European Agency for Safety and Health at Work

DISCUSSION PAPER

SUPPORTING COMPLIANCE OF OCCUPATIONAL SAFETY AND HEALTH REQUIREMENTS – EUROPEAN LABOUR INSPECTION SYSTEMS OF SANCTIONS AND STANDARDISED MEASURES

Systems of sanctions for EU Labour Inspectorates

Introduction to systems of sanctions supporting compliance

European legislation for occupational safety and health (OSH) is based on the prevention of accidents and ill health. Apart from European directives, all Member States have national laws and strategies and expect enterprises to implement this preventative ethos, and thereby ensure adequate performance in OSH. Labour Inspectorates monitor and if necessary enforce these laws by deploying individual Labour Inspectors to chosen enterprises. If workplace safety and health conditions are found to be substandard, Labour Inspectors are expected to improve the situation using persuasion and, if necessary, their authority to compel enterprises through specific sanction powers. Bruhn (2009) describes this interaction as where the state meets enterprises and represents the process of turning national OSH legislation into practice. This discussion paper is centred on this interaction and follows on from calls by the European Agency for Safety and Health at Work (EU-OSHA) in its overarching review on improving compliance with occupational safety and health (OSH) regulations (EU-OSHA, 2021) to propose ways of providing additional empirical evidence to identify and promote the best strategies available to Labour Inspectors when they monitor and enforce OSH legislation within enterprises.

What is legally required in terms of OSH

A major milestone in the development of OSH legislation was reached in the late 1980s when EU Member States harmonised OSH requirements by introducing the Framework Directive 89/391/EEC in 1989. This directive resulted in all EU Member States establishing similar legal duties to ensure the safety of employees. Furthermore, enshrined practices were to be implemented by enterprises and aimed at preventing accidents and ill health within the EU (Del Castillo, 2016). This preventive approach is monitored and enforced at a national level by Member State Labour Inspectorates with enterprises being visited by individual Labour Inspectors.

The Framework Directive contains three fundamental processes designed to underpin the prevention of accidents and ill health at work. The first is for hazards to be identified in workplaces. The second is that these hazards are to be eliminated whenever possible and, if not, their risk is to be evaluated, controlled and specifically detailed in resulting risk assessments. The final requirement is that enterprises are to implement safety management systems to ensure the effective and continual implementation of these risk assessments. A full listing of all the preventive processes involved is presented in the Framework Directive Article 6.2 on ‘Principles of Prevention’ (European Commission, 1989a).

Whilst the Framework Directive outlines a broad strategy for prevention, further details on the control of physical, chemical, biological and psychosocial hazards present in workplaces are included in the commonly named daughter directives. For instance, the Workplace Directive 89/654/EEC (European Commission, 1989b) details the required technical engineering conditions in workplaces for heating, ventilation, fire safety and so on. All Member States have transposed the framework and daughter directives into national legislative provision, by way of laws, presidential decrees, ministerial decisions and similar instruments.

Who enforces OSH: functions and responsibilities

OSH compliance is regulated, monitored and enforced by Member State authorised Labour Inspectors. These inspectors base OSH compliance on the requirements of the framework and daughter directives as well as applicable national legislative instruments as they apply to the enterprise being regulated. However, Member

States differ markedly in terms of further responsibilities given to Labour Inspectorates in addition to ensuring OSH standards. A listing of overall Labour Inspectorate responsibilities is given by Walters (2016) who provides a categorisation into five distinct functional areas:

- Occupational safety & health
- General conditions of work
- Industrial relations
- Employment-related matters such as undeclared work or vocational training
- Social security issues

Due to the political economic and social development of individual EU Member States, summarising the legislative underpinnings used by Labour Inspectorates in different jurisdictions is complex. However, EU-OSHA's overarching review on improving compliance with OSH regulations (EU-OSHA, 2021) presents a categorisation whereby Member States present three broadly similar Labour Inspectorate characteristics as follows.

- Those Member States where a single inspectorate is largely responsible for OSH in terms of compliance monitoring, promotion and enforcement activities. These are found in Denmark, Finland, Ireland, the Netherlands and Sweden.
- Those Member States where compliance monitoring, promotion and enforcement activities are under the same government ministry but with different OSH inspectorates. These are found in Belgium, Estonia and Greece.
- Those Member States with more complex systems involving government ministries and social insurance agencies such as Germany and France. For example, Germany is characterised by a dual system, the *Berufsgenossenschaften*, whereby insurance enterprises in conjunction with state bodies regulate safety in workplaces.

In many EU Member States, sectoral categories of workplaces or workplace hazards lead to regulation by specific inspectorates. Common examples include fire safety, food hygiene, mines and rail transport safety. In Ireland for example, fire safety is inspected by a dedicated inspectorate for this category of hazard Furthermore, there are separate EU national regulatory authorities that enforce the Nuclear Safety Directive (2014/87/Euratom) and the European Union Aviation Safety Agency monitors the implementation of safety for civil aviation.

Finally, it should be noted that whilst Labour Inspectors have been described as being responsible for turning national safety legislation into practice (Bruhn, 2009), there are many other actors who have influence over OSH standards. Examples include enterprises that offer safety and preventive services, larger influential enterprises, business incentives, social expectations and supply chain interactions. An excellent collective model of all these actors is presented by EU-OSHA's overarching review on improving compliance with OSH regulations (EU-OSHA, 2021) and which is adapted from Parker and Nielsen (2011, p. 5; 2017, p. 220).

Sanction options

In practice, there are four main sanction options available to Labour Inspectors when they visit enterprises and find substandard OSH related work conditions. The options available can be categorised under four headings: requiring improvements, stopping work activities, issuing fines, and prosecution.

The sanction options listed above are normally used at the discretion of individual Labour Inspectors operating under the auspices of their national inspectorates. As will be discussed in the section that includes the findings from the interviews, these formal sanctions are very often used in conjunction with informal persuasive methods by Labour Inspectors, including verbal advice or providing written recommendations for enterprises. As Hawkins (1991) reports, such verbal and written advice can be used tacitly, presenting a threat of the formal use of sanctions if Labour Inspectors' requirements are not met. A detailed account of sanctioning options and legal procedures for OSH contraventions is given by the International Labour Organisation (ILO) (2021), and a summary of these sanction options will now be presented.

Requiring improvements

Labour Inspectors can serve improvement notices whereby detailed safety requirements are formally written down and presented to the enterprise under analysis. The expectation of Labour Inspectors is that these requirements will be fulfilled within a set time frame. Such notices are often accompanied by the consequences of any non-compliance. Common examples would be requiring technical engineering improvements such as providing machinery guarding, exhaust ventilation for hazardous substances, and adequate smoke detection

and emergency lighting for fire safety. Such notices can also include organisational issues such as requiring specific training in manual handling or psychosocial hazard identification and requiring that specific risk assessments are conducted and implemented.

