Environmental, social and governance (ESG) implementation principles

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International Workshop Agreement

IWA 48

Framework for implementing environmental, social and governance (ESG) principles

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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International Workshop Agreement IWA 48 was approved at virtual workshops hosted jointly by the Brazilian Technical Standards Association (ABNT), the British Standards Institution (BSI) and the Standards Council of Canada (SCC), in July and October 2024.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

0.1 What is ESG?

Environmental, Social and Governance (ESG) is a strategic and operational framework that aims to assist organizations, of any size and type, to implement and report on their activities, products, services and commitment to support the achievement of sustainable development, social justice and good governance. Adopting ESG brings a clearer focus on an organization's impacts on the environment and society, including contribution to the delivery of the United Nations (UN) Sustainable Development Goals (SDGs)[1], as well as evaluating the impacts of the environment and society on the organization.

ESG is distinctive for organizations partly because it focuses the attention of decision-makers on the impacts and accountability of organizations with respect to communities, the environment and everyday lives. Regulatory bodies, policy makers and investors are particularly interested in ESG for this precise reason, and because everyone has the potential to be an interested party in the outcomes of ESG activities.

Being open, honest and factual about all aspects of the organization is a positive ESG trait which underpins good governance (the "G" of ESG) that takes full account of the direct and indirect, individual and collective end-outcomes of organizations' activities, products and services and has regard for external influences, regardless of their source, type, size or jurisdiction, including their supply chains and customers.

ESG involves accurate and regular reporting of financial and non-financial material impacts, but ESG is not just about reporting. The focus of this document is deliberately on the implementing and embedding of ESG practices and values throughout an organization's culture and activities.

EXAMPLE 1   ESG can include:

— Environmental (E): climate change mitigation and adaptation, sustainable resource use and energy efficiencies, circular economy, prevention of pollution and waste management, protection of the environment, biodiversity and restoration of natural habitats.

— Social (S): internal and external social factors and impacts, including human rights, labour practice, decent work, consumer issues, community relations and engagement (including involvement in, influencing and embedding the organization's ESG activities), privacy and data protection, health, well-being and safety, supply chain management, other human capital and social justice issues.

— Governance (G) of the organization, including the governing of the environmental (E) and social (S) categories: corporate board composition and structure, strategic sustainability oversight and compliance, executive compensation, anti-corruption, responsible political involvement, fair competition, promoting social responsibility in the value chain, respect for property rights and interrelationship with communities and society.

ESG draws on and supports the UN SDGs[1] to help define positive social and environmental outcomes. Furthermore, ESG can be considered as connected to and convergent with sustainable development.

EXAMPLE 2   SDG 6 is to ensure the availability and sustainable management of water and sanitation for all. Access to safe water, sanitation and hygiene can be a material consideration for the organization and the communities it is engaged with. ISO 46001[2] can help organizations or communities who heavily rely on water activities with demonstrating their ESG credentials.

This document is intended as a contribution for organizations considering the impacts of the 17 SDGs and how they can optimize the links between ESG activities in the context of selected SDGs.

NOTE   ISO in collaboration with UNDP have developed guidelines for contributing to the UN SDGs (ISO/UNDP PAS 53002)[3].

0.2 ESG landscape

ESG's broad perspective necessitates a wider set of reporting standards, both financial and increasingly non-financial, that allow organizations to demonstrate their current state of ESG achievement, progress or maturity and to ensure certain levels of regulatory compliance or conformity with national or internationally agreed ESG standards. Many interested parties need to be able to rely on and understand the ESG reports. Therefore, more than ever, the measurement and reporting of environmental and social outcomes need to be undertaken and performed in a standardized, credible and verifiable way.

The ESG landscape is currently complex. There are many overlapping and competing ESG standards and frameworks, some mandatory requirements, some voluntary and some commercial. Different methodologies and forms of measurement, varied definitions and competing approaches result in confusion and this has undermined the trust in ESG claims which, in turn, has tended to discourage investment and further engagement in ESG by organizations.

0.3 The evolving ESG landscape

As regulation and legislation on ESG develops around the world, there is an increasing awareness that mandatory disclosure and market transparency around ESG outcomes, impacts, risks and opportunities will continue to expand. The continued expansion of ESG and sustainability reporting and disclosure requirements over the next few years are likely to focus organizations' attention on how to manage the increasing demands. For example, senior finance and sustainability executives in large corporations are increasingly recognizing the need to be well prepared in ESG reporting as new requirements unfold.

