OCCUPATIONAL SAFETY AND HEALTH PREVENTION SERVICES / EXPERTS IN EUROPE

Introduction

This Discussion Paper seeks to contribute to current discourse on the role of prevention services in supporting substantive compliance with occupational safety and health (OSH) standards. It combines a review of sources of qualitative and quantitative data on prevention services in the EU and elsewhere, drawn from the recently published 'Improving compliance with occupational safety and health regulations: an overarching review' (EU-OSHA, 2021a; 2021b; 2021c), with findings from a secondary analysis of data on the use of prevention services gathered by the Third European Survey on New and Emerging Risks (ESENER 3) (Walters and Wadsworth, 2022) and a search of additional literature published in the 24 months since the original review was undertaken. It discusses:

- the role played by preventive services in the context of a changing world of work and the effects of its reorganisation and restructuring;
- implications of their marketisation for provision and access (including the influence of market demands, structures and professional capacities);
- changes in the nature of OSH professions, their orientations and practice, and how these might impact on the provision, quality and delivery of support for securing substantive compliance with OSH requirements in the EU.

In doing so, it seeks to contribute to the discourse on the role of professional practice in support of securing substantive compliance with standards of good practice on OSH in EU workplaces in the 21st century.

The paper combines a review of historical perspectives and reference to empirical findings on the presence and functions of professional practice in support of OSH, with a discussion of what the literature suggests helps to determine this presence and influences its role in support of OSH. This in turn leads to the identification of a number of gaps in current provision, along with exploration of ways in which professional practice on OSH has responded to the contexts in which it is situated. A discussion of the consequences of this forms a further focus for the paper and leads to the identification of some key challenges for future policy and research that the paper concludes need to be addressed if professional support for OSH is to fulfil the expectations that are held of it.

The paper takes as its point of departure a brief resumé of the key messages that emerged from the secondary analysis of data arising from the questions concerning the use of prevention services in ESENER 3 (Walters and Wadsworth, 2022). This provides a basis for the discussion that follows, which situates the role of prevention services within the wider contexts of the governance and regulation of work and health in the economies of 21st century Europe. It focuses in particular on the determinants of the development of professional presence and practice in OSH in recent decades, its character, coverage and effectiveness, and how and with what effect the literature suggests it and the organisations delivering it have been able to support preventive practice during this period. As recommended in the previous EU-OSHA review (EU-OSHA, 2021b), the discussion pays particular attention to studies of growth and change among the OSH professions, integrating this perspective with consideration of the influence of marketisation, the reform of regulation and governance of OSH since the 1970s, and the influence of the parallel growth during this period of managerialism generally, and in OSH particularly. It draws attention to the relationship between these factors and its consequences for the role of professional practice in OSH in support of substantive compliance. That is, the discussion aims to take a broad view of the influence and consequences of economic, political and regulatory contexts that collectively determine both the provision and use of prevention services by work organisations, in order to contribute to the policy discourse concerning how to better support 'what works' and to identify and help address gaps in the reach and effectiveness of current practice in support of preventive strategies in OSH in EU Member States.

The implications of this discussion are outlined in the penultimate section of the paper that explores issues for research and policy on the nature and role of professional practice in the provision and use of prevention services in the EU in the future.

Some background

The overarching review of support for securing compliance drew several conclusions (EU-OSHA, 2021a):

- Although there are ambiguities in the evidence, there is broad agreement among the national and European surveys on the use of prevention services that the coverage of such services is far from complete and large sections of the labour force do not have access to competent professional support for their safety and health.
- The current presence and practice of prevention services in the EU and in other advanced market economies is subject to a host of challenges resulting from changing national contexts, including changes in the structure and organisation of work and labour markets, as well as political changes and those in economic and public policies that determine what constitutes the support they provide and how it is resourced.
- There is little in the current structural and organisational contexts of these services to encourage notions of their centrality in the economies of EU Member States.
- Nowadays, external prevention services are increasingly required to take responsibility for their economic survival in a competitive market for their business. Understanding the current relationship between prevention services, securing compliance and achieving better OSH practice requires some acknowledgement of this.
- Evidence in the literature indicates that while marketisation has presented significant challenges for the survival of many OSH prevention services, there are some services in all EU Member States that have succeeded in finding the means to secure their sustainability and to deliver advice and guidance on good practices to support securing compliance and better practice despite the changes in the means of their resourcing.

The same report also noted changes in the nature of work-related risk as a consequence of changes in the structure and organisation of work and labour markets identified in the literature over several decades. It argued that in increasingly de-structured and market-orientated economies, evidence points to work being organised and controlled in ways that may limit the effectiveness of the more traditional direct forms of OSH professional intervention in reaching, delivering and supporting best practice in OSH, including those of prevention services provided by employers within their organisations or those that are contracted-in. It argued therefore that changes were needed in approaches to preventing harm arising from this and in the nature of knowledge and professional expertise to support managing such protection. However, the review found little evidence of serious study of these consequences for the balance of professionalism generally in OSH, for the nature of the support it may bring to improving compliance and better practice, or indeed for the results of such support. It concluded that the future effectiveness of prevention services may require them to develop in new directions and that ways need to be found to enable these services to deliver effective support for compliance and better practice that are both sustainable and transferable in the 'disaggregated, fractured, fissured and remote forms of work organisation' increasingly characteristic of both production and services, along with the means of ensuring their relevance and use by persons responsible for the business undertakings.[1]

More recently, EU-OSHA commissioned the authors of this Discussion Paper to conduct a further investigation of evidence of the role of prevention services in OSH in EU Member States, with a secondary analysis of ESENER 3 data on the experience of using prevention services. In as far as the data allowed, the findings of this secondary analysis corroborated those of the previous review. Unfortunately, the data collection for ESENER 3 did not address a number of matters on which the review of support for securing compliance had focused. They include, for example, the position of OSH prevention services within national infrastructures, regulatory and policy frameworks on support for health at work, and their role in relation to the fragmented work and fractured employment relationships increasingly characteristic of the structure, organisation and control of work in modern economies. ESENER 3 also did not seek data that might add meaningfully to the discourse concerning the marketisation of prevention services that has taken place in recent years, or what supports their sustainability in different EU Member States. Nevertheless, this Discussion Paper takes as its point of departure the findings of the first deliverable of the present project (see Walters and Wadsworth, 2022).

[1] Subsequent to the publication of the report of the review, its authors published further analysis of the role of prevention services in the EU, focusing on evidence in the literature indicating the features of the development of prevention services and the national policies that framed it. It discussed the extent to which this evidence suggested these developments have dealt effectively with the emergent challenges outlined above and what has determined them, developing but confirming the conclusions reached in the original review (Walters et al, 2022).

A point of departure: The ESENER 3 findings on its respondents' experience of prevention services

The secondary analysis of ESENER 3 data on the experience of support from OSH prevention services in establishments in EU Member States indicated something of the experience of different forms of specialist support provided through both internal and external services, and how helpful respondents found this experience (Walters and Wadsworth, 2022). It also provided some information on the involvement of such services in supporting the processes of workplace risk assessment and further suggested something of the needs of respondents for such support and their perception of gaps in their provision — such as in the case of help with risk assessment or in addressing psychosocial risks more effectively.

The ESENER 3 questions allowed respondents the opportunity to distinguish between their use of 'occupational health doctors', 'psychologists', 'generalists on health and safety', 'experts for accident prevention' and 'experts dealing with ergonomic design'. While it is quite likely that respondents would identify some of these competencies clearly and such an identity would be the same across Member States (such as is probable in the case of the use of an occupational health doctor, for example), it is far less clear how they would have distinguished between others — for example, between a 'generalist on health and safety' and a 'specialist in accident prevention' or whether the same distinctions would be constant for respondents in establishments of different sizes or sectors and situated in different Member States — or indeed whether some of the services used actually possessed such competencies. This is not helpful for a discussion of change in the nature of professional support for OSH. Nevertheless, the analysis identified a strong presence of general OSH practitioners among the various forms of professional service offered by both internal and external services. It suggested experience of their use to be significant in EU Member States, but there is no information either in ESENER 3 or through its comparison with ESENER 2 that is helpful in exploring this much further and a different approach to gathering information on the nature and spread of change in professional approaches to supporting OSH may be required if light is to be thrown on these distinctions by future surveys.

Since the analysis of ESENER 3 indicates that the experience of prevention services is related to establishment size, with greater usage evident in larger organisations, it might be inferred that these services are failing to reach the 'disaggregated, fractured, fissured and remote forms of work organisation' characteristic of the current economic structure, identified as challenges in the report of the overarching review on securing compliance, and referred to previously in this paper (see EU-OSHA, 2021b; 2021c). But here again, ESENER 3 did not seek data to address this directly and, as is further noted in the report on the secondary analysis, by virtue of their hard to reach nature, it might be anticipated that had it done so, persons engaged in these forms of work would be anyway under-represented among the survey respondents (Walters and Wadsworth, 2022).