Stopping work activities

Labour Inspectors can serve prohibition notices on part or all of the enterprise being visited to suspend work activities. One example is prohibiting all work on construction sites due to poor working conditions or a lack of adequate safety management. Individual work processes can also be stopped, for example, by not allowing the use of a wood working table saw until adequately guarded or prohibiting the use of toxic substances without the use of extract ventilation. Prohibition notices will also be generally accompanied by duration clauses, stipulating the amount of time in days, weeks or months for remedial work or the cessation period.

Issuing fines

Labour Inspectors can issue fines to enterprises both as a punishment and deterrent for future activities. Some countries such as Greece have formulas or fiscal caps for calculating fines that take into account enterprise size, sector and previous engagement. Labour inspectors in most countries have discretion as to the amount of fines levied on non-compliant enterprises. As EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021) and Mendeloff et al. (2021) report, fines vary greatly between countries and the literature does not present specific levels of fines for safety violations that correlate with better subsequent compliance by enterprises. This finding was also stated by the Labour Inspectors who took part in research for this discussion paper.

Prosecutions

Labour Inspectors can prosecute enterprises in courts of law for specific contraventions of OSH standards, for example, enterprises not having sufficient safety management procedures in place. Prosecutions can also be commenced as a result of specific incidences that have caused injuries, ill health or fatalities as well as loss incidents such as fires or food poisoning outbreaks. Whilst varying between Member States, EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021) reports that prosecutions and custodial sentences for contraventions of OSH standards are generally rare.

The effects of regulatory activities on OSH

As stated by Hawkins (1991), it has long been known that reliance solely on enterprises to ensure OSH was never realistic and this situation largely remains to this day. When Labour Inspector regulatory delivery has been specifically researched, it has generally been found that the use of sanction options has supported compliance with OSH (EU-OSHA, 2021). But as will be discussed, the individual effect of a particular sanction option or how best to deliver OSH regulation is not yet well evidenced. A full descriptive listing of successful regulatory effects from Labour Inspectorate activity can be found in EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021), and this section will present a selection of notable findings.

A methodologically robust study was conducted by Levine et al. (2012) in the US state of California that covered a period of 10 years. This study compared injury statistics between 409 randomly selected high-risk industrial enterprises visited by Californian Labour Inspectors and 409 similar randomly selected enterprises that did not receive such visits. The results showed that there were 9.4% fewer accidents and a 26% decrease in injury costs in those organisations subject to labour inspections. In addition, there were no effects found on employment rates, sales, credit ratings or survival in these inspected organisations.

A study from the US by Li and Singleton (2019), using national data from the Occupational Safety and Health Administration, found similar benefits in terms of a reduction of approximately 20% in injuries resulting in days away from work, job restrictions and transfers as a result of Labour Inspector visits. Similarly, an Irish study by Russell Maître and Watson (2015) found a correlation between those enterprises visited by Labour Inspectors and fewer days off from work due to injury.

Further examples include a Cochrane review by Mischke et al. (2013) reporting that OSH enforcement decreases injuries in the long term. Tompa et al. (2016) also report strong evidence for labour inspections with penalties having beneficial effects on OSH. But without penalties (sanctions), this study reported that the benefits were moderate to limited. In addition, Andersen et al. (2019) and Burstyn et al. (2010) also report on beneficial effects of Labour Inspector activity.

Bruhn (2006) describes Labour Inspectorates as the 'most important actor' in terms of supporting compliance with OSH. It is during these inspections that the interaction between Labour Inspectors and enterprises is

designed to support compliance and ensure appropriate OSH standards. EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021) further provides a collective summary of how EU Member State Labour Inspectors conduct inspections.

Conducting labour inspections to support compliance

A detailed listing of how Labour Inspectors conduct inspections together with expected roles, processes and procedures adopted is given by EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021), as well as ILO (2006). In addition, the Senior Labour Inspectors Committee (SLIC) has developed a set of 'Common Principles' to provide a framework for promoting a more common approach to the implementation of laws relating to health and safety in the workplace and the adoption of comparable criteria by inspectorates in their enforcement policies and practices (SLIC, 2015). In summary, the normative Labour Inspector procedure is to gather available details prior to a visit to the enterprise under analysis. During the visit, the Inspector will walk around the enterprise and engage with and question staff and any safety personnel or worker representatives. The Inspector will also read relevant on-site documents such as risk assessments and technical engineering reports. The Inspector will then form an opinion as to the level of OSH at the enterprise and ensure any required improvements are implemented.

This inspection process has been well documented for certain individual Labour Inspectorates by Bluff and Johnson (2017), Bruhn (2006, 2009), Fairman and Yapp (2005), Nielsen (2017), Niskanen et al. (2014), Niskanen (2015) and Walters et al. (2011). How the Inspector actually ensures OSH standards is a complex issue subject to much debate on how best to conduct such inspections and support compliance by enterprises in the most effective manner. In summary, when Labour Inspectors have assessed the level of OSH and what is further required, they will decide on how best to achieve any improvements necessary. If improvements are required, they can use a persuasive approach based on advice, guidance and education. They can also threaten the use of sanctions, or resort to their actual use. In practice, persuasion is preferred to sanction, but they will use sanctions as necessary. But it remains that the best balance between persuasion and sanction by Labour Inspectors is still the subject of much debate.

The Labour inspector's 'dilemma' as described by Bruhn (2006) exemplifies the issues to be considered when applying the balance of tactics to achieve the required level of OSH and to continually support compliance. Hawkins (1991) describes the tactics available to support and achieve compliance as being on a continuum with persuasion at one end and sanction at the other. On the one side, compliance with OSH standards is ensured only using persuasion. On the other, there is zero tolerance of OSH violations, which are remedied using the sanction options.

The balance between persuasion and sanction

Whilst the overall effect of published Labour Inspector activity is clearly beneficial for OSH, as described in the previous section, there is little empirical evidence for describing the most effective balance between persuasion and sanction. This is because of current methodological difficulties in isolating persuasion from individual sanction options as distinct variables, with the required degree of reliability, validity and sample power that can be generalised to wider workplaces.

Furthermore, there is a confounding deterrence variable in operation during the interaction of Labour Inspectors and enterprises. Even when sanction options are not used to ensure compliance, Labour Inspectors carry an intrinsic deterrence effect by their very presence. When Labour Inspectors visit enterprises, they can be perceived as potentially being able to impose sanctions, if their advice is not followed. As Hawkins (1991) reports, Labour Inspectors will 'advise, instruct, exhort, bargain, or threaten'. If these approaches are not sufficient, Inspectors can resort to applying sanctions.