The overall ESG landscape is evolving and extending:

— Senior executives understand that meeting ESG requirements requires engagement with a broad range of interested parties. While ESG demands typically come from investors, board members, shareholders and customers, it is critical to consider the interests of all interested parties including personnel, customers, supply and value chain partners, regulatory bodies and the communities in which they are located and serve. Increasingly, shareholders (including the more vocal activist shareholders) are demanding more emphasis on sustainability and ESG impacts.

— The number of organizations that ESG covers is expanding, including smaller interested parties (e.g. small and medium enterprises [SMEs]) who are seeking or developing ESG goals similar to those of large corporations, on a voluntary basis. They require as much support, guidance and attention as those who are mandated to report and disclose.

— The tendency has been to focus mainly on climate-related risks, resource use and circularity, such as achieving net zero and other environmental reporting requirements. Environmental focus has dominated ESG in corporate settings. Increasingly social and governance factors need to strengthen given the recognition that the environmental and social factors have to coexist and be incorporated into the governance of an organization.

— There is recognition of how ESG information and frameworks are implemented and practised. Organizations of all types and sizes are determining how to build ESG information.

— The important directions for organizations include:

  — how to maximize the potential of ESG data and information for building organizational ESG profiles, managing impacts, improving sustainability and providing evidence for functional accountability;

  — monitor and evaluate the quality of their ESG performance;

  — improve their decision-making;

  — identify trends and employ analytics to monitor their policies and direction for ESG improvements.

Implementing the ESG framework can improve and accelerate organizational strategies and actions on sustainability by shaping policies and practices related to the environment, social values and conditions. The increased value resulting from adopting the ESG framework is demonstrated through ESG strategies, actions and how ESG reporting is conducted. Therefore, ESG strengthens both the organization and the community.

There is a growing recognition that ESG can and should be viewed as a core lever in an organization's success, by expanding its economic, environmental and social development pathways, building competitive advantage and accelerating sustainability and prosperity.

0.4   ESG framework

This document, as an ESG framework, provides overarching principles, a coherent structure and guidance for ESG, so that all interested parties can be reassured that they are working within the same set of principles. This ESG framework is intended to be flexible so it can be applicable to organizations of all sizes, sectors and jurisdictions, while reflecting changes in emphasis that can emerge within ESG more widely. This document allows for regional and economic differences, including flexibility for organizations in developing regions and those with limited resources. For example, the framework is designed to be accessible to SMEs and organizations in developed and developing countries, whether they are required to report on ESG or are engaging in ESG on a voluntary basis.

The document offers incremental pathways for organizations with limited regulatory oversight or technical capacity, enabling all organizations to engage in ESG practices.

An ESG strategy and implementation are intended to propel sustainability. Pursuing this document's ESG principles can add significant value to an organization in terms of:

— **raising capital**: ESG can be a requirement/rating criterion;

— **regulatory relationships**: "green" labelling and marketing are already or in the process of being regulated and climate-related disclosure requirements for many organizations are likely to increase;

— **customers**: increasingly customers can buy or be retained on the basis of ESG "values";

— **personnel**: drawn to organizations with a pro-ESG culture;

— **shareholders**: potential improved returns, future proofing, reducing reputational risk;

— **resource utilization**: improving the circularity of finite resources;

— **climate mitigation and adaptation actions**: promoting climate transition and enhancing resilience.

The aim of this document is to assist as wide a group of interested parties as possible and to help organizations of all types and sizes to start, deepen or mature their ESG journey in a clear, accessible and straightforward manner. The ESG framework is intended to be complementary to and interoperable with existing voluntary and regulatory reporting frameworks to facilitate global harmonization and alignment on ESG principles and approaches. The ESG framework (see Figure 1) draws on relevant existing International Standards, without rewriting them, to bring together trusted materials in an overarching structure of principles and cross-cutting themes supported by key performance indicators (KPIs).

This document responds directly to the identified needs of interested parties, including businesses, investors, communities, governments and consumers, who in turn need to respond to regulatory requirements. This document is outcome-focused and performance-based, enabling a holistic and measurable approach, facilitating sustainable change.

The principles framework in this document focuses on the non-financial aspects of claims, reporting and disclosure and not solely on accounting practices. Tangibles and intangibles should be integrated within the evaluation of risks and opportunities.

