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Strengthening the **S** in ESG



DEEP DIVE SERIES

01 Occupational Health and Safety Indicators

Shift



INTRODUCTION

This deep dive into Occupational Health and Safety (OHS) indicators and metrics is part of Shift's Strengthening the S in ESG Series focused on designing better social indicators and metrics. It is based on our analysis of some 220 OHS indicators used in OHS standards and certifications, ESG data providers' products and reporting requirements.

This supplements our first phase of S in ESG research in which we looked at 1300 social indicators and metrics and provided issue-agnostic recommendations in the form of three guardrails (what to avoid) and three guidelines (what to aim for) in indicator design.

The aims of this second instalment of our research series focused also on living wage indicators and community-focused indicators are:

1. To provide recommendations for improving S in ESG data available to investors about companies' management of specific issues (OHS, Living Wages) or impacts on specific stakeholder groups (Communities).
2. To identify good practice from these indicators that could inform indicator design in other areas of social performance.

To access more resources within our Strengthening S in ESG series, [please visit our webpage.](#)

THE INDICATORS: SOURCES AND SCOPE

This research is based on Shift's analysis of some 220 OHS indicators used in OHS standards and certifications, ESG data providers' products and reporting requirements. Approximately 70% (160 indicators) were identified from the library of several hundred indicators used within major ESG data provider methodologies and reporting requirements that Shift catalogued for our initial "S in ESG" analysis¹.

The remaining 30% (60 indicators) were drawn from established standards for occupational health and safety management systems of the International Organization for Standardization (ISO 45001² and ISO 45004³) and the American Society of Safety Professionals (ANSI/ASSP Z10.0)^{4,5} the OHS content of ESG data providers products;⁶ and key resources in the OHS literature.⁷

Of the full set of indicators reviewed for this research, over 50% are quantitative indicators for tracking so-called "recordable"⁸ incidents; approximately 15% focus on policies, processes and practices that may be part of a an OHS management system; 5% address a company's governance of OHS; and 10% of them focus on whether a company mentions OHS in its public reports.

RESEARCH FINDINGS:



Finding #1

There is an over-reliance on "lagging" OHS indicators in ESG data providers' methodologies, providing investors with an incomplete picture of companies' OHS performance.



Finding #2

"Leading" indicators that can credibly offer insight into the robustness of occupational health and safety management systems (OHSMS) would provide more useful insight to investors.



Finding #3

An opportunity exists for ESG data providers to evaluate whether companies are themselves, over time, improving the indicators they report on: a signal of a maturing approach to OHS.

LEADING VERSUS LAGGING INDICATORS

While not yet at a “tipping point” for their widespread adoption, the OHS field is undergoing a shift among companies measuring OHS performance, from the predominant use of “lagging” indicators, to balancing these with “leading” indicators.

Lagging indicators measure past performance and events. For example, lost time due to injury, occupational fatalities, and hours of safety training. Some companies, including small and medium-sized enterprises (SMEs) may be more focused on meeting legal OHS requirements where they operate, relying on the traditional “lagging” health and safety indicators contained in local workplace regulations.

Leading indicators measure actions taken to influence future performance. For example, hazard identification or abatement, incident investigations, or the continuous improvement of OHS management systems. Large multinational companies are likely to measure their health and safety performance internally against customized OHS metrics, and to implement OHS management systems that include “leading” indicators such as those contained in ISO 45001 and ISO 45004. For example: Unilever’s occupational health and safety standards are based on “mandatory requirements which align with the obligations set out in ISO 45001.”⁹

EXAMPLES OF LEADING AND LAGGING INDICATORS*

TYPE OF INDICATOR	DESCRIPTION	EXAMPLES OF INDICATORS
Leading indicator	• Measures key issues that contribute to achieving intended results • Focuses on inputs and processes • Used to influence change and prevent risk	• Quantitative data of key process variable or key inputs. • Qualitative data related to current or expected performance.
Lagging indicator	• Measures past results • Usually provides numerical values. • Frequently used to compare with other organizations or national indicators.	Incidence rates of, for example: • Injuries • Occupational diseases

*All examples based on Table 3, ISO TR-45004 2024 Occupational Health and Safety Management - Guidelines on Performance Evaluation (American Society of Safety Professionals, American National Standard) page 11.

01

There is an over-reliance on “lagging” OHS indicators in ESG data providers methodologies, providing investors with an incomplete picture of companies’ OHS performance.

