practice vary with factors such as establishment size and sector (EU-OSHA 2012c, d, 2016, 2017b).
- In addition to, and independent of, these establishment characteristics, there are variations in levels of good practice by country (EU-OSHA 2013a, 2017b).

In combination, these findings suggest that the context in which establishments are operating is influential over workplace OHS management practice, which in turn implies that favourable contexts can be fostered. In line with this, in a previous project analysing the findings of ESENER-1, we focused on identifying key contextual determinants and developing an explanatory representation of the relationships between them. A detailed description is available in that project's final report (see EU-OSHA 2013a), but broadly we identified five categories of determinants:

1. EU and supranational influences (such as the Framework and other directives, and wider political, policy and economic influences);
2. national governance, regulation and the OHS system (including, for example, the regulatory approach, the labour inspectorate and wider political and policy influences);

3. labour relations, trade unions, and employers' organisations and processes (such as arrangements for worker representation and social dialogue);
4. economic restructuring (including, for example, economic, workforce and labour market changes, support for representation and changes to legislation and its implementation);
5. other related systems (such as social welfare, health and specialist services, OHS data collection and availability, and insurance and other institutions).

As is clear from the list above, these categories of determinants interact and operate at a number of levels. Together they produce different results as circumstances vary, which is particularly important given that change over time was the most common shared context identified by our project.

A further feature of our previous analysis is that we used existing knowledge about the comparative European contexts of OHS labour relations and regulation (see, for example, Walters et al. 1993, Walters 1996, Walters and Jensen 2000, Walters 2002a, Walters 2004, Westerholm and Walters 2007, Walters 2008, Nichols and Walters 2013, EU-OSHA 2013a), as well as wider understanding concerning 'varieties of capitalism', to create groupings of countries reflecting broadly similar contextual influences. These were:

1. **Western EU:** Belgium, Germany, Luxembourg, Netherlands, Austria;
2. **Nordic countries:** Denmark, Finland, Iceland, Norway, Sweden;
3. **British Isles:** Ireland, United Kingdom;
4. **Southern/Latin EU:** Greece, Spain, France, Italy, Cyprus, Malta, Portugal;
5. **Central and Eastern European countries:** Bulgaria, Czech Republic, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia, Slovakia.

Analyses comparing these groupings led us to conclude that *countries with more embedded approaches towards participative OHS management* in their regulatory systems more often exhibit a combination of the involvement of workers and their representatives and a high commitment towards OHS management than other countries (EU-OSHA 2012b). Furthermore, this, in turn, was associated with more positive measures of health and safety management relative to those in countries where these approaches to regulating OHS management were the result of more recent legislative changes (EU-OSHA 2012b).

1.2 The aim of this project

The aim of the current project was to contribute to an evidence base to help policy-makers take decisions about the best use of resources to support the prevention of health and safety risks. Taking the understandings outlined above as a starting point, the project considered workplace approaches to OHS management as being developed and put into practice within a set of interconnected influential contexts at levels ranging from the establishment to the EU. Taking a comparative analytical approach, the project explored the ESENER-2 measures of workplace OHS practice and how they varied within these contexts.

In the following chapters we first, in Chapter 2, describe the approach we have used. This is followed by three chapters that present our findings. Chapter 3 focuses on immediate contexts by considering the factors associated with high levels of reported implementation of good practice in relation to OHS management in general and in relation to the management of both risks to health and psychosocial risk. Here, a typology of establishments with high levels of good practice is considered. In Chapter 4, the specific influence of the presence of arrangements for the representation of workers in OHS matters is considered, and we also explore the influence of wider contexts by making some comparisons by country and regulatory style. The last of the findings chapters, Chapter 5, makes some additional comparisons focused on workplaces with lower levels of good practice and on the implementation of OHS-related training. The report ends with a final chapter, Chapter 6, that draws the findings together and offers some conclusions.

2 Methods

The analyses were limited to the establishments that took part in ESENER-2 from the EU-28 Member States, as well as Norway and Iceland. They were carried out in three main phases. First, however, following the lead of previous secondary analyses of ESENER-1 and -2 (EU-OSHA 2012b, c, d, 2013a, 2016, 2017a), three composite measures were produced. As described in the previous chapter, it is possible to relate many of the questions asked in the survey to factors known from the literature to support good practice in relation to OHS. By ‘good practice’ here we are referring to practices that would be expected of establishments that were compliant with the legislation (such as regular workplace risk assessments) and, in some cases, those that might indicate going a step further than simple compliance would require (for example, having a specific budget for health and safety measures and equipment). Consideration of the questionnaire suggested that there were groups of questions aimed at capturing the extent of good practice in relation to three distinct areas: OHS management, psychosocial risk (PSR) management, and management commitment to OHS. The first two of these group together measures or arrangements relating to the management of risks to workers’ health and safety and to their psychological health and wellbeing, respectively. And in each case, while there is arguably some blurring of the distinction between the components of the two in some instances, their identification as measures of OHS and PSR management is generally clear. However, as we discuss again in the following chapter, the concept of management commitment to OHS and the selection of its components are more complex. In recognition of the widely held view that a high level of management commitment to health and safety is a pre-condition of good OHS practice generally (see, for example, Walters and Nichols 2007), analyses of ESENER-1 included a composite measure of this kind (EU-OSHA 2012b). The intention then was to try to distinguish between establishments on the basis of the priority afforded to OHS by their management. As ESENER does not include any such direct measure, this was possible only by considering proxies that might indicate commitment — such as regular discussion of health and safety at various levels within an establishment. This is the approach we have used again here. Of course, it is not possible from cross-sectional survey data — particularly that gathered predominantly from managers — to be sure that a positive response to such survey questions actually reflects genuine, meaningful and effective practice in the workplace. Indeed, this is the case for all of the ESENER-1 and -2 measures, and there is a body of evidence suggesting that the gap between ‘rhetoric’ and ‘practice’ in relation to OHS may be substantial in some cases (particularly PSR management in the public sector — see Frick 2014). Nevertheless, we felt that the inclusion of a measure of management commitment was important, as was its cautious interpretation.

The questions relating to each of these areas are shown in Table 1. In each case, the relevant variables within the ESENER-2 dataset were coded to indicate the presence or absence of the particular practice. The composite scores were created by summing each group of variables to give total OHS management, PSR management and management commitment scores ⁽¹⁾. As we note in a number of instances later in this report, it is important to be clear here that the proportions reporting the presence of each measure in Table 1 are rather higher than would be expected from other sources (see, for example, Lißner et al. 2014, Inspectie SZW 2016). This is an issue we have discussed on a number of occasions in relation to both ESENER-1 and ESENER-2 (see, for example, EU-OSHA 2012b, 2017a) and reflects the bias in the samples towards the ‘better end’ (i.e. the proportion of the population that is most committed) that is frequently the result of the methodologies necessary to carry out these kinds of surveys. It, of course, means that the analyses and their findings should be considered with appropriate caution — and in particular as comparative rather than absolute measures.

As indicated in the table, while some components of each measure were relevant for all establishments, others were asked only of specific sub-groups (such as those with a certain number of employees). Different versions of each composite score were created for all the possible sub-groups of establishments identified by the combinations of variables relevant to them. Each of these sub-group

⁽¹⁾ This approach effectively ascribes each component of the composite score an equal ‘value’. In the absence of any meaningful data on how such components might be weighted to reflect their relative ‘importance’, this seemed the most appropriate way to deal with the data. However, future research might usefully focus on this area, perhaps using a qualitative approach to explore the associations described in this report and similar quantitative work.

scores was converted to a range from 0 to 100, and they were then combined to give single, overall measures of each composite score. These indicated where each establishment stands along continuums of OHS management good practices, PSR management good practices, and management commitment, taking into account factors relevant to its size, workforce and hazards.

For each composite score, therefore, 0 indicates that an establishment has none of the practices or factors in place, and 100 indicates that an establishment has all of the practices or factors relevant for its size, workforce and hazards in place. For the OHS management measure, less than 1 % (0.7 %) scored 0, 7.5 % scored 100, and the mean score was 66.85 (standard deviation (SD) = 26.11). For the PSR management and management commitment measures, respectively, 16.4 % and 9.8 % scored 0, 8.8 % and 16 % scored 100, and the mean scores were 44.45 (30.97) and 59.44 (31.24).

The three composite measures were also dichotomised to allow comparison of high levels of good practices or management commitment with lower levels and to allow comparison of low levels of good practices or management commitment with higher levels. This separate focus on each of the three spectra allowed us to assess whether or not the factors associated with low levels of each measure were simply the inverse of those associated with high levels. Each variable was split, depending on its distribution, to compare approximately the top quarter or third with the rest and to compare the bottom third with the rest. For OHS management, this meant that those with scores of 83.33 or higher were categorised as having high levels of good practices, and those with 40.00 or under as having low levels of good practices. For PSR management the cut-off points were 62.50 and 20.00, respectively, and for management commitment they were 83.33 and 28.57.

The OHS management composite variable comprised measures related to OHS generally and those focused in particular on the management of risks to health. In order to consider whether health risk management more closely resembled OHS management generally, or the management of psychosocial risk (or, indeed, neither of these), two further composite variables were created. These comprised just those OHS management factors that did not relate to health risks (listed in black in Table 1 and referred to below as 'safety') and just those OHS management factors that did relate to health risks (shown in blue in Table 1 and referred to below as 'health'). Their mean scores were 70.94 (29.53) and 61.74 (28.06), with cut-off points at 90.00 and 40.00, and at 80.00 and 40.00, respectively.

Table 1 Component variables for OHS management, PSR management and management commitment composite scores

Number	Coding	Asked of	% ^(a)
OHS management ^(b)			
Q155	Health and safety document of responsibilities and procedures available to all	All	90.1
Q160	Routine analysis of sickness absences with a view to improving working conditions	All	50.0
Q161	Procedure to support employees returning to work after a long-term sickness absence	Those with 50 or more employees	67.2
Q250	Regular workplace risk assessments	All	76.4
Q252_1	Routine risk assessment of the safety of machines, equipment and installations	Those carrying out risk assessment	83.7
Q252_2	Routine risk assessment of dangerous chemical or biological substances	Those carrying out risk assessment and using dangerous chemicals or biological substances (Q200_8)	89.6

Number	Coding	Asked of	%(^a)
Q252_3	Routine risk assessment of work postures, physical working demands and repetitive movements	Those carrying out risk assessment	74.8
Q252_4	Routine risk assessment of exposure to noise, vibrations, heat or cold	Those carrying out risk assessment	62.1
Q253a	Risk assessment of workplaces at home	Those carrying out risk assessments and with one or more home workers	28.2
Q253b	Risk assessment of indirectly employed workers	Those carrying out risk assessments and with one or more indirect worker	61.9
Q254	Risk assessment in 2013/2014	Those carrying out risk assessment	84.2
Q255	Documented risk assessment	Those carrying out risk assessment	92.4
Q258b	Employees usually involved in measures taken following a risk assessment	Those carrying out risk assessment	80.6
Q262	If no risk assessment, other measures taken	Those not carrying out risk assessment	30.0
Q308_1	Provision of equipment to help with lifting or moving	Those reporting lifting or moving	84.6
Q308_2	Rotation of tasks to reduce repetitive movements	Those reporting repetitive movements	56.1
Q308_3	Encouraging those working in uncomfortable positions to take regular breaks	All	69.2
Q308_4	Provision of ergonomic equipment	All	72.7
Q356_1	Training for employees on the proper use of their working equipment and furniture	All	66.5
Q356_2	Training for employees on the use of dangerous substances	Those using dangerous substances (Q200_8)	83.7
Q356_4	Training for employees on how to lift and move heavy loads and people	Those with lifting and moving heavy loads and people (Q202_2)	79.2
Q356_5	Training for employees on emergency procedures	All	80.9
Q357	Provision of training for employees in different languages	Those with employees who have difficulties understanding the language	23.3
PSR management			
Q252_5	Routine risk assessment of supervisor–employee relationships	Those carrying out risk assessment	53.8

Number	Coding	Asked of	%(^a)
Q252_6	Routine risk assessment of organisational aspects such as work schedules, breaks or shifts	Those carrying out risk assessment	65.3
Q300	Action plan to prevent work-related stress	Those with 20 or more employees	33.0
Q301	Procedure to deal with possible cases of bullying or harassment	Those with 20 or more employees	46.9
Q302	Procedure to deal with possible cases of threats, abuse or assaults by clients, patients, pupils or other external persons	Those with 20 or more employees and difficult customers, patients, pupils, etc. (Q201_5)	54.9
Q303	Use of one or more measure to prevent psychosocial risks	All	61.4
Q305	Involvement of employees in the design and set-up of measures	Those having used prevention measures	62.8
Q356_3	Training for employees on how to prevent psychosocial risks	All	36.3
Management commitment			
Q156	Specific budget for health and safety measures and equipment	All	40.7
Q162	Regularity of discussion of health and safety issues at the top level of management (regularly)	Those with 20 or more employees	60.7
Q163	Training for team leaders and line managers on how to manage health and safety in their teams	Those with 20 or more employees	72.9
Q256	Findings from risk assessments provided to workers or their representatives	Those carrying out risk assessment	67.9
Q259	Risk assessment seen as a useful way to manage health and safety	Those carrying out risk assessment	90.0
Q350	Regular discussion of health and safety between management and workers' representatives	Those with representative arrangements (Q166_1 to 4)	56.4
Q354	Workers' representatives provided with training during work time	Those with health and safety representatives (Q166_3)	80.5
Q358	Health and safety regularly discussed in team meetings	All	63.7

(a) Weighted % of those asked.

(b) The OHS management factors that relate to health risks are shown in blue.

2.1 Phase 1: Factors associated with high levels of good OHS and PSR management practice and management commitment

2.1.1 Typology analyses

ESENER-2 included a range of measures of the participating establishments' characteristics. These fell into four broad groups (Table 2).

1. Establishment descriptors — measures describing the size and position of the establishment, its relative sickness absence levels and economic situation, and the risk types the respondent identified as being present.
2. Workforce descriptors — measures describing the employment, location and demographics of the workforce.
3. Internal influences — reasons for and difficulties in addressing health and safety issues identified by the respondent.
4. External influences — recent health and safety inspectorate visits and the use of external sources of health and safety information.

In addition, the survey included a number of measures relating to the respondent (i.e. the person 'who knew best' about health and safety) (Table 3). As we discuss in more detail below, the difference in target respondent between ESENER-1 and -2 is a significant change that may have been influential over some of the survey's findings. Including these measures in the analyses, therefore, allowed the assessment of any association between them and the composite measures of good practice.

Table 2 Establishment characteristics

Variable	Responses		%
GROUP 1: Establishment descriptors			
Type (Q102 and Q103) and size (Q105)	Micro (5 < 10)	Single organisation	35.7
		Part of multi-site organisation	11.4
	Small (10 < 50)	Single organisation	27.3
		Part of multi-site organisation	16.0
	Medium (50 < 250)	Single organisation	3.9
		Part of multi-site organisation	4.5
	Large (250+)	Single organisation	0.5
		Part of multi-site organisation	0.7
Sector (Q112, Q113 and Q114)	Productive (NACE ABDEF) ^(a)		12.3
	Manufacturing (NACE C)		11.9
	Service active (NACE GHIR) ^(b)		36.4
	Service other (NACE JKLMNS) ^(c)		21.0

Variable	Responses	%
	Public (NACE OPQ) ^(d)	18.4
Sickness absence (Q450)	Quite or very low	73.5
	Average or higher	26.5
Economic situation impacted on health and safety resources (Q452)	No reduction of resources available for health and safety in the last three years as a result of the economic situation	37.1
	Economic situation has led to reduced OHS resources	9.2
	Economic situation is quite or very good	53.8
Risks (Q200 and Q201)	None	4.0
	Traditional only ^(e)	1.5
	Health only ^(f)	5.6
	Psychosocial only ^(g)	4.3
	Traditional and health	12.0
	Traditional and psychosocial	2.9
	Health and psychosocial	17.5
	All	52.2
GROUP 2: Workforce descriptors		
Employment (Q105)	No indirectly employed workers	74.7
	One or more	25.3
Workforce language (Q107)	No employees with difficulties understanding the language	93.8
	One or more	6.2
Workforce age (Q110)	Less than one-quarter of employees aged 55 or older	78.4
	One-quarter or more aged 55 or over	21.6
Workforce location (Q111)	No employees work from home on a regular basis	87.2
	One or more	12.8
GROUP 3: Internal influences		
Reasons (major) for addressing health and safety (Q264)	Minor/not a reason	14.6
	Fulfilling legal obligation	85.4
	Minor/not a reason	21.2
	Meeting expectations from employees/representatives	78.8

Variable	Responses	%
	Minor/not a reason	36.1
	Maintaining/increasing productivity	63.9
	Minor/not a reason	23.1
	Maintaining reputation	76.9
	Minor/not a reason	22.1
	Avoiding fines/sanctions	77.9
Difficulties (major) in addressing health and safety (Q265)	Minor/not a difficulty	74.6
	Lack of time or staff	25.4
	Minor/not a difficulty	77.5
	Lack of money	22.5
	Minor/not a difficulty	82.4
	Lack of awareness among staff	17.6
	Minor/not a difficulty	87.9
	Lack of awareness among management	12.1
	Minor/not a difficulty	86.7
	Lack of expertise or specialist support	13.3
	Minor/not a difficulty	71.4
	Paperwork	28.6
	Minor/not a difficulty	60.7
	Complexity of legal obligations	28.6
GROUP 4: External influences		
Inspected (Q165)	Not visited by the labour inspectorate in the previous three years	52.1
	Visited	47.9
Use of Health and Safety information from external sources (Q400)	No	69.0
	Employers' organisations	31.0
	No	81.8
	Trade unions	18.2
	No	52.8

Variable	Responses	%
	Insurance providers	47.2
	No	51.5
	Labour inspectorate	48.5
	No	57.8
	Other official OHS institutes	42.2

- (^a) Agriculture, forestry and fishing; mining and quarrying; electricity, gas, steam and air conditioning supply; water supply, sewerage, waste management and remediation activities; construction.
- (^b) Wholesale and retail trade, repair of motor vehicles and motorcycles; transport and storage; accommodation and food service activities; arts, entertainment and recreation.
- (^c) Information and communication; financial and insurance activities; real estate activities; professional, scientific and technical activities; administrative and support service activities; other service activities.
- (^d) Public administration and defence, compulsory social security; education; human health and social work activities.
- (^e) Risk of accidents with machines or hand tools; risk of accidents with vehicles in course of work but not on the way to and from work; increased risk of slips, trips and falls.
- (^f) Tiring or painful positions, including sitting for long periods; lifting or moving people or heavy loads; loud noise; repetitive hand or arm movements; heat, cold or draught; chemical or biological substances in the form of liquids, fumes or dust.
- (^g) Time pressure; poor communication or cooperation with the organisation; employees' lack of influence over their work pace or work processes; job insecurity; having to deal with difficult customers, patients, pupils, etc.; long or irregular working hours; discrimination, for example due to gender, age or ethnicity.