The main components of this document are presented in Figure 1.
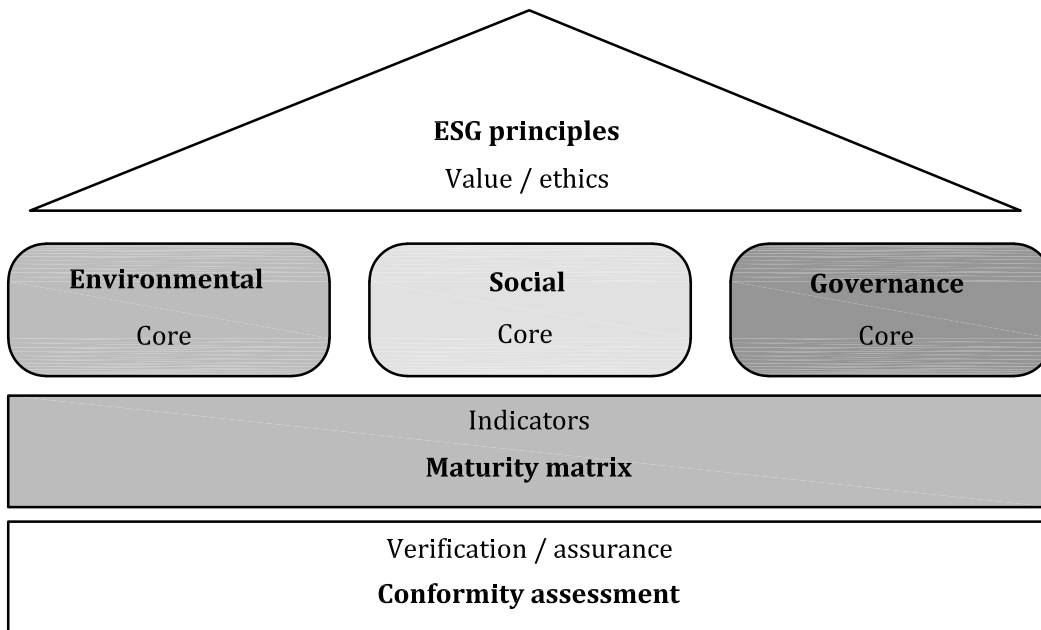
Figure 1 — Main components of the ESG framework

0.5 Maturity

The ESG framework goes beyond reporting, recognizing that positive outcomes will be more effective, productive and sustainable if a supportive ESG culture is embedded throughout the organization. Good governance (G) enables the development of a coherent ESG culture. ESG is not a fixed position with a pass/fail result, but a journey of growth and deepening ESG maturity, integrating continual improvement.

A maturity matrix is included in 7.6, showing the differential outcomes for communities (social) and the environment at four levels of maturity. This document is designed to accommodate organizations just starting their ESG journey, those underway but not sure where to go next and those with some experience but who wish to keep going or push boundaries, becoming leaders in the field.

Maturity should also be considered in terms of how ESG credibility and trust are embedded. ESG claims and reports should be true, fair and not misleading (see 9.2.3). ESG implementation should always follow the intent (i.e. spirit) behind the words and not just the literal reading of any statement, requirement, rule, law or specification.

Greater maturity in ESG should bring increased value and added innovation in tackling environmental and social impacts, both at an organizational level and, externally, to the wider communities and the environment.

Framework for implementing environmental, social and governance (ESG) principles

1 Scope

This document provides a high-level framework and set of principles to give guidance on how to implement and embed environmental, social and governance (ESG) within the culture of an organization to support management of ESG performance, measurement and reporting, enabling consistency, comparability and reliability of ESG reporting and practices globally.

This document provides guidance that identifies high-level principles and thinking that cover all elements of ESG, thus providing integrated solutions, with measurable key performance indicators (KPIs) to support the evaluation of maturity levels within the organization.

This document is applicable to a wide range of organizations of all types and sizes across the globe including SMEs and organizations in low- and middle-income countries. It is complementary and interoperable with existing voluntary and regulatory reporting frameworks to facilitate global harmonization and alignment on ESG principles and approaches and is not in itself a reporting framework.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
sustainability
state of the global system, including environmental, social and economic aspects, in which the needs of the present are met without compromising the ability of future generations to meet their own needs

[SOURCE: ISO Guide 82:2019,[4] 3.1, modified — Note 1 to entry and Note 2 to entry have been deleted.]

3.2
sustainable development
development that meets the needs of the present without compromising the ability of future generations to meet their own needs

[SOURCE: ISO 26000:2010,[5] 2.23, modified — Note 1 to entry has been deleted.]

3.3
interested party
stakeholder
intended user
person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity

EXAMPLE   Customers, owners, people in an organization, providers, bankers, regulators, unions, partners or society that can include competitors or opposing pressure groups.

[SOURCE: ISO 9000:2015,[6] 3.2.3, modified — "intended user" has been added and Note 1 to entry has been deleted.]