Of the OHS indicators in use by ESG data providers, more than 50% are quantitative indicators for tracking so-called “recordable”¹⁰ incidents, including workplace accidents, fatalities, injuries, and lost time due to injury or illness. Tracking the number of fatalities, injuries, and accidents in a workplace is a foundational occupational health and safety practice. However, over-emphasis on lagging indicators,¹¹ may not provide a complete picture of a company’s health and safety performance for three reasons.

First, the lagging indicators traditionally used by ESG data providers may not be predictive of future performance for the companies being evaluated nor of related risk for investors. As noted by David Michaels in *Seven Ways to Improve Operations without Sacrificing Worker Safety*, “While lagging indicators identify problems that often need immediate attention, they do not adequately evaluate a firm’s safety and health management system...The causal chains that lead to most serious and fatal injuries are quite different than those leading to the majority of ‘OSHA recordable’ injuries.”¹² For example, in sectors like mining where a single event can be catastrophic for people, planet, the business and investors, a low injury rate may not adequately capture systemic issues predictive of future performance.

Second, lagging indicators that focus on negative outcomes for a company resulting from OHS incidents, by definition miss earlier warning signs. “Lost time injuries,” for example, offers insight primarily into hours that workers have been unable to contribute to a company’s value-creation, so undermining the business’s productivity. It does not provide decision-useful information regarding the likelihood of such injuries occurring in the future; that is, it does not convey on-going risk to the business. That instead requires a focus on the root causes of those risks: the actual and potential health impacts on workers on which the company depends. ISO 45004 therefore recommends that organizations should “consider including tracking near misses and less serious medical issues in addition to injuries and illnesses with more significance. The organization should track occupational health issues that cause workers to take time off work and establish processes to monitor instances of workers coming to work when they are unwell or unfit to work.”¹³

The logic is that more attention to broader aspects of workers' wellbeing may allow companies, and investors, to better anticipate financially material risks. In the United Kingdom and Europe, the discipline of OHS evaluation incorporates greater coverage of non-physical safety and psychosocial risk factors, and there is a robust debate over whether and how the OHS field should address the mental health and psychological safety of workers.

“Total worker health” is an OHS concept that captures impacts on people independent of its economic impact on the business. Total worker health comprises indicators for 1) serious injuries, illnesses, and fatalities;¹⁴ 2) mental health, and 3) psychological safety.¹⁵ Another OHS outcome indicator that captures impacts on people is “Improved Quality of Life,” which refers to the overall health, wellbeing, and satisfaction improvement that an individual experiences through the reduction of health and safety incidents (occupational injuries, fatalities, and diseases).¹⁶

Third, interpreting lagging indicators is hard even for executives within a company to interpret, meaning investors need to treat OHS scoring based on such indicators with caution. As Shift has elsewhere noted as part of our S in ESG research, quantitative data about past events are hard or even impossible to interpret without context and may encourage unjustified conclusions (link). For example, an increase in logged workplace injuries could be the result of ineffective speak-up channels and practices but could equally mean a company has improved its safety culture. This is why ISO 45004 states that “The organization should take into account that both under- and over-reporting, or other types of inaccurate reporting, can lead to misleading indicator results and can undermine the organization’s ability to manage OH&S” and that “if there are very low numbers of injuries and illnesses, the organization should consider if this is due to a reluctance to report, a lack of awareness of how to report or why something should be reported.”¹⁷

For investors and data providers evaluating a company’s OHS performance from the outside of the company, the challenge of making sense of lagging metrics is more acute. The only credible approach is arguably to ensure that such indicators are interpreted with reference to narrative reporting or to accompanying indicators that give insight in to an organisation’s systems, practices and culture.

02

Leading indicators that can credibly offer insight into the robustness of occupational health and safety management systems (OHSMS) would provide more useful insight to investors.

The aim of an OHSMS is “to prevent work-related injury and ill health to workers and to provide safe and healthy workplaces.”¹⁸ by eliminating hazards and implementing continuous risk reduction. So, for investors and other stakeholders wanting to evaluate the likelihood that a company will identify and manage workplace health and safety risks, insight into the quality of its OHSMS would be highly valuable. However, our analysis suggested that many ESG data providers do not prioritize this in their methodologies. Our research identified approximately only 15% of indicators focused on policies, processes and practices that may be part of a an OHS management system.