It remains methodologically very difficult, to disentangle this deterrence effect from Labour Inspectors and empirically assess their remaining persuasive effect. Furthermore, and as will be discussed in in the findings section, until a standardised OSH measure can be implemented, it will remain problematic to reliably measure the effects of any combination of persuasion and sanction options, inspector style or roles adopted to support compliance.

In addition, there is a further confounding variable that has not been well considered in the literature to date, which is the effect from Labour Inspectors requiring immediate OSH improvements during their visits. Such effects have been reported in the literature. For example, Nielsen (2017) reported a Labour Inspector directing that all employees were to be removed from a room that had an unguarded opening in the floor and gave rise to a serious fall from height risk. Another example is Walters et al. (2011) who reported a Labour Inspector requiring a worker to immediately wear safety glasses. These hazards were all quickly and effectively resolved

during the Labour Inspection by asking managers and employees to deal with the matter and checking compliance before leaving the enterprise.

Remedying unsafe practices and conditions during Labour Inspector visits is a variable that is difficult to measure without specifically recording such events. Furthermore, rectifying such unsafe conditions or behaviours during visits cannot prove that injuries, fatalities or ill health were prevented, only that certain hazards were remedied by the intervention of individual Labour Inspectors. Nevertheless, this indicates specific preventive and supporting compliance effects from Labour Inspector visits. It should also be noted that this commonly occurring preventive Labour Inspector activity should not be understated in terms of its practical and beneficial on-site OSH effect. Therefore, the interaction between Labour Inspectors and regulated enterprises during visits is of crucial importance in supporting compliance (Bruhn, 2006). This is supported by Amodu (2008), for example, who also reports that Labour Inspectors are key to supporting compliance through their interactions with enterprises.

In addition, when Labour Inspectors visit enterprises and conduct their inspections, Bruhn (2009) describes them as simultaneously adopting the twin roles of controller and educator as they engage in supporting OSH compliance. This description is also supported by the findings from participating Labour Inspectors interviewed for this study.

Regulatory delivery strategies to support compliance

As stated by EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021), there are differences in how EU Labour Inspectorates approach the monitoring and enforcement of OSH compliance. However, a critical assessment between the utility of these EU approaches remains methodologically challenging as the empirical data required is not readily available. However, a web-based tool that describes individual EU national strategies for OSH is presented by the OSH Barometer (EU-OSHA, 2022). Furthermore, there are some published comparisons that do present empirical data between selected Member States. For example, Blanc and Faure (2020) compare German and United Kingdom Labour Inspectorates. Blanc Ottimofiore and Myers (2022) compare France, Germany and the United Kingdom. Morillas Rubio-Romero and Fuertes (2013) compare Sweden with Spain, and Nielsen (2017) compares Danish and Swedish Labour Inspector practices. A general theme emerging from this literature is that persuasion and the use of education to support and facilitate compliance by enterprises is generally considered more advantageous when compared to sanctions.

Regulatory theorists have produced a great deal of literature analysing the overall strategies employed in regulatory delivery by Inspectorates in an attempt to assess the most effective approach to achieving compliance in a wider context.. EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021) summarises this regulatory literature and details the main strategies as: responsive regulation, smart regulation, risk-based regulation, and strategic and co-enforcement regulation.

Responsive regulation

This influential strategy was first proposed by Ayers and Braithwaite (1992) in contrast to various regulatory theorists who favoured either sanction or persuasion as the dominant form of strategy for Labour Inspectorates to achieve compliance with OSH standards. Tombs and Whyte (2013) discuss the arguments for a predominantly sanction-based approach to regulating OSH whilst Amodu (2008), Blanc (2022) and Hawkins (1991), for example, detail the disadvantages.

Responsive regulation requires Labour Inspectors to assess the level of cooperation from enterprises in terms of providing appropriate levels of OSH. It uses a sliding scale of sanctions known as the 'Enforcement Pyramid' to be applied in the event of non-compliance (EU-OSHA, 2021). The theory is that when Labour Inspectors first engage with enterprises, they should use a persuasive approach to ensure an adequate level of OSH. On revisiting the enterprise and if OSH standards are not sufficient, then the first sanction option to be used would be improvement notices. This would be progressively followed by fines and or prosecution if the required level of progress is not achieved. The final sanction to be used would be suspension or closure of the enterprise.

Smart regulation

This approach is a development on responsive regulation and proposes that Labour Inspectorates are joined by further influential bodies and methods that can influence compliance (EU-OSHA, 2021). Such bodies would include industry and employee representatives as well as supply chains. Methods would include the use of social expectations for OSH standards.

Risk-based regulation

This approach involves targeting Labour Inspectorate resources at those enterprises that are thought to present the greatest risk. However, in practice, this seemingly straightforward approach reveals levels of complexity that makes the allocation of Labour Inspectors based on the level of risk from enterprises complex and difficult (for example, see Helsloot Scholtens & Haen, 2020). Nevertheless, EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021) report argues that in general terms most Labour Inspectorates adopt some form of risk-based regulation.

A development on this risk-based regulator strategy is detailed by Blanc (2018, p. 130) and Blanc and Faure (2020) and is termed 'smart inspection'. A characteristic of this strategy is that the primary method of supporting compliance for 'low-risk' enterprises should be information and guidance. But as with risk-based regulation in general, empirically assessing 'low-risk' is subjective and difficult to do in practice.

Strategic & co-enforcement regulation

EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021) details two recent North American strategies. Strategic regulation is described as regulating those businesses that through their dominant position can influence OSH conditions for enterprises they deal with further down their hierarchical chain.

The co-enforcement strategy attempts to harness a wider range of employee representatives, including unions, safety representatives, advice centres and worker advocacy groups, who can assist in providing relevant information and support for both employees and individual inspectors visiting enterprises. Caution is needed on any comparative assessment between these strategies. As with sanction options, there is a general lack of empirical data and reliance on correlational measures using national accident and ill health data that needs to be carefully considered.

Successful labour inspectorate persuasion and promotional activities

Whilst all EU Member State Labour Inspectors have similar sanction powers, a great deal of attention has been drawn to the use of persuasion in contrast to sanction in terms of supporting compliance. Inspectorates commonly engage in organising collective persuasive approaches that can be delivered through promotional activities such as safe working campaigns or targeting specific work sectors for advice-based inspections. Such promotional activities can be implemented by Inspectorates on their own, in conjunction with governments or their departments. Promotional activities are here defined as involving a predominantly persuasive educational and communication-based strategy where sanction is rarely invoked to achieve stated OSH requirements.