The results of the secondary analysis also show a much higher level of experience of support for OSH from specialists, most of which would appear to involve external services, than might be anticipated from previous studies (for a review of these studies, see EU-OSHA, 2021a; Walters et al, 2022). It seems most likely that this reflects the nature of the survey and its participants (who are generally thought to account for the comparatively strong presence of other elements of OSH arrangements reported by ESENER), rather than a significant increase in uptake of services since previous surveys. Indeed, spokespersons for EU-OSHA have previously commented that for these reasons, the ESENER 3 data are not intended to be used as a comparative measure of regulatory compliance and advised that it is inappropriate to do so. Nevertheless, despite such possible overestimation, the secondary analysis showed similar variations in use between size and sector as reported in other surveys — for example, experience of the use of services increases with establishment size and is more frequent in the public sector than in private services, with that in manufacturing falling somewhere in between. There is also variation in the experience of OSH services between Member States, which may to some extent reflect differences in the nature of the economies involved as well as in the predominant historical and regulatory models of service provision in different Member States. Sector differences are further suggested by greater use of support from the services of psychologists found in public services like health and education, which may reflect a greater awareness of the frequency and challenges of managing psychosocial risks in these sectors. However, the findings do not distinguish clear patterns in these respects and the data are not thought likely to support further detailed analysis. The survey suggests that most respondents who have experience with using support for OSH have been happy with the support they received. Particular issues focused on in the ESENER 3 interviews concerned the role of support in procedures for risk assessment and, here, analysis indicates both internal and external forms of specialist OSH support being used in this way by a large proportion of the firms responding to the survey. There is a suggestion in the findings that Nordic establishments and

those in Ireland and the United Kingdom may have internalised these processes more than firms in other countries. This would support previous analyses of earlier ESENER data, which indicated that countries with longer experience of the kinds of principle and process-based regulation such as found in the Council Directive 89/391/EEC[2], or the 'Framework Directive', may have adopted these approaches to OSH management more widely than others where change to this regulatory approach is somewhat more recent. But the evidence here is tenuous and again the data probably do not support further analysis.

On needs for support from OSH services identified by the analysis of the ESENER 3 data, almost a third of the respondents who do not undertake regular risk assessments report a reason for not doing so being that they lack 'the necessary expertise'. While some 13% of respondents indicated that lack of expertise and specialist support for OSH were among the difficulties they encountered in addressing OSH in their establishments, nearly half of respondents reported that lack of expertise or specialist support was the main obstacle in dealing with psychosocial risks. Data collected in the survey do not enable analysis of the reasons for the lack of use of such support.

Understanding ESENER 3 respondents' experience of OSH services and experts, in the wider context of work and health in 21st century Europe

Historical accounts indicate the use of various forms of professional support for OSH, mainly by larger organisations, dating from industrialisation in advanced economies. Largely voluntary, but sometimes assisted by regulatory requirements associated with so-called dangerous trades or the eradication of child labour, such provision was further augmented by the employment of medical and other specialists to support regulatory inspection (see EU-OSHA, 2021a). In Europe, building on these early foundations, reform strategies introduced during the rebuilding of national economies and societies following the devastation of the Second World War often included some provision for occupational health services, as one element of wider efforts to provide more universal access to healthcare. In some cases, this included state funding for these services either as part of reformed health services more generally, such as in Finland, or funded from work environment taxes on production, such as in Sweden, or as part of regional public health services, as in Italy. In other countries like Germany, in which social insurance organisations played a significant role in prevention, services were extended with their support. There was also support from regulatory obligations placed on employers, such as in Germany and France, to avail themselves of the paid services of medical and safety engineering personnel, either by employing them directly or using external services.

Qualifications required of such personnel were also to an extent defined by regulation in these countries. But approaches varied considerably between countries and even between sectors within countries. They were driven in part by already established practice, and in part by a mixture of political expediency, economic structure, the demands of organised labour and those of employers, as well as by the institutional interests and influence of key professional bodies and so on, leading to the establishment of several different models of prevention services under the influence of welfare capitalism in western Europe and different approaches again in the controlled economies of Eastern Bloc countries (for a more detailed account, see EU-OSHA, 2021a).

What constituted such services varied considerably. Traditional models tended to include medical and nursing staff, occupational hygienists and safety engineers. They sometimes also included occupational psychologists, ergonomists, and other relevant specialisms depending on sector and perceptions of the nature of the risks likely to be encountered. When they were developed within organisations, sometimes these functions occurred separately in different parts of the same organisation and sometimes they were part of one unit or department. Largely under the influence of Scandinavian experience, the received wisdom concerning their benefits generally supported the idea of an 'integrated' service with the capacity to address a wide range of risk profiles. In practice, the extent of the integration possible was often determined by the constraints of resourcing and the institutional power of professional interests, as well as by the path dependencies inherent in established practice. Nevertheless, by the end of the 20th century, best practice in relation to the organisation of prevention services was agreed

[2] European Commission, 1989. Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work. *Official Journal of the European Communities*, No L 183/1. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31989L0391&qid=1649357566099

to embody three fundamental features (EU-OSHA, 2021a; 2021b; Walters et al, 2022; Westerholm and Walters, 2007):

- first, a recognition that a combination of competencies is required to address the multi-factorial nature of many current health and safety problems and support a multidisciplinary (and holistic) approach towards their resolution;
- second, that, ideally, such a holistic approach to support for health at work embraces provision of a mix of preventive and ameliorative rehabilitation and return to work services along with the wider promotion of healthy behaviour; and
- third, that the provision of OSH support should be the subject of workforce consultation and agreement, with the subsequent operation of prevention services being jointly controlled to ensure these take place in an independent way and are not dominated by employer views and interests.

The latter point is also further endorsed more generally with the identification of the role of tripartism as one of the cornerstones of the success of the EU approach to the regulation and governance of OSH in the most recent EU Strategic Framework on Health and Safety at Work 2021-2027 (European Commission, 2021). And of course, it is the basis of the International Labour Organisation's (ILO) approach in the Occupational Health Services Convention, 1985 (No. 161) and the Occupational Health Services Recommendation, 1985 (No. 171) as well as more generally in ILO Convention 155.

Despite the considerable variation in form and extent of the delivery of prevention services, the second half of the 20th century was something of a watershed for their development as well as that of the regulatory infrastructures that helped define them. While, generally, the services provided to business undertakings during this time were based on some form of private arrangement, they benefited from varying degrees of state support. They were mostly restricted to serving the needs of large private or nationalised industrial and manufacturing organisations, in which work was acknowledged to be 'hazardous', along with those of business sectors such as transport, health and food, where a responsibility for health and safety was also owed to the public. There were of course exceptions and, as the literature indicates, there were models of provision that sought to address the needs of workers in situations that fell outside this pattern (such as regional or sector-based provision serving groups of smaller businesses, for example), but as continues to be the case, generally such approaches were not the norm and were seldom sustained over long periods.[3]

However, by the last quarter of the 20th century the economies and the economic policies of EU Member States had started to change. Changes in the structure and organisation of work and in the economies in which it occurred saw a substantial shift away from mixed patterns of private and public ownership and substantial employment in large organisations and industrial concerns towards service-based economies with fewer large manufacturing/production units and a changed profile of work and employment practices. These changes were further hastened by rapid development of information technologies and globalised business practices. They led to changed OSH risk profiles and challenges for traditional models of prevention service delivery. Alongside this, the increasing dominance of free market orientations in the political and economic policies of advanced market economies, withdrawal of the state from resourcing support for securing compliance, movement away from the conventional employment relationship as the basis of the legal regulation of labour standards, and concomitant rise of business models in which outsourcing of OSH risks through contracting, sub-contracting and supply chain management all became increasingly evident. In this scenario and in line with neo-liberal political and economic orthodoxies of governance, greater marketisation of services was regarded as a necessary replacement for the withdrawal of public funding and state control. All of these factors contributed to the creation of a vastly different environment for the deployment of professional expertise in support of better OSH experiences for workers and better delivery of OSH responsibilities by those in control of the business undertakings for which they work.