3.4
personnel
individuals in a relationship recognized as a work relationship in national law or practice, or in any contractual relationship that depends on its activity from the organization

[SOURCE: ISO 37301:2021,[7] 3.22]

4   Principles and practices in ESG

4.1   Overarching principles

The following principles are central to its development and should be applied throughout its application, reporting and assessment:

a) **Integrity**: applying commonly shared ethics, utilizing elements of independence, objectivity, openness and transparency in all ESG decision-making and reporting; with effective accountability mechanisms based on sound leadership, systems and controls, including feedback from interested parties.

b) **Outcomes-focused**: identifying, evaluating and managing the direct and indirect, strategic and operational outcomes, as well as the outcomes of environmental and social impacts based on decisions and activities, including intended and unintended consequences on and from the organization.

c) **Equity**: ensuring shared values and a balance of interested parties' interests in as objective, fair and impartial way as possible, bearing in mind long- and short-term risks and opportunities, practicalities such as resource availability, materiality dimensions and the interests of all relevant interested parties, including future generations.

d) **Risks and opportunities**: integrating the identification, understanding and management of risks and opportunities into ESG strategies and operations, including across the value chain and broader impacts on and from the environment and society.

e) **Evidence-based:** identifying and evaluating outcomes as scientifically or analytically as possible, using reliable, verifiable evidence, prioritizing external and internal risks and opportunities and their materiality.

f) **Maturity:** continuous improvement, embedding and updating of good practice to integrate ESG as a core value within the organization with effective risks and opportunities management, measurement and reporting, ensuring that ESG becomes integrated and owned as part of the DNA, core values, drivers and learning, rather than an external one-off, tick-box requirement.

4.2   Risks and opportunities

4.2.1   General

Identifying and understanding risks and opportunities within ESG is fundamental when considering ESG impacts on the organization or by the organization and should be captured by senior management who set the tone for their organization. Once identified and understood, the organization should manage risks and

opportunities or have processes and procedures in place to handle risks and opportunities that have been determined as significant.

Many risk management experts consider risks as being both positive and negative and therefore base risks and opportunities under the term "risk" (see ISO 31000[8]).

For the purposes of this document and to aid the understanding of risks and opportunities, risks are negative and opportunities are positive (e.g. the risk of losing lives or property in a flood is negative). An opportunity (positive) created by flooding could be to develop new flood defence mechanisms, sell more flood sacks or create more natural flood defences, effectively nurturing habitat recovery.

Risks and opportunities relate to an uncertain event or condition that, if it occurs, can change the effects on one or more factors or impacts of ESG. Opportunities as a type of risk can represent the potential for positive outcomes or benefits.

The uncertainty of risks and opportunities should be identified and/or determined and assessed if they are to contribute as material impacts. The significance and magnitude of the risks and opportunities determines whether further action should be taken. Risk and opportunity assessment in an ESG context can lead to mitigation, adaptation or acceptance of the consequences or potential consequences with no action. Risk and opportunity thresholds vary individually and organizationally, therefore the identification and assessment of risks and opportunities, including the likelihood of something happening, within a given time horizon, can be subjective.

The response to the assessment can be determined by:

— evaluating the assessment;

— dependency on the risks and opportunities appetite of the organization or individuals making the decisions;

— considering and respecting all relevant interested parties' knowledge and understanding of the risks and opportunities through engagement (see 4.4.3);

— considering the inherent characteristics of the system (e.g. organization, process, environment, social systems): systemic attributes;

— adopting a systems-thinking approach to the consequences of the actions taken (or not), i.e. understanding the knock-on effects (e.g. mitigating or adapting to the flood risks in one area creating upstream or downstream catchment effects).

ESG risks and opportunities are determined in the context of:

— ESG factors and their associated impacts;

— materiality (financial materiality and/or impact materiality, inside out/outside in impacts);

— significance and magnitude of each impact;

— whether they are direct or indirect impacts;

— interested parties' views of actual and/or perceived risks and opportunities;

— opportunities and their associated benefits.

Embedding a strategic, risks- and opportunities-based approach to ESG, often alongside sustainable development, within the organization's activities, supports effective and coherent planning in managing negative and positive outcomes in the short, medium and long term.

Risks and opportunities should be considered across the whole organization, throughout the product, service life cycle and value chain, both internally and externally.

Both risks and opportunities and their consequences can be identified from performing either a risk and opportunity or materiality assessment. When risks are identified, decision-makers should treat the direct

cause, root cause or indirect cause(s). When opportunities are identified, decision-makers should be proactive and look for emerging opportunities. In both cases, this ESG framework is an aid for producing solutions.

4.2.2 Principles and framework

4.2.2.1 Principles

Risk and opportunity principles are based on the creation and protection of value. The characteristics of effective and efficient risk and opportunity management have been identified as having an approach which is:

— **Integrated**: a holistic approach considering the organization's activities in relationship to society and the environment.