Table 3 Respondent characteristics

Variable	Responses	%
Respondent (Q100) (^a)	Owner of a firm, managing director, site manager	41.5
	Manager without specific OHS tasks	15.8
	Manager with specific OHS tasks	5.4
	OHS specialist without managerial function	10.4
	Employee representative in charge of OHS	4.2
	Other employee in charge of OHS	21.0
	External OHS consultant	0.4
	No answer	1.3
OHS as respondent's main task (Q101)	Not a main task, no answer, not asked (as owner, managing director, site manager or no answer on respondent type)	94.8
	OHS is a main task, not asked (as external OHS consultant)	5.2

Variable	Responses	%
Respondent's health and safety training (Q164)	No training for respondent on how to manage health and safety	31.3
	Respondent has received training, not asked (as external OHS consultant)	68.7

- (a) For the purposes of all but the exploratory analyses, the categories external OHS consultant and no answer were combined with OHS specialist without managerial function and other employee in charge of OHS, respectively, because of small numbers.

To establish a typology of establishments in terms of their approach to workplace health and safety management, logistic regression analyses were used to consider the associations between OHS and PSR management and enterprise and respondent characteristics. Dependent variables were the six dichotomised OHS and PSR management and management commitment measures indicating high and low levels of OHS and PSR management practice and management commitment. Independent variables were entered, using a backward stepwise approach, in four blocks:

1. enterprise descriptors and respondent characteristics;
2. workforce descriptors;
3. internal influences;
4. external influences.

Further analyses were also carried out to establish the factors associated with the health only and non-health OHS management scores, so that these could be compared with the factors associated with OHS and PSR management.

2.2 Phase 2: Worker representation and wider contexts

2.2.1 Worker representation

Previous analyses (EU-OSHA 2012b) indicated that arrangements for worker representation in combination with high levels of management commitment to OHS were associated with high levels of good practice, and, in addition, that this association was independent of the kinds of factors considered in the typology analyses. To consider the consistency of this finding in the ESENER-2 data, the logistic regression models described above for OHS and PSR management practice were extended to include a combined measure of worker representation and management commitment to OHS. This variable was included as a final block in each model.

ESENER-2 included measures of various forms of worker representation: a works council, trade union representation, a health and safety representative, and a health and safety committee. Following the lead of previous secondary analyses of ESENER-1 and 2, the first two of these were combined as general representation and the second two as specific health and safety representation. Overall, about one-third (33.9 %) of the enterprises had neither of these forms of representation in place and around one-quarter had both (25.8 %), with 5.1 % and 35.2 % having general representation only and health and safety representation only, respectively. Each of these combinations of worker representation was further split by management commitment level (Table 4).

Table 4 Proportion of establishments reporting high and low levels of management commitment by representation

Level of representation	Level of management commitment	%
No representation	Low management commitment	29.2
	High management commitment	4.7
General representation only	Low management commitment	4.3
	High management commitment	0.8
Health and safety representation only	Low management commitment	21.9
	High management commitment	13.4
Both general and health and safety representation	Low management commitment	11.7
	High management commitment	14.1

2.2.2 Wider contexts

To consider the influence of regulatory contexts, further logistic regression models included a dummy variable representing country grouping (Table 5). As described in section 1.2, using existing knowledge about the comparative European contexts of OHS labour relations and regulation, as well as wider understanding concerning ‘varieties of capitalism’, it is possible to create groups of countries reflecting broadly similar contextual influences. The analyses, therefore, considered whether the previous findings indicating that higher levels of good practice were more likely in the Nordic and British Isles groups — suggesting that a participatory approach to OHS management combined with high levels of management commitment was more likely where such approaches were more embedded — were again apparent.

Table 5 Proportion of ESENER-2 establishments in each of the country groups

Group	Countries	%
Western	Belgium, Germany, Luxembourg, Netherlands, Austria	27.1
Nordic	Denmark, Finland, Iceland, Norway, Sweden	6.4
British Isles	Ireland, United Kingdom	15.3
Southern/Latin	Spain, Greece, France, Italy, Cyprus, Malta, Portugal	34.9
Central and Eastern	Bulgaria, Czech Republic, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia, Slovakia	16.3

2.3 Phase 3: Some workplace-level differences

Finally, some further analyses explored particular subgroups in more detail. These were carried out using the techniques and approaches described above and focused on:

- establishments that did not carry out risk assessments or other checks;
- the provision of training within establishments

Further details of these sub-groups are given in Chapter 5.

2.4 Summary

In essence, the methodological approach we took centred on grouping and combining elements of the ESENER-2 questionnaire to produce measures of the extent of good practice present in the participating enterprises. As the survey itself was designed to allow differences in practice related to size, workforce and hazards present, this, in effect, allowed us to see where each participating establishment stands along a continuum of good practice, taking into account these differences. Good practice was measured in five broad areas: (1) practice in relation to the management of risks to safety; (2) practice in relation to the management of risks to health; (3) the management of OHS in general (a combination of the previous two areas) (4) PSR management; (4) and management commitment to health and safety.

Analyses were carried out to consider the factors (including, for example, establishment size and sector, workforce characteristics, reasons for addressing health and safety issues, and use of health and safety information) associated with both high and low levels of good practice in each of these areas. As well as describing typologies of establishments in which good practice was more likely, these analyses allowed us to consider two areas in more detail. First, comparison of the factors associated with high levels of good practice in each of the five areas indicated the extent to which these factors were consistent or varied with the area being considered. That is, it was possible to consider whether the factors associated with high levels of good practice in relation to OHS in general were the same as those associated with high levels of good practice in relation to safety, health or psychosocial risk or management commitment to health and safety. Second, the analyses enabled us to consider whether the factors associated with low levels of good practice in each of the five areas were the mirror image of those associated with high levels of good practice or were, in fact, different sets of factors altogether. These analyses, therefore, were intended to provide information relevant to the development of approaches and policies in support of good health and safety practice at the enterprise level.

All of this was supported by two further areas of analysis. In the first of these, any additional association with good practice of arrangements for worker representation and of country group, over and above the associations with establishment characteristics identified in the typology analyses, was assessed. This allowed us to consider whether there were independent associations between good practice and worker representation arrangements and/or country group. As noted in Chapter 1, the country groupings we have used are necessarily broad and the configuration we have chosen is far from the only possibility. It is, however, consistent with our previous analyses of ESENER-1 (EU-OSHA 2013a), and it is used again here to group countries with broadly similar regulatory, labour relations and other relevant systems and arrangements. Therefore, any associations would suggest important influences of the wider context in which establishments operate and would support previous analyses in pointing to the significance of such contexts to the health and safety of workers.

In the second area of further analysis, we focused on particular sub-groups within the sample of ESENER-2 respondents to consider whether the survey included questions capturing key aspects of establishment-level decision-making that differentiate those that have chosen to prioritise OHS issues and management and those that have not. Of course, this kind of decision, particularly among smaller establishments, is likely to reflect, at least in part, the circumstances in which the establishment is operating (such as the availability of resources to invest in areas other than simply continued survival). Nevertheless, such 'markers' might contribute to understanding how and where to target supportive resources.

3 Establishments where the implementation of high levels of good practice is more likely

As described in Chapter 2, the aim of the first phase of the analyses was to consider the factors associated with higher reported levels of implementation of good OHS and PSR management practice, with a view to describing a typology of establishments where better practice is likely to be more common. Previous research, including that based on ESENER-1, suggests that such a typology would include establishment size and status, as well as sector of operation.

Previous research indicates that higher levels of good OHS practice tend to be linked to larger establishments, those that are part of a larger organisation (rather than an independent establishment) and those operating in the productive (EU-OSHA 2012c) and blue collar (McLellan et al. 2015) sectors.

Links with size and status, of course, are most likely to reflect differences in access to resources between large and small organisations, and between independent establishments and those that are part of a larger firm. As a recent review made clear, smaller independent establishments are more likely to take a ‘low-road’ approach to their economic survival in which the focus is on minimising business costs in order to remain operational (EU-OSHA 2016). Firms taking such an approach lack resources in terms of time, money, human resources management, knowledge, and so on. As a result, they often also have less well developed procedural arrangements in relation to health and safety (see, for example, Walters 2001, 2002b, Hasle et al. 2009). The evidence suggests that this includes arrangements such as OHS plans and policies; workplace risk assessment and control; accessing and using competent advice; providing information on safe work; and engaging workers and their representatives in these matters (Hasle and Limborg 2006, Sørensen et al. 2007, Micheli and Cagno 2010, Hasle et al. 2012, Frick 2014, Legg et al. 2015). These arrangements, of course, are the basis of the current process-based regulatory requirements and, as such, form the backbone of the ESENER surveys.

However, there is evidence to suggest that, for example, owner-managers in micro firms often lack both awareness of these requirements and the resources and competencies to deliver them (Walters 2008, Olsen et al. 2010). Relatedly, engagement and compliance practices within these firms are often weak and limited (see, for example, Fairman and Yapp 2005, Vickers et al. 2006), and in some cases even represent subversion of the requirements of regulatory policies, often at the expense of workers’ OHS (see Eakin et al. 2003). In fact, the findings of United Kingdom research on OHS in small firms show quite clearly that, although many owner-managers and their organisations find regulation burdensome and claim that the possibility of inspection is a significant determinant of their compliance behaviour, in fact knowledge of regulatory requirements is often scant and the likelihood of inspection is very low for the vast majority of small firms (Davis 2004, Wright et al. 2004, 2005, Fairman and Yapp 2005, Baldock et al. 2006, Levine et al. 2012). Further, a large proportion of these organisations are short-lived, marginal concerns with very limited resources and, as such, are unlikely to be in a position to prioritise or invest in identifying and solving health and safety problems (Nichols 1997, Hasle and Limborg 2006, MacEachen et al. 2008 and, for a review, EU-OSHA 2016).

Although smaller firms are by no means homogeneous, they are more likely than their larger counterparts to follow these low-road strategies. Where this is the case, they may also be characterised by poor work environments for employees, lower job quality and increased risks of injuries and fatalities — as is apparent from their generally poorer OHS performance (for a review, see Sørensen et al. 2007). However, it is important not to generalise too much here. The literature indicates that a significant proportion of, in particular, the smallest establishments follow low-road strategies whereby it is likely that poorer conditions for OHS will be present. However, there is also evidence suggesting that, for some workers at least, the experience of psychosocial working conditions may be more positive in smaller rather than larger organisations (see, for example, Edwards et al. 2004, Forth et al. 2006, Tsai et al. 2007, Eakin 2010), perhaps reflecting more flexible, varied and socially integrated working in these firms. That said, there is some suggestion that more recent changes and trends in the way work is organised may be undermining this experience of working in smaller firms in some cases — for a discussion see EU-OSHA (2016).

Associations with sector seem to reflect the wider settings in which the establishments operate. These include production characteristics, regulation, work processes, work organisation, industrial relations,

economic structures, labour markets, competition, and so on, and are apparent from the smallest through to very large organisations². So, for example, construction is characterised by many temporary and changing worksites, frequent outsourcing of labour and/or particular processes through chains of subcontracting, and sector-specific legislation, all of which have important implications for the ways that risks may be controlled and managed and, in some instances, conceived and considered.

Further, these factors interact, suggesting that workers may be more or less vulnerable depending on their establishment's size, status and sector — that is, the immediate context in which their firm is operating.

Of course, similar findings are apparent in relation to the specific case of psychosocial risk. Secondary analyses of ESENER have suggested that higher levels of good PSR practice are, again, more common in larger establishments, as well as in the public sector (EU-OSHA 2012d). In addition, they seem to be more often found where employees report exposure to psychosocial risk (EU-OSHA 2017b), where the legal requirements are seen as important reasons for addressing OHS issues, where changes or actions have been put in place in response to employees' requests, where absenteeism is seen as being relatively high and productivity falling, and where lack of technical support and guidance are not seen as a barrier to addressing health and safety issues (EU-OSHA 2012a). However, there is also a body of work, in particular that taking a qualitative approach, which suggests that these surveys may mask a more complex picture in which the paper trail for PSR management practice does not represent practical and effective practice in the workplace — the 'paper-tiger' effect (see, for example, Frick 2014). This potential mismatch between documentation and practice, and the difficulty of capturing it, is something we return to in a number of the sections that follow.

Links between OHS and PSR practice have also been identified, with those establishments with higher implementation levels for general OHS risks also having higher levels for psychosocial risks, albeit with the latter showing a 'lag' behind the former (EU-OSHA 2012a, d, 2013a). This may be related to findings from work among key stakeholders suggesting that psychosocial risks are generally not incorporated into strategic decision-making and risk management practices (Langenhan et al. 2013, Frick 2014). These studies suggested that this was frequently because, despite an awareness and even understanding of these risks, there was a view that firms do not know how to manage psychosocial risks appropriately, perceiving them as particularly complex. However, it may well also reflect a tendency to regard psychosocial risk as something to be addressed outside OHS management rather than as an integral aspect of work health and safety (Gallagher and Underhill 2012). This, of course, may mean that it is also managed by different teams and, for example, may not involve health and safety representatives (EU-OSHA 2012b, 2017a). This is of concern, not least because of the connections and indeed blurring of the lines between one risk type and another, and hence their control, that seem to exist in practice. For example, a recent meta-analysis focused on the nursing profession has suggested that PSR factors are associated with musculoskeletal disorders within this group (Bernal et al. 2015). This implies that improvements in the psychosocial or physical work environments may have knock-on effects outside that particular sphere, and it points to the importance of a holistic approach to risk management in which consideration is given to risks to the physical health and psychosocial wellbeing of all workers. It is also of particular concern in the light of findings suggesting that, in those organisations where staff are less highly valued, for example where levels of job insecurity are high, PSR management is lower, especially when this is combined with work intensification and the re-structuring of employment and work organisation — perhaps reflecting the priority that PSR management is afforded in such circumstances (EU-OSHA 2017b).

In the following section, the findings of the analyses focused on associations with high levels of good OHS and PSR management practice are presented. These include consideration of differences and similarities between the two groups of associations, as well as how these compare with factors associated specifically with the management of risks to health (such as musculoskeletal disorders). In addition, findings relating to the factors associated with high levels of management commitment to OHS

² EU-OSHA (forthcoming). Safety and health in micro and small enterprises in the EU: the view from the workplace. Bilbao: European Agency for Safety and Health at Work. See: <https://osha.europa.eu/en/themes/safety-and-health-micro-and-small-enterprises>

are considered. This is important because, as a substantial body of evidence has made clear, management commitment to OHS is an essential pre-condition for effective workplace health and safety management (see, for example, Gallagher et al. 2003, Popma 2003, Walters and Nichols 2007, EU-OSHA 2017b), perhaps particularly both in smaller firms (see, for example, EU-OSHA 2016) and in relation to psychosocial risk (Gallagher and Underhill 2012).

3.1 Factors associated with high levels of good practices

The OHS and PSR management and management commitment composite measures give an indication of where establishments in the ESENER-2 dataset stand on these three spectra. In each case, the mean score was over 40 (out of a total of 100), and the cut-off points for comparing the top third with the rest of the establishments were over 60. This indicates that, on average, the participating establishments reported having 40 % of the component practices in place — and in relation to OHS management, on average, establishments reported having two-thirds of the practices in place. Given that nearly half of the sample (47 %) were micro establishments, this suggests that the ESENER-2 sample is likely to represent, in particular, the ‘best end’ of the spectrum in terms of workplace OHS practice in the EU. As discussed in Chapter 1, this bias is not surprising and reinforces the importance of focusing on comparative rather than absolute findings.

The most and least widely implemented elements of the OHS, PSR and management commitment composite measures ⁽³⁾ (see Table 1 in Chapter 2) are shown in Table 6. It is not possible to make direct comparisons between these and the findings of the earlier secondary analyses of ESENER-1 (EU-OSHA 2012c, d) because of the differences in the specific components of the composite measures used then and those used here. However, there were some similarities, with both analyses suggesting that regular risk assessment is among the most widely implemented OHS management practice — something that might be anticipated, given that risk assessment is at the heart of current regulatory requirements. However, the differences in relation to individual practices shown in Table 6 also seem to point to lower implementation levels where significant additional planning and resourcing might be required — such as risk assessment of home workplaces, the provision of employee training in different languages, or on how to prevent psychosocial risks. Training is an area we return to in Chapter 5, but this may be indicative of the impact of resourcing (including financial, temporal, expertise, etc.) generally on OHS management, perhaps particularly among smaller organisations.

Table 6: Most and least commonly reported elements of the three composite scores

OHS management		PSR management		Management commitment	
Most widely implemented	Least widely implemented	Most widely implemented	Least widely implemented	Most widely implemented	Least widely implemented
Documenting risk assessments	Risk assessment of home workplaces	Routine risk assessment of organisational aspects (such as work schedules, breaks or shifts)	Action plan to prevent work-related stress	Risk assessment being seen as a useful way to manage health and safety	Specific budget for health and safety measures and equipment

⁽³⁾ As proportions of those asked, where relevant (e.g. risk assessment and training related to hazardous substances were only asked of those reporting the use of such substances in their establishment).

OHS management		PSR management		Management commitment	
Most widely implemented	Least widely implemented	Most widely implemented	Least widely implemented	Most widely implemented	Least widely implemented
Documented health and safety policy available to all	Provision of training for employees in different languages	Involvement of employees in the design and set-up of measures to prevent psychosocial risks	Training for employees on how to prevent psychosocial risks	Providing workers' representatives with training during work time	
Routine risk assessment of dangerous chemicals or biological substances		Use of one or more measures to prevent psychosocial risks			
Provision of equipment to help with lifting or moving					
Risk assessment within the previous year					
Routine risk assessment of equipment					
Hazardous substances training					

As expected, scores on all three composite measures increased with establishment size (Figure 1). In addition, OHS management scores always exceeded PSR management scores, again pointing to the 'lag' between OHS and PSR management. As described in Chapter 2, two further versions of the OHS management score were created. The first excluded those components that were related to the management of risks to health, giving an indication of the level of implementation of safety risk management measures. The second included only those components that were related to the management of risks to health, giving an indication of the level of implementation of health risk management measures. Further comparison indicated that safety risk management scores always exceeded health risk management scores and that both of these exceeded PSR management scores. This suggests a hierarchy, with firms implementing more general safety measures as a matter of priority, then measures to address health risks, followed by measures to manage psychosocial risks, and reflects the findings described and explained in the review of all research on OHS management in Sweden (Frick, 2014).

In addition, and again in keeping with previous findings, scores on all the composite measures were lower for independent establishments than for establishments that were part of larger organisations, within each size band. Here, again, the difference between scores for independent and other establishments was greater for PSR management than for OHS management within each size band, and for health risk measures only compared with safety risk measures. This suggests that parent

organisations may influence health and safety management practice in their subsidiaries and that this influence may be greatest in relation to health and PSR management.

When considered by sector (Figure 2), OHS management scores were lowest in the (non-active) services sector and highest in the manufacturing sector. Again, this is not surprising and is consistent with previous work. Comparing the OHS management scores again indicated highest scores for the safety risk measure and lowest scores for the health risk management measure, and these differences were larger in independent than in other establishments.

For PSR management, scores were highest in the public sector and broadly similar elsewhere, while for management commitment, highest scores were in the public, productive and manufacturing sectors. Again, this is broadly consistent with previous research (such as EU-OSHA 2013a), and it suggests that, while OHS management practices are put in place more consistently in sectors recognised as operating with the greatest *traditional* risks, there is less variation and implementation levels are lower when it comes to the management of *psychosocial* risks. However, it is important to keep in mind here that these scores refer to self-reported levels of practice, and other predominantly qualitative research indicates that such reported activities are not necessarily effective in relation to upstream preventive OHS-management (see, for example, Frick 2014).