In overall terms, the published evidence on the effects of promotional campaigns is mixed (EU-OSHA, 2021). However, there are examples reported whereby safety-related campaigns have delivered improvements in OSH and some notable and illustrative examples will be presented here. A particular methodological issue to consider is the influence that any Labour Inspector involvement may have had in such initiatives and if their presence reflects a degree of deterrence threat. However, when empirical research has been applied to such campaigns and awareness initiatives, more nuanced findings have been published. For example, Tompa (2016) reports that promotional initiatives have limited evidence for improving OSH. Nevertheless, there are well-documented examples in the literature whereby OSH campaigns and targeted initiatives have resulted in excellent outcomes for employees. A selection of such illustrative examples is presented below.

The Irish workplace smoking ban

Although this ban is often viewed as a public health initiative, it should be borne in mind that the main beneficiaries of this ban were service industry workers exposed to harmful levels of environmental tobacco smoke in workplaces. This carefully orchestrated government campaign used Labour Inspector powers (specifically local authority environmental health officers) to enforce the resulting OSH-related legislation. By any metric, the Irish workplace smoking ban was (and still is) a very successful OSH intervention. It resulted not only in completely preventing exposure to environmental tobacco smoke for the vast majority of Irish workers, but also triggered similar bans in EU Member States and other countries globally (Studlar, 2015). The Irish workplace smoking ban featured government support in tandem with widespread public acceptance for the ban. A further feature of this campaign was a well organised, powerful and fiercely resistant hospitality-

related business lobby. One notable regulatory effect was the very low level of prosecutions carried out and the resultant very high level of compliance in a very short space of time (Studlar, 2015).

London olympic park

This coordinated campaign between the Labour Inspectorate and the main contractor successfully reduced injuries and fatalities during construction of the main sports facility used during the 2012 Olympic Games. This initiative involved local Labour Inspectors closely aligning their involvement at the initial planning and design stages of construction. This approach specifically targeted supply chains and risk assessments that detailed how construction was to be conducted safely by all contractors involved (Blanc et al., 2022).

Web-based information and tools for OSH

A relatively recent development is the proliferation of web-based tools providing online risk assessment templates as exemplified by EU-OSHA's Online interactive Risk Assessment (OiRA) tool or the Irish BeSMART platform (Hrymak, 2017). Thousands of SMEs across Europe are using OiRA, while by using BeSMART, the Irish Labour Inspectorate has accessed over a quarter of Irish SMEs providing them with free templates to complete risk assessments and safety statements as well as relevant safety advice. Feedback from users of the BeSMART web-based tool has been overwhelmingly positive (Hrymak, 2017).

EU promotional campaigns aimed at supporting compliance

EU-OSHA has also published the results from 44 examples of OSH-related campaigns and awareness-raising initiatives for Medium-Sized Enterprises, many of which are mediated through web-based tools provided by Labour Inspectorates (EU-OSHA, 2017). All of these campaigns and initiatives present positive self-reported appraisals. For example, a French road transport safety initiative involved an OiRA web-based tool. In this example, it was found that 95% of the users reported that the tool met their road safety transport needs, and they would recommend it to other users.

Improving eye safety in an Italian industrial region

This study illustrates that a normative Labour Inspector promotional activity can be achieved without Labour Inspectors. It is included here to make the point that OSH promotional activities can be called for and supported by Inspectorates without their direct involvement. In a study by Mancini et al. (2005), researchers delivered a well-planned seven-month health education campaign that began in December 1991. This study did not report the use of any Labour Inspectors and the campaign was aimed at preventing eye injuries among metal workers. This campaign involved promotional literature being sent to all metal workers in a selected industrial region of northern Italy combined with a local radio campaign and leafleting in healthcare facilities. The incidence of eye injuries in the region were tracked from 1988 until 2003. As a result of the campaign, eye injuries were reduced by about 80% during the study period.

In summary, current attempts at supporting compliance are taking place against a backdrop of rapidly changing and evolving work conditions and patterns as well as political ideologies with polar opposite views on the amount of OSH regulation enterprises should face. EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021) summarises the changing world of work due to deregulation, new forms of work, digitalisation, and new and emerging workplace hazards as well as the logistical problems of monitoring and enforcing safety in such scenarios.

This discussion paper will now present proposals to improve this situation from the perspective of Labour Inspector conduct when they visit enterprises. Using research commissioned for this discussion paper as well as literature that specifically investigated Labour Inspector policy and practice, specific proposals are presented. These proposals have two aims. The first is to describe a potential OSH measure that can be used to empirically evidence the beneficial effects of Labour Inspector visits to enterprises. The second is to present proposals as to how the conduct of individual labour inspections can be improved and thereby contribute to supporting compliance.

Findings from interviews with Labour Inspectors

As part of this discussion paper, seven Labour Inspectors from different EU Member States were interviewed. This was to investigate how they perform their inspections in practice as well as how they interact with enterprises during their visits. Studies by Bluff and Johnson (2017), Bruhn (2006, 2009), Hawkins (1991), Nielsen (2015) and Walters et al. (2011) describe the complex roles and interactions between Labour Inspectors and enterprises as they regulate OSH. The research conducted for this paper was intended to see

if this existing literature on Labour Inspector conduct during visits to enterprises was indicative of wider normative conduct by Labour Inspectors.

Methodology

A number of European Labour Inspectorates were contacted in the beginning of January 2022 requesting interviews with Labour Inspectors under conditions of confidentiality to participate in this research. This resulted in seven Labour Inspectors who agreed to be interviewed for this discussion paper. Semi-structured interviews were conducted by the author with questions for these participating Labour Inspectors grouped under a number of headings: how they prepared for inspections of enterprises, their conduct during these inspections, how they achieved any necessary improvements in OSH, and their overall recommendations for improving safety in general. A final question on the usefulness of a standardised measure of OSH was also asked. The qualitative approach used was interpretative phenomenological analysis (Smith et al., 2009). Two Labour Inspector interviews were recorded and five interviews were conducted by mobile phone.

Participant demographics

Descriptive statistics for the seven Labour Inspectors who were interviewed are detailed below.

Regional dispersion

The European regions where interviewed Labour Inspectors worked were as follows;

European Region	No of Inspectors
North	1
East	1
South	3
West	2

Qualifications and experience

All seven Labour Inspectors were highly qualified to master's level and two had PhDs. There were six engineers and one lawyer. Experience varied from a minimum of eight years to over 40 years. All Labour Inspectors had complementary pre-inspectorate careers. Data on the qualifications and experience of the wider European Labour Inspector community is not yet available. But by way of comparison, these findings are broadly similar to the levels reported by Anyfantis, et. al. (2021). This paper reports that Labour Inspectors working in Greece are also highly qualified as 59% have a Bachelor's degree, 27% have a Master's degree and 14% have a PhD. In addition, these Labour Inspectors in Greece are also highly experienced having on average 18 (±5.143) years of experience.