The question is what types of indicators will offer greater insight. On the one hand, ESG data providers might focus their evaluation on the basics of OHSMS, namely whether policies and processes are aligned to the broadly standard Plan-Do-Check-Act model¹⁹ and the implementation of a hierarchy of controls.²⁰ The problem with focusing indicators here is that it **risks offering insight into a company’s intentions without clarity on whether these are followed through in practice.**

On the other hand, the OHS field literature and good practice also point to important features of a company’s governance and culture as foundational to a robust OHSMS: specifically, governance practices, worker engagement, learning and target setting with credible KPIs to evaluate progress.

This approach to evaluating OHSMS aligns exactly with Guideline One of Shift’s Strengthening S in ESG series making the case for use of indicators that are strong predictors of business decision making and behaviour.

The table below provides the rationale for these focus areas, and illustrative indicators from ISO standards as well as some being used by ESG data providers.

Focus Area	Illustrative Indicators
Governance practices: Responsibility for an OHSMS should extend from OHS professionals to operational leaders, with executive-level oversight and Board visibility of OHS risks and risk management	Evidence of: - Executive management ensuring the integration of the OHSMS requirements into the organization's business processes,²¹ - Board or board committee oversight of OHS risks and management systems.²²
Stakeholder engagement²³: An effective OHSMS engages affected workers. ISO 45001, for example, calls for meaningful engagement with workers: "The organization shall establish, implement and maintain a process(es) for consultation and participation of workers at all applicable levels and functions, and, where they exist, workers' representatives, in the development, planning, implementation, performance evaluation and actions for improvement of the OH&S management system." ²⁴	Evidence of: - Worker participation and consultation in the development, implementation, and evaluation of a company's OHSMS - Worker suggestions for improvement. - Workers reporting work-related hazards and hazardous situations - Engagement of workers at all levels and across functions, including security - Engagement with safety culture surveys that assess areas of improvement
Learning / Incident Investigation: ISO 45004, for example, notes that incident investigations can provide useful information by "identifying issues with processes, controls and underlying factors such as how work is organized, insufficient resources, or interactions between people" ²⁵	Evidence of: - Thorough investigation that includes root cause analysis - Recommendations for improvement that are relevant, actionable, and implemented effectively - Feedback from investigations used to improve the process and prevent future incidents
Credible target setting and evaluation: An effective OHSMS includes credible targets that can improve occupational health and safety outcomes for workers.	Evidence of: - Targets to reduce the number of health and safety issues²⁶ - Time-specific, quantitative targets to reduce health and safety incidents²⁷ - Tracking the percentage of the hazards identified for elimination that have been eliminated - Which actions to eliminate hazards are completed on time²⁸

USING OHS CERTIFICATION AS A CREDIBLE INDICATOR OF SAFETY PERFORMANCE:

A company having received OHSMS certification could act as a credible proxy indicator for strong safety performance. The OHS literature indicates that certification to a voluntary safety management standard such as ISO 45001 can “lead to meaningful improvements in workplace safety” and be a “credible indicator of superior average safety performance...with benefits that include “safer working conditions” and “reduced harm to workers.”²⁹ Indeed, ESG data providers FTSE4G, Sustainalytics, and MSCI, for example, include among their indicators certification to an international OHS standard such as ISO 45001.

The evidence for the validity of certification as a proxy indicator for performance in the OHS context is clear. But as Shift noted in Guardrail One of our S in ESG series, it does not work to blindly carry this logic over to other aspects of S in ESG. For example, large companies sometimes use supplier social audit and certification schemes to avoid more meaningful due diligence to address supply chain impacts and risks. Even when used in good faith, it has been shown that such schemes are not proficient at addressing supply chain impacts on people and planet, and related business risks³⁰. They are generally not good proxy indicators of performance regarding human rights impacts in the supply chain.

RESEARCH FINDINGS

03

An opportunity exists for ESG data providers to evaluate whether companies are themselves, over time, improving the indicators they report on a signal of a maturing approach to OHS.

A company’s progression toward better OHS management can be assessed by considering the ‘life cycle’ of OHS indicators. ISO 45004 emphasizes that: “As the organization’s context changes (e.g. changes to processes, legal requirements, knowledge about hazards) indicators potentially cease to be relevant and others can require development. The organization should be aware that, after some time, indicators can fail to accurately measure performance or can cause unintended

consequences such as under-reporting, misrepresentation or distortion of data. To prevent this happening, the organization should regularly review indicators to confirm that they are still valid and modify them to remain relevant if necessary.”³¹

For data providers and investors, this means that insight could be gained from analysing whether a company is using more mature indicators over time. This is different from updating indicators and metrics in ESG methodologies to reflect more mature practice.