Figure 1 Mean OHS and PSR management and management commitment scores by establishment size

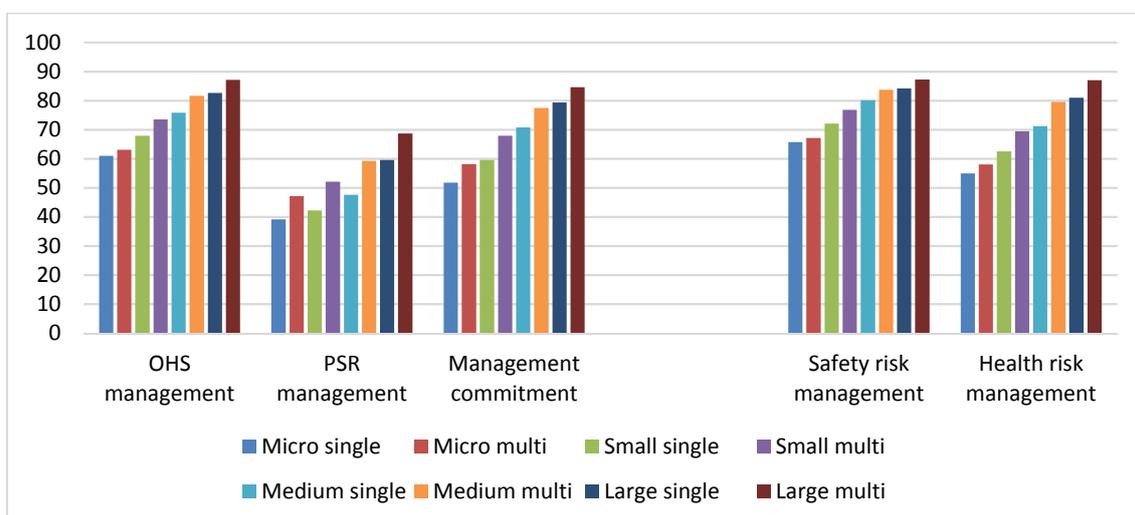
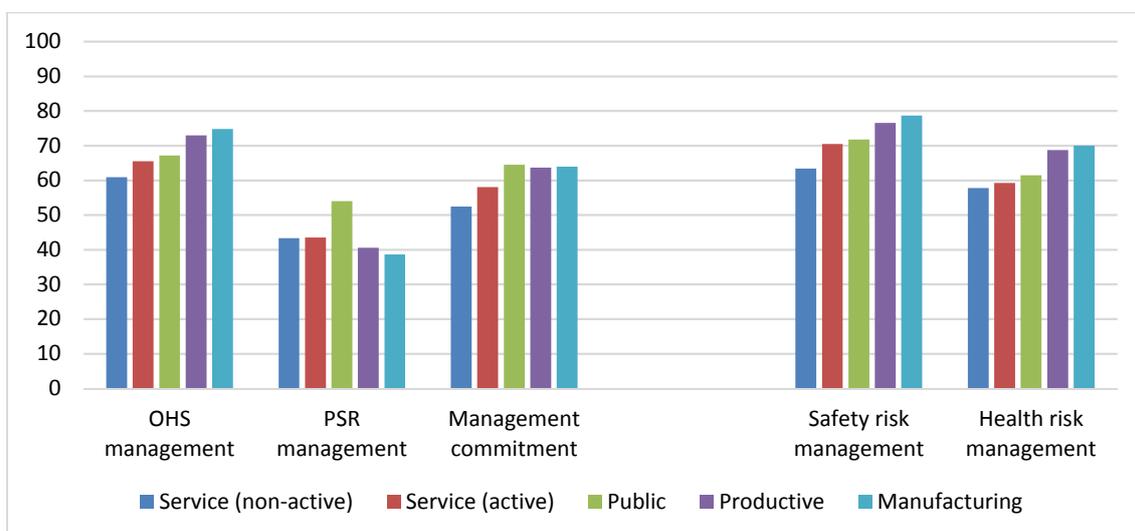


Figure 2 Mean OHS and PSR management and management commitment scores by establishment sector



In summary, therefore, levels of good practice were generally high, suggesting that the ESENER-2 sample represents the ‘better end of the spectrum’. Comparison of indicators of individual good practices suggested that implementation levels may be lower where significant additional planning and resourcing might be required, while comparison of the composite scores suggested highest implementation levels in relation to safety management, followed by that related to risks to health and then that related to psychosocial risk. In addition, the expected differences in relation to establishment size, status (independent or part of a larger organisation) and sector were apparent. These findings confirm those of earlier work, and suggest that the management of risks to health and psychosocial risks continues to lag behind those related to safety more generally, with the latter found more consistently in sectors with relatively higher levels of traditional risks. In addition, good practice in all three areas is less frequently found in smaller organisations, particularly those that are independent establishments.

3.2 Establishment typologies

In order to consider the size, establishment status and sector associations independently of other potentially influential factors, and to establish typologies of establishments with high levels of good practices, logistic regression analyses were used to assess associations between high levels of OHS and PSR management, as well as management commitment, and:

- enterprise descriptors and respondent characteristics;
- workforce descriptors;
- internal influences;
- external influences.

Full details of each model are shown in Appendix Tables A1 to A3. The analyses showed that high levels of OHS and PSR management, as well as management commitment, were associated with factors from all four of the areas listed above. In the main, similar sets of factors were associated with high levels of each measure. Specifically, high levels of reported good practice in relation to OHS management, PSR management and management commitment were more likely:

- with increasing establishment size and in multi-unit (compared with single-unit) establishments; and those where traditional, health and psychosocial risks were all recognised;
- among establishments where the respondent had OHS as a main task and had received OHS training;
- among establishments that identify fulfilling legal obligations, meeting workforce expectations, increasing or maintaining productivity, and maintaining reputation as major reasons for addressing health and safety issues;
- among establishments that did not identify lack of time or staff, or the complexity of legal obligations as major difficulties in addressing health and safety issues;
- among establishments reporting using health and safety information from employers’ organisations, trade unions, the labour inspectorate and other OHS institutions.

There were, however, also some differences in the factors associated with high levels of each composite measure.

- High levels of reported OHS management practices were *also* associated with:
 - establishments in the productive and manufacturing sectors;
 - those where the respondent was a manager with specific OHS tasks, an OHS specialist without managerial function ⁽⁴⁾, an employee representative in charge of OHS, another employee in charge of OHS, or gave no reply;
 - those reporting that their absenteeism levels were average or high (for the sector);

⁽⁴⁾ Includes respondents who were external OHS consultants (who accounted for under 0.5% of all respondents).

- those without employees with language difficulties or home workers;
- those identifying avoiding fines or sanctions from the labour inspectorate as a major reason for addressing health and safety issues;
- those identifying lack of staff awareness and paperwork, and those not identifying lack of money and lack of expertise or support, as the main difficulties in addressing health and safety issues;
- those using OHS information from insurance providers.
- High levels of reported PSR management practices were *also* associated with:
 - establishments in the public and services sectors;
 - those reporting that their economic situation was quite or very good;
 - those where the respondent was a manager with specific OHS tasks;
 - those with indirectly employed workers;
 - those identifying lack of money, and those not identifying lack of staff awareness and lack of expertise or support, as the main difficulties in addressing health and safety;
 - those who had been visited by the labour inspectorate in the previous three years;
 - those using OHS information from insurance providers.
- High levels of management commitment were *also* associated with:
 - establishments in the productive and public sectors;
 - those reporting that their economic situation was quite or very good;
 - those where the respondent was an OHS specialist without managerial function ⁽⁵⁾;
 - those with some indirectly employed workers, no workers with language difficulties and no home workers;
 - those identifying avoiding fines or sanctions from the labour inspectorate as a major reason for addressing health and safety issues;
 - those who had been visited by the labour inspectorate in the previous three years.

It is important to be clear here that these are associations indicated by analysis of the cross-sectional data collected in ESENER-2. Therefore, they cannot tell us anything about the direction of the associations or their underlying determinants. Nevertheless, these findings do confirm the expected independent associations between high levels of good practice and increasing establishment size and establishments that were part of wider organisations by indicating that these associations remain *after* controlling for the other factors included in the analyses. They also suggest that some factors are linked to good practice generally, while others are more closely associated with the management of either OHS generally or psychosocial risk specifically. The former include: recognising risks of all types (traditional, health and psychosocial); making OHS a main task for someone and providing that person with relevant training, as well as seeking OHS information from external sources; seeing legal obligations, workforce expectations, productivity and reputation as major reasons for addressing health and safety; and a perception of sufficient time, staff and a grasp of legal obligations in relation to OHS. For the last, they include sector, economic situation, reasons for, and barriers to, addressing health and safety issues, visits from the labour inspectorate and respondent type. In keeping with previous studies, this suggests that there are typologies of establishments where high levels of good practice are likely to be more common. While these include some 'core' factors, there is also some variation in typology profile when self-reported good practice in relation to PSR management is considered. This suggests that, in general, workers' vulnerability varies with the size and status of the establishment they work in; the perception of, and priority afforded to, OHS; the employer's view of the importance of OHS in relation to workers themselves; and the organisation's core business. In addition, however, workers' vulnerabilities vary with OHS and psychosocial risk according to the sector they are working in and employers' views on why health and safety issues should be addressed.

⁽⁵⁾ Includes respondents who were external OHS consultants (who accounted for under 0.5 % of all respondents).

3.2.1 Health risk management measures and associations with low levels of good practice and management commitment

Further analyses were carried out to consider two areas. First, in relation to OHS management, separate models were run for the versions of the composite score measuring just the safety and just the health risk management. This allowed the factors associated with high levels of good practice in relation to safety more generally to be compared with those associated with high levels of good practice in relation to risks to health in particular. Second, all the models (i.e. those outlined above and those related to safety and to health described in this section) were re-run using dependent variables comparing low levels of each measure with higher levels. This allowed us to consider whether the factors associated with low levels of implementation of good practice were the inverse of those associated with high levels of implementation of good practice or were different combinations of factors.

Turning first to the models comparing the OHS composite score with those focused on the management of risks to safety and to health (Appendix Tables A4 and A5), associations with high levels of all three scores were broadly similar. For example, in each case high levels of good practice were associated with:

- larger establishments that were part of another organisation;
- those operating in the productive and manufacturing sectors;
- recognition of traditional, health and psychosocial risks;
- the respondent being a manager with specific OHS tasks or an employee representative in charge of OHS, having OHS as a main task and having received OHS training;
- not having any home workers or workers with language difficulties;
- identifying fulfilling legal obligations, meeting workforce expectations, increasing or maintaining productivity or maintaining reputation, and avoiding fines and sanctions from the labour inspectorate as major reasons for addressing health and safety issues;
- not identifying lack of time or staff, or lack of expertise or support, as major difficulties in addressing health and safety issues;
- use of health and safety information from employers' organisations, trade unions, insurance providers, the labour inspectorate and other OHS institutions.

Broadly, therefore, this suggests that the typology of establishments with high levels of implementation of good practice in relation to OHS management generally is similar to those where high levels of implementation of good practice in relation to the management of risks to safety and risks to health are each also more common.

Of course, there were also some differences. For example, reporting levels of absenteeism that were average or higher than average for the sector (as perceived by the respondent) were associated with high levels of overall OHS management, but having lower than average absenteeism levels was also associated with high levels of safety risk management measures. ESENER-2 contains no further information about absenteeism. However, these findings suggest that they may be consistent with the recent indication from an analysis of three major datasets (including ESENER-2) that greater risk exposure *as reported by employees* is related to greater risk management within enterprises (EU-OSHA 2017b). It is important to bear in mind here that the participating establishments were from the 'better end of the spectrum', and so they might be more likely than some of their counterparts to respond to workers concerns. Nevertheless, these findings highlight the importance of workers' voices in achieving effective and appropriate workplace risk management. This is an area we return to later in this report.

It is also worth noting here that, despite some differences, the profiles of associations for OHS management generally and for the management of risks to safety and to health individually are perhaps rather more similar to each other than they are to the set of associations described above in relation to PSR management. This suggests that, while the implementation of good practices in relation to health may lag behind safety more generally (see above), their implementation within the workplace may be considered and approached by establishments fairly similarly, and that, at least in some instances, this

may differ from the consideration and approach used in relation to the management of psychosocial risk.

Moving on to the models considering factors associated with low levels of each of the composite measures (Appendix Tables A6 to A10), these analyses indicated that the associations were generally mirror images of the factors associated with high levels of implementation. This suggests that the typologies of establishments where low levels of good practice might be expected most often are, in essence, the opposite of those where high levels of good practice are likely to be most common. However, it is important to sound a note of caution here. As we have made clear earlier in this report, the ESENER-2 sample is very likely to represent the 'best end of the spectrum' in terms of workplace OHS management and arrangements, perhaps particularly in relation to the smaller establishments that participated in the survey. This, of course, suggests that what the survey can tell us about the poorest end of such a spectrum may be rather more limited.

Overall, the two sets of comparisons described in this section suggest that:

- Although implementation levels may be lower in relation to measures to prevent risks to health, the factors associated with high levels of good practice in this regard are similar to those associated with high levels of good practice in relation to OHS prevention measures more generally.
- The typology of establishments where low levels of good practice are more likely is in essence the opposite of that where high levels of good practice are more likely.

From this point on, therefore, the analyses focus on high levels of good practice and on the overall OHS management composite measure.

3.3 Reasons for addressing health and safety issues and survey respondents

The analyses presented above indicate that the expected associations between high levels of good practice and establishment size, type and sector were apparent, and that they were significant independently of the other factors included in the analyses. That is, high levels of good practice were more likely with increasing establishment size, where establishments were part of larger organisations, and in particular sectors (with high levels of good OHS management practice more likely in the productive and manufacturing sectors, high levels of good PSR management practice more common in the public and services sectors, and high levels of good management commitment practice more often found in the productive and public sectors).

Similarly, the analyses suggested that recognising psychosocial and health, as well as traditional, risks was associated with high levels of good practice generally, as was the use of health and safety information from external sources. While this is not new, it does point to the importance of awareness-raising in particular in relation to 'newer' risks, as well as the provision of support — though, of course, it is important to bear in mind, as we have noted a number of times, that these analyses cannot indicate the direction of any association.

In addition, however, it was clear from the analyses that high levels of good practice were associated with a number of the possible reasons for, and barriers to, addressing health and safety issues identified in the ESENER-2 survey, as well as with certain types of survey respondent and their OHS roles and training. While these associations are, again, consistent with previous findings, they also offer some opportunity for further exploration within the dataset.

3.3.1 Reasons for, and barriers to, addressing health and safety issues

The analyses identified a number of associations between high levels of good practice in relation to particular aspects of OHS management and management commitment and to the factors those

responding on behalf of the establishments perceived as major reasons for, or barriers to, addressing health and safety issues.

▪ 3.3.1.1 Workforce expectation as a reason for addressing health and safety

First, each dependent variable was associated with identifying (1) workforce expectations and the organisational factors of (2) increasing or maintaining productivity and (3) reputation as main reasons for addressing health and safety. That is, independently of the other measures included in the analyses, where respondents identified these factors as main reasons for addressing health and safety issues, establishments were more likely to have implemented high levels of good practice in relation to OHS and PSR management and management commitment to health and safety. This, of course, highlights the significance of reputation, seeing good OHS as positive for business and recognising the importance of workers' voices in workplace practice and management commitment. Of these, and in fact in comparison with the factors relating to legal obligation and fines and sanctions discussed below, the association with workforce expectation was the strongest. Those establishments identifying workforce expectation as a major reason for addressing health and safety issues were about twice as likely as those that did not see it as important to have high levels of good OHS and PSR management practices and management commitment. This is consistent with previous findings (EU-OSHA 2012a).

The proportion of enterprises that saw workforce expectation as a major reason for addressing health and safety issues was generally high (79 %). Although there was relatively little difference by size or sector, it was most commonly reported among establishments in the public sector and among those that were part of wider organisations, particularly larger establishments (Figure 3). This is likely to reflect the generally greater presence of arrangements for worker representation — and so 'louder' workers' voices — in larger, particularly multi-site, firms and the public-sector organisations. However, there was more variation by country group, with those in the central and Eastern group rather less likely to identify workforce expectation as a major reason for addressing health and safety than those elsewhere. This suggests, perhaps not surprisingly, that context may be particularly important in this regard. The implication here seems to be that, where participative approaches to OHS management have been integral to national regulatory systems for less time, identifying workforce expectation as an important reason for addressing health and safety issues may be less likely. This, in turn, would suggest that some further variation according to establishments' representation arrangements would be expected, and this is evident here (see Figure 4).

In each country group, proportions identifying workforce expectation as a major reason for addressing health and safety issues were higher where establishments had some form of worker representation arrangement in place. The exception here was the Nordic group, in which, in comparison with establishments with no arrangements for worker representation, proportions were marginally lower where there were only general or only health and safety worker representation arrangements in place, and marginally higher where both forms of representation were present. However, proportions identifying workforce expectation as a major reason for addressing health and safety issues were highest in the Nordic group of countries. This is likely to reflect both the longer tradition of participative OHS management within this group of countries and their correspondingly higher levels of representation arrangements within workplaces, and it may at least in part explain this pattern of proportions. This is an area we return to in Chapter 4.

However, these findings suggest that regarding workforce expectation as a major reason for addressing OHS issues is related to high levels of implementation of good practice; and that this perception is linked to the presence of worker representation arrangements within an establishment and the wider context in which it is operating. In addition, this strong independent association between high levels of good practice and identifying workforce expectation as important is consistent over time (having been found in analyses of ESENER-1 and ESENER-2), suggesting that it may be a particularly important differentiator between establishments with high and low levels of good workplace OHS practice.