Main findings

The main findings from interviews with the Seven Labour Inspectors were as follows.

Labour Inspector professionalism in supporting compliance

All seven Labour Inspectors were highly qualified and experienced. They all demonstrated exemplary professionalism that clearly manifested itself as a deeply embedded commitment to ensuring OSH. Even though this was a self-selecting sample, it was very reassuring from a regulatory resource point of view to encounter such experienced and dedicated professionals who are tasked on a daily basis with enforcing OSH standards.

The importance of and necessity for at least three to five years' experience before engaging with enterprises was reported by all seven Labour Inspectors. In addition, six out of seven reported on the need for senior inspectors to act as tutors for newly recruited inspectors to gain this experience, before they could engage with enterprises on their own.

Conducting workplace inspections

Due to their extensive experience, all seven Labour Inspectors reported having prior knowledge and expertise of the enterprises to be inspected. All seven also reported access to IT databases providing details on location, occupants and activities for any enterprise about to be visited.

All seven Labour Inspectors conducted their inspections in a similar 'look, ask and read' manner, being: a visual inspection, engaging with staff, asking questions, and reading on-site documents, including risk assessments. All seven Labour Inspectors reported on the importance of the visual inspection component, and how observation was used to validate evidence from engaging with staff and reading on-site risk assessments. During visits to enterprises, there was no set pattern as to where to look or what questions to ask, but all seven Labour Inspectors reported reading relevant risk assessments. All seven Labour Inspectors requested engagement with someone representing employees and management during visits. The time taken for these inspections to be conducted varied from 30 minutes for a small retail premises to a whole day or more for larger enterprises. Inspection time also varied according to the work sector and risk profile. None of the seven Labour Inspectors reported the use of checklists during inspections.

In addition to the 'look, ask and read' conduct during inspections, four out of seven Labour Inspectors reported using legislative categories held in memory as an aide memoir, for example, 'I always remember to check against the directive's headings for manual handling and machinery and so on.' All seven Labour Inspectors reported producing written reports for enterprises after visits that included any required improvements.

All seven Labour Inspectors reported that the quality, suitability and applicability of risk assessments encountered varied greatly, with larger enterprises generally described as having better risk assessments. One Labour Inspector notably described the standard of risk assessments for smaller enterprises as 'shocking'.

Assessing workplace safety standards and requirements

All seven Labour Inspectors were very comfortable with subjectively assessing the overall level of OSH standards in the enterprises they visited. This was in spite of the complexity and variety of hazards encountered in enterprises. In addition, they were all very clear on how best to progressively improve safety at the enterprise using multiple revisits within suitable time frames that could last months, and in some cases longer. This subjective assessment process will be well understood by Labour Inspectors and has been reported on (see for example, Amodu, 2008; Blanc, 2022; Fairman & Yapp, 2005; Hawkins, 1991). However, the complexity and analysis that underpins such decision-making should not be underestimated. How compliance with national safety legislation in any given enterprise actually manifests itself during inspections is a complex issue given the frequency and variety of hazards required to be suitably managed in any given enterprise.

All seven Labour Inspectors were well aware of local social, political and economic constraints that they worked under. These constraints applied to both their own Inspectorate in terms of inspector numbers and resources as well as those affecting the enterprises they regulated.

Furthermore, all seven Labour Inspectors reported that finding hazards was commonplace and that strict compliance with the preventive ethos of the Framework Directive was seldom attainable. Compliance with relevant OSH legislation was therefore seen as an ambiguous requirement that was dealt with pragmatically, featuring discussion and discretion. The aim was to bring the enterprise on a journey to an acceptable level of OSH over time, as subjectively assessed by the Labour Inspector. This progression towards an acceptable level of safety needed a suitable amount of time for discussions and bargaining with the enterprise to respond. The time span involved was measured in weeks and months, with revisits to assess progress. All seven Labour Inspectors alluded to achieving an overall acceptable level of OSH, rather than meeting every applicable legislative requirement. One Labour Inspector remarked 'I've never seen perfect.'

The intrinsic difficulty of assessing and dealing with psychosocial hazards and issues from the changing nature of work was also well understood, but this did not stop any of the Inspectors from investigating such hazards. However, uncertainty on how to exactly manage risks from psychosocial hazards and in particular work-related stress was reported by three Labour Inspectors. This finding is reflected by, for example, Weissbrodt and Giauque (2017) and Starheim and Rasmussen (2014) who report on the current lack of evidence to support specific regulatory best practice for Labour Inspectors regarding psychosocial risks.

All seven Labour Inspectors reported rectifying specific site hazards by requesting the enterprise take immediate steps to resolve the particular observed hazard in question. This activity was commonplace and reliant on the visual inspection component of the inspection.

When asked about introducing a method to measure OSH for enterprises during their visits, all seven Labour Inspectors reported that a quantitative measure would be useful but difficult to implement.

Using persuasion and sanctions to achieve compliance

Improvements in OSH were achieved using a combination of persuasion and sanctions. Persuasion was by far the most used method. But there was no hesitation in using sanctions when necessary, particularly improvement notices, prohibition notices and fines. However, there was no particular sum or level of administrative fines reported that was considered to predicate improved compliance.

Prosecutions were not well favoured in terms of supporting compliance due to the length of time needed and perceived uncertain outcomes. Even so, and when necessary, all seven Labour Inspectors reported taking prosecutions. All seven Labour Inspectors also reported a high degree of autonomy and managerial support for any sanction activities they felt necessary. In short, persuasion was by far the most preferred option to ensure OSH, including improvements overseen during the period of inspection. However, there was little hesitation in using sanction options when necessary, for example, when significant safety violations were encountered or there was a lack of appropriate progress.

Labour Inspector recommendations to further support compliance

When asked how best to support compliance, all seven Labour Inspectors reported the need to increase inspector numbers and improve enterprise access to Internet-based safety-related information and recommended good practice examples. Six out of the seven Labour Inspectors supported the use of promotional activities such as campaigns.

Generalising to the wider Labour Inspectorate community

The participation of seven, self-selecting Labour Inspectors for this discussion paper is acknowledged as a small sample size. Generalisation is therefore not possible until a larger sample size underpins these findings. Nevertheless, it was noteworthy that despite the small sample size, there were numerous occasions when all seven Labour Inspectors were in agreement and effectively reported the same finding. Furthermore, the findings from these interviews broadly fit in with studies from Amodu (2008), Bluff and Johnson (2017), Bruhn (2006, 2009), Fairman and Yapp (2005), and Walters et al. (2011). They also broadly fit in with normative Labour Inspector conduct during visits as described by the ILO (2006) and Senior Labour Inspectors' Committee (SLIC) (2014). In addition, the participating Inspectors were recruited from diverse European regions, which further supports the idea that normative inspection procedures of 'look, ask and read' are likely to be widespread custom and practice by Labour Inspectors, as described by the ILO (2006) and SLIC (2014). Again, caution is required as the veracity of this statement will need to be further evidenced with additional EU-wide research on Labour Inspector conduct.