— **Structured and comprehensive**: contributes to consistent and comparable results.

— **Customized**: customizable and proportionate to the context of the organization's ESG-related objectives.

— **Inclusive**: appropriate and timely involvement of interested parties, ensuring their views are heard and taken into consideration when developing and implementing ESG-related strategies and actions.

— **Dynamic**: anticipating, detecting, acknowledging and responding to changes in real time and as circumstances dictate, remembering to report significant changes that change the magnitude of material impacts in a timely manner.

And considers:

— **Best available information**: using scientific and credible information where possible, while identifying and communicating assumptions, limitations and uncertainties.

— **Human and cultural factors**: considering behaviour and culture as having a significant influence on risk and opportunity assessment, impacting all levels (e.g. individual, team or group, organizational, societal, cultural) and stages (e.g. identification, assessment, mitigation or response, communication), including those outside the organization and geographical regions.

— **Continual improvement**: using the learning and experience to hone the risk and opportunity evaluation, strategies and implementation of actions.

NOTE   See ISO 31000.[8]

4.2.2.2 Framework

4.2.2.2.1 General

ESG adds an additional dimension to risks and opportunities and their management: the organization should identify, assess or evaluate, manage (and report) risks and opportunities posed by the organization to the environment and society, notably to the organization's immediate and potentially widespread communities that can be affected or supported by its activities.

A key aspect of a risk and opportunity management framework is to facilitate engagement and analysis with interested parties, integrating their views and expectations into significant activities, functions and systems thinking, to inform decision-making and drive strategic outcomes.

The effectiveness of managing risks and developing opportunities will depend on the effectiveness of engagement with interested parties. Risk and opportunity management should draw on the differing perspectives of all relevant interested parties. Where the organization is carrying out ESG-related activities and reporting, this should reflect the risks and opportunities, not only to the organization but also to other interested parties that can be affected.

Adequate resources should be committed by senior management, enabling safe management of harm and the ability to seize suitable opportunities. A robust ESG roadmap should support the decision-maker allocating resources in accordance with the ESG needs.

There are many International Standards to help organizations manage risks and opportunities (see 4.2.4).

The explicitly external-facing perspective in assessment of ESG risks and opportunities requires additional tools to define and evaluate the environments and communities potentially affected (e.g. environmental risk assessment and/or social impact assessment).

Given that much of ESG, especially social impact, can be new to organizations, there is an even greater necessity to work collectively with organizations in the sector. Decision-makers need to evaluate the impacts within sectors and wider interested parties. Firstly, by establishing reliable and credible evidence sources and secondly, by determining how to test and evaluate shared data and information. Innovative organizations will follow the ESG framework to prepare and refine data having new data sets related to KPIs, learning how to reject erroneous data or unsuitable results.

Horizon scanning is important, as regulatory requirements, social expectations and generally accepted norms are likely to continue to evolve and change focus.

Market scanning, trend analysis, predictive modelling and forecasting can also assist in determining the organization's exposure to emerging or foreseeable ESG risks and opportunities.

Aspects such as climate change, biodiversity, human rights, modern-day slavery, equality, diversity and inclusion, associated not only with the organization, but also its value chain and customers (i.e. upstream and downstream), should be evaluated.

Appropriate communications and engagement by organizations with relevant interested parties should empower those interested parties to become active contributors in the creation and protection of value.

4.2.2.2.2   Risk and opportunity framework development

Risk and opportunity framework development is a function of good governance and should be considered in terms of:

— **Leadership and commitment**: top management/governing and oversight bodies, where applicable, should be a dynamic force and proactive, and ensure appropriate resources are made available at every stage and level of the ESG-related risk and opportunity cycle, including communicating in a timely and appropriate manner according to the circumstances.

— **Integration**: understanding the organizational structures, risk culture and context of the organization, and using this understanding to integrate risk and opportunity evaluation and management into every aspect of the organization, including consideration of external environmental and social factors and impacts.

— **Design**: risk and opportunity evaluation, strategies and implementation programmes (including communications and engagement) need to consider all relevant ESG factors and impacts (understanding the context), allocating responsible and accountable individuals and/or teams to manage the workload.

— **Implementation**: developing appropriate plans, policies and procedures, adequately resourced and authorized, based on the decision-making process and the organization's ESG risk appetite, taking into consideration interested parties' views, to identify and implement reinforcement, mitigation, adaption, sustainable and other proactive actions in pursuing objectives.

— **Evaluation**: establishing periodic reviews of the effectiveness of the risk and opportunity framework, while ensuring intervention can be carried out when significant risks and opportunities appear.

— **Improvement**: adapting and implementing lessons learned with new understanding in the fast-evolving ESG and sustainability arena is an important aspect of risk and opportunity creation and protection of value.