Figure 3 Proportion (%) of establishments reporting that workforce expectations were a major reason for addressing health and safety issues by establishment size, country group and sector

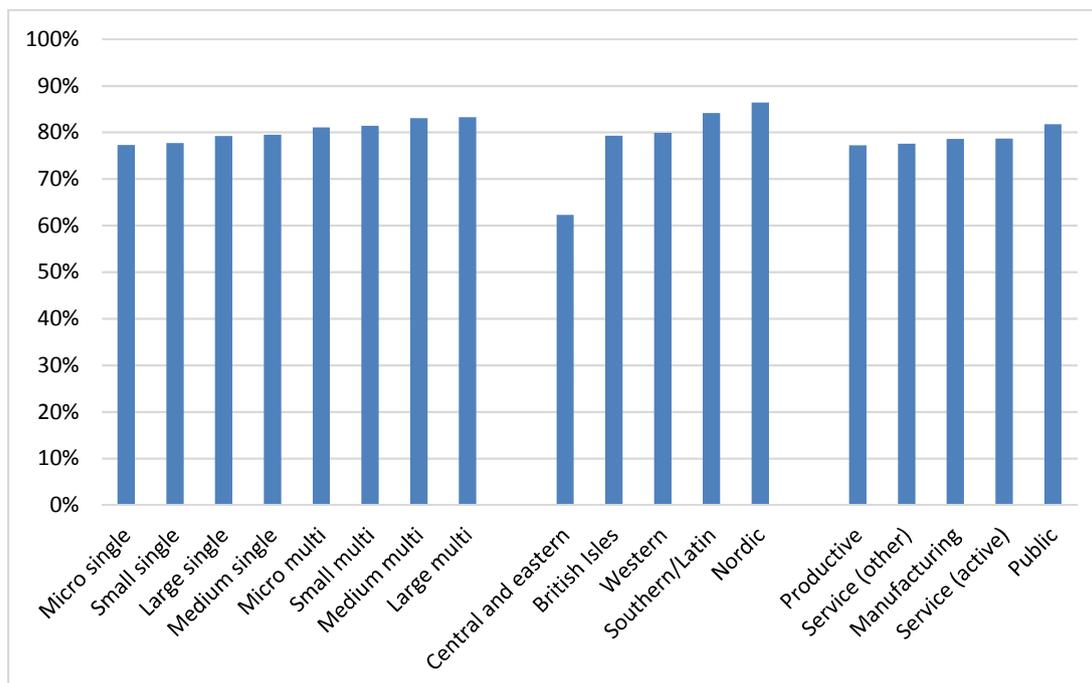
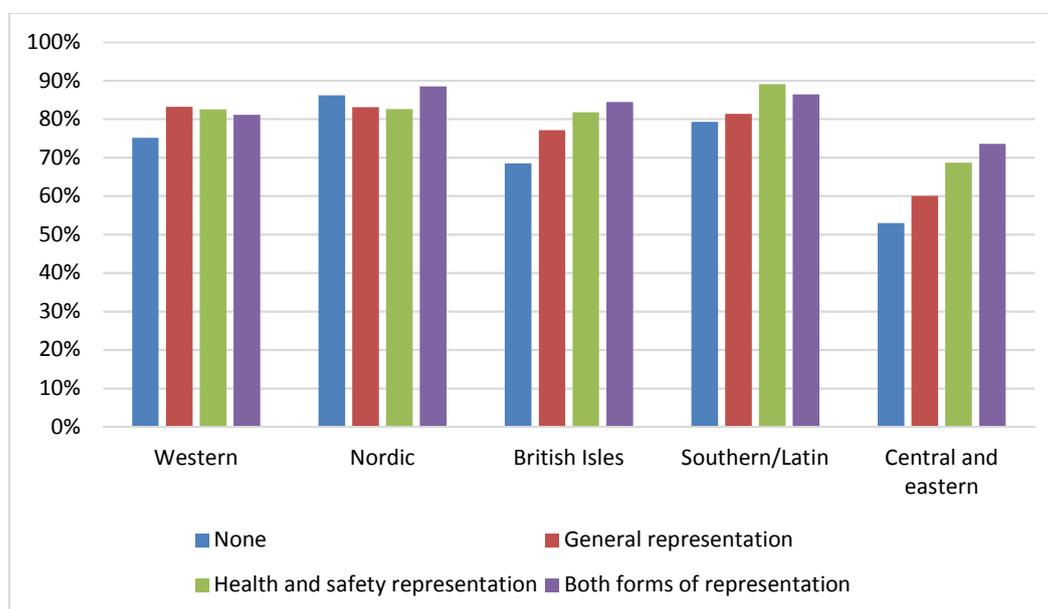


Figure 4 Proportion (%) of establishments reporting that workforce expectations were a major reason for addressing health and safety issues by country group for each combination of representative arrangements



▪ **3.3.1.2 Legal and regulatory reasons for addressing health and safety**

Establishments that identified the complexity of legal obligations in relation to OHS as a major difficulty in addressing health and safety issues were less likely than their counterparts, which did not find their complexity challenging, to have high levels of good OHS and PSR management practice and management commitment in place. In addition, avoiding fines and sanctions as a major reason for addressing health and safety issues was associated with high levels of good OHS management

practices and management commitment but not with high levels of good PSR management practices, while identifying fulfilling the legal obligation as a main reason for addressing health and safety issues was associated with high levels of all three composite measures. Previous work has indicated that seeing the legal requirements as important may be a significant driver, in particular for PSR management (EU-OSHA 2012a). These findings are difficult to interpret because neither ESENER survey contained any further detail about how or why these factors were seen by those responding on behalf of their establishment as being important. Like all such surveys, ESENER is only able to offer respondents a series of possible responses to questions about reasons for, or barriers to, addressing health and safety issues — there is no opportunity for the kind of probing and follow-up that, for example, qualitative approaches offer. So while these findings do indicate that awareness of the need to fulfil the legal obligation, coupled with a perception that it is not overly complex and burdensome, as well as an awareness of the possibility of enforcement, are relevant to establishment-level decisions about health and safety issues, it is not clear how or why this might be the case. It is also important to bear in mind here that such associations cannot tell us anything about causality or the direction of relationships between factors.

However, within the ESENER-2 dataset, avoiding fines and sanctions and fulfilling legal obligations were identified as major reasons for addressing health and safety issues by most of the participating establishments (85 % and 78 %, respectively), and most (61 %) did not identify the complexity of the legal obligations as a major barrier. While this perhaps partly reflects the general tendency on the part of survey respondents to ‘agree’ when offered statements in this way, it seems to also suggest that avoiding sanctions and fulfilling legal obligations in particular are important reasons for addressing health and safety issues in the eyes of the responding establishments generally, which may, in turn, reflect their standing at the ‘better end of the spectrum’.

However, while the proportion reporting fulfilling legal obligations as a major reason was generally higher than those reporting avoiding fines and sanctions, there were some differences with establishment size, sector and country group. The difference between the two proportions increased with establishment size (with the former increasing and the latter decreasing with size) (Figure 5). This suggests that fulfilling legal obligations is more important as a reason for addressing health and safety issues among larger establishments, with avoiding fines and sanctions more important among smaller establishments. This perhaps reflects the suggestion, in particular from research carried out in the United Kingdom, that among smaller firms the possibility of inspection is seen as a significant determinant of compliance — despite the fact that, in the main, the possibility of inspection is very low indeed (Davis 2004, Wright et al. 2004, 2005, Fairman and Yapp 2005, Baldock et al. 2006, Levine et al. 2012). Considering these data by sector and country group, differences were greatest in the public sector and western group of countries, and smallest in the (active) services sector and central and Eastern country group (Figures 6 and 7). In fact, there was comparatively little variation in the relative importance of fulfilling legal obligations by sector (from 89 % in the public sector to 83 % in the (non-active) services sector), but rather more in relation to avoiding fines and sanctions (from 82 % in the manufacturing and (active) services sectors to 70 % in the public sector). This seems to suggest that the importance attached to fulfilling legal obligations is fairly consistent across sectors, but that there may be some variation, perhaps relating to differences in perceived enforcement levels, by sector. A similar pattern was apparent by country group, which may be indicative of further variation in enforcement across groups of countries. That is, the discourse around health and safety and, often relatedly, strategic approaches in relation to its regulation and enforcement, vary across Member States and sectors and can have a powerful influence over workplace perception and practice (see, for example, Cardiff University et al 2011, EU-OSHA 2013a).

This implies that differences might also be expected based on whether or not an establishment reported having been visited by the labour inspectorate in the previous three years. In terms of establishment size, while there was little difference by inspectorate visit in relation to fulfilling legal obligations, more variation was apparent in relation to the avoidance of fines and sanctions (Figure 5). This suggests that visits may have a greater impact on the perception of fines and sanctions as a possibility than on the importance of fulfilling the legal obligation, with the former being more salient to smaller firms. It is also interesting to note here that having been visited by the labour inspectorate was itself associated with high levels of PSR management practices and management commitment but not with OHS

management practices. This may point to the possibility of an awareness-raising impact of inspectorate visits, perhaps in relation to psychosocial risk in particular.

In terms of sector and country group, the largest differences between those that had and had not been visited by the inspectorate were apparent for avoiding fines and sanctions in the productive and public sectors (Figure 6) and in the central and Eastern, and western, groups of countries (Figure 7). This again suggests that inspectorate visits may have a greater impact on firms' perceptions of fines and sanctions than on fulfilling the legal obligation as important reasons for addressing health and safety issues, with differences by sector and country group perhaps reflecting enforcement activity variations.

Taken together, these analyses suggest that fulfilling the legal obligation may be more commonly identified as a reason for addressing health and safety matters than avoiding fines and sanctions, but that there is variation with the circumstances of the establishment. In particular, smaller establishments may more commonly identify the latter. In addition, a visit from the labour inspectorate may be more influential over the latter than the former, and again this may vary with size and context. Further, the findings may suggest an influence of regulation in relation to workplace OHS practice, while perhaps also reflecting the relative lack of regulatory requirements in relation to *PSR* practice compared with *health and safety* risk practice. For some time, there has been a regulatory awareness of the significance of workplace psychosocial risk, particularly in the Nordic and other north-western European countries including Belgium, Denmark, Germany, the Netherlands, Norway and Sweden (Llorens and Ortiz de Villacian 2002). In general, governments have stopped short of specific *PSR* legislation (Lippel and Quinlan 2011) and rather have relied on guidance and standards (Gallagher and Underhill 2012). However, more recently, legislative developments aimed at making the obligation to manage psychosocial risks more explicit have been introduced in some Member States (for example in Austria in 2013, Belgium in 2014 and Sweden in 2015), suggesting a change in this trajectory. Our findings, which are drawn from data gathered before these recent development might be expected to have had any (significant) impact, both support their introduction and lend some weight to Gallagher and Underhill's (2012) suggestion that 'for the many employers either not aware or unwilling to see psychosocial risk as an integral aspect of work health and safety (Widerszal-Bazyl et al. 2008), stronger legislative and enforcement measures may stimulate awareness and compliance.' This is perhaps also supported by the association between having been visited by the labour inspectorate within the previous three years and high levels of *PSR* management practices, as well as management commitment to OHS.

Of course, as we have noted earlier, in practice the likelihood of receiving an inspectorate visit is generally low, particularly for smaller enterprises — although this varies by country and sector. It is also important to bear in mind here that inspectorate visits were reported by the ESENER-2 respondents rather more commonly than would be expected considering Member States' inspection levels more generally (over half reported having been visited in the previous three years), particularly in relation to the smaller establishments. While it is possible that such a visit made establishments more likely to agree to participate in ESENER-2, it may also be that in some cases a positive response to this question may have been given where the establishment had received a visit from an inspectorate of another kind. In a recent qualitative follow-up study of ESENER-2 that focused on micro and small enterprises, it was clear that for some establishments in such sectors as food and health services, where other regulations and inspectorates were important to a firm's licence to continue to operate, respondents found it hard to separate OHS from other regulation, compliance and inspection⁶.

It was not possible to explore these associations further within this dataset. However, they do raise a number of questions about the roles of regulation, enforcement and inspectorate approaches, strategies, reach and balance in relation to areas including, for example, reactive and proactive visits and the provision of advice and guidance.

⁶ EU-OSHA (forthcoming). Safety and health in micro and small enterprises in the EU: the view from the workplace. Bilbao: European Agency for Safety and Health at Work. See: <https://osha.europa.eu/en/themes/safety-and-health-micro-and-small-enterprises>

Figure 5 Proportion (%) of establishments reporting that fulfilling the legal obligation and avoiding fines and sanctions were major reasons for addressing health and safety issues by establishment size, for establishments that had and had not been visited by the labour inspectorate in the previous three years

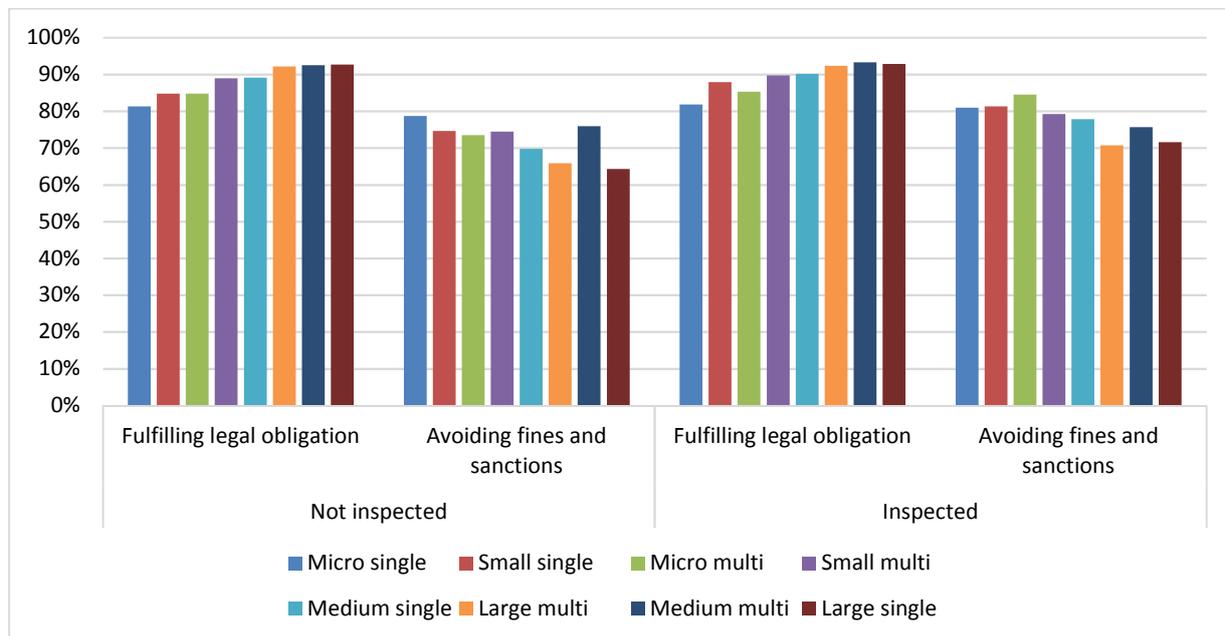


Figure 6 Proportion (%) of establishments reporting that fulfilling the legal obligation and avoiding fines and sanctions were major reasons for addressing health and safety issues by sector, for establishments that had and had not been visited by the labour inspectorate in the previous three years

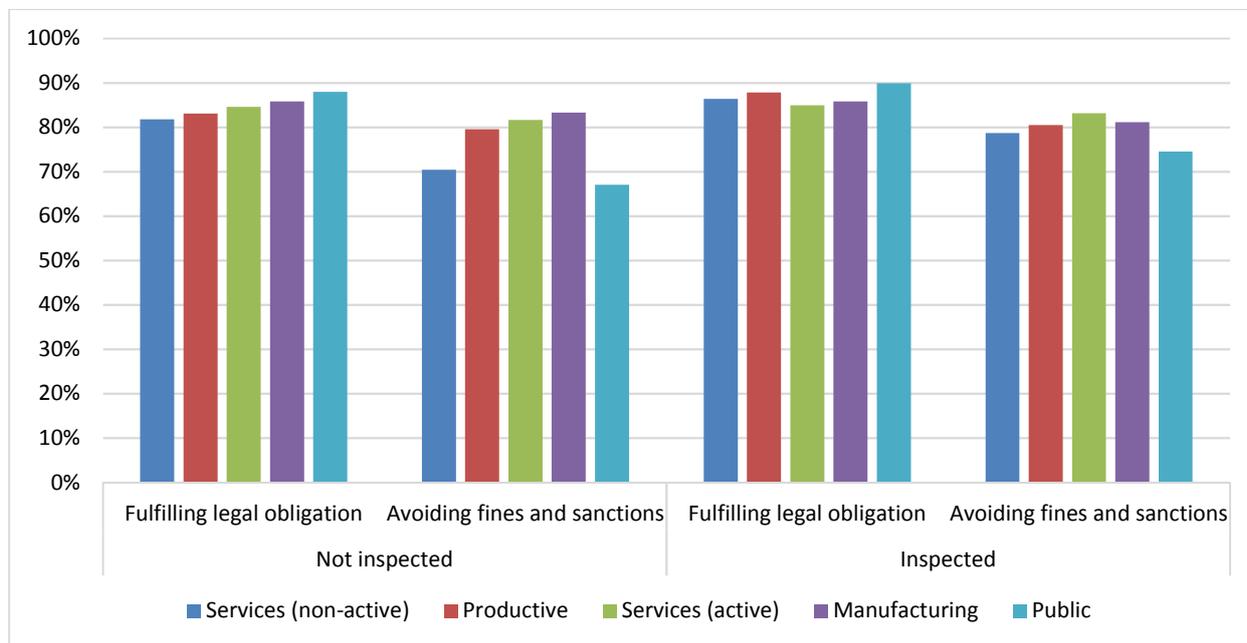
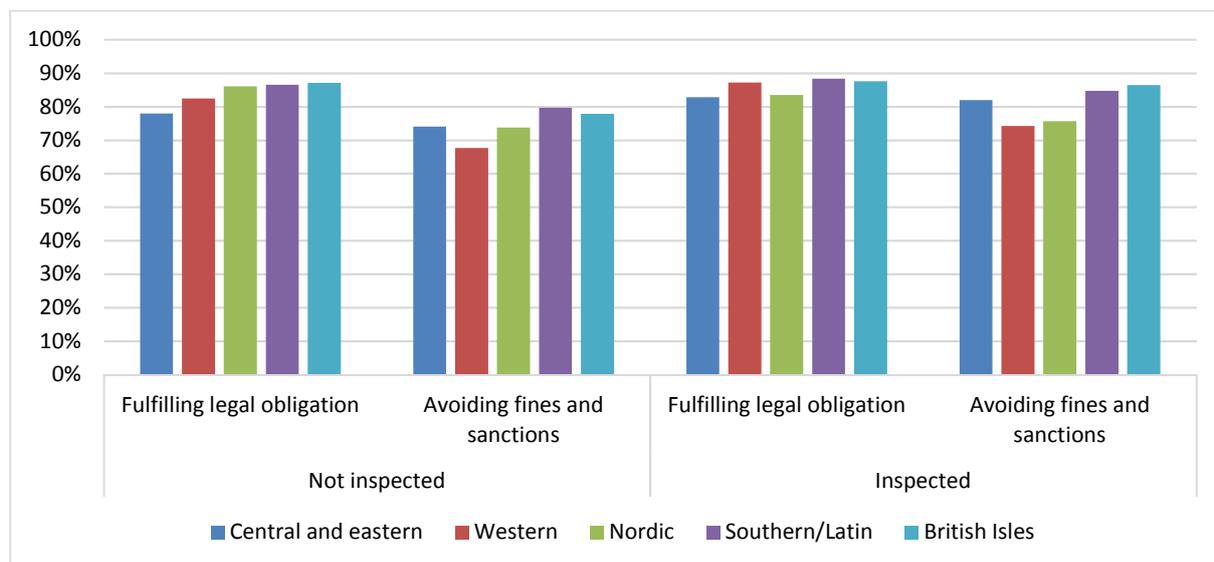


Figure 7 Proportion (%) of establishments reporting that fulfilling the legal obligation and avoiding fines and sanctions were major reasons for addressing health and safety issues by country group, for establishments that had and had not been visited by the labour inspectorate in the previous three years



3.3.2 Differences by respondent type

High levels of all three composite measures were associated with respondents who had received OHS training and for whom OHS was a main task. In fact, establishments where the respondent had received OHS training were over twice as likely as those where the respondent had not received such training to report high levels of both OHS and PSR management practices, and over three times as likely to have high levels of management commitment. In addition, having high levels of OHS and PSR management practices, though not management commitment, were associated with the respondent being a manager with specific OHS tasks. These findings clearly indicate that good practice is linked with allocating OHS responsibility to a particular individual (or individuals) and ensuring that they are provided with sufficient time and appropriate training to fulfil this aspect of their role. It is perhaps also consistent with the associations between not identifying lack of time or staff or the complexity of the legal obligations as major barriers to addressing health and safety issues and high levels of good OHS and PSR practice and management commitment — in that these too imply a link with a perception of sufficient capacity within the establishment to ‘invest’ in OHS. As discussed earlier in this report, this is something that is consistently identified as important in the literature through studies using various methodologies, in particular in relation to smaller firms (which made up the majority of the ESENER-2 sample).