The review of the literature on the role of prevention services in securing substantive compliance (EU-OSHA, 2021a) found little evidence to support the idea that such services have responded successfully to these dictums and challenges, or that there has been widespread development of such models of service delivery that succeed in supporting the OSH needs of workers and the responsibilities of their employers in these new scenarios. Indeed, withdrawal of public funding for preventing harm arising from work, along with the consequent marketisation of OSH services, is viewed in much of the literature as having served to undermine the spread of integrated prevention service provision in European countries. This is especially reported in countries where services once served as models for this

[3] See, for example: Hasle and Limborg, 2006; Macdonald and Sanati, 2010; Walters, 2007.

integration. Among the Nordic countries and in the Netherlands, for example, evidence of the decline in the cover of prevention services is attributed to negative effects of their marketisation (Kabel et al, 2007; Plomp, 2008). Bias of services towards larger organisations, and minimal provision for small firms, is also reported as a product of marketisation in European countries (ETUI, 2014). Observers point to evidence that marketisation obliges services to tailor their provision according to their business survival needs rather than those of good prevention practice (Froneberg, 2005). And evidence from some countries also indicates that the effects of these influences mean that such services are increasingly used for absence management or as opportunities to use the workplace as a location for promoting healthy behaviours more widely, rather than in support of preventive work health and safety (ETUI, 2014; Weel and Plomp, 2007). There are some exceptions to this pattern, influenced by several factors of national context. For example, in Germany, prevention services appear to have been more resilient to the effects of marketisation, but this may be because they are afforded some protection from the negative effects experienced elsewhere, by the resilience of the comparatively well-resourced sector-based social and employment insurance system within which many of them function and which is a principal feature of the administration of occupational safety in Germany (DGUV, 2016).

Alongside these challenges for the growth and sustainability of such models of prevention services has been the emergence and marked growth of the generalist OSH practitioner in many countries. Reasons for this are not difficult to find. At the same time, or in some cases shortly in advance of the developments described in the preceding paragraphs, a significant change was taking place in regulatory frameworks for OSH in advanced economies in Europe and elsewhere. Arguably originating with reforms in Scandinavian countries in the late 1960s, but much influenced by the recommendations of the United Kingdom's Committee of Inquiry on Safety and Health at Work (the Robens Committee) in the early 1970s, these reforms were characterised by a move from prescriptive to principle and process-based regulation in which emphasis was placed on the management of potential sources of workplace harm.

The development of this approach in the remaining decades of the 20th century was further influenced by an increased focus on 'risk' in the policies of national governance. At EU level during the 1980s, for example, directives increasingly embraced risk assessment and management principles, such as those seen in the Seveso Directive 82/501/EEC in relation to controlling major hazards. Thus, when it was adopted in 1989, the Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work (as well as the series of daughter directives made under it) reflected these developments and their strong focus on workplace risk management in OSH standards setting since the 1970s.

Indeed, by the end of the 1980s three kinds of standards that complement traditional specification standards had emerged in Europe (and internationally). First, there were principle-based requirements that set broad goals or general duties but did not specify the means of achieving compliance with them (Baldwin and Cave, 1999: 181–182; Johnstone et al, 2012: 179–180). The overarching duties of employers and others found in measures like the Framework Directive are typical examples, and they require the employer (or duty holder) to ensure safe and healthy working conditions by determining whether the measures they implement meet the broad standard set in the general duty or goal. The autonomy, flexibility and adaptability of principle-based requirements thus enable duty holders to pursue what they consider to be best practice, although such principles are often vague, ambiguous and give considerable discretion to those interpreting them (Freiberg, 2010: 94). Then, there were process or process-based standards that emerged alongside them and which set out ways to manage matters specified in them (Johnstone et al, 2012: 182). Examples might include requirements to identify hazards, assess and control risks (the risk management process), or to consult workers and their representatives. These standards also allow a degree of flexibility about both the work health and safety outcomes they will achieve and the measures needed to achieve them (Johnstone et al, 2012: 182). Finally, there were performance or performance-based standards that define the outcome required, while leaving it open to duty holders to determine the measures used to achieve that outcome (Coglianese et al, 2002: 3; Johnstone et al, 2012: 180–181). Typical of such standards are provisions for which there is a measurable outcome, as with exposure standards for chemical substances or noise, for example.

This growth of focus on management in regulatory requirements embodied an acceptance that better management of work risks was best pursued through the adoption of standards that allowed duty holders (usually employers) to retain some degree of discretion in terms of determining *how* they organise work health and safety management to achieve desired goals and outcomes. Such principle and process-based approaches also allow the achievement of a second aim of regulatory reforms that

was established during this period, which was to extend the protection of regulation on OSH to greater numbers of workers in workplaces and sectors that had previously been beyond the remit of more prescriptive standards.

Implicit in the aims of both approaches is a notion that duty holders will be sufficiently competent to be able to deliver their responsibilities to manage OSH in accordance with principle rather than prescription. This notion might be justifiably questioned in the case of the large number of such duty holders with little or no need for, or experience of, the delivery of regulatory responsibilities for OSH under previous regimes and those with little time, resources or prior knowledge to do so. This was to some extent acknowledged by Article 7 of the Framework Directive[4], which as Box 1 illustrates requires duty holders to use 'competent persons' in support of their efforts to meet the directive's requirements.

Box 1: EU Requirements on Prevention Services for OSH

Article 7 of the Council Directive 89/391/EEC requires employers to 'designate one or more workers to carry out activities related to the protection and prevention of occupational risks for the undertaking and/or establishment' (7.1). If such measures cannot be organised for lack of competent personnel in the undertaking/establishment, Article 7.3 states that 'the employer shall enlist competent external services or persons.' For all cases:

- 'the workers designated must have the necessary capabilities and the necessary means';
- 'the external services or persons consulted must have the necessary aptitudes and the necessary personal and professional means'; and
- 'the workers designated and the external services or persons consulted must be sufficient in number' to organise 'protective and preventive measures', considering: the size of the enterprise, 'the hazards to which the workers are exposed and their distribution throughout' the entire enterprise.

In combination, the extension of OSH duties to many organisations previously excluded from such requirements, along with such specifications in EU directives and their transposition into national regulation, may have helped to influence the growing prominence of generalist safety and health practitioners among OSH professionals. This has been one of the most significant but least discussed changes that has occurred in the nature and delivery of professional support for OSH during the past 50 years. To appreciate its significance requires at least some acknowledgement of the multiplicity of antecedent influences on current OSH professionalism.

A focus of the older literature on occupational health services concerned the role of occupational medicine and of professions allied to it, such as those of occupational hygiene, toxicology and epidemiology, and while it sometimes also embraced safety technology, engineering and process safety, usually these latter disciplines were the subject of a separate discourse. But all were associated with hazardous industries in which toxic exposures were acknowledged to lead to various forms of work-related ill health among which were the classic 'industrial diseases' and major incidents of the 19th and 20th centuries.

While these risks have not disappeared following the restructuring and refocusing of advanced economies, they are now widely agreed to have been largely overtaken in significance as ubiquitous sources of work-related harm, by forms of ill health and risks associated with service-based economies and by heightened awareness of challenges for risk management presented by an increasingly fragmented organisation, structure and control of modern work and employment. The highly specialised skills of medicine, hygiene and process safety engineering, and the professional institutions controlling them, while not entirely irrelevant to work organisations in these contexts in the 21st century, are no longer so ubiquitously useful in supporting compliance with the regulatory responsibilities for OSH held by both public and private sector employing organisations in these scenarios. Rather, it is the provision

[4] European Commission, 1989. Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work. *Official Journal of the European Communities*, No L 183/1. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31989L0391&qid=1649357566099

of competent advice to duty holders on achieving substantive compliance with required standards of risk *management* that is nowadays frequently the focus of professional literature on OSH.

This also needs to be viewed in the context of the remarkable growth of managerialism over the same period. Managerialist approaches to the interpretation of principle and process-based regulation on work health and safety have as a consequence become a significant feature of their operation. They are symptomatic of much broader developments in the economy and in public administration more widely. Along with the influence of other elements of neo-liberalism, managerialism is widely acknowledged to be associated with its global, political and economic project. Its origins and spread through private and public sector alike are well documented (see for example, Chauviere and Mick, 2011; Klikauer, 2013; Locke and Spender, 2011). So too is its pervasive ideological influence, ranging from its embedding in the curricula of university business schools to its role among the influential social norms of present-day society (Klikauer, 2015; Rees and Rodley, 1995). Unsurprisingly, OSH has not been immune to this influence and, in particular, the growth in the presence of the generalist OSH professional has been both facilitated and shaped by such managerialist perspectives.