Proposals for a standardised OSH measure

The need for empirical research to provide evidence for strategies and methods supporting compliance is clearly articulated by EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021). However, there is not yet any standardised or widely adopted method to measure and thereby comparatively assess the standard of OSH in enterprises. However, there are many methods available that very often use risk assessment or safety auditing-based methodologies (see for example, Gould et al., 2005; ISO, 2010; Tixier et al., 2002). There are also methodologies presented in studies that have assessed aspects of OSH in situ (for example, see Bluff, 2019; Walters et al., 2011). But it remains that currently there is no consensus as to how to measure OSH and thereby assess compliance with national safety legislation. This greatly hampers comparative analysis for differing EU-based enterprises and compliance supporting strategies.

A standardised and harmonised measure of OSH, if implemented, would be of great advantage. It would provide empirical data for the many research questions being asked by regulatory theorists and OSH researchers as to the best deployment of scarce Labour Inspectorate resources. Such a measure can also progress the sanction promotion debate and in particular evidence what specific Labour Inspector conduct, activity or style best supports compliance. In addition, all seven Labour Inspectors who were interviewed were supportive of an OSH measure.

This discussion paper therefore presents pragmatic proposals for measuring OSH, to be used primarily by Labour Inspectors and workplace safety researchers. These proposals centre on three specific possibilities: the use of existing Labour Inspector reports, standardising a method to measure OSH, and improving the conduct of visual inspections by Labour Inspectors during visits to enterprises. Any of these three proposed

methods are considered feasible on their own, or they can also be used collectively to provide further empirical data, covering mostly active threats but also some latent risks as well.

Required characteristics of any proposed OSH measure

It is acknowledged that as soon as any measure of OSH performance is proposed, there will inevitably be those who will critique the method presented and point out what variables should be included or excluded. But it remains that a practical easily applied method, applicable to the majority of EU workplaces, remains a priority for development. It is also clear that more research conducted at smaller-scale enterprises would be beneficial (EU-OSHA, 2021). This discussion paper therefore seeks to facilitate this development, by proposing an OSH measure aimed primarily for use by Labour Inspectors, but that can also be used by safety researchers. Clearly, any such measure will also need to undergo pilot study field trials and subsequent modification to arrive at a workable method.

A crucial issue for any proposed OSH measure will be the quality of any data produced. Such data need to support the ability to appropriately assess level of safety in any given enterprise across a representative spectrum of existing chemical, physical, biological and psychosocial hazards. Choosing which hazards to include to ensure a representative range is, in itself, a challenging task. As Le Coze (2005) discusses, certain enterprises may be too complex for current safety audits. This can be envisaged by considering that the number of workplace hazards and associated scenarios that can manifest themselves in any given enterprise is estimated to be in the region of 15,000 (ILO, 2022a).

A further aspect to consider is that any data generated need to potentially underpin future correlational and experimental research designs in order to appropriately generate evidence for the effectiveness of particular compliance supporting strategies. When any correlational data are used in research, they are often accompanied by the statistical mantra that ‘correlation does not imply causation’ (Spiegelhalter, 2020, p. 96-99). Experimental research data, in contrast, are considered to generate better evidence of causation and for the effect of any interventions (Aronson, 2012; Breakwell Smith & Wright, 2012; Cresswell, 2013; Lindblom & Hansson, 2004; Spiegelhalter, 2020).

Therefore, whilst this does not detract from the intrinsic usefulness of correlational data, any OSH measure also needs to adequately describe baselines for enterprises so that experimental research can also be implemented. In this way, empirical assessments of any interventions, such as increased sanctions, the practical effects of web-based risk assessment tools, Labour Inspector styles during visits, if visits are announced or not, leveraging supply chain influences, targeted inspections or promotional campaigns, , can be better assessed. In addition, any such OSH measure should also be harmonised so that comparative analysis becomes possible throughout EU Member States.

An example of an ongoing experimental research design that becomes possible with an appropriate OSH measure can be seen in a Norwegian study by Indregard et al. (2019). This study involves randomised controlled trials and investigates the effects of Labour Inspector visits on safety in nursing homes. At the time of writing, this study has not yet been published, but it illustrates the type of experimental design that will provide the strongest evidence for consideration by regulatory theorists, safety researchers, governments and Labour Inspectorates.

A major constraint on Labour Inspectors is their available time. So, any proposed OSH measure needs to be easily incorporated into their daily inspection routines. Therefore, it cannot be so complex as to render the measure time-consuming, difficult to use, or requiring specialist training and expertise to apply. It also has to be sufficiently practical so that all subsequent Labour Inspectors using the method will be able to easily apply the measure. This will allow longitudinal experimental designs that involve different Labour Inspectors or researchers visiting the same enterprises to produce reliable and valid data.

Given these constraints, it appears that any such measure will need to use visual inspection as a central component. When considering observation as a method to identify workplace hazards, the primacy of this method is already underpinned in the literature. Lukas et al. (2010) state that vision is our dominant sense in terms of perceiving and understanding our immediate environment. This is not to undermine the importance of asking questions and reading on-site documents during visits to enterprises by Labour Inspectors. Rather, it is to establish a pragmatic hierarchy of methods for the proposed OSH measure that reflects the practical importance of visual inspection relative to questioning and document analysis in terms of generating data for any OSH measure. In summary, it is suggested that data for this proposed OSH measure are generated in three distinct methods. The first and foremost method is a visual inspection. The second method will be engaging with and asking questions of enterprise staff, safety personnel and worker representatives. The final

method will be reading relevant on-site documentation, including risk assessments and technical engineering reports.

Clearly, to reduce the hazard profile of an enterprise to a representative description of risk is empirically challenging and certain hazards cannot be fully identified during inspections. Furthermore, there are considerable constraints on Labour Inspector time and resources to consider in this regard. Therefore, the proposed OSH measure presented here is considered a balance between these constraints and the need to produce empirical data to evidence the many debates involved in monitoring and enforcing OSH. In addition, with a harmonised and standardised OSH measure, the amount of data that potentially will be generated by multiple Labour Inspector visits will significantly increase as the number of enterprises inspected increases.