However, there were also associations between other types of respondent (such as OHS specialists or external consultants) and high levels of OHS management practice and management commitment but not high levels of PSR management practice. These findings are perhaps more unexpected. The implication here seems to be that, where specialists and health and safety representatives are given responsibility for health and safety in an establishment, this may be limited to more traditional risks to health and safety rather than also extending to psychosocial risk.

As described above, respondents to ESENER-2 were ‘those who knew best’ about health and safety within the establishment. In most cases (63 %) this meant a manager, and there was also some variation with a number of factors, including establishment size, sector and country group (Figures 8 and 9) ⁽⁷⁾. For example, OHS specialists ⁽⁸⁾ were much more common among larger firms, while owners, managing

⁽⁷⁾ For an exploration of respondents described as ‘another employee in charge of OHS’ and associated variation in workplace practice, please see the Appendix.

⁽⁸⁾ Includes respondents who were external OHS consultants (who accounted for under 0.5% of all respondents).

directors or site managers were most common among micro firms, particularly those that were independent establishments. In addition, within each establishment size band, managers with specific OHS tasks were more common in establishments that were part of a larger organisation, as opposed to independent establishments, while another employee in charge of OHS was more common in independent establishments. Further, owners, managing directors or site managers were most common in the (active) services sector, while managers without specific OHS tasks were most common in the public sector. The implication here is that, where the survey respondent was a specialist (internal to the establishment or an external advisor) or an employee representative with OHS responsibility, this was more likely to have been a larger establishment, often in the manufacturing, productive or public sectors, and that, in such cases, OHS management arrangements may have been made separately from PSR management arrangements. Again, this is consistent with previous findings, including those related to ESENER-2 (EU-OSHA 2017a). It may also be linked to the tendency to exclude psychosocial risk from strategic decision-making and address it separately from workplace health and safety (Gallagher and Underhill 2012).

Overall, these findings show that respondent type is significantly associated with OHS and PSR management after controlling for other factors. This suggests that *who* an establishment identifies as 'the person who knows best about health and safety' is linked to the ESENER measures of good practice. However, the analyses also suggested that, rather than their generic position within the organisation, it is perhaps the respondent's OHS position and knowledge that is of most significance. That is, the analyses indicated that higher levels of implementation of good practices are linked with those with specific OHS tasks, for whom OHS is a main task and who have received OHS training, which, in turn, vary as expected with establishment size, status and sector (see Figures 8 to 10). As indicated earlier, what the analyses cannot tell us is the direction of these associations or anything about causality. They do, however, suggest that measures of OHS knowledge, experience and 'know-how' are important, and this is consistent with previous findings (see, for example, Hasle et al. 2012). The implication, therefore, is that an individual's role and the support they are provided with in relation to OHS are more important than their position. However, ESENER-2 did not collect any information about respondents' *authority* in terms of OHS (such as whether or not they held the power to make and/or influence key decisions, including those with significant resource implications) — something that is also likely to be influential over OHS practice.

Figure 8 Respondent type by establishment size

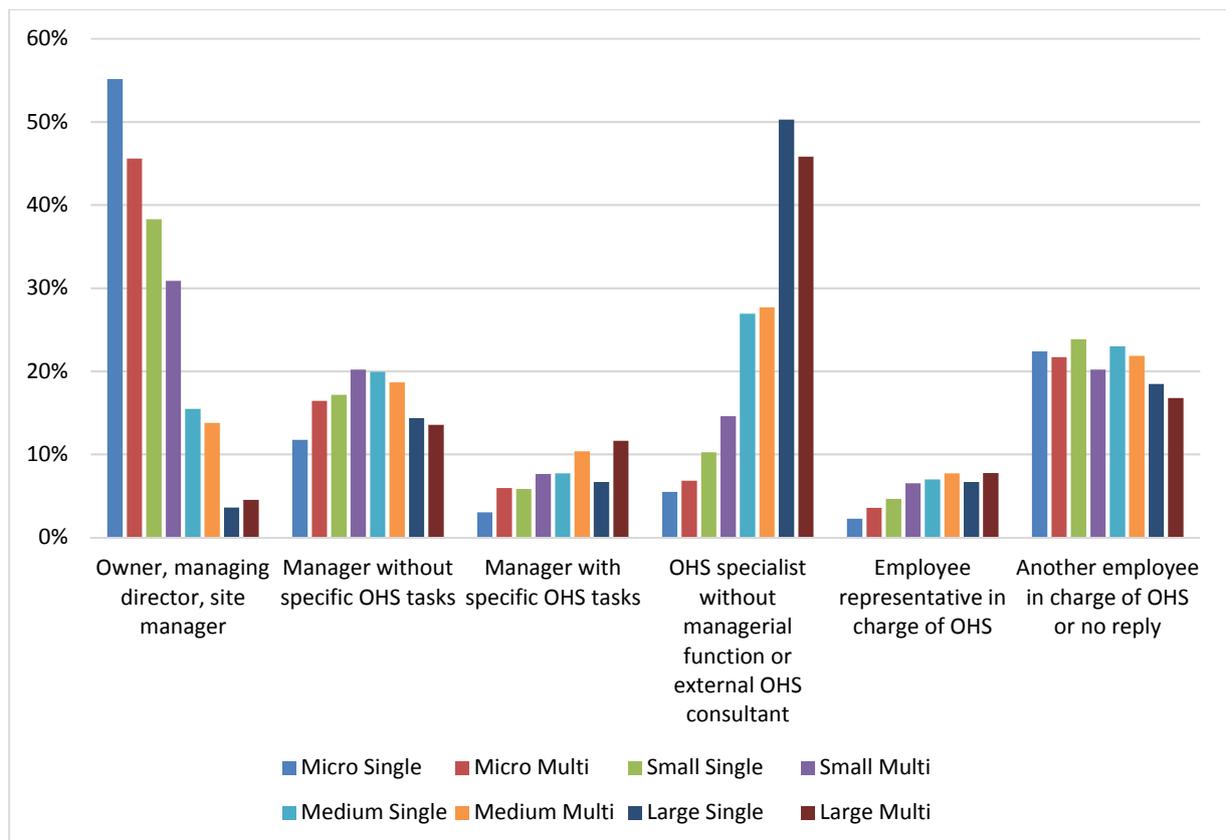


Figure 9 Respondent type by establishment sector

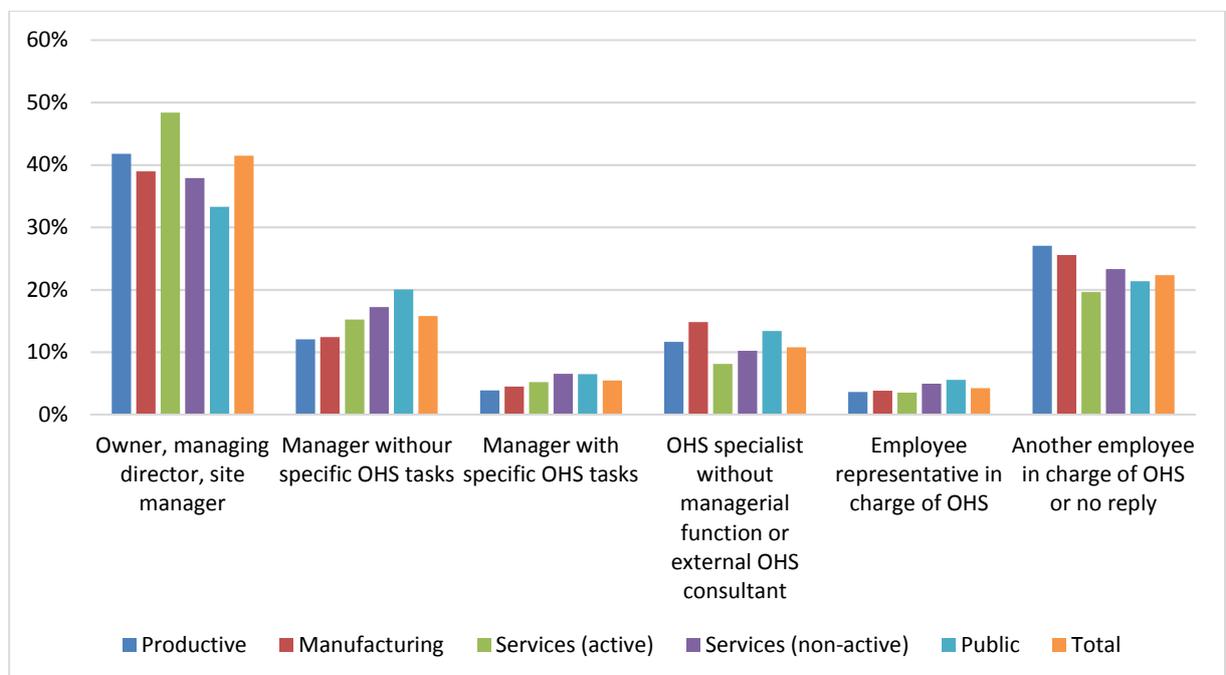
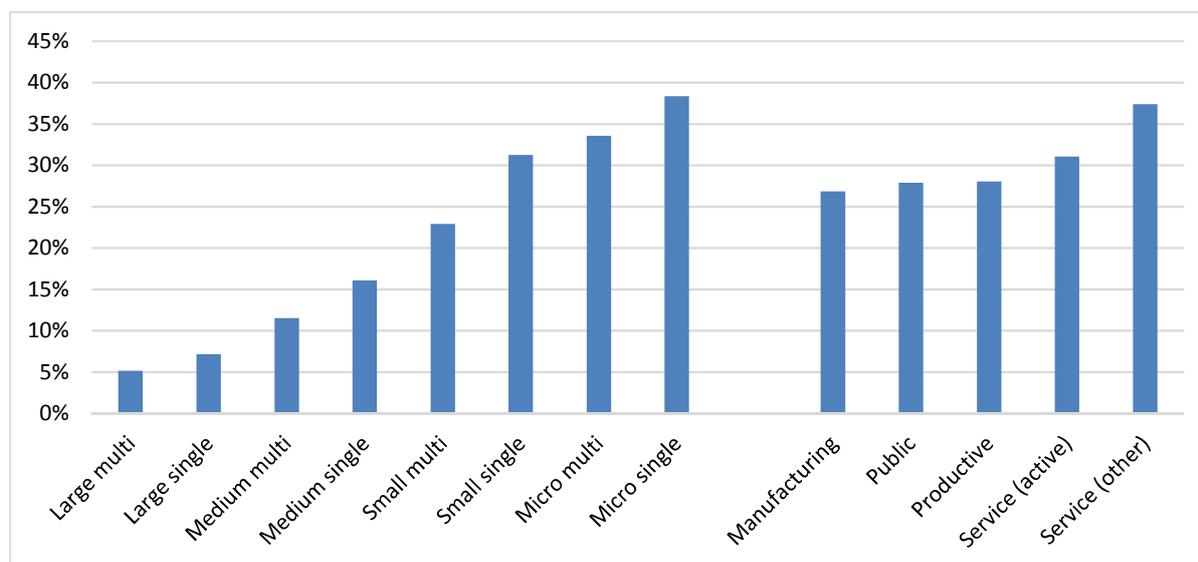


Figure 10 Proportion (%) of establishments where the respondent had not received OHS training and OHS was not a main task by establishment size and sector

3.4 Summary

Taken together the findings presented in this chapter suggest that the implementation of measures to manage risks to health and psychosocial risk may lag behind those intended to manage OHS more generally and that implementation levels of individual measures may be higher where planning and resource implications are lower. In addition, they indicate that high levels of good practice in relation to general OHS management and the management of psychosocial risks, as well as management commitment to health and safety, are more likely among particular types of establishments. These are broadly consistent with previous findings, and they suggest that such establishments are generally:

- larger firms, often those that are part of a wider group;
- those in particular sectors (although this varies with risk management type);
- aware that they need to manage a combination of traditional, health and psychosocial risks;
- of the view that meeting workforce expectations, as well as fulfilling legal obligations, and maintaining their reputation and productivity, are major reasons for addressing health and safety;
- those for which lack of time or staff and the complexity of legal obligations are not major difficulties in addressing health and safety;
- those that use external sources of OHS information;
- those that have made OHS someone's main task and provided that person with OHS training.

All of this suggests that it is the establishments with the 'capacity' to devote resources to OHS that are more likely to have higher levels of good practice in place. This is not simply financial capacity, but also capacity in terms of time, staff and access to information, as well as in relation to arrangements supporting a participative approach and in terms of understanding OHS as a fundamental part of any successful business.

As we have already said, ESENER-2 is a cross-sectional survey (giving a 'snapshot' of responses at a particular point in time). Therefore, it cannot tell us anything about the direction of the associations identified, so it is not possible to infer causality or determination. Nevertheless, all these findings are consistent with the literature, and they indicate that the immediate context in which an establishment is operating — that is at the workplace and sectoral levels — is influential over how health and safety is managed. However, they also suggest that context is influential at the national and wider levels as well — something that again chimes with previous work — and it is to this that we turn in Chapter 4.

4 The influence of worker representation and wider contexts

The analyses in Chapter 3 indicated that there are establishment-level characteristics that are associated with higher levels of good practices in relation to the management and control of workplace risk and with higher levels of factors that might indicate management commitment to OHS. These suggest a typology of establishments where higher levels of better practice are more likely. This typology was similar to those suggested by previous analyses of ESENER and in the wider literature. This consistency adds weight to such findings and, while cross-sectional surveys cannot determine causality, their interpretation in this report and elsewhere is one in which underlying mechanisms are inferred. In particular, establishment size, status and sector are seen as ‘proxy’ measures for the immediate resource, competition, labour relations and other contexts organisations are operating in and by which their decision-making, priorities and strategies are influenced.

Many studies and authors have identified management commitment to OHS as a key pre-determinant of its effective management and also as a factor influenced by both these immediate and wider contexts (see, for example, Gallagher et al. 2003, Walters and Nichols 2007, Gallagher and Underhill 2012, EU-OSHA 2012b, 2017b). Management commitment is, of course, a tricky factor to measure, particularly as part of a questionnaire survey. As described above, the composite approach we have taken here follows the lead of previous analyses of ESENER-1 and -2 (EU-OSHA 2012b, 2017a) and is based on the idea that questions within the surveys capture aspects of practice, behaviour or arrangements in the workplace that are indicative of management commitment to health and safety — such as whether or not health and safety is discussed within team meetings and at the top level of management. As with all survey measures, it is, of course, not possible to establish the extent to which such discussions, most often as reported by a manager, are, for example, meaningful, involve workers and/or their representatives, or are actually held regularly, if at all. And so in this sense such questions cannot directly ‘measure’ an aspect of management commitment to health and safety. Nevertheless, given the importance of management commitment to workplace OHS, it is clearly something that we must try to capture and include in our analyses, even if this is only possible in an indirect manner.

Our previous work on ESENER-1 (EU-OSHA 2012b), indicated that arrangements for managing both traditional risks and psychosocial risks were not only more likely but were also more likely to be perceived to be effective where there were high levels of management commitment to OHS *combined* with the presence of arrangements for worker representation. This reflected a further finding showing that the management of both traditional and psychosocial health and safety risks, and the perceived effectiveness of that management, were each more likely in workplaces in which workers’ representatives have both an active and a recognised role, and they are provided with sufficient resources to carry out that role.

The role of worker representation in health and safety at work is the subject of an extensive international literature (for reviews, see Walters 2006, Walters and Nichols 2007, Walters and Nichols 2009, EU-OSHA 2012b). This indicates that, in addition to associations with increased levels of both health and safety management arrangements and awareness of health and safety matters (see, for example, Biggins et al. 1991, Biggins and Phillips 1991a,b, Gains and Biggins 1992, Warren-Langford et al. 1993, Biggins and Holland 1995, Frick and Walters 1998), the presence of representative participation is linked with improved OHS performance (see, for example, Grunberg 1983, Dedobbeleer et al. 1990, Fuller and Suruda 2000, Nichols et al. 2007, Walters and Nichols 2007, Robinson and Smallman 2013).

Despite this, changes in the way work is organised and structured, coupled with changes in union density levels across many Member States, have led in many cases to a decline in workplace worker representation. For example, recent work from the United Kingdom indicates that, although the majority of employers do consult their workers about OHS, nearly 40 % of workplaces do not ensure that workers participate in the arrangements made for managing their health and safety (Robinson and Smallman 2013). This is of particular concern when the authors’ analyses led them to conclude not only that workplace injuries are lower where there is participation, but also:

that some participation is better than none, higher is better than lower and that the alignment of voice between management and unions is fundamental to success ... Gaps in participation

between the parties, notably where unions feel less involved than management, would seem to have a particularly strong downside. This indicates that structures that do facilitate meaningful union participation in OHS decision making do achieve benefit in the form of lower injury rates.

Robinson and Smallman (2013: p689)

Similarly, recent work indicated that labour protection both at the macro-level (union density) and at the organisational level (the extent of management concern for workers' psychosocial wellbeing) was a key explanatory factor in differences in both life expectancy and gross domestic product (GDP) at the national level across 31 European countries (Dollard and Nesar 2013). The authors suggest that their results:

support a type of society explanation that social and economic factors (e.g., welfare regimes, work related policies) in concert with political power agents at a national level explain in part national differences in workplace protection (PSC) that are important for worker health and productivity.

Dollard and Nesar (2013: p114)

Further, the effectiveness of both worker representation and OHS management more generally are supported by certain conditions and circumstances. In addition to management commitment, these include regulation and the engagement and commitment of regulatory inspectors to a participatory approach, and support from both the workforce and the wider trade union (Walters and Nichols 2007). These form part of a wider set of contexts, such as national and EU-level governance, regulation and discourse in relation to OHS, labour relations and other relevant structures and systems, political and economic circumstances, and so on (EU-OSHA 2013a). These contexts are, of course, interconnected and subject to change over time. They are difficult to measure with detailed accuracy and incorporate into analyses, but, as we outlined earlier in this report (see section 1.2), they can be represented in such analyses by including country, often grouped so that countries with similar regulatory and other relevant contexts are considered together. Broadly, analyses of this kind suggest that both higher levels of OHS management practice implementation, along with the associated more frequent presence of a combination of high management commitment and worker representation, are more likely where regulatory systems are based around more embedded approaches towards participative OHS management. That is, factors indicating the presence of a participatory approach to OHS management are more likely in areas where such an approach pre-dates the Framework Directive (89/391/EEC), such as in the United Kingdom and Sweden (EU-OSHA 2013a, 2017a).

The results presented in the following sections focus on these areas. First, they consider any association between worker representation combined with management commitment and high levels of OHS and PSR management. Second, they focus on any association with country group. In each case, associations are considered independent of the factors considered in Chapter 3, while their influence on the typologies established there is also assessed.