The systematic management of OSH risks has been both a regulatory and professional mantra in OSH for several decades. On the one hand, this has contributed to a universal prescription for the competent delivery of the responsibilities of OSH duty holders through the use of formulaic approaches to the operation of 'safety management systems', while on the other it has helped define the role of an emergent 'safety and health profession' in their operation. These are not the doctors, nurses, occupational hygienists, safety engineers and so on in the tradition of integrated preventive services. Rather, they are a cadre of 'occupational safety professionals' that hardly existed 50 years ago, and who nowadays are widely and numerously employed by large and medium-sized organisations in both advisory and management capacities in the public and private sectors. With the stimulus of regulatory requirements placed on duty holders to manage OSH risks competently, this development has been largely market driven and has reflected the combined effects of change in the composition of the economy, the significant extension of statutory employer duties to organisations formerly outside the remit of regulatory provisions for work health and safety, withdrawal of state support for OSH services, and a perception of a need to address demands on the OSH competency of the persons responsible for these undertakings, brought about by the switch from prescriptive to principle and process-based standards, along with the more general rise of managerialism, including in the public and voluntary sectors, where the leadership of large public service organisations has also been fearful of opprobrium and, in some cases, litigation following failure to protect workers and the public.

The consequences of the combined effects of these changes exhibit both potential strengths and significant weaknesses in relation to the nature and quality of support offered for OSH. On the one hand, the emergence of the professional OSH practitioner over the past 50 years suggests a possibility of a fund of expertise that is both relevant and adaptable in the face of change in the experience of work-related risks and the contexts in which they occur (Hale and Ytrehus, 2004; Pryor, 2019). However, on the other hand, set against this are some important limitations surrounding their capacity to support the delivery of improvements in work health and safety.

Current evidence suggests, for example, that many individual health and safety practitioners are either employed in large organisations or by consultancy firms, while others are independent consultants. In all cases, by the nature of their contractual position, they service needs perceived by the organisation that employs or uses them. In line with the rise of managerialism in health and safety discussed previously, many are employed as 'safety managers' with responsibility for organising whatever their employers deem to be adequate arrangements for workers' OSH. Those who are working on behalf of the health and safety departments of large private organisations are therefore often involved with administering and monitoring the behaviour-based safety management systems favoured by corporate management, from within the ethos of the organisational culture of which they are a salaried part. Those employed in public sector organisations are often tasked with administering or contributing to complex bureaucratic systems designed to protect their employers from perceived risks of litigation arising from a failure to deliver legal responsibilities. The narrow focus and managerialist orientations of the systems supported by such generalist practitioners are further criticised in the literature and frequently fail to address many of the known effects of work on health or the concerns that workers have about them. In a similar vein, the orientation of those practitioners working for health and safety consultancy firms or operating independently as such is often strongly influenced by the business model and market position of these organisations. As already noted, this invariably requires them to address the perceived needs of their clients, often competing on the basis of price, and risks ignoring or avoiding issues that are not seen as yielding a profit. And the inadequate transposition of Article 7 of the Framework Directive into

the national regulation of OSH in some EU Member States does not prevent unqualified 'consultants' from offering services that are priced lower than those of the qualified competition.

A further important caveat concerning the operation of such practitioners is that there is little requirement placed upon them to be aware of workers' voices on health and safety matters and, in practice in many EU Member States (as elsewhere), evidence suggests that workers have little say in who their bosses choose to use to provide health and safety support. Yet, research evidence as well as the rhetoric of governance of OSH in the EU indicate workforce consultation, agreement and control to be important constituents of effective OSH management. It is also vital as a counter to employers, managers and their advisers shaping preventive agendas in line with their own views on what can be regarded as 'safety and health' — thereby removing many risks from the 'legitimate concerns' of workers and their representatives. In such scenarios, where workers do not have such a voice or where it has been marginalised by unitary approaches to managing OSH, the potential benefits of generalist practitioners are likely to be reversed if their independence and breadth of vision has been captured and narrowed, solely to serve the interests of their paymasters. Notions of 'professional independence' that have informed debates about occupational health services and that discuss these issues are not infrequent in the literature on occupational medicine (see for example, Bohme and Egilman, 2008; Draper, 2008; Draper et al, 2011; Guidotti, 2008). They are also acknowledged in the literature focused on generalist practitioners, but here such discussion is quite limited and bound up with the immediate concerns of professional interest and less with wider ethical issues (see for example, Holden and Vassie, 2010; Hudson and Ramsey, 2019; Olsen, 2012; Provan et al, 2019).

At the very least, all of this suggests that while the idea of a generalist practitioner is not necessarily a bad thing, 'leaving it to the market' may risk leaving workers without meaningful support for their OSH needs, since the market determination of the contribution made by such practitioners limits their coverage, narrows their focus, and may lead to practitioners prioritising employer and managerial perspectives over those of workers. All of this may risk many of the acknowledged links between the organisation of work and employment and poor health outcomes being ignored.

Possible ways forward for research and policy on the provision and use of prevention services in the EU

This Discussion Paper suggests that several key issues need to be addressed if more widespread access to competent and specialist support for effective and participative approaches to managing work health and safety are to be achieved. In short, it has argued that the evidence from the literature as well as that from surveys of practice suggest that leaving the uptake of competent support to be determined by the market has resulted in limited access, skewed towards larger organisations. It further argues that the evidence indicates that arrangements to determine and deliver appropriately qualified competent specialist support are weak and frequently ineffective. Even under the obligations of the Framework Directive, many current and former EU Member States have done little more than implement a 'light touch' reform to ensure paper compliance with these obligations, while continuing to promote voluntary and market-based approaches towards the provision of professional support for OSH. This has contributed to the present-day situation, where most survey evidence indicates that for the majority of European workers, the management of their health and safety does not appear to benefit from such support. This is especially so for those in smaller workplaces and in the various non-standard forms of work organisation and employment that are increasing in significance across many sectors of national economies in the EU.

The paper has noted the way in which the form of competent support for OSH has changed significantly during the last 50 years and has described a combination of regulatory, economic and political influences that have led to the growing prominence of generalist practitioners as major players in the delivery of OSH expertise required to meet regulatory standards in the EU. It argues that such practitioners have potential to contribute effectively to the improvement of support for OSH in modern work scenarios and to fill some of the vacuum created by the marketisation of older forms of occupational health service. However, it finds only limited evidence of the realisation of such potential in the literature and in survey results, along with some strong suggestions that in many situations, in practice, the capture of the professional independence of such practitioners by the corporate interests of those employing them may militate against the delivery of truly independent support that prioritises the health interests of workers.

It has argued, for example, that the frequent employment of 'generalist OSH practitioners' in the delivery of unilateral versions of safety management in larger organisations has meant that even in workplaces in which competent advice is available, it may often be embedded in the operation of safety management systems driven by corporate influence and focused on a small fraction of the issues the scientific and research literature deems to fall within the meaning of 'work health and safety'. Critics argue that many such systems seek to address only matters that lend themselves to technical, procedural, rule-based and behavioural remedies, and in so doing, frequently ignore the structural factors and financial interests behind corporate and management risk-taking.[5]

The limitations of Article 7 of the Framework Directive and those of current national legislative measures and professional institutional standards show them to be insufficient to address the situation thus described. This suggests that further legislative reform may be needed to ensure the more widespread and effective provision of competent, specialist support, with independent professional integrity, for work health and safety. This could, among other things:

- impose requirements on the controllers of business organisations to use competent specialist support in ways that appropriately integrate prevention, rehabilitation and return to work activities;
- define the qualifications required by competent specialist support and create systems to ensure its effective application and use, including sanctions against its providers and their organisations if they do not act in the best interest, not of the fee-paying client, but of their workers, who may be injured or made ill as a consequence of their professional negligence by specialist support (i.e. sanctions that are analogous to those of regulated professions such as medicine, engineering and law);
- place a clear obligation on duty holders to consult with workers and their representatives on the appointment and functions of such competent specialist support staff or services;
- ensure that the competencies of specialists include those that are appropriate to the needs of employers and workers across the full range of organisations and business relations in which work is conducted and not just those found in large stable organisations; and
- include innovative ways in which the duties of controllers of business undertakings could be extended, for example, to those at the head of supply chains in relation to those working in supplier organisations who do not have a direct contract of employment with the organisation at the head of the supply chain — as already occurs, for example, on some large construction projects with multiple tiers of contractors.