Potential of existing measures

Current risk management practice involves the widespread use of many and varied risk assessment and safety auditing methods already available to assess OSH (see for example, Everdij & Blom, 2016; Gould et al., 2005; ISO, 2010; Tixier et al., 2002). In effect, measures of OSH are currently being conducted on a daily basis. In addition, the ILO has proposed a listing of effects to be used as indicators for Labour Inspector visits (ILO, 2022b). However, a standardised and harmonised European OSH measure is yet to be developed. But, there are a small number of published workplace safety measures that have already been used to investigate Labour Inspector practices that can inform any proposed standardised OSH measure for use by Labour Inspectors (see Albert et al., 2014, 2017; Dahl & Soberg, 2013; Fairman & Yapp, 2005; Laitinen & Päivärinta, 2010; Suleiman, 2022).

For example, the Fairman and Yapp (2005) study employed a United Kingdom Labour Inspector as part of the research team who assessed workplace compliance with food safety legislation using a Likert three-scale measure. Results were recorded as: the required workplace standard was met, not met or exceeded. The results from this study provided sufficient empirical data for subsequent inferential statistical testing that exemplifies the advantages of using this type of correlational research.

A further example involved the Finnish Labour Inspectors (Laitinen & Päivärinta, 2010) who used a visual inspection-based checklist to compare sites and thereby improve construction safety standards using a competition-based promotional initiative. Duff et al. (1994) also used an observation-based measure of workplace safety on large construction sites that provided scores, allowing the effect of various safety interventions to be empirically measured. The Department for Communities (2006) also details an observation-based inspection system for use by environmental health and safety professionals who inspect rented accommodation for suitability. Finally, Suleiman (2021) presents a hierarchy of required inspection functions that can facilitate Labour Inspector effectiveness during inspections. The advantage of these studies is that they have been shown to produce empirical OSH data that can be accommodated in the same general ‘look, ask and read’ manner already recommended for normative conduct by Labour Inspectors (ILO, 2006; SLIC, 2014).

Using Labour Inspector reports

Labour Inspector reports following their visits to enterprises are also potentially reliable and valid measures of OSH due to their content. One Norwegian Labour Inspector study by Rundmo and Olsen (2022) has already demonstrated this possibility. This study found a positive correlation between the level of management training in enterprises and safety standards. Such reports (dependent on content) together with associated Inspectorate databases can therefore provide good-quality data for correlational and experimental research to empirically assess the effects of any sanction or promotion-based initiatives. Another illustrative example is Mendeloff et al. (2021) who used databases from the US Occupational Safety and Health Administration to assess the frequency of repeated enterprise violations after they had been cited by Labour Inspectors.

However, it is acknowledged that such reports contain sensitive data, making access problematical (EU-OSHA, 2021). But if confidential access by Labour Inspectorates or researchers can be facilitated, then these reports can serve as very useful measures of OSH. In addition, DeBoer (2018) alludes to the importance and accuracy of Labour Inspector reports with a recommendation to make them more accessible to a wider audience.

Proposing the metrics for measuring workplace safety

Building on the OSH measures and metrics already used (Albert et al., 2014, 2017; Dahl & Soberg, 2013; Duff et al., 1994; Fairman & Yapp, 2005; Laitinen & Päivärinta, 2010; Sulieman, 2022), it is proposed here that

Labour Inspectors empirically assess OSH in the enterprises they visit using 11 specific categories as detailed in Table 1.

Using these categories, where Labour Inspectors observe instances of poor safety conditions or practices, their frequency can be recorded (see for example, Duff et al., 1992; Laitinen & Päivärinta, 2010). For illustrative purposes, Table 1 indicates a visual inspection with the observation of 15 separate slip, trip or fall hazards as well as 12 instances of incorrect manual handling. In addition, the use of Likert scales (as used, for example, by Fairman and Yapp (2005) and Mendeloff et al. (2021)) can also provide empirical measures of safety. For example, low, medium and high levels of non-compliance with recommended safety practices can be recorded as 1, 2 or 3, respectively. For illustrative purposes, Table 1 indicates a high level of non-compliance with recommended OSH standards. In effect, this table would reflect an enterprise that did not have sufficient extract ventilation, had an out-of-date electrical installation, did not appropriately segregate incompatible chemicals, was very untidy, left all fire doors open and did not have any evidence of preventing work-related stress.

Table 1. Example Pro Forma

Category	Number	Likert Scale
Slips, trips & falls	15	
Manual handling	12	
Ventilation		3
Falls from heights	10	
PPE	12	
Housekeeping		3
Machinery safety	2	
Fire safety		3
Electrical safety		3
Chemical safety		3
Psychosocial risk		3

As well as providing empirical data for specific OSH standards, this proposed methodology could be useful for completing risk matrices or be used for quantitative risk assessments as described, for example, by ISO 31010:2010 (ISO, 2010). This brief listing in Table 1 is illustrative only as the actual number of hazards observed and elicited as well as their contextual descriptive characteristics (such as size, number of employees, work processes, safety management systems used, level of unionisation training, employee representation and so on) will emerge during the visual inspection and subsequent questioning and reading of on-site documents.

Clearly, psychosocial hazards are not observable. For this category, it is suggested that questioning and reading relevant policies and risk assessments will allow Labour Inspectors to subjectively assess such hazards using methodologies (as described by Weissbrodt and Giauque (2017)). However, observation can still inform psychosocial risk assessment. For example, a participating Labour Inspector for this discussion paper stated: 'I'll look at the pace of operations too if they are too rushed.'

Background descriptive statistics for the enterprise should also be available, including business sector overall size, number of floors, number of employees and so on, which will add necessary context to the data generated. This measure also proposes that the main production area or location with the most occupants of the enterprise is visually inspected as a minimum, and the observable hazards recorded placed into the categories listed in Table 1. In summary, by assigning scores to specific categories as described above, a practical, standardised and harmonised OSH measure becomes possible for use by Labour Inspectors and safety researchers.

The use of surveys that involve quantitative psychometric measurement as well as in-depth interviews, focus groups and incident data analysis was considered for this discussion paper. Niskanen et al. (2014) used surveys to investigate the perception of employees and management regarding Labour Inspector visits on employees and management. In addition, surveys have been successfully used to comparatively assess safety culture, for example, among air traffic management organisations (Le Coze, 2020, p. 29). Furthermore,

three consecutive waves of the European Survey of Enterprises on New and Emerging Risks (ESENER) by EU-OSHA since 2009 have provided a great deal of empirical evidence on safety within European enterprises (ESENER, 2022). However, the use of surveys by Labour Inspectors during visits would involve overcoming a very challenging practical difficulty. The amount of time and training that would be required to appropriately apply, collect and analyse the resultant data is considered to be far too onerous. In addition, safety culture assessment remains the subject of academic debate (Le Coze, 2020, p. 23).