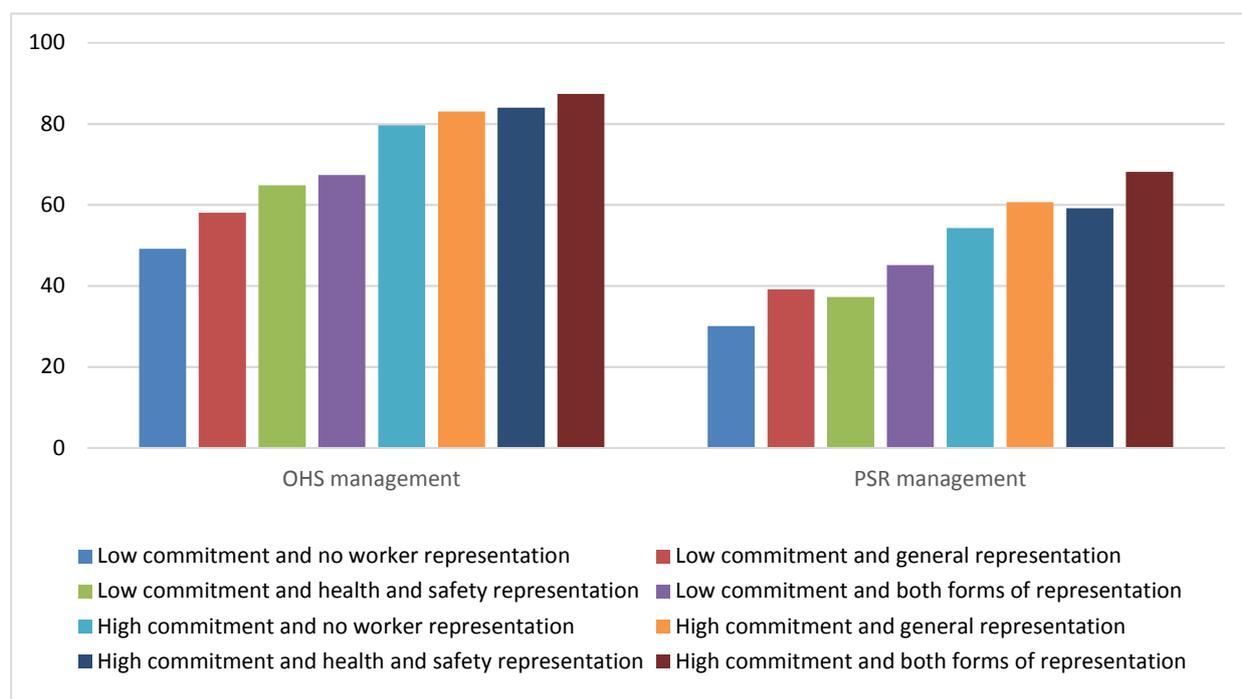
4.1 Worker representation

As described above, previous secondary analyses of ESENER-1 and 2 suggested an association between worker representation combined with management commitment and high levels of both OHS and PSR management practices (EU-OSHA 2012b, 2017a). This was again evident here. OHS and PSR management scores were lowest in establishments with no worker representation in place and where there were low levels of management commitment and highest where there were both forms of representation and high levels of management commitment (Figure 11). Although the absolute differences were small, for OHS management practice, scores where there was only specialist health and safety representation exceeded those where there were only general forms of worker representation; but for PSR management practice scores for general representation exceeded those for specialist representation. This suggests that specific health and safety representation may be particularly important in relation to the management of OHS generally, with general representation perhaps more important in relation to the management of psychosocial risk. However, implementation

levels of both OHS and PSR management practices were highest where *both* forms of worker representation arrangements were in place, implying that each has a contribution to make.

In addition, for both OHS and PSR management, for each possible worker representation arrangement, scores were higher where management commitment levels were also high. In fact, for both OHS and PSR management, where management commitment levels were high but there was no representation, scores were higher than where management commitment levels were lower but both forms of representation were in place. This underlines the importance of management commitment to health and safety, implying, as previous work has also indicated, that, without it, effective worker representation is likely to be more difficult to achieve.

Figure 11 Mean OHS and PSR management scores by worker representation arrangements in place combined with management commitment



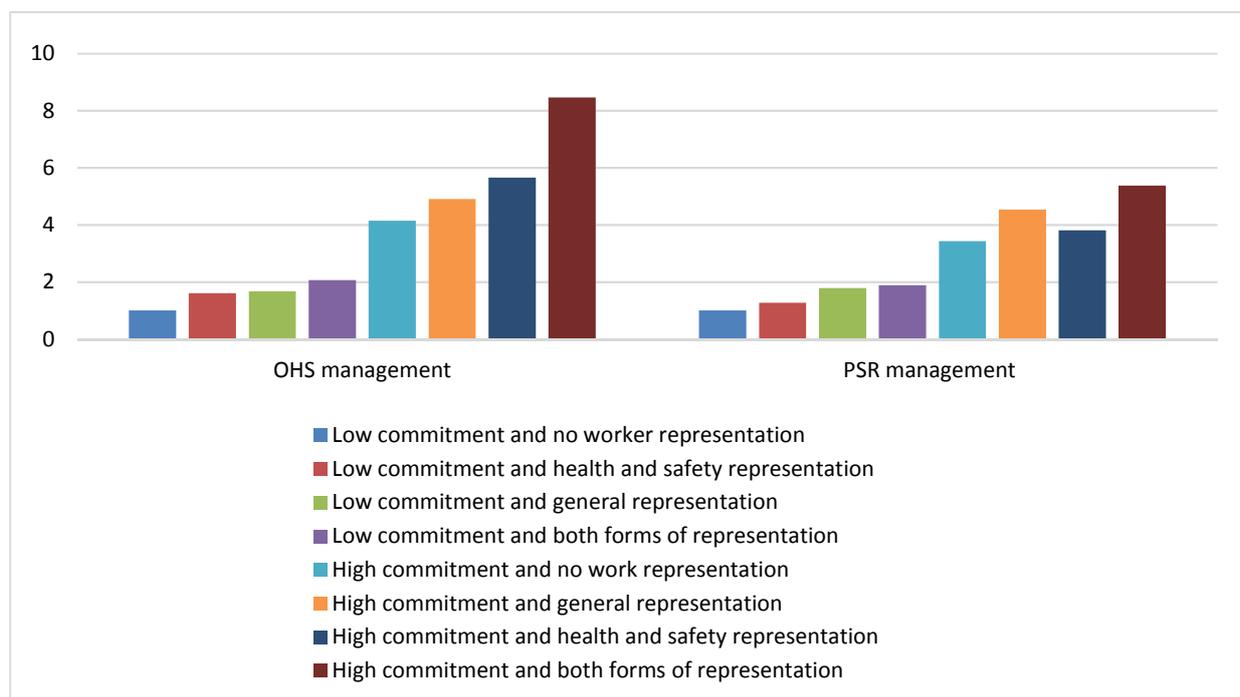
These findings were broadly confirmed by the logistic regression analyses. These indicated that, within each form of worker representation, establishments with high management commitment were significantly more likely than those with low management commitment to have high levels of OHS and PSR management practices in place (Figure 12, Appendix Tables A11 and A12). This suggests that management commitment is independently influential both where there is worker representation, in whatever form, and where there is none. However, among establishments with low levels of management commitment, having at least one form of representation in place was significantly better in terms of OHS management practice than having no representation, but there was no significant difference between general and specialist health and safety representation in this regard. Having both forms was significantly better than having health and safety representation only, but it was not significantly different from having general representation only. Among establishments with high levels of management commitment, on the other hand, having only general representation was not significantly different from having no representation, although health and safety representation only was significantly better than no representation but not significantly different from general representation only. Having both forms of representation was significantly better than no representation or either type of representation on its own. This suggests that it is the combination of high management commitment with health and safety representation that is particularly important.

For PSR management, these patterns were similar. However, among establishments with low levels of management commitment, those with general representation only were significantly more likely than those with health and safety representation only to have high levels of PSR management practices; and, among establishments with high levels of management commitment, there was no significant difference between general and health and safety representation, and neither was significantly better than having no representation. Having both forms of representation, however, was significantly better than having neither or having only health and safety representation. This suggests that, in terms of PSR management, it may be the combination of management commitment and general forms of representation that is most important.

These findings are consistent with those of our earlier analyses (EU-OSHA 2012b, 2017a). In addition, however, they suggest a difference between OHS and PSR management, which is also consistent with the findings described in Chapter 3 indicating an association between high levels of OHS but not PSR management practices and respondents who were OHS specialists, external consultants or employee representatives in charge of OHS. This may perhaps reflect a tendency to treat psychosocial risk separately from, rather than as integral to, workplace health and safety more generally (Gallagher and Underhill 2012) and a corresponding difference in the involvement of (different types of) workers' representatives (Walters 2001, 2011, EU-OSHA 2017a).

Psychosocial risks are widely acknowledged to be increasing in incidence as a result of their association with the changing patterns of the organisation of work and employment that have been prevalent across the EU, as well as further afield, for some years. While current regulatory approaches generally do not include specific requirements for the management of psychosocial risk, their implication is that the assessment, evaluation and management of such risks can and should be approached in the same way as that for more 'conventional' risk types. That is, psychosocial risks should be managed participatively, just like other forms of workplace risk. However, recent qualitative evidence suggests that the representation of workers' interests in this area is particularly challenging (EU-OSHA 2017a). This reflects the fact that the root causes of psychosocial risk are found in the ways in which establishments organise work and employment. This includes, for example, the use of contingent and precarious approaches to labour and employment, as well as associated increases in areas such as the intensification of work and job insecurity. Unlike the fundamental causes of more conventional risks to workers, these areas are much more likely to fall outside the remit of establishments' safety management systems, and of course they are more likely to be intertwined with concerns regarding managerial prerogatives. Further, they are also more likely to impact on workers that may be operating beyond the reach of any existing systems of representation, involvement and consultation. In addition, they may be seen by labour inspectorates as being beyond their remit and reach. This is an area that we have studied and discussed in detail elsewhere (see EU-OSHA 2017a), and further detailed consideration is beyond the scope of this report. However, the analyses presented here support concerns about the tendency to exclude psychosocial risk from participative approaches to the management of workplace risk to workers more generally, while at the same time indicating the importance of such approaches to risk management practice.

Figure 12 Odds ratios of worker representation arrangement in place combined with management commitment for high levels of OHS and PSR management practice

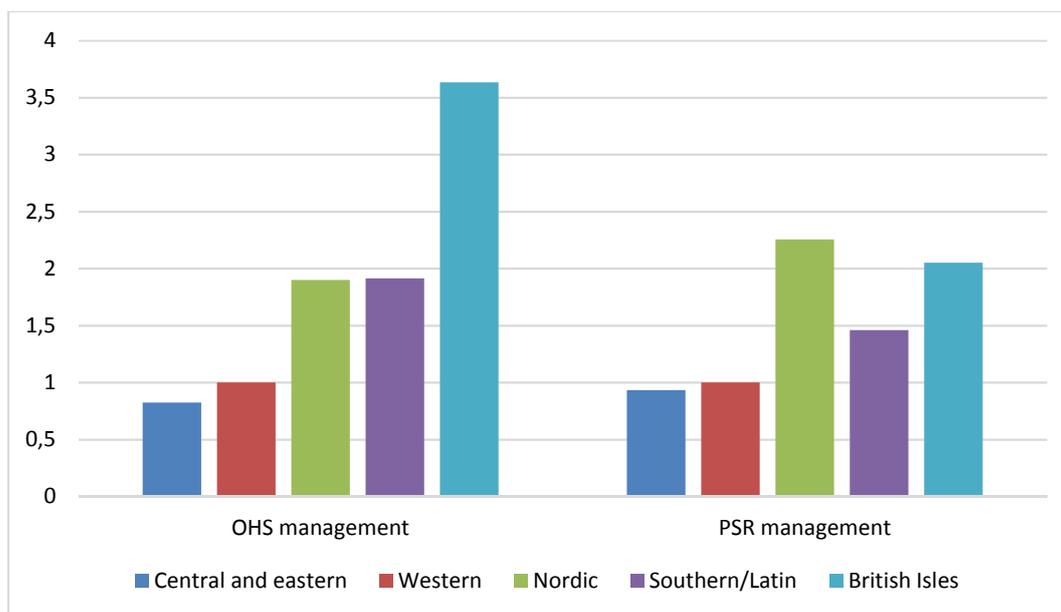


4.2 Wider contexts

As described above, previous analyses (such as EU-OSHA 2013a) have highlighted the importance of context to workplace OHS and PSR management practice. In particular, these analyses suggested that levels of implementation of good practices were highest in the Nordic and British Isles groups of countries. This suggests a positive influence of regulatory contexts in which there is a longer tradition of process-based participatory approaches to OHS management. Further logistic regression analyses produced similar findings among the ESENER-2 establishments (Figure 13, Appendix Tables A13 and A14). Establishments in the British Isles were most likely to have high levels of good OHS management practice, followed by those in the Nordic and southern/Latin groups (with the British Isles significantly more likely than the other two groups, which were not significantly different from each other). Turning to PSR management, however, while these three groups were again significantly more likely than the others to have high levels of good practice, the Nordic and British Isles groups (which were not significantly different from each other) were significantly more likely than the Southern/Latin group to have high levels of good PSR practice.

Consistent with our previous analyses, this suggests that high levels of OHS and PSR management practice are more likely in the British Isles and Nordic groups of countries (EU-OSHA 2013a). However, the stronger association for the British Isles with OHS management and the similar association between these two groups for PSR management suggest a change over time. They imply that the comparative position of the British Isles group in relation to the Nordic group has improved between the first and second ESENER surveys. Similarly, the association with the southern/Latin group of countries is better than the one found by the earlier analyses. There is little in ESENER-2 itself that might point to an explanation for these differences, so it is difficult to know what they may reflect.

Figure 13 Odds ratios of country groups for high levels of OHS and PSR management



4.3 Summary

The analyses described in the two preceding sections (4.1 and 4.2) were based on models that, in addition to the variables categorising establishments by their representation arrangements and country grouping that were their focus, also included all of the measures considered in the typology analyses (Chapter 3).

First, therefore, it is important to be clear that both these sets of analyses showed that the patterns of associations with high levels of OHS and PSR management practice (Appendix Tables A11 to A14) remained very similar to those described in Chapter 3. So, high levels of OHS and PSR management practices were again associated with:

- larger establishments, often those that are part of a wider group;
- those in particular sectors (productive and manufacturing for OHS management, and the services and public sector for PSR management);
- establishments that are aware that they need to manage a combination of traditional, health and psychosocial risks;
- those that are of the view that meeting workforce expectations and maintaining or increasing their productivity are major reasons for addressing health and safety (with fulfilling the legal obligation and avoiding fines and sanctions also associated with high levels of OHS management and maintaining their reputation also associated with high levels of PSR management);
- those that use external sources of OHS information;
- those that have allocated OHS tasks to someone and provided the respondent with OHS training.

This indicates, therefore, that the typologies established in Chapter 3 remain largely consistent *independently* of worker representation arrangements combined with management commitment and wider context as represented by country group. This suggests that establishments' contexts and worker representation arrangements do not 'explain' (i.e. statistically account for) the associations highlighted in the typologies. Rather, associations with factors such as establishment size, status, sector, and so on, remain significant in relation to the implementation of workplace risk management practices; and in addition, and *independently* of these associations, there are strong associations with both worker

representation arrangements and country group. In comparison with establishments where there was no representation and management commitment levels were low, those with both forms of representation and high management commitment were over seven times more likely to have high levels of good OHS management practice and almost five times more likely to have high levels of good PSR management practice. Further, the findings indicate an independent association between OHS management and country group. In each case, these findings are consistent with those of our previous work (EU-OSHA 2012b, 2013a), in that they indicate higher implementation of good management practices where there are high management commitment levels combined with arrangements for worker representation, as well as in country groups including the British Isles and Nordic groups.

In addition, the analyses suggested two further associations. First, high levels of good practice were associated with the southern/Latin group of countries. Second, in combination with high levels of management commitment to OHS, high levels of good OHS practice were associated with health and safety representation, while high levels of good PSR practice were associated with general representation. As we have suggested above, the former may reflect developments in the wider national contexts represented by the southern/Latin group, while the latter may be indicative of a separation of the management of psychosocial risk from that of health and safety more generally. This may reflect the likelihood that in general the remit of safety management systems does not tend to extend to the root causes of the increasing levels of psychosocial risk faced by workers. And, while general forms of worker representation may, of course, be potentially favourable in this regard, it is also of concern for those very reasons.

The associations described in this chapter and their consistency with previous findings continue to point to a powerful influence of both arrangements for worker representation, in combination with high management commitment to OHS, and regulatory and other contexts on workplace OHS practice. Their implication is that the conditions for 'best practice' in the workplace are most effectively supported by the regulatory, labour relations, political and social structures that provide the infrastructures for a participatory approach to OHS management. However, recent trends across much of Europe (and further afield) towards deregulation and reducing the regulatory 'burden', particularly on smaller businesses, falling union density and reduced union powers, and the 'demonisation' in some countries of health and safety in political and media discourse (see Almond 2015), all raise concerns about the extent to which such infrastructural supports will continue in the future. In addition, the increasing incidence of psychosocial risk and the challenges associated with including its evaluation and management in participative approaches in the workplace, as well as effectively monitoring the compliance of duty-holders in this regard, also raise concerns about the consequent vulnerability of workers. Together, these concerns raise the question of the relative or disproportionate vulnerability of some groups of workers — by factors such as establishment size and employment type. We return to some of these areas in Chapter 6. First, however, Chapter 5 briefly describes some analyses focused on particular sub-groups of the ESENER-2 sample.

5 Possible differentiating factors

The findings presented in Chapters 3 and 4 focus on the whole ESENER-2 sample. The remaining analyses, described in the following sections, explore particular groups within the sample. The aim here is to consider what might represent key differentiators in relation to particular behaviours or decisions taken within establishments, that is, measures that may be ‘markers’ of higher or lower levels of good practice implementation. Two sets of analyses were carried out.

First, those that report that their establishment does not regularly carry out workplace risk assessments are considered. This group is further split into those that carry out other checks and those that do not, with comparisons made between these groups and with establishments that do use risk assessment. The evaluation of risk is central to the requirements set out in the Framework Directive (89/391/EEC). As we have already discussed in this report, ESENER-2 respondents are likely to be ‘at the better end of the spectrum’ and, in the main, to regard themselves as active and compliant in relation to OHS. Within a sample with a preponderance of enterprises with this kind of focus on OHS and its management, this group, which is essentially identifying itself as non-compliant, may be of particular interest.

Second, and relatedly, ESENER-2 collects information on a range of forms of training that establishments may provide for those working for them. Ensuring that workers have received adequate health and safety training is, of course, also a requirement. There is considerable literature focused on training, much of which suggests that smaller companies are far less likely than their larger counterparts to participate in training activities (see, for example, CEDEFOP 2014). Much of this work (such as Eilström and Kock 2008, Lundvall et al. 2009) considers training in a wider sense, as opposed to that just focused on working safely. However, the provision of training, including that related to OHS, represents an investment in the workforce in both monetary and temporal terms, and there is evidence that it is associated with improved OHS performance. For example, a recent review indicated that safety training, as well as management commitment, are among those characteristics associated with reduced crash and injury risk in the transport sector (Mooren et al. 2014). The second set of analyses presented below, therefore, considers how the provision of training relates to reported OHS practice.