Such reform would also need to be accompanied by suitable support from regulatory agencies in securing compliance from duty holders and be supported by adequate arrangements for worker consultation and representation as well as needing to embody provisions to ensure the independence and adequate resourcing of the services concerned. This would require substantial reorientation of current regulatory policy. At present, it may be justifiably argued that a strong enough case has yet to be made for such reorientation. The argument of this paper therefore limits itself to observing the need for a more prominent research and policy discourse on the presence and form taken by OSH services and professional expertise in support for securing compliance with OSH standards in European workplaces. This argument also acknowledges the limitations of current practice and explores practicable ways to remedy them. Such discourse needs to include and address:

- greater definition of what constitutes 'professional practice' in OSH in current economic and work scenarios and how it can be supported to ensure its effectiveness;
- better and more inclusive evidence of the extent of its presence and the perceptions of employers, managers *and workers* of its contribution to improved OSH practice as well as what limits this contribution;
- good quality, theoretically informed studies of the professional practice of generalist practitioners and their institutions, situated in relation to the wider critical literature on professions and their practices, in order to offer better understandings of their operation and how they achieve effective results, across the range of work scenarios of modern EU economies, as well as what supports and limits their effectiveness and helps them to maintain an independent professional identity;

[5] See, for example: Frick, 2011; Hall, 2021; Hopkins, 2005; James and Walters, 2022.

- better and more extensive research on possible qualification frameworks for practitioners that are appropriate to them achieving and maintaining this effectiveness and professional independence, along with research to provide better understandings of the education and training required to support such effectiveness; and
- an informed policy discourse addressing the resource implications of findings emerging from the above contributions to ways of improving effective professional practice, as well as the ways in which such resourcing may be achieved both economically and effectively in EU Member State economies.

The reasons why such a focus in contemporary discourse on OSH is necessary emerges from several features of the current literature. It is clear, for example, that historically there has not been just one kind of professional discipline with a role to play in support of improved preventive practice in OSH, but many. This is hardly surprising, given the nature of the subject and the multiplicity of factors involved, both in regard to the diversity of work-related risks and the disciplines that are relevant to determining a positive relationship between work and health. Such multidisciplinary engagement may be a valuable benefit for supporting improved prevention practice. However, a *motif* of much of the long-standing European discussion of ways of developing occupational health services has concerned the need for greater integration and application of this acknowledged multidisciplinarity, in support of the prevention of harm arising from work.[6] Models of OSH service provision, such as the integrated services typical of Scandinavian developments discussed previously, illustrate how in certain contexts this can and has been achieved effectively. The more recent emergence of the generalist OSH practitioner is a rather different example of multidisciplinarity, in which in response to regulatory and market demands, elements of the knowledge and skills of a range of otherwise separate disciplines have been combined and reconstituted in the rapid growth of a new professional discipline. Its advocates argue this new discipline to be additional to those already in existence and not intended to replace them (see for example, Hale, 2019; Pryor et al, 2019; Pryor and Sawyer, 2010, among others), and they suggest it should operate with reference to them. Indeed, capability frameworks for the new profession, such as that produced by the International Network of Safety & Health Professional Organisations (INSHPO), are at pains to point out that the OSH professional/practitioner is not a substitute for more specialist professions. INSHPO suggests that OSH professionals/practitioners:

> *liaise with and enlist the assistance of OHS specialists with deeper knowledge bases that may not be core to the OHS Professional or Practitioner but are important in the overall risk picture*. (2017: 13)

But whether or how this operates in practice has not been the subject of detailed independent analysis. Such developments raise a number of further challenges and questions for research and policy. Firstly, as we discuss further below, the current lack of more precise definition of what constitutes 'prevention services' or 'OSH experts' presents issues for gathering data on their uptake and use. Secondly, from the perspectives of policy and practice, there is a need for greater clarity and standardisation of what constitutes competency in the emerging profession of 'generalist practitioner'. We acknowledge that work on this has been underway in several countries and internationally for several years (see for example, Hale et al, 2015; Pryor, 2016; 2019; Steenkamp, 2012; Vassie and Whyte, 2014). It has included efforts to survey international practice on the development and agreement of professional standards, on levels of professional competence and on certification processes (Hale, 2019; INSHPO, 2017). National professional institutions, like the United Kingdom's Institution of Occupational Safety and Health, the Safety Institute of Australia, the American Society of Safety Professionals — formerly the American Society of Safety Engineers — and the Canadian Society of Safety Engineering, among others, have been prominent in both contributing to and promoting these developments. So too have their international associations, like the already mentioned INSHPO, the European Network of Safety and Health Professional Organisations, and the Asia Pacific Occupational Safety & Health Organisation. However, knowledge of the operational profile of the generalist practitioner and features of their influence and integration with those of previously established 'prevention services' across the Member States of the EU more widely remain subjects for further review.

Recent literature describing this work, along with that on the development of generalist practitioners in a number of different countries,[7] provides some insights into many of the issues identified as critical to

[6] See, for example, arguments summarised in Walters 2007. See also: Madsen et al, 2019; Weel and Plomp, 2007.

[7] See, for example: Bohalteanu (2019) on Romania; Colombo et al (2019) on Italy; Hale and Booth (2019) on the United Kingdom; Hudson and Ramsey (2019) on the United States; Madsen et al (2019) on Denmark; Peace et al (2019) on New Zealand; Provan and Pryor (2019) on Australia; Sánchez-Herrera and Donate (2019) on Spain; Swuste et al (2019) on the Netherlands; Wang et al (2019) on China; and Wright et al (2019) on Canada.

their contribution. Although comparatively limited in its extent, within this literature there is an emergent body of knowledge that provides the beginnings of a more focused analysis concerning the determinants of how these professionals and practitioners operate in their work contexts. For example, Provan et al (2017) provide a review of the literature, identifying factors the authors regard as shaping the role of safety professionals. At the same time, Provan et al acknowledge the 'dearth of empirical research into the practice and role of safety professionals' (2017: 98). In a later empirical study undertaken by some of the same authors, they suggest:

> … *findings demonstrate strength of alignment between the safety professional role and line management, the increasing institutionalization of safety professional work, an absence of safety professional work directed at reducing safety risks to workers, and the lack of a clear connection between safety professional practice and safety science research*. (Provan et al, 2019: 276)

A further review again undertaken by some of the same group of researchers is suggested to throw light on how 'roles of safety professionals are socially constructed', reflection on which it suggests may be useful in order to 'enhance the processes of professional socialization of future safety professionals' (van Wassenhove et al, 2022: 1).

Like the generalist OSH professionals and practitioners themselves, these developments in the literature are all still relatively new and rather preliminary. It remains somewhat unclear how much traction they have within national practice in EU Member States or in the EU overall. It is also the case that a substantial proportion of the emergent literature concerning these issues is authored by the same relatively few researchers/practitioners, many of whom are also closely involved with the development of the professional standards canvassed by the competency frameworks and certification requirements about which they write. This does beg some questions concerning the need for a more objective and theoretically informed 'bigger picture' analysis that explores the place of this emergent professional group, both within frameworks of support for securing substantive compliance with OSH standards and in relation to the extensive critical literature concerning the development and operation of such professions more widely.

Better data on coverage and effectiveness of prevention services and experts is also needed. Despite the long-standing regulatory, policy and research interests in the provision, use and effectiveness of support for competency in securing improved compliance with OSH standards, there remain substantial gaps in empirical knowledge of its presence and role in workplaces in the Member States of the EU (and elsewhere). One of the reasons for this, already alluded to above, is that the absence of a clear definition of what constitutes such support often makes uncertain what kind of prevention services/OSH practitioners are identified by survey data or how comprehensive or consistent such data are — as is illustrated by the findings of the secondary analysis of ESENER 3 data referred to previously. Such caveats also apply in relation to other survey data. There are also important gaps in empirical data concerning possible differences between respondents in their perspectives and experiences of these services/specialists. For example, there is very little information available concerning the experiences of workers or their representatives of prevention services/specialists, when compared with that of employers, managers or professionals themselves. Yet, qualitative studies give some reason to anticipate differences to be evident in these experiences (Walters and Wadsworth, 2019).

A further significant problem with existing data is that they are heavily biased towards larger organisations and collected largely from respondents employed in established and secure positions in these organisations. While the literature on small firms and non-standard employment leads us to anticipate them to be less well serviced by prevention services/specialists for reasons already discussed, there is little empirical evidence on the extent of this, or of innovative practice to address it. There is also not very much in the way of empirical data concerning the experiences of contractors and sub-contractors, or of firms at the ends of supply chains, in relation to prevention services/specialists. Again, there are good reasons evident from the qualitative literature to anticipate their experiences may vary from that of the core management of work organisations.