Improving visual inspection conduct by Labour Inspectors

The interviews with Labour Inspectors for this discussion paper reinforced the importance of visual inspection and how it informed their subsequent assessment as to the level of OSH during visits. Simply put, observing workplace hazards during inspections is a crucial preventive activity Labour Inspectors carry out every time they visit enterprises to support compliance. The main premise of this recommendation is based on the theory that the more hazards Labour Inspectors can observe and identify during visits, the better their preventive capability as well as their overall assessment of OSH standards. The role of visual inspection has long been subject to research highlighting just how error prone and difficult a task visual inspection can be (see for example, Biggs Kramer & Mitroff, 2018; Eckstein, 2011; Hrymak & de Vries, 2020; See, 2012). As Woodcock (2014) has succinctly commented, the wider environmental health and safety community considers inspections as either done or not done and with little thought as to their reliability and validity.

Furthermore, a fundamental obstacle that Labour Inspectors encounter (as with all professionals or researchers seeking to assess OSH standards) is that prior to the visual inspection of any given enterprise, it is impossible to precisely know how many hazards there are, where they are and in what circumstances they may manifest themselves. In addition, cognitive and motivational bias is a further factor that can affect any environmental health and safety professional (Montibeller & Winterfeldt, 2015).

This is not intended as a critique of Labour Inspector conduct, which was found to be exemplary from the interviews conducted for this discussion paper. Rather, this recommendation involves considering recent research (see for example, Hrymak & de Vries, 2020) that has demonstrated how visual inspection conduct can be standardised and the observation of workplace hazards improved. This, in turn, can better aid the decision-making process that all Labour Inspectors undertake during and after their inspections. It is therefore proposed to build on the Laitenen and Päivärinta (2010) as well as the Duff et al. (1994) method and incorporate the systematic visual inspection, a method already trialled and validated by Hrymak and de Vries (2020), Hrymak and Codd (2021), and Schouten and Hrymak (2022).

Systematic visual search requires that the workplace under analysis is first broken down into specific areas such as a room, facility or specified outdoor location. Using a room, for example, the main production area of a manufacturing company, this area is further broken down into its constituent constructional elements, usually the four walls, ceiling, floor, equipment and occupants. Each of these elements is selected in turn for a specific observational analysis using a set eye scanning pattern to ensure a meticulous and exhaustive visual search of the element selected.

Taking a wall as an example, the Labour Inspector or researcher is asked to fixate their gaze in the corner of the top left-hand side of the wall, where it meets the ceiling. The observer then scans along the wall very much like reading a book, until the right-hand side of the wall is reached. The observer returns their gaze to the left-hand side of the wall and continues the visual search until the entire wall has been visually searched in the very same way the page of a book is read. Using this eye scan pattern, all elements of the room will be meticulously and exhaustively searched, revealing all observable hazards for noting and subsequent analysis.

During trials with safety professionals who used the systematic visual search method, it was found that a 30-minute training session was sufficient to begin its use (Hrymak & de Vries, 2020). It was also found that using two or three similar practice sessions using feedback with participants was optimum in terms of mastering systematic visual inspection (Hrymak & Codd, 2021).

The advantage of using systematic visual search is twofold. Firstly, this easily mastered skill has been demonstrated to increase the number of observable hazards seen in workplaces, which will improve the reliability and validity of any subsequent safety measure used. Secondly, this method can be easily accommodated during Labour Inspector visits to enterprises as visual inspections are already widely used by Inspectorates.

There will be an increase in inspection time required by the observer and the method does take somewhat longer to conduct. However, the increase in the number of hazards observed will improve reliability and validity as well as better informing the user as to the level of safety for the enterprise under analysis. It is also suggested that experienced Labour Inspectors are firstly introduced to systematic visual search in order to

familiarise themselves with the method. These senior inspectors can then pass on this skill by tutoring their more junior colleagues in a practical and cost-effective manner.

Conclusions

OSH as indicated by indexes such as fatalities, accidents and ill health has improved in the decades since the framework and daughter directives were implemented by the EU. However, the effects from largely preventable workplace accidents and ill health continue to be felt by victims, families, enterprises and governments. Figures from 2018 for the EU's workforce illustrated that over 3 million accidents occurred with over 3,000 fatalities (Eurostat, 2019; Vision Zero, 2022). Clearly, the current loss of life, injuries and ill health suffered by the EU workforce as exemplified by these statistics remains unacceptable and requires improvement. The literature review in EU-OSHA's overarching review on improving compliance (EU-OSHA, 2021) presents the available evidence for the cause, effects and remedies for the continuing and unacceptably high frequency of EU workplace accidents, ill health and fatalities.

National Labour Inspectorates and their field-based Labour Inspectors remain centre stage in terms of reducing this burden of accidents, ill health and fatalities. Having conducted interviews with Labour Inspectors from different EU Member States as well as reviewing the literature on their interactions with enterprises, evidence for the following description emerges. Labour Inspectors are highly qualified and experienced professionals who are centre stage in turning the preventive ethos of national safety legislation into safe workplaces. This implementation is facilitated by their interaction with individual enterprises, beginning with the assessment of OSH standards, which is greatly informed by their 'look, ask and read' conduct during inspections. Using their professional skills, they largely persuade but will sanction enterprises if necessary, as they seek to support compliance to a level they see as appropriate.

Based on this description, this discussion paper presents three proposals for the Labour Inspector community to consider. These proposals are aimed at providing additional data to evidence two key areas of debate: the best nationally based strategies for Labour Inspectorates to adopt given their available resources, and what is best practice by individual Labour Inspectors during visits to enterprises.

The first proposal is to use existing Labour Inspector reports as measures of OSH. The second is to consider a standardised and harmonised measure of OSH that Labour Inspectors can use during visits in order to assess how they can better support compliance. The third is to consider the use of systematic visual inspection during visits to enterprises and thereby improve their decision-making capabilities regarding the appropriate level of safety required.

Recommendations

Further consultation with Labour Inspectors and safety researchers is needed to design and pilot a standardised measure for OSH.

Further interviews with Labour Inspectors should be conducted, preferably using interpretative phenomenological analysis and regarding:

- Assessing what particular sanction options are the most useful and why:
- is there is a need to design new risk assessment methods and sanction options specifically for psychosocial risk given the changing world of work?;
- the feasibility of using a standardised OSH measure as proposed in this discussion paper;
- factors influencing the decision-making processes during inspections; and
- the frequency of taking immediate observed site hazard rectification without sanction.

Finally, enterprises that have used tools like OiRA and BeSMART should be recruited for experimental longitudinal studies. This would provide further empirical evidence as to the effect of web-based risk assessment tools, in terms of supporting compliance and improving OSH standards.

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