Both of these areas of analysis are intended to consider factors that may differentiate between firms following a ‘low-road’ approach, focusing on competing on price to survive, and those in a position to be able to follow a ‘high-road’ approach and to take more strategic and long-term decisions about competition, investment and so on. As we have discussed earlier, the former are much more likely to be smaller firms, but this is not exclusively the case. Small and medium-sized enterprises (SMEs) are also substantially less likely to take up training opportunities, which itself may act as a further barrier to moving towards a high-road strategy (EU-OSHA 2016) or to be able to afford an (internal or external) OHS specialist or for a manager or employee representative to dedicate much time to OHS. Consequently, they may also perhaps be less likely to be aware of the requirement for, and benefits of, risk assessment. ESENER-2 does not directly measure the ‘knowledge infrastructure’ required to fully understand and comply with the regulatory requirements. Indeed, this is not ESENER’s aim and arguably is something that would be particularly difficult to effectively address using survey methodology. However, by considering whether or not checks in relation to health and safety are carried out, and the extent to which health and safety training is provided, it may be possible to make some indirect consideration of this area, which may be a key aspect of distinguishing establishments with and without the capacity to devote resources to OHS.

In each case, the focus of the analyses is on considering variations, in particular by establishment size, status, sector and country group given how earlier analyses have consistently identified these factors as associated with high levels of OHS and PSR management practices.

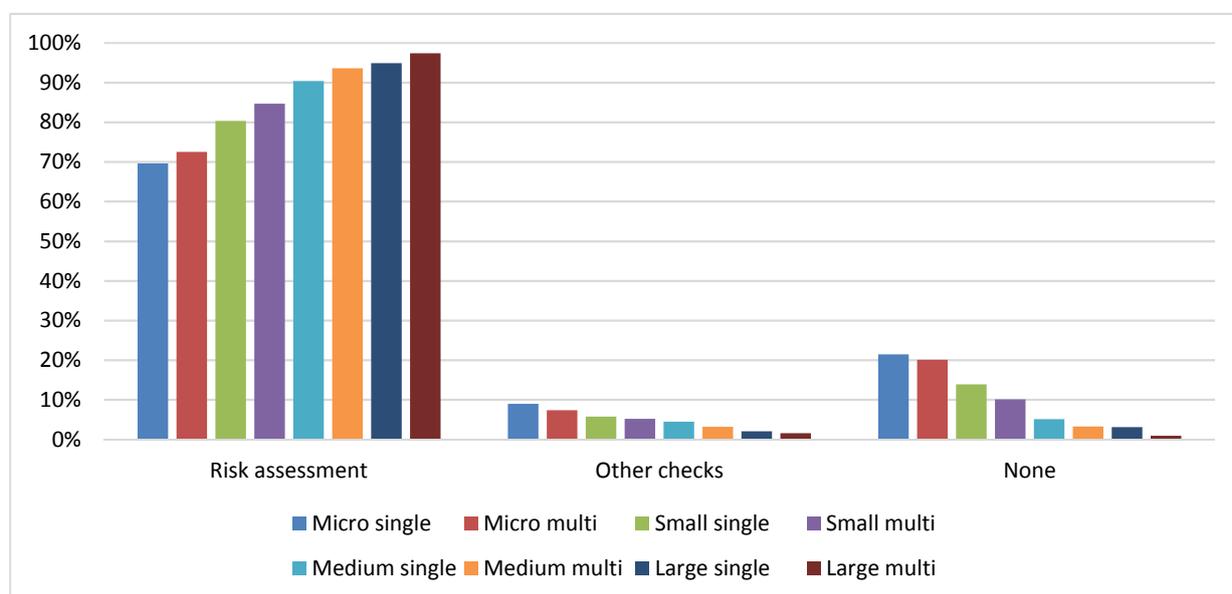
5.1 Establishments that do not carry out risk assessments

Although most of the ESENER-2 establishments reported carrying out risk assessments (77 %) or other checks ⁽⁹⁾ (7%), 16 % reported neither.

Most of this group were micro establishments, operating in the (other) services sector and from the western group of countries (Figures 14 to 16). However, there was little difference in these measures between this group and the establishments reporting carrying out checks other than risk assessment.

It is also worth noting here that, while reporting not carrying out any checks was more common among micro and small establishments, there were medium and large establishments where this was also the case. Similarly, while not carrying out any checks was more common in the services sector, it was also reported by some of those in the productive and manufacturing sectors. Given ESENER-2's likely preponderance of 'the best' establishments, such organisations may well be rather more common in the whole population.

Figure 14 Proportion (%) of establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks by establishment size



⁽⁹⁾ Such as checking that emergency routes are kept free; visual checks on whether employees stick to safety rules; and regular, but undocumented, workplace inspections.

Figure 15 Proportion (%) of establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks by establishment sector

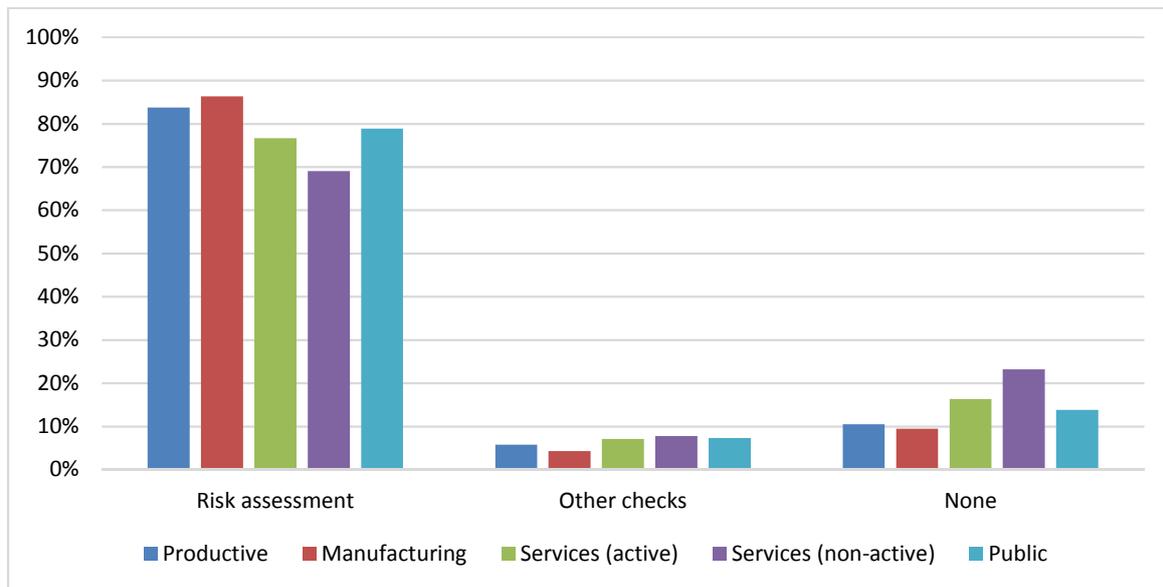
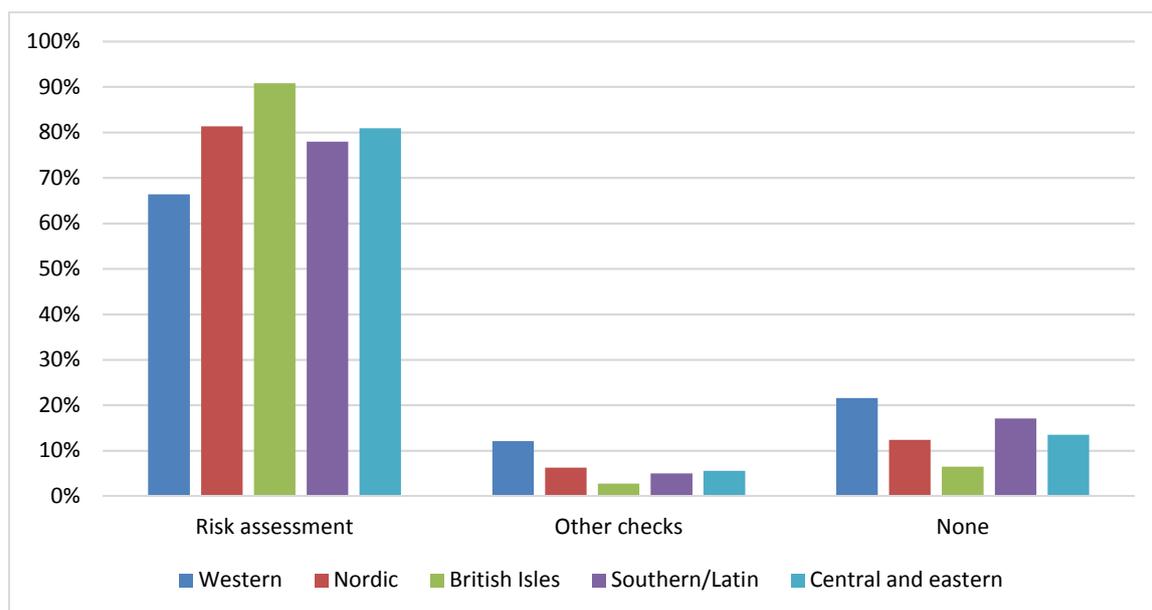


Figure 16 Proportion (%) of establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks by country group



Establishments where no risk assessments or other checks were carried out also had substantially lower OHS management, PSR management and management commitment scores than those carrying out risk assessment. This, of course, is not surprising given that each of these scores included a number of variables related to, and so only asked of, those carrying out risk assessment or other checks. However, when further versions of each composite measure were computed excluding these variables, establishments carrying out risk assessments still scored highest on all three measures, followed by those carrying out other checks, and then those doing neither (Figure 17). This suggests a hierarchy of establishments from those making no checks at all through to those carrying out regular risk assessments. In addition, the differences between the groups were narrowest for the PSR management

score, perhaps implying that OHS and PSR management practices are less closely linked in some groups of establishments — possibly in larger businesses in particular. This, of course, is also consistent with the findings described in Chapters 3 and 4. These findings were supported by consideration of the individual components of the OHS and PSR management measures ⁽¹⁰⁾ for these three groups of establishments. In virtually every case, the proportion reporting each component was highest among establishments carrying out risk assessments, followed by those carrying out other checks, and then those doing neither ⁽¹¹⁾. Perhaps most striking is that the largest difference between the three groups was for the management commitment measures. This suggests that, where no risk assessments or other checks are carried out, this may indicate a wider tendency within management to side-line or afford relatively low priority to the health, safety and wellbeing of workers. Logistic regression analyses controlling for the other factors included in the models described in the context analyses presented in Chapter 4 showed a very similar hierarchical pattern (Figure 18, Appendix Tables A15 and A16), suggesting that, independently of other factors, establishments that carry out risk assessments, followed by those that carry out other checks, are more likely to have higher levels of good practices in place.

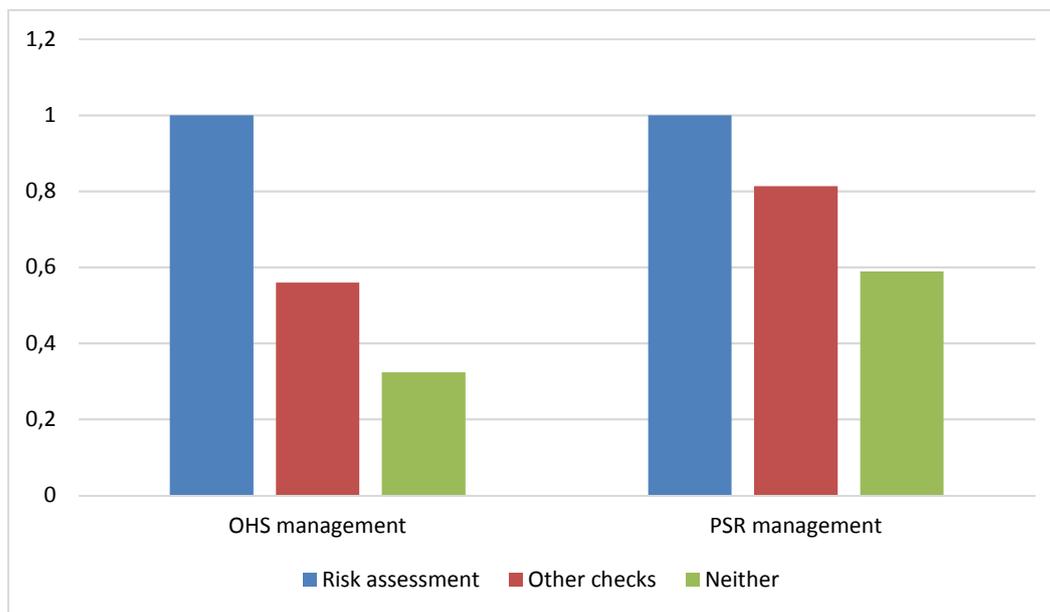
Figure 17 Mean OHS management, PSR management and management commitment scores, excluding the measures related to risk assessment and other checks, for establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks



⁽¹⁰⁾ Excluding those components related to risk assessment and other checks.

⁽¹¹⁾ The only exceptions were the use of at least one measure to prevent PSRs and the involvement of workers in the design of these measures, where those carrying out other checks were highest, followed by those carrying out risk assessment and then those doing neither.

Figure 18 Odds ratios for establishments reporting carrying out risk assessment, other checks and neither risk assessment nor other checks



5.2 Training

ESENER-2 asks a series of questions about training in relation to OHS. These collect information about training for:

- team leaders and line managers — on how to manage health and safety in their teams (only asked where the establishment has 20 or more employees);
- respondents — on how to manage health and safety in their establishment (asked of all);
- health and safety representatives — to help them perform their health and safety duties (only asked where the establishment has a health and safety representative (and relates to training provided during work time));
- employees — on:
 - the proper use and adjustment of their working equipment and furniture (asked of all);
 - the use of dangerous substances (only asked where the establishment reports the presence of chemical or biological substances in the form of liquids, fumes or dust);
 - how to prevent psychosocial risks such as stress or bullying (asked of all);
 - how to lift and move heavy loads or people (only asked where the establishment reports the presence of lifting or moving heavy loads or people);
 - emergency procedures;
 - any of these topics in different languages (only asked where the establishment has employees with difficulties understanding the language spoken at the premises).

Depending on its combination of risk factors, workforce characteristics and worker representation arrangements, therefore, ESENER-2 establishments meeting their OHS obligations should provide between four and nine kinds of OHS-related training. A further composite score was created to indicate the proportion of training that each establishment reported providing, taking into account their relevant risk, workforce and representation factors. The mean score was 65.41 (SD = 29.10), indicating that on average establishments provided about two-thirds of the training that would have been expected of them. This ranged from 6 % providing no training at all to 20 % providing all relevant training (Figure 19). Provision of training also varied by establishment size and type, with provision increasing with size and, within each size band, for multi-establishment organisations (Figure 20); by sector, with provision

highest in the public, manufacturing and productive sectors (Figure 21); and by country group, with provision highest in the British Isles country group (Figure 22).

Figure 19 Proportion (%) of establishments reporting various levels of training

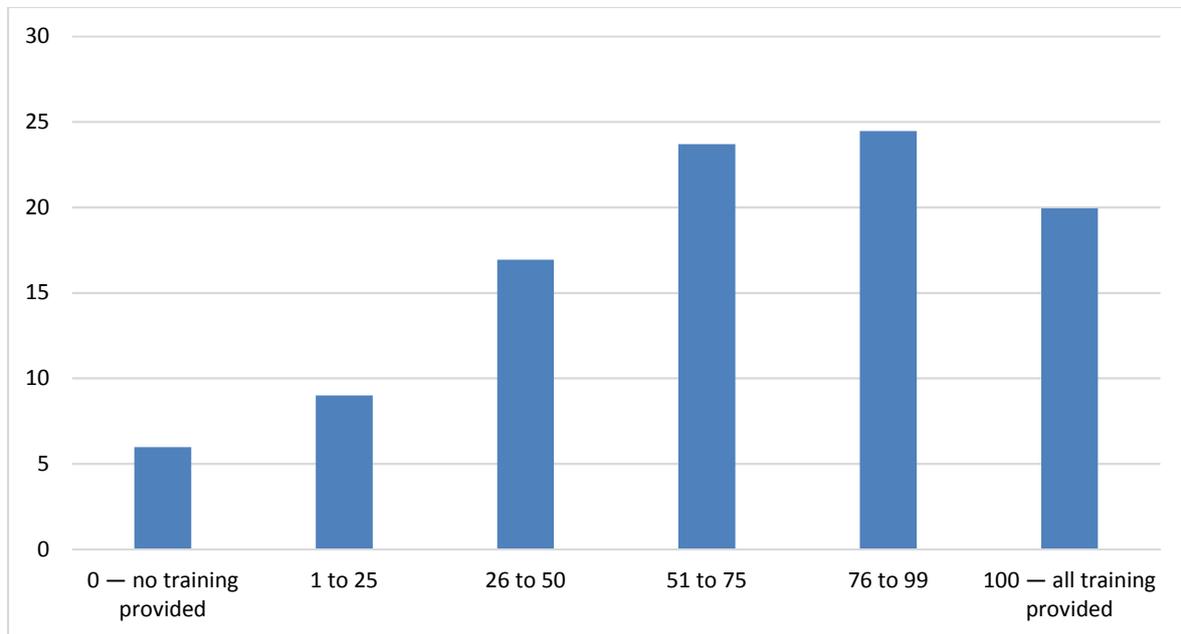


Figure 20 Mean training score and proportion (%) of establishments providing no training and all of the expected training, by establishment size

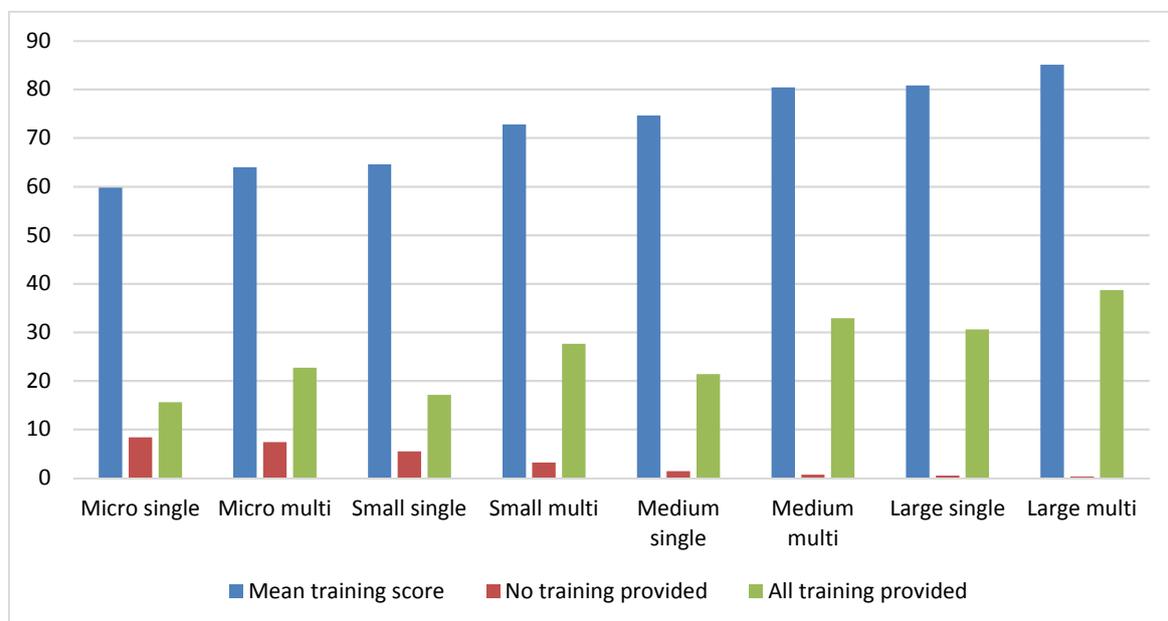


Figure 21 Mean training score and proportion (%) of establishments providing no training and all of the expected training, by establishment sector