Returning to professional practice in supporting OSH, the evidence from the literature suggests that theoretically informed studies of professional practice in OSH and on how OSH experts get results, and what determines them, are still rare. There is some history of such studies in the literature relating to occupational medicine, especially in relation to the history, sociology and ethics of the profession, as well as what has influenced its practice.[8] Additionally, in these fields there has been some evaluation of effectiveness of OSH services, although for the most part such evaluation has not involved

[8] See especially the American literature on the role of profession in occupational medicine: Bohme and Egilman, 2008; Draper, 2003; 2008; Guidotti, 2008; LaDou et al, 2007, but also Abrams, 2001; Hulshof et al, 1999; Marcelissen and Weel, 2002; Savinainen and Oksa, 2011; Vogel, 2007.

sociological or ethnographic studies of professional practice. Instead, the evaluations have reflected concerns with quality assurance (for example Hämäläinen and Lehtinen, 2001; Indulski et al, 1998; Pransky et al, 2001), accreditation and certification practices (Lie and Bjørnstad, 2015), or economic performance (Miller, 2015; Uegaki et al, 2010), with others evaluating service performance and research on services more generally (Bråtveit et al, 2001; Hulshof et al, 1999). Overall, however, it is noticeable that the historical and sociological study of the OSH professions is very limited. This is especially evident when it is set against the large volume of research literature in these disciplines addressing other related professions in health, engineering and law, for example, and on the nature and role of professions and professional institutions in work organisations generally (see for example, Muzio et al, 2013).

There are a few examples in the emergent literature, notably the study by Daudigeos (2013) in which OSH managers in the French construction industry are seen as 'staff professionals' and the ways in which they build their legitimacy in order to exert their influence within the organisations that employ them are explored. The study examines the agency of these professionals in institutional processes and tracks how they develop their ability to influence work safety in the subsidiaries of a large construction company, relatively independently of the constraints of their organisational structure. Other accounts in the emergent literature on OSH generalists, to which we have previously referred (see especially, for example, those by Provan et al (2017) and van Wassenhove et al (2022), but also Decker (2014)), touch on the contextual factors that shape the identities of these professionals and their roles in influencing OSH in the organisations that employ them. They identify issues of power, authority and communication, bureaucratisation, financial influence and business priorities as significant in the contexts in which OSH generalist professionals are obliged to operate, but they do not develop a sophisticated sociological analysis of such factors.

Also significant by its absence from this emergent literature is discussion of the possible links between innovative practice on the part of OSH professionals and that in the representation of labour on work safety and health. This is in sharp contrast with the recent literature discussing such innovation in the practice of regulatory inspection — where ideas of strategic enforcement (Weil, 2010) and especially those of co-enforcement (Fine, 2018) explore possible synergies between inspection and the interests of organised labour in some detail and also offer some empirical evidence of the results of such collaboration (Amengual and Fine, 2017). The reasons for this absence would seem especially important to explore further, given the regulatory policy rhetoric still espoused at European Commission level concerning the importance of tripartite engagement on OSH (European Commission, 2021).

It follows from the observations in previous paragraphs that while emergent literature on professional practice for the generalist OSH profession provides a starting point for the development of standards of good practice and includes a number of indicators of likely education and training needs for this group, more robust, independent and wide-reaching research is needed to address these developments. There are a number of issues at stake, as is evident from the recent interest in qualification frameworks for professional practice in OSH espoused by international organisations such as the ILO.[9]

Finally, there are of course resource implications inherent in any discussion of the provision of preventive services and OSH professional expertise, in whatever form. While stronger regulatory provisions governing the use, composition and skills of prevention services for work health and safety may be desirable, unless services and expertise are properly resourced and supported, they will not provide workers with the support that their health and safety requires. As is abundantly evident, a significant driver of the marketisation policies on prevention services that have dominated the European experience for several decades has been the desire of the state to shift the burden of responsibility for resourcing these services away from public service. In such a policy context, successful models for resourcing the delivery of services, which crucially take account of the structure and organisation of the surrounding economy, need to be found if they are to benefit the increasing proportion of workers whose work falls outside that undertaken in large industrial organisations that formerly dominated the economy. Better understandings are required of the ways in which the resilience of services such as those found in Germany, France and elsewhere in Europe has been achieved, and where more coordinated social welfare, rather than market-driven, neo-liberal, approaches have survived. Serious consideration must be given to achieving a better understanding of the preconditions required for such success and for its transferability to other countries.

There are a number of ways in which these supportive preconditions could be better developed. Large organisations might be able to continue to self-fund the support they need to ensure they manage work health and safety competently and effectively as required by law. Many smaller ones are, however, unable to do so already and may be even more unlikely to be able to support the sort of improved

[9] In 2021, for example, the ILO issued a call for tenders for research on qualifications frameworks for OSH, although to date, no findings appear to have been published.

services the literature suggests to be required. In such cases, external support will be needed. The experiences of the German social insurance model suggest there are already examples of how this may be provided in ways that are economically sustainable. They are however dependent on national contexts and it is unclear how transferable they are (for more detailed discussion of these issues, see EU-OSHA, 2021a). While it might be possible to support the establishment of such services within a wider sector-based no-fault compensation system funded by employer contributions and administered jointly with the representation of labour, such as is exemplified by the German model, for such a system to be applied effectively in many countries would require formidable reorientation of their public policies that is unlikely to be countenanced everywhere. Sector-wide services targeting smaller organisations meanwhile could be funded from size-related membership levies of sector-based organisations. Development of regional health and safety services, perhaps as part of the health service more generally, is a further possible strategy. In all cases, however, political will and drive from EU and national-level governments would be required to seriously explore these possibilities, something that unfortunately, to date, governance at these levels has shown little sign of undertaking.

Conclusions

Stepping off from a secondary analysis of data on the use of prevention services gathered by ESENER 3, this Discussion Paper has presented a review of the literature on prevention services and OSH experts in the EU. Its aim was to help fill some of the gaps evident in existing knowledge, provided through surveys such as ESENER 3, on the determinants of the nature and role of professional support for OSH in current work contexts. In particular, it explored:

- the role played by preventive services in a changing world of work;
- implications of their marketisation for access to their provision and their quality; and
- how OSH professions and practice have changed in response to wider political, economic and regulatory contexts and how such change may have impacted on the provision, quality and delivery of support for securing substantive compliance with OSH requirements in the EU.

The paper has presented a resumé of current knowledge on these issues, leading to the identification of some gaps in knowledge, and a further identification of key issues for professional practice in OSH, along with the challenges they present for policy and research.

Following a brief resumé of the findings of the secondary analysis of ESENER 3 data on the use of prevention services, the paper discussed the role of prevention services and OSH experts within the wider contexts of the governance and regulation of work and health in the economies of 21st century Europe. It focused especially on what can be learned from the literature concerning determinants of the development of professional presence and practice in OSH in recent decades, on its character, coverage and effectiveness, and how and with what effect it has operated during this period. This discussion paid particular attention to studies of growth and change among the OSH professions and integrated this with consideration of the influence of marketisation, the reform of regulation and governance of OSH since the 1970s, along with the influence of the parallel growth during this period of managerialism generally, and in OSH particularly. It found a relationship between the influence of these economic, political, regulatory and business contexts and change in professional presence and practice in OSH in recent decades that suggested that, although there are some examples of sustained activity, in many cases, traditional models of provision — including those of integrated services — have struggled to survive policy reorientations requiring their marketisation. As a result, significant gaps exist in the presence of competent support for OSH prevention, especially in relation to smaller organisations and non-standard forms of work organisation and employment.

The paper indicates that meeting these challenges may require substantial reorientation of current regulatory policy. Its argument limits itself to observing a need for a more prominent research and policy discourse on the presence and form of OSH services and professional expertise in European workplaces at the present time, which might be helpful in informing the need for such reorientation, and in which the limitations of current practice are identified and practicable ways to remedy them are explored. It suggests several elements that such a discourse might consider.

At the same time, it notes the changes the literature identifies in regulatory and economic policy contexts for professional practice in OSH, to have been more supportive of the emergence of the generalist OSH professional/practitioner. There is potential in such professional support to remedy some of the

weaknesses in the cover provided by more traditional support for OSH, identified in the literature. Although the evidence does not present an entirely consistent picture across all EU Member States and there are significant gaps in knowledge of the extent of these changes, it seems clear that such generalist professionals and practitioners feature significantly in most countries and sectors for which information exists. It is further the case that the emergent literature addressing the development of such professional support in recent years has concerned its nature and role as well some discussion of suitable frameworks for appropriate qualifications and competencies for this form of support. The paper notes that while this literature offers some pointers towards understanding the contribution of generalist professionals/practitioners to the provision of competent support for OSH, knowledge on this is still limited. A greater contribution is needed from more objective and sophisticated analysis in the further development of knowledge concerning the presence and nature of such support. In particular, the paper argues, given that most OSH professionals are employed in salaried positions within organisations or in external services contracted to serve the interests of such organisations, that better understandings are required on the nature and role of these emergent professions and their professional institutions as well as how they are able to effectively negotiate their position in relation to issues of power, authority and communication, bureaucratisation, financial influence and business priorities, all of which may be significant determinants of their roles in the contexts in which they are obliged to operate. It further points out that while there is substantial literature on these and other matters in relation to established professions such as in medicine, law, engineering and education, that relating to OSH professions is in contrast very limited. Yet, the role of these professions, their situation in relation to their employers, and the workers whose health and safety interests they support, as well as their position with regard to regulatory agencies and their inspectors, is very much one of potential change agents in a contested environment. How they address this agency and what supports their capacity to deliver competent, independent professional practice in such situations is therefore important to understand.