Regarding **workplace injuries**, for example, an initial indicator is tracking the number of injuries and incident investigations. Further development of the indicator could add the percentage or number of incident investigations completed and actions identified, as well as the quality of incident investigations. A mature indicator would assess the effectiveness of actions taken to prevent injuries.³²

Training indicators should offer insight into the results and impact of training. Instead of the number of workers participating in safety training or the number of training hours provided, a stronger indicator is for workers to demonstrate competence, such as how properly to use personal protective equipment. An initial indicator is the number of workers attending health and safety trainings. Further development of the indicator could add feedback on the effectiveness of the training based on worker surveys,³³ and the number of workers completing training within a specified time. A mature indicator would assess the extent to which trainees apply training skills on the job, the number of workers demonstrating increased knowledge and skills, and observations from supervisors on the competency of workers who attended the training.³⁴ Positive impacts on employees’ safety and health, such as the reduction of serious injuries, illnesses, and fatalities, are the result of the outcomes of training activities.³⁵

ENDNOTES

- 1 Shift was unable to verify whether the non-public indicators and metrics that we used for our analysis are the most up to date versions used by data providers at the time of writing (August 2025). We also recognize that the underlying methodologies used to reach a judgement on a company's performance against an indicator may offer more nuance that we could not access for our research.
- 2 International Organization for Standardization, ISO 45001 - 2018 - Occupational Health and Safety Management Systems.
- 3 International Organization for Standardization, ISO 45004 - 2024 - Occupational Health and Safety Management – Guidelines on Performance Evaluation.
- 4 Considered the global “gold standard” for OHS management, many organizations worldwide across various sectors have adopted the voluntary ISO 45001 standard to complement existing national regulations, especially in Europe and in advanced Asian economies like Japan, Singapore, and South Korea. The reporting standards contained in GRI's Occupational Health and Safety standard align with the indicators contained in ISO 45001. Global Sustainability Standards Board (GSSB), GRI 403: Occupational Health and Safety 2018 (1 January 2021). OHS indicators and compliance approaches adopted by companies vary by geography, as well as by the size and scope of a business enterprise. For example, OHS in the United States, driven by OSHA regulations, focuses on controls and regulation of hazards. Other regions and developing countries may look to the International Labor Organization's “Guidelines on occupational safety and health management systems” as the benchmark for national regulation. International Labour Organization, ILO – OSH 2001, Guidelines on occupational safety and health management systems,” (Second edition, 2009), <https://www.ilo.org/resource/guidelines-occupational-safety-and-health-management-systems-ilo-osh-2001>.
- 5 American Society of Safety Professionals, ANSI/ASSP Z10.0 – 2019, American National Standard, Occupational Health and Safety Management Systems.
- 6 Our research focused on indicators for occupational health and safety, excluding indicators for product safety, and for consumer health and safety.
- 7 Kathy Seabrook, Co-chair of the Capitals Coalition's Human Capital in OHS project and CEO of Global Solutions, Inc., provided feedback on this publication. The findings here are Shift's alone.
- 8 In the United States, for example, OSHA defines a workplace injury or illness to be “recordable” if it “results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness; . . . or involves “a significant injury or illness diagnosed by a physician.” United States Occupational Safety and Health Administration (OSHA), General recording criteria 1904.7, <https://www.osha.gov/laws-regs/regulations/standardnumber/1904/1904.7>.
- 9 Unilever, “Safety at Work,” <https://www.unilever.com/sustainability/responsible-business/safety-at-work/>.
- 10 In the United States, for example, OSHA defines a workplace injury or illness to be “recordable” if it “results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness; . . . or involves “a significant injury or illness diagnosed by a physician.” United States Occupational Safety and Health Administration (OSHA), General recording criteria 1904.7, <https://www.osha.gov/laws-regs/>

regulations/standardnumber/1904/1904.7.