NOTE 1   See ISO 31000[8] for further information on risk.

Risk and opportunity governance involves assuming accountability for the organization's continual risk and opportunity identification, response and communication of the chosen approach to the relevant interested parties as necessary.

To ensure that the organization fulfils its purpose and achieves the intended strategic outcomes, the governing body (or leadership) should:

— build the culture for the organization with respect to how the management of risks and opportunities is to be approached;

— ensure that when the governing body (or leadership) makes decisions, it assesses, treats, monitors and communicates the nature and extent of the risks and opportunities faced;

— oversee the organization's risk and opportunity management activities.

NOTE 2   See ISO 37000[9] for further information on governance.

4.2.3   Risk- and opportunity-based approaches

To ensure optimal risk- and opportunity-based management of ESG, an organization can implement the following process:

a)   **Establishing the organization's strategies and priorities**: managing the organization's internal and external ESG risks and opportunities.

b)   **Identification of ESG risks and opportunities**: identifying specific ESG risks and opportunities that can affect the organization and its interested parties.

c)   **Evaluation of ESG risks and opportunities**: analysing and validating the probability of risks and opportunities arising and assessing their impact on outcomes for the organization over the short, medium and long term, including any impact on all its interested parties.

d)   **Treatment of ESG risks and opportunities**: within the organization's risk and opportunity appetite, selecting the appropriate risk and opportunity strategies (accept, adapt, avoid, escalate, innovate, mitigate, monitor, reduce, transfer, etc.) and deploying the necessary tools to effectively address ESG risks and opportunities (artefacts, controls, policies, procedures, etc.).

e)   **Monitoring and reporting of ESG risks and opportunities**: organizations should implement systematic and ongoing monitoring of their ESG risks and opportunities; ensuring regular reviews are conducted to monitor their risks and opportunities and identify any that fall outside of the risk and opportunity appetite and tolerance and in these instances, to manage these risks and opportunities so they fall back within risk appetite/model. Regular reports should be presented to the organizations' governing body (or leadership) and, where appropriate, its regulators and other interested parties.

4.2.4   Further information

For more information on risks and opportunities, see ISO 31000,[8] IEC 31010,[10] ISO 31073[11] and IWA 31.[12]

4.3   Accountability and transparency

Accountability and transparency are critical principles of ESG, emphasizing the need to understand external perspectives and shape organizational activities to account for and deliver external social and environmental outcomes, with the engagement and support of external interested parties. Organizations disclose relevant and material information about their operations, value chain, performance and impacts on ESG factors. Transparency and accountability build trust, help to manage reputational risks, and foster investor and other interested parties' confidence. Organizations are encouraged to publish an annual/periodic ESG and/or sustainability report, detailing its ESG initiatives, progress and future goals. Inadequate transparency can pose significant risks to interested parties' trust and organizational reputation. To mitigate or treat risk, organizations should implement clear communication strategies and ensure the accuracy of disclosed information (see 7.7 and 9.2.3.1).

4.4 Identification and engagement of interested parties

4.4.1 General

ESG interested parties are organizations or individuals that have interests in any ESG decision or activity. Interests create relationships, even if the organizations or individuals are unaware of them.

It is therefore important to identify interested parties (see Figure 2) and engage with them in relation to the interests that could actually or potentially be the basis for a claim.

NOTE   Here, claim is not the same as a conformity assessment claim, or a claim about financial or legal issues, but rather a claim about the right to be heard (see ISO 26000:2010,[5] 5.3.2).
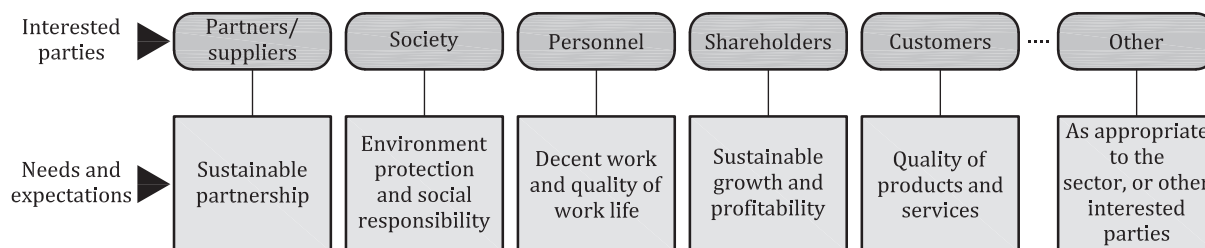
SOURCE: Adapted from ISO 9004:2018,[13] Figure 2.