Just as important of course, is the means and extent to which such positions are sustainably resourced. The literature suggests that resourcing of OSH services has never been entirely sufficient, regardless of the model of delivery adopted. However, the recent literature indicates little evidence to suggest that marketisation of these services has contributed to improving this situation and much to indicate that, in many cases, it has made matters more difficult. The paper has concluded with a brief discussion of the challenges likely to confront resourcing the future effectiveness of professional support for OSH in these contexts and argued that new ways to understand the economic case for prevention and the role of professional support in achieving it need to be found. Additionally, better understandings are required of why some forms of the delivery of this support appear to have been able to sustain themselves in some countries and sectors despite wider changes in the economic policies of the states in which they are situated.

Overall, it seems clear that the current situation for professional support for OSH in the EU represents confirmation that conflict over workers' health and safety remains rooted in the structures of capitalist accumulation. In the face of this, it is difficult to escape the conclusion that the changes over the past half century in terms of the nature and extent of competent professional support for prevention practice have occurred at a time of resurgence of the power of capital, supported and facilitated by the adoption of market-based political and economic policies by states (regardless of the government in office) and reinforced by the related widespread ideological success of managerialism. The effects of these contextual influences have been felt at all levels. Although some amelioration of their negative consequences for supporting workers' health and safety remains possible, establishing significant reforms and discovering better means of providing for the sustainability of the operational benefits of prevention services are likely to be difficult to achieve while the wider political and economic policies in which such provision is embedded remain unchanged.

Authors: David Walters, Cardiff University, United Kingdom; Emma Wadsworth, Solent University, United Kingdom.

Project management: Lorenzo Munar, European Agency for Safety and Health at Work (EU-OSHA).

This paper was commissioned by the European Agency for Safety and Health at Work (EU-OSHA). Its contents, including any opinions and/or conclusions expressed, are those of the authors alone and do not necessarily reflect the views of EU-OSHA nor of the workplaces where the authors are employed.

References

Abrams, H.K. 2001. A Short History of Occupational Health, *Journal of Public Health Policy*, 22(1):34–80.

Amengual, M. and Fine, J. 2017. Co-enforcing labour standards: The unique contributions of state and worker organizations in Argentina and the United States, *Regulation & Governance*, 11(2):129–142.

Baldwin, R. and Cave, M. 1999. *Understanding Regulation: Theory, Strategy and Practice.* Oxford University Press, Oxford.

Bohalteanu, C. 2019. A short history of the role and status of the safety professional in Romania, *Safety Science*, 116:254–258.

Bohme, S.R. and Egilman, D. 2008. Beyond Reputation: Debate on the Role of Corporate Influence in Occupational and Environmental Medicine, *New Solutions*, 18(3):317–324.

Bråtveit, M., McCormack, D. and Moen, B.E. 2001. Activity profiles of the occupational health services in a multinational company, *Occupational Medicine*, 51(3):168–173.

Chauviere, M. and Mick, S.S. 2011. The French sociological critique of managerialism: themes and frameworks, *Critical Sociology*, 39(1):135–143.

Coglianese, C., Nash, J. and Olmstead, T. 2002. *Performance-based Regulation: Prospects and Limitations in Health, Safety and Environmental Regulation*, Regulatory Policy Program Report No RRP-03, Harvard University, Cambridge, MA.

Colombo, S., Golzio, L.E. and Giancarlo Bianchi, G. 2019. The evolution of health-, safety- and environment-related competencies in Italy: From HSE technicians, to HSE professionals and, eventually, to HSE Managers, *Safety Science*, 118:724–739.

Daudigeos, T. 2013. In their Profession's Service: How Staff Professionals Exert Influence in their Organization, *Journal of Management Studies*, 50(5):722–749.

Decker, S. 2014. The bureaucratization of safety, *Safety Science*, 70:348–357.

DGUV (Deutsche Gesetzliche Unfallversicherung e.V.). 2016. *Prevention Services of the German Social Accident Insurance Institutions*, DGUV, Berlin.

Draper, E. 2003. *The Company Doctor*. Russell Sage Foundation, New York, NY.

Draper, E. 2008. Difficult Reputations and The Social Reality of Occupational Medicine, *New Solutions*, 18(3):299–316.

Draper, E., Ladou, J. and Tennenhouse D.J. 2011. Occupational health nursing and the quest for professional authority, *New Solutions*, 21(1):57–88.

ETUI (European Trade Union Institute). 2014. Occupational Health Services in the EU — Special Report, *HESA Magazine*, 10.

EU-OSHA – European Agency for Safety and Health at Work, *Literature review - Improving compliance with occupational safety and health regulations: an overarching review*, 2021a. Available at: https://osha.europa.eu/en/publications/literature-review-improving-compliance-occupational-safety-and-health-regulations-0

EU-OSHA – European Agency for Safety and Health at Work, *Improving compliance with occupational safety and health regulations: an overarching review*, 2021b. Available at: https://osha.europa.eu/en/publications/improving-occupational-safety-and-health-changing-world-work-what-works-and-how

EU-OSHA – European Agency for Safety and Health at Work, *Summary - Improving compliance with occupational safety and health regulations: an overarching review*, 2021c. Available at: https://osha.europa.eu/en/publications/summary-improving-compliance-occupational-safety-and-health-regulations-overarching

European Commission, 2021. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS EU strategic framework on health and safety at work 2021-2027 Occupational safety and health in a changing world of work. *Official Journal of the European Communities*, No L 230. Available at: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52021DC0323

Fine, J. 2018. New approaches to enforcing labour standards: How co-enforcement partnerships between government and civil society are showing the way forward. *University of Chicago Legal Forum*, 7:143–176.

Freiberg, A. 2010. *The Tools of Regulation*. The Federation Press, Sydney.

Frick, K. 2011. Worker Influence on Voluntary OHS management systems – A review of the ends and means, *Safety Science*, 49(7):974–987.

Froneberg, B. (2005). Challenges in occupational safety and health from the global market economy and from demographic change — Facts, trends, policy response and actual need for preventive occupational health services in Europe, *Scandinavian Journal of Work Environment and Health Supplement*s, 1:23–27.

Guidotti, T.L. 2008. Occupational Medicine and the Construction of "Difficult Reputations", *New Solutions*, 18(3):285–298.

Hale, A. 2019. From national to European frameworks for understanding the role of occupational health and safety (OHS) specialists, *Safety Science*, 115:435–445.

Hale, A.R. and Booth, R. 2019. The safety professional in the UK: Development of a key player in occupational health and safety, *Safety Science*, 118:76–87.

Hale, A., Pryor, P. and Hudson, D. 2015. *The OHS Professional: A Framework for Practice – Role, Knowledge and Skills*. INSHPO (International Network of Health and Safety Practitioner Organizations), Chicago, IL.

Hale, A.R. and Ytrehus, I. 2004. Changing requirements for the safety profession: roles and tasks, *Australia and New Zealand Journal of Occupational Health and Safety*, 20(1):23–35.

Hall, A. 2021. *The Subjectivities and Politics of Occupational Risk: Mines Farms and Auto Factories*. Routledge, Oxford.

Hämäläinen, R. and Lehtinen, S. 2001. *Survey of the quality and effectiveness of occupational health services in the European Union and Norway and Switzerland*. Finnish Institute of Occupational Health, Helsinki, Finland.

Hasle, P. and Limborg, H.J. 2006. A review of the literature on preventive occupational health and safety activities in small enterprises, *Industrial Health*, 44(1):6–12.

Holden, J. and Vassie, L. 2010. *Becoming an Effective Occupational Safety and Health Professional in the 21st Century*, Session No. 730 ASSE Professional Development. Available at: https://aeasseincludes.assp.org/proceedings/2010/docs/730.pdf

Hopkins, A. 2005. What are we to make of safe behaviour programs?, *Safety Science*, 44:583–597.

Hudson, D. and Ramsey, J.D. 2019. A roadmap to professionalism: Advancing occupational safety and health practice as a profession in the United States, *Safety Science*, 118:168–180.

Hulshof, C., Verbeek, J., van Dijk, F., van der Weide, W. and Braam, I. 1999. Evaluation research in occupational health services: general principles and a systematic review of empirical studies, *Occupational and Environmental Medicine*, 56(6):361–377.