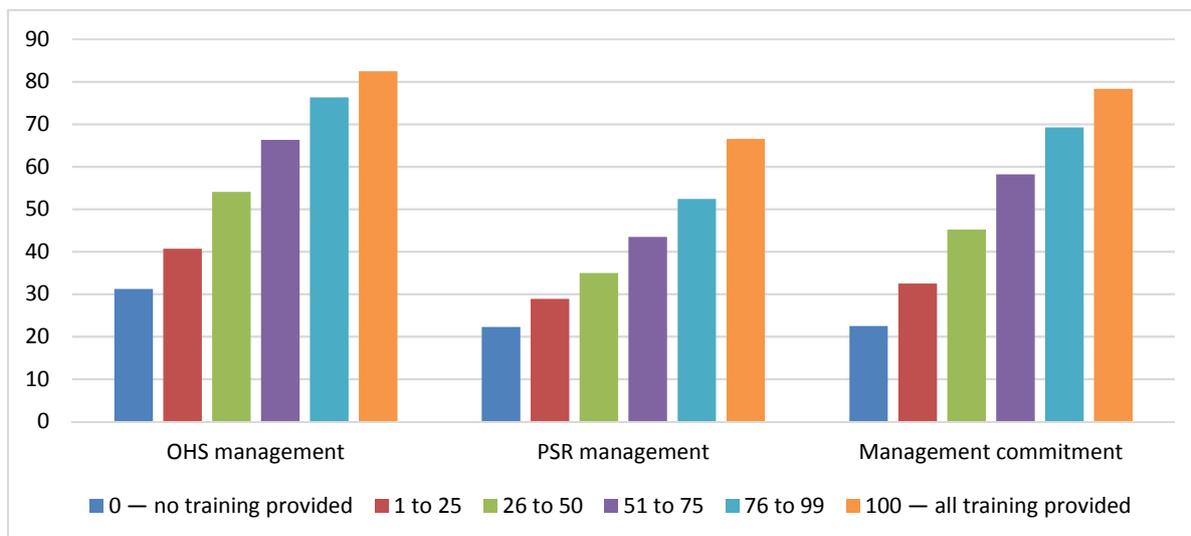


Figure 22 Mean training score and proportion (%) of establishments providing no training and all of the expected training, by country group



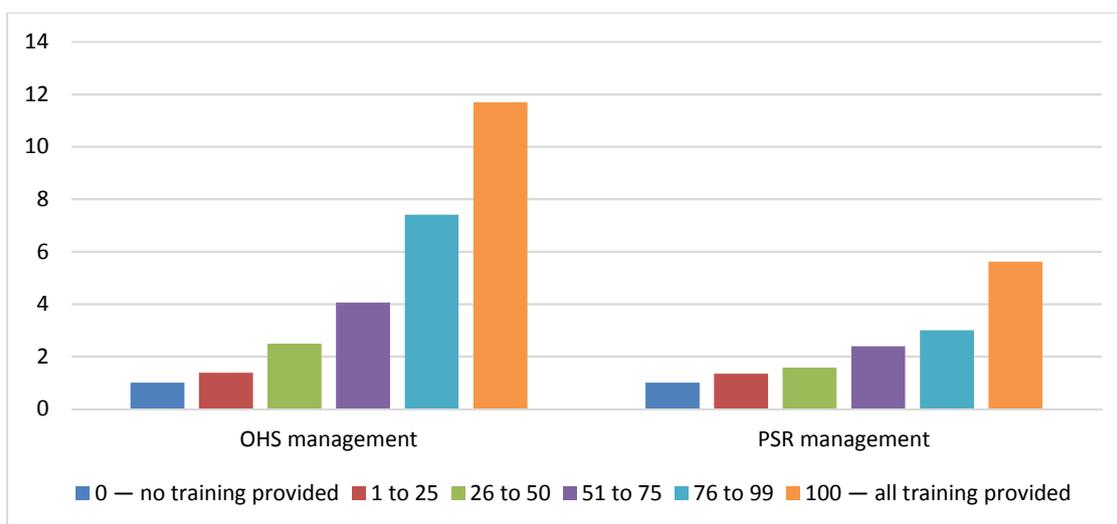
In order to consider how workplace risk management and management commitment varied with training, further versions of the OHS management, PSR management and management commitment scores were created excluding the variables that were components of the training score. In each case, mean scores increased as the provision of training increased (Figure 23).

Figure 23 Mean OHS management, PSR management and management commitment scores by level of training provision



Further logistic regression models were used to consider the association between training provision and high levels of good OHS and PSR management practice independently of the other factors considered in the context analyses ⁽¹²⁾ (Appendix Tables A17 and A18). As is clear from Figure 24, a strong linear relationship remained independently of these other factors ⁽¹³⁾. This indicates that, as might be anticipated, independently of other factors, higher levels of good OHS and PSR management practice were associated with increasingly complete provision of OHS-related training within an establishment. It implies that the provision of appropriate levels of training is likely to be indicative of good practice more generally and may reflect a greater capacity to devote resources to OHS.

Figure 24 Odd ratios for training provision in relation to high levels of good OHS and PSR management practice



⁽¹²⁾ The variable indicating whether or not the respondent had received OHS training was removed from these models because it was included in the training provision variable.

⁽¹³⁾ Significant differences between all levels except 26 to 50 (compared with 1 to 25) and 76 to 99 (compared with 51 to 75) for the PSR management model.

5.3 Summary

As we have noted on a number of occasions in this report, the respondents to ESENER-2 seem to represent the ‘better end’ of the spectrum in terms of OHS management and practice. It is, therefore, perhaps surprising that about one-quarter say that they do not carry out regular risk assessments, with about two-thirds of the rest (16% of the whole sample) reporting that they do not carry out any health and safety checks at all. And, further, while this group was predominantly micro and small enterprises, it did also include larger organisations. Less surprising, however, is that such establishments were less likely to implement OHS and PSR management practices than their counterparts that did risk assess, even after controlling for establishment characteristics (including size) and other factors.

The provision of OHS-related training was also associated with OHS practice, with high levels of training provision linked to high levels of good OHS and PSR management practices.

Both these sets of findings seem to reflect aspects of decision-making and behaviours within establishments that may differentiate those with the capacity and resources to dedicate to OHS and those without — or, as our earlier work put it, those on the low-road and those on the high-road to business survival (EU-OSHA 2016). As expected, they indicate that this kind of scenario is more commonly found among the smallest firms in particular but also among those operating in the (non-active) services sector (see Figures 14 and 15). As well as being consistent with previous findings, this corroborates the findings presented in Chapters 3 and 4 by indicating that arrangements for assessing and managing workplace risks to workers’ health, safety and wellbeing take place within a combination of contexts, all of which are influential over those arrangements. This implies that the health, safety and wellbeing of workers in the EU can be enhanced by fostering the contexts in which management commitment to the participative approaches that are central to the regulations are more likely. In Chapter 6, we briefly summarise these contexts and draw together the findings to offer some conclusions.

6 Conclusions

Arrangements for health and safety management in EU workplaces are now well-established requirements of regulation at European and national levels in all EU Member States and it would be surprising, as well as disturbing, if there wasn't evidence of their implementation in the majority of establishments in which work is undertaken in the EU. The secondary analysis of the results of ESENER-2 presented in this report shows that this is essentially the case, although they also give some indications that there is room for further development both in relation to the implementation of these measures in all workplaces and in the occurrence of best practices in relation to their operation.

For example, bearing in mind our repeated caveats that the survey over-represents the 'better end' of the population of enterprises in the EU in terms of OHS and that self-assessment may over-represent good practices, it is surprising that nearly one-quarter of the respondents reported that they did not carry out risk assessment in accordance with the definition used in ESENER-2. Of these, more than half made no kind of assessment of any of the risks of their workplace, presumably believing that it was unnecessary. Most of these establishments were micro or small firms, and this finding, along with many others in the analyses, would seem to reflect what is understood about size effects on OHS arrangements. That is, such arrangements are found more frequently in larger organisations than smaller ones and, indeed, there is some cause for concern that smaller organisations may not possess the necessary capacities to implement and operate these measures effectively. While there is now a large body of support for small establishments in terms of strategies and tools to help them undertake workplace risk management more systematically and effectively, the analysis of the ESENER-2 data would suggest substantial room for further improvement. Where no risk assessments or other checks are carried out, this may be indicative of a wider tendency within management to side-line or afford relatively low priority to the health, safety and wellbeing of workers.

The analysis also indicates that implementation of good practice is highest in relation to safety management, followed by health risk management and then PSR management. This too is not an especially surprising result. Safety arrangements and safety management systems are now the subject of quite an array of both regulatory and voluntary standards and of the systems to implement them. While there is widespread agreement that systematic approaches to OHS are likely to be beneficial, many duty-holders have adopted bespoke safety management systems to achieve this. Criticism of these systems points out that they tend to be rather narrowly focused on *safety* and on measures of *safety* performance in their operation, and as a result pay less attention to work-related *health* issues, which are far more prevalent (see, for example, Nenonen et al. 2014) (also partly perhaps because it is more difficult to measure the latter). This tendency may be a contributory factor in explaining the differences observed between the indicators of the implementation of good practice in relation to safety compared with health.

It is also not surprising to find indicators of good practice in relation to PSR management in third place in the order of implementation of good practice. Three possible explanations could be relevant here. One is that, as is well documented, because the manifestations of psychosocial risks are among those that are least visible, they are also among the risks that are most challenging to manage and least amenable to arrangements for workplace health and safety. A second is that, because these risks are often a product of wider work organisation, in practice this is itself beyond the remit of OHS systems. A third is that, as qualitative studies have demonstrated, managing psychosocial risks, and especially their consequences, is not always the preserve of health and safety management but often a function of human resource management within organisations. Therefore, 'the person who knows best about health and safety' in the establishment may not be fully conversant with all the measures that an organisation takes in relation to psychosocial risk. One further implication of these explanations, of course, is the indication they provide that there is some separation of the management of psychosocial risk from that of health and safety more generally. This may also imply that, in general, the remit of safety management systems does not tend to extend to the root causes of the increasing levels of psychosocial risk faced by workers.

The secondary analysis also found high levels of good practice to be associated with increasing establishment size, as already mentioned, as well as with establishments that are part of wider organisations (rather than independent businesses) and those recognising risks of all types (i.e.

traditional, health and psychosocial risks). In addition, higher levels of good practice were more likely in establishments in particular sectors (varying with risk management type — with high levels of good PSR management practice most commonly reported in the public and services sectors, and high levels of good OHS management practice most common in the productive and manufacturing sectors). Further, higher implementation levels were associated with establishments in which OHS tasks had been allocated to someone and relevant training provided, as well as those that sought OHS information from external sources and saw workforce expectations and maintaining or increasing productivity as major reasons for addressing health and safety (with fulfilling the legal obligation and avoiding fines and sanctions also associated with high levels of OHS management and maintaining reputation also associated with high levels of PSR management). Again, all of these associations are in keeping with previous findings.

Other findings emerge from the analysis, which help to explain these patterns. For example, establishments where the respondent had received OHS training were about twice as likely as those where the respondent had not received such training to report high levels of both OHS and PSR management practices, and over three times as likely to have high levels of management commitment. This, along with other findings in relation to training, suggests a strong association between its provision and good OHS practice, again an observation that is well supported by both quantitative and qualitative studies in the research literature. While we have taken care to repeatedly point out that the demonstration of statistical associations in our analysis of the ESENER-2 data cannot be interpreted to imply causality, we think that it is nevertheless permissible to speculate that training here may be serving as a useful proxy for good practice.

In keeping with previous ESENER findings, the relationship between our measures of management commitment and good practice and those for worker representation was also strong. In comparison with establishments where there was no representation and management commitment levels were low, those with both forms of representation and high management commitment were over seven times more likely to have high levels of good OHS management practice and almost five times more likely to have high levels of good PSR management practice. There were also some more indirect signs from the analysis that worker engagement more generally is an important pre-determinant of good practice. For example, those establishments identifying workforce expectation as a major reason for addressing health and safety issues were about twice as likely as those that did not see it as important to have high levels of good OHS and PSR management practices and management commitment. Again, while bearing in mind our caveats concerning causality, it is interesting to speculate here concerning possible links between the influence of workforce expectations on OHS and the role of internal/external labour market power as an influence on such arrangements. This is an issue that has been little explored in the literature, or developed in policy terms, but which may be potentially important as a driver in regulated self-regulation.

Interestingly, in terms of compliance with regulatory requirements, the analysis showed that fulfilling legal obligations was more commonly identified as a reason for addressing health and safety matters than was the avoidance of fines and sanctions. There was, however, variation in this depending on the features of the establishment. In particular, smaller establishments may more commonly identify the latter as a major reason for undertaking actions on OHS, again a difference that might, to some extent, be anticipated from a reading of previous research literature.

Finally, some of the same patterns of national effects that emerged from ESENER-1 were still evident in the analysis of ESENER-2. That is, there was generally higher implementation of good practices in the British Isles and Nordic groups. Presumably, this was for the same reasons as identified in the previous study (see, for example, EU-OSHA 2013a). But there was also quite high implementation among countries belonging to the southern/Latin group, an observation that is less easy to explain in the same way.

Overall then, the secondary analysis of ESENER-2 presented in this report does not reveal findings that are entirely surprising. In the main, they serve to corroborate what is already evident in previous research, as well as being broadly in agreement with the findings from the analysis of ESENER-1, once some allowance is made for differences in the organisation of the two surveys. Bearing in mind the important caveat that the respondents to ESENER-2 are likely to represent the 'best end of the spectrum'

in terms of OHS practice (as was the case in ESENER-1), the findings suggest that good practice in OHS management is supported by the will and capacity of employers to deliver a competent participatory approach to OHS management. That is, an approach in which arrangements for worker participation and engagement play an important role, and that is based around assessing workplace risk and implementing systems to manage the risks thus identified, within a regulatory framework that provides the parameters within which this can be done.

All of this is arguably also the cornerstone of EU regulation on OHS. As has been well established by previous studies, establishments with the capacity to devote resources to these matters (such as those measured by financial resources but also including, time, staff, access to information, good industrial relations and participative arrangements) are more likely to have higher levels of good practice on OHS and to understand OHS as being fundamental to their business success. This would seem to be borne out by the present analysis.

This observation also provides an important link to present EU policies on OHS. In this respect, therefore, it is encouraging to note that these policies have recently sought to further support the implementation of these regulatory precepts in all EU Member States. The current EU policy context within which occupational health and safety is situated can be found in three recent related EU statements. The first is the EU Strategic Framework on Health and Safety at Work 2014-2020, which identifies three major challenges for OHS in the EU:

- to improve implementation of existing health and safety rules, in particular by enhancing the capacity of micro and small enterprises to put in place effective and efficient risk prevention strategies;
- to improve the prevention of work-related diseases by tackling new and emerging risks without neglecting existing risk;
- to take account of the ageing of the EU's workforce.

The framework addresses these challenges with several inter-related strategies, including further consolidation of national health and safety strategies, through, for example, policy coordination and mutual learning, requiring practical support for small and micro enterprises to help them better comply with health and safety rules, as well as improving enforcement by Member States, and simplifying existing legislation, where appropriate, while preserving a high level of protection for workers' health and safety. The ESENER-2 analysis suggests that these policy considerations have some salience in relation to current practices, as well as providing an important baseline with which to gauge the future impact of these strategies

The second important EU policy development is found in the establishment of the European Pillar of Social Rights, adopted in June 2017. The published documentation on the pillar indicates its intention to go beyond the current *acquis* by envisaging a high level of protection for workers from risks to health and safety at work. It urges Member States, but also employers, to go beyond the minimum requirements laid down in the *acquis* and to get as close as possible to an accident-free and casualty-free working environment. It argues that this means not only applying the rules, but also establishing ever-improving health and safety policies with the help of risk assessments, and dialogue with workers and workplace suppliers, all of which should be supported by guidance and feedback. It also specifies the workers' right to a working environment adapted to their specific occupational circumstances. In accordance with the principle of active ageing, it recognises the need to adapt the working environment in order to enable workers to have sustainable and longer working careers. Again, the evidence from ESENER-2 relates directly to many of these aspirations and will provide a baseline against which to measure their development.

Finally, the third major EU policy statement to which the ESENER-2 analysis is relevant is represented by the Communication of the European Commission in January 2017 on Modernisation of the EU Occupational Safety and Health Legislation and Policy, which emphasises a need to refocus efforts on ensuring better and broader protection, compliance and enforcement of occupational health and safety standards, as well as on initiatives to support effective implementation of rules. Arguably, these statements together encompass significant elements of current EU policy thinking on health and safety, each repeating similar themes but with slightly different emphases. They therefore advocate the

development of policies, strategies and tools at national, sectoral and enterprise levels that acknowledge the need for employers to meet realistic regulatory requirements, providing the same level of protection to workers in all organisations, which are suitable and appropriate to their situation. They further acknowledge that health and safety will not be improved with 'deregulatory initiatives'. At the same time, they argue that increasing the detail of regulatory requirements is not a solution either, and therefore they advocate for more rigorous and effective enforcement, supporting better understanding of the requirements to deliver good OHS practices, and facilitating this delivery in ways that are least 'burdensome' while ensuring that both regulation and support are suitable and sufficient to protect the health and safety of workers. Again, the ESENER-2 findings suggest that these requirements are relevant and are indicative of remedial strategies that may act to improve the spread of operational good practice.

Therefore, it is possible to discern a degree of synergy between current policy and the practice identified in the analysis of ESENER-2, which offers evidence of opportunities on which to build and consolidate improvements. At the same time, it also needs to be acknowledged that there are elements of change in the structure of the EU economy that are not effectively measured in the analysis of the data collected in ESENER-2 and these too have an impact on the presence of preconditions for the delivery of good practice. As we have already pointed out several times, it is likely that most of the data collected in ESENER-2 have come from respondents in relatively stable and successful organisations. The analysis of such data does not provide substantial information concerning the health and safety conditions of work in those parts of the economy that are less stable and successful and that, according to other economic analyses, are a growing presence in the EU overall. Future studies will need to take this into account if they are to provide a more complete picture of practice on OHS in the EU. With this in mind, the third wave of ESENER is scheduled to take place in 2019. While the main bulk of the survey design – questionnaire, target respondent and survey mode, among others - will remain very largely the same, methodological efforts¹⁴ will be made to increase the coverage of those establishments that may be less stable and successful. This, together with the analyses of trends between the second and third waves of the survey, should help ESENER increase its contribution to the provision of such a picture of OHS across the EU.

¹⁴ In particular, the sampling design and contact strategy.

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