Figure 2 — Examples of interested parties and their needs and expectations

4.4.2 Identification of interested parties

The identification of interested parties should ensure that all identified as having interests are representative of the interests being pursued.

When identifying interested parties in relation to ESG-related interests, the following questions should be asked:

— Who might be affected by the decisions or activities, including those in the value chain, remembering that impacts can be direct or indirect, perceived or actual, past, present or future, and, can they be quantified and/or qualitatively assessed?

— How to identify all the relevant interests and who will likely express concerns?

— Are those expressing the concerns invoking a representative voice and are any interests being missed out or disadvantaged or excluded inappropriately?

— Who has been involved when similar concerns needed addressing?

— Who can help address specific impacts?

— Who can affect the organization's ability to act responsibly?

— What are the legal requirements and other requirements?

4.4.3 Engagement with interested parties

Engagement with relevant interested parties is a critical element of ESG-related issues. It leads to increased understanding and relationships with those interested parties who can add a perspective otherwise overlooked or missed which can result in a strengthened solution.

Relevance, in terms of interested parties, should be carefully considered, transparent and appropriate to the ESG-related impacts.

Where interested parties are being represented indirectly (e.g. by other parties such as associations, community leaders, consultants and NGOs), every effort should be taken by the organization to ensure that those representing them should have, wherever possible, the authority, knowledge and understanding to speak or advocate on behalf of the interested parties.

NOTE   The representation can provide a balance of representative views.

This engagement should follow a structured, unbiased and transparent process. The engagement process should enable common understanding and seamless communication among the interested parties (e.g. not creating undue complexities in messaging for those who do not or may not have technical expertise).

There are many reasons for an organization to engage with interested parties. The reasons for the use of ESG-related engagement can include:

— increased transparency;

— increased understanding and awareness of the impacts of its decisions and activities on specific interested parties;

— determining best approaches to increase beneficial impacts of the organization's decisions and reducing any negative impacts;

— ensuring claims are perceived to be credible;

— highlighting any conflicts of interests and reconciling conflicts with evidence-based reporting;

— fulfilling legal obligations.

Engagement with interested parties takes many forms and can include one or more of the following depending on the engagement and context of the information required:

— surveys and questionnaires;

— focus groups;

— public consultations;

— panels of interested parties or advisory committees;

— workshops and roundtables;

— partnerships and collaborations;

— interviews and one-on-one meetings;

— public reporting and disclosure.

Consideration should be given when selecting, using and interpreting the engagement methodologies as to whether bias or systematic errors can be introduced. Decision-makers should recognize and appreciate the limitations and advantages of each method used before, during and after the activities are carried out.

Engagement with interested parties is a two-way process. It is important to involve those interested parties that will be implementing changes and those influenced by it. All opinions should be considered. This ensures that impacts are thoroughly identified and assessed in terms of significance and likelihood of their impacts.

Engagement with interested parties should be representative and inclusive to enable a balanced view of ESG and especially social value, for all groups affected by an intervention or activity. The environmental conditions and social well-being for future generations should be taken into consideration. The particular interests of different groups of interested parties can vary but can follow the broad spectrum set out in Figure 2.

4.5 Materiality

4.5.1 General

Materiality in ESG is the attribute attached to ESG factors and their impacts that enables an organization to identify and prioritize impacts (positive or negative, or both), develop strategies and action plans, and implement change, while allowing the organization and other interested parties, including intended users, to make decisions and judgements on the organization, its products and/or services.

NOTE 1 The selection and prioritization of materiality impacts can influence investors and other decisions of interested parties.

NOTE 2 Dependencies: reliance on natural resources (e.g. water, precious metals) and people (e.g. personnel, communities) can influence investors or be included in regulations and frameworks. Dependencies can also include operating in regions where there is rule of law and a stable economy, which can cause impacts through disruptions and reduced resilience.

NOTE 3 Not all interested parties can assert influence on the organization and therefore the organization itself considers how it can reduce/minimize or eliminate the impacts on others.

The materiality assessment identifies what impacts are significant to an organization, both internally and externally (e.g. within the organization and for intended users and interested parties). Most reporting and disclosure requirements expect an organization to determine what matters on a consistent and transparent basis and then act proportionally.

Materiality assessments provide a systematic approach to identifying and assessing relevant impacts and the significance of those impacts on the organization, environment and/or for communities and society (see 4.5.2).

Materiality should be based on up-to-date data and information relevant to the ESG impacts. The credibility of the materiality assessment and claim will have a correlation with the quality, accuracy, timeliness and validity of the data and information used. Therefore, it is important to obtain robust data and information and provide the traceability and transparency of that data and information considered from the outset of the materiality process and to review it to ensure that it remains current. Not only does this provide credibility and confidence in the materiality process, it also ensures that changes in materiality are identified and handled appropriately during and between reporting cycles.