Indulski, J.A., Dawydzik, L.T. and Michalak, J. (1998). Polish approach to the quality assurance system in occupational health services, *International Journal of Occupational Medicine and Environmental Health*, 11(3):209–215.

INSHPO. 2017. *The Occupational Health and Safety Professional Capability Framework A Global Framework for Practice*, International Network of Safety and Health Practitioner Organisations (INSHPO), Park Ridge, IL. Available at: https://www.inshpo.org/storage/app/media/docs/INSHPO_2017_Capability_Framework_Final.pdf

James, P. and Walters, D. 2022. *Work and Health: 50 Years of Regulatory Failure*. Institute of Employment Rights, Liverpool, United Kingdom.

Johnstone, R., McCrystal, S., Nossar, I., Quinlan, M., Rawling, M. and Riley, J. 2012. *Beyond employment: The legal regulation of work relationships*. Federation Press, Sydney.

Kabel, A., Hasle, P. and Limborg, H. 2007. Occupational health services in Denmark — The rise and fall of a multidisciplinary and preventive approach in Westerholm, P. and Walters, D. (eds) *Supporting Health at Work: International Perspectives on Occupational Health Services*. IOSH Services Ltd, Wigston, United Kingdom.

Klikauer T. 2013. *Managerialism: Critique of an Ideology*. Palgrave, Basingstoke.

Klikauer, T. 2015. What is managerialism?, *Critical Sociology*, 41(708):1103–1119.

LaDou, J., Teitelbaum, D., Egilman, D., Frank, A., Kramer, S. and Huff, J. 2007. American College of Occupational and Environmental Medicine (ACOEM): A Professional Association in Service to Industry, *International Journal of Occupational and Environmental Health*, 13(4):404–426.

Lie, A. and Bjørnstad, O. 2015. Accreditation of Occupational Health Services in Norway, *Occupational Medicine*, 65(9):722–724.

Locke, R.R. and Spender, J.C. 2011. *Confronting Managerialism: How the Business Elite and Their Schools Threw Our Lives out of Balance*. Zed Books, London.

Macdonald, E.B. and Sanati, K.A. 2010. Occupational health services now and in the future: the need for a paradigm shift, *Journal of Occupational and Environmental Medicine / American College of Occupational and Environmental Medicine*, 52(12):1273–1277. https://doi.org/10.1097/JOM.0b013e3181f7cbf0

Madsen, C.U., Hasle, P. and Limbourg, H.J. 2019. Professionals without a profession: Occupational safety and health professionals in Denmark, *Safety Science*, 113:356–361.

Marcelissen, F.H.G. and Weel, A.N.H. 2002. Certification and quality assurance in Dutch occupational health services, *International Journal of Occupational Medicine and Environmental Health*, *15*(2):173–177.

Miller, P. 2015. Demonstrating the economic value of occupational health services, *Occupational Medicine*, *52*(8):477–483. https://doi.org/10.1093/occmed/52.8.477

Muzio, D., Brock, D.M. and Suddaby, R. 2013. Professions and Institutional Change: Towards an Institutionalist Sociology of the Professions, *Journal of Management Studies*, 50(5):699–721.

Olsen, K. 2012. Occupational health and safety professionals' strategies to improve working environment and their self-assessed impact, *Work*, 41(Suppl. 1):2625–2632.

Peace, C., Lamm, F., Dearsly, G. and Parkes, H. 2019. The evolution of the OHS profession in New Zealand, *Safety Science*, 120:254–262.

Plomp, H.N. 2008. The impact of the introduction of market incentives on occupational health services and occupational health professionals: Experiences from The Netherlands, *Health Policy* (Amsterdam, Netherlands), 88(1):25–37.

Pransky, G., Benjamin, K. and Dembe, A.E 2001. Performance and quality measurement in occupational health services: current status and agenda for further research, *American Journal of Industrial Medicine*, 40(3):295–306.

Provan, D.J., Dekker, S.W.A. and Rae, A.J. 2017. Bureaucracy, influence and beliefs: A literature review of the factors shaping the role of a safety professional, *Safety Science*, 98:98–112.

Provan, D.J. and Pryor, P. 2019. The emergence of the occupational health and safety profession in Australia, *Safety Science*, 117:428–436.

Provan, D.J., Rae, A.J. and Dekker, S.W.A. 2019. An ethnography of the safety professional's dilemma: Safety work or the safety of work?, *Safety Science*, 117:276–289.

Pryor, P. 2016. Accredited OHS professional education: A step change for OHS capability, *Safety Science,* 81:5–12.

Pryor, P. 2019. Developing the core body of knowledge for the generalist OHS professional, *Safety Science*, 115:19–27.

Pryor, P., Hale, A. and Hudson, D. 2019. Development of a global framework for OHS professional practise, *Safety Science*, 117:404–416.

Pryor, P. and Sawyer, N. 2010. OHS professionals: Technicians or strategic advisers?, *Journal of Health, Safety and Environment*, 26(1):21–23.

Rees, S. and Rodley, G. (eds) 1995. *The High Cost of Managerialism*. Pluto Press, Sydney.

Sánchez-Herrera, I.S. and Donate, M.J. 2019. Occupational safety and health (OSH) and business strategy: The role of the OSH professional in Spain, *Safety Science*, 120:206–225.

Savinainen, M. and Oksa, P. 2011. Efficiency of workplace surveys conducted by Finnish occupational health services, *AAOHN Journal: Official Journal of the American Association of Occupational Health Nurses*, 59(7):303–310.

Steenkamp, R.J. 2012. Programme design dimensions explored for a professional occupational safety and health management qualification for Africa, *African Journal of Business Management*, 6(31):9072–9084.

Swuste, P., Zwaard, W., Groeneweg, J. and Guldenmund, F. 2019. Safety professionals in the Netherlands, *Safety Science*, 114:79–88.

Uegaki, K., de Bruijne, M.C., Lambeek, L., Anema, J.R., van der Beek, A.J., van Mechelen, W. and van Tulder, M.W. 2010. Economic evaluations of occupational health improvements from a corporate perspective – a systematic review of methodological quality, *Scandinavian Journal of Work, Environment & Health*, 36(4):273–288.

van Wassenhove, W., Foussard, C., Dekker, S.W.A. and Provan, D.J. 2022. A qualitative survey of factors shaping the role of a safety professional, *Safety Science*, 154:105835. https://doi.org/10.1016/j.ssci.2022.105835

Vassie, L. and White, J. 2014. *Building an OSH competency framework-analysis and conceptualisation*, WOSNET 7th International Conference, Glasgow, Scotland.

Vogel, L. 2007. Preventive services in Europe: expanding amid a crisis of confidence, *Policy and Practice in Health and Safety*, 5:151–168.

Walters, D. 2007. Introduction: Occupational health services in a changing world in Westerholm, P. and Walters D. (eds) *Supporting Health at Work: International perspectives on occupational health services*. IOSH Services Ltd, Wigston, United Kingdom.

Walters, D., Johnstone, R., Bluff, E., Limborg, H.J. and Gensby, U. 2022. Prevention services for occupational safety and health in the European Union: Anachronisms or supports for better practice?, *Safety Science,* 152:105793.

Walters, D. and Wadsworth, E. 2019. Participation in safety and health in European workplaces: Framing the capture of representation, *European Journal of Industrial Relations*, 26(1):75–90. https://doi.org/10.1177/0959680119835670

Walters, D. and Wadsworth, E., OSHwiki article, *Analysis of findings from ESENER 3 on OSH prevention services to supporting OSH in Europe*, 2022. Available at: https://oshwiki.osha.europa.eu/en/themes/analysis-findings-esener-3-prevention-services-supporting-osh-europe

Wang, B., Wu, C., Li, J., Zhang, L., Huang, L. and Kang, L. 2019. Certified Safety Engineer (CSE) as a new official profession in China: A brief Review, *Safety Science*, 116:108–115.

Weel, A.N.H. and Plomp, H.N. 2007. Developments in occupational health services in the Netherlands: From a professional to a market regime in Westerholm, P. and Walters, D. (eds) *Supporting Health at Work: International Perspectives on Occupational Health Services*. IOSH Services Ltd, Wigston, United Kingdom.

Weil, D. 2010. *Improving workplace conditions through strategic enforcement: A report to the Wages and Hours Division*. US Department of Labor, Wage and Hours Division, Washington DC.

Westerholm, P. and Walters D. (eds) 2007. *Supporting Health at Work: International Perspectives on Occupational Health Services*. Institution of Occupational Safety and Health, Leicester, United Kingdom.

Wright, N., Hollohan, J., Pozniak, E. and Ruehlen, P. 2019. The development of the occupational health and safety profession in Canada, *Safety Science*, 117:133–137.