- 11 ISO 45004 recommends “a balanced approach based on selection of performance evaluation processes and indicators, with emphasis on proactive (leading) OH&S performance indicators.” ISO 45004: Introduction
- 12 David Michaels, “Seven Ways to Improve Operations without Sacrificing Worker Safety,” Harvard Business Review (March 21, 2018).
- 13 ISO 45004: 5.3.9 Injury and ill health tracking.
- 14 “Serious injuries, illnesses, and fatalities” (SIIF) captures injuries and illnesses that result in death, are life threatening, life altering, or so serious that they require immediate medical intervention.
- 15 “Psychological safety” means that “workers from diverse backgrounds are included, allowed and encouraged to learn, contribute and challenge co-workers without fear of ridicule and absence of interpersonal fear.” National Safety Council, The New Value of Safety and Health in a Changing World (2023), p. 8.
- 16 Improved Quality of Life can be measured using indicators for “Quality Adjusted Life Years” and “Disability Adjusted Life Years.” National Safety Council, The New Value of Safety and Health in a Changing World – Activation Guide and Methodology (2023).
- 17 ISO 45004: 5.3.9 Injury and ill health tracking.
- 18 ISO 45001: Introduction.
- 19 ISO 45001: Introduction, 0.4 Plan-Do-Check-Act cycle. The PDCA cycle is also known as the “Deming wheel.”
- 20 ISO 45001, for example, sets the expectation that an “organization shall establish, implement and maintain a process(es) for the elimination of hazards and reduction of OH&S risks using the following hierarchy of controls: a) eliminate the hazard; b) substitute with less hazardous processes, operations, materials or equipment; c) use engineering controls and reorganization of work; d) use administrative controls, including training; e) use adequate personal protective equipment. ISO 45001: 8.1.2 Eliminating hazards and reducing OH&S risks.
- 21 ISO 45001: 5.1 OH&S management system.
- 22 FTSE4G.
- 23 While the OHS field recognizes the relevance for health and safety programs of external stakeholders, including communities potentially affected by an organization’s activities, OHS indicators and metrics overwhelmingly measure the health and safety impacts on workers alone, without attempting to measure health and safety impacts on other stakeholders, like community members. “Another noteworthy feature of ISO 45001 is that stakeholders in the safety program should extend beyond employers and employees and into the local community potentially impacted by the activities of an organization.” A. Michael Shekari, “Safety Management Systems Standards and Guidelines: A Comparative Analysis.” Professional Safety (September 2020), https://www.assp.org/docs/default-source/psj-articles/f2shekari_0920.pdf?sfvrsn=86db8847_2. Exceptions include indicators describing whether a company’s OHS programs address HIV/AIDS among its employees and their families (Sustainalytics) or any global health issue that affects employees and the community (FTSE4G).
- 24 ISO 45001: 5.4 Consultation and participation of workers.

- 25 ISO 45004: 5.3.10 Incident investigations.
- 26 Arabesque.
- 27 FTSE4G.
- 28 ISO 45004: A.2 Examples of performance indicators: Elimination of hazards.
- 29 Kala Viswanathan, Matthew S. Johnson, Michael W. Toffe, “Do safety management system standards indicate safer operations? Evidence from the OHSAS 18001 occupational health and safety standard,” *Safety Science*, (Volume 171, 2024), <https://doi.org/10.1016/j.ssci.2023.106383>.
- 30 See: Human Rights Watch Obsessed with Audit Tools, Missing the Goal: Why Social Audits Can’t Fix Labor Rights Abuses in Global Supply Chains, November 2022 [accessed: 6 September 2025]
- 31 ISO 45004: 6.4 Life cycle of indicators.
- 32 ISO TR-45004 - 2024 Occupational Health and Safety Management – Guidelines on Performance Evaluation (American Society of Safety Professionals, American National Standard), p. 10.
- 33 Shift’s “S in ESG” research identified the potential value of sentiment data (surveys) to enhance S evaluation.
- 34 ISO TR-45004: Table 2, p. 10.
- 35 “The Theory of Change: Inputs, Outputs, Outcomes, and Impacts” in Kathy A. Seabrook and Tanis J. Marquette, *Connecting the Dots: Environment, Health, Safety, and Sustainability* (Wiley: 2025).

Strengthening the S in ESG

Deep Dive 1: Occupational Health and Safety Indicators

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ABOUT SHIFT

Shift is the leading center of expertise on the UN Guiding Principles on Business and Human Rights. Shift's global team of experts works across all continents and sectors to challenge assumptions, push boundaries, and redefine corporate practice, in order to build a world where business gets done with respect for people's dignity. Shift is a non-profit, mission-driven organization, headquartered in New York City.

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