Materiality impacts can occur at any time (e.g. floods, wildfires, employment disputes) and organizations should have processes and procedures for regularly reviewing and assessing ESG impacts to determine their significance to the organization, supply chain or other relevant interested parties. Once identified, actions should be considered and taken as necessary (see 4.5.3).

Materiality may be entity-, sector- or interested party-specific. The organization should identify all impacts initially and avoid inappropriate selectivity during the materiality assessment (e.g. avoiding a significant impact that interested parties are concerned about but the organization would rather ignore).

Critical and significant impacts may be perceived or actual, direct or indirect and historic, current or in the future.

4.5.2 Key concepts of materiality

There are two main concepts in determining materiality:

a) Making a distinction between the impact of the organization externally ("inside out") and the impacts on the organization from the outside ("outside in"). These include environmental, social and governance impacts in both directions. "Inside out" and "outside in" effects are typically broader than those set out in b) below as they are typically considered from a sustainability perspective, including economic factors, e.g. whether the activities of an organization are or can affect the well-being of relevant interested parties (including planet, environment and society); these include outcomes affected indirectly through the organization's impacts on the environment and society.

b) The accountancy-based approach distinguishes between financial risks and non-financial risks. Financial materiality considers all impacts that affect, or can affect, the organization's financial position, such as food and energy costs rising due to climate related flooding, drought or wildfires. Non-financial risk can be reputational damage resulting from missing an organization's stated greenhouse gas (GHG) emissions targets (if not mandatory), but this can also have indirect financial implications, such as brand erosion or regulatory enforcement action (including fines, refusal of licences, ineligibility for public or other contracts having specific ESG requirements). Another example of indirect effects is replanting forests after logging but using species that do not support the local community food source or re-establish a biodiverse ecosystem as the previous tree species did.

NOTE   In b) when both concepts are used together this is considered to be "double materiality" as used in the European Union's Corporate Sustainability Reporting Directive (CSRD) requirements. For other ESG frameworks, such as the IFRS Foundation's Sustainability Disclosure Standards, developed by the International Sustainability Standards Board (ISSB), focus is primarily on sustainability-related financial information.

While these concepts differ slightly, their common goal is to support an organization in considering its ESG impacts, the development of strategies and action plans, implementation of positive change and the accurate disclosure of its position along with the governance arrangements in respect of environmental and social responsibilities.

4.5.3   Actionable approaches to material impacts

When carrying out a materiality assessment, all impacts should be identified and explained, even if they are subsequently omitted or insufficiently well-defined, and all material impacts should be recorded independent of whether they are to be reported or not. Robust and detailed reporting demonstrates that full identification of materiality has been carried out and recorded.

For reporting and disclosure, the organization should ensure that it reports on its significant materiality impacts and should explain if there has been a prioritization or partial selection of the impacts identified for reporting. While not reporting on all impacts, materiality identification and assessments are expected to list all materiality issues.

Actionable approaches to identify material impacts should include:

— Engagement of all relevant interested parties to identify potential ESG issues from the beginning of the process (e.g. sector-agnostic, sector-specific, entity-specific).

— Identification, management, transparency and credibility of data and information which is used for the evidence base and decision-making (by any interested party), including but not limited to their accuracy, integrity, relevance, accessibility, reproducibility and repeatability and their nature (scientific/non-scientific, peer reviewed, industry sector practice, etc.).

— Description of impacts, associated risks and opportunities for each ESG impact identified (considering the materiality and maturity of the topic).

— Assessment of the ESG impacts using a consistent methodology for the impacts, risks and opportunities.

— Creation of a materiality matrix demonstrating the most significant impacts of all the material issues identified. This methodology helps to screen and prioritize impacts.

— Reviewing and updating strategy, risk and opportunity appetite and actions, carried out regularly and consistently. The frequency of the materiality assessment is dependent on the organizational requirements and its intended users' information cycles (e.g. annual report), regulatory requirements (where required), investment cycles and changes in material impacts.

NOTE   Materiality matrices are strategic tools used by organizations to identify and prioritize the most significant ESG issues that can impact the organization and its interested parties.

4.5.4 ESG materiality assessment

The materiality assessment should consider the intended use and interested parties of the assessment, as well as the ESG end-outcomes that the organization is aiming to achieve. An ESG materiality assessment should:

a) **Define the scope and objectives**: describe the primary goals of the assessment and why it is being conducted. Include a determination of the boundaries of the assessment (e.g. list the business units, geographic regions and time frames).

b) **Identify relevant ESG impacts to be covered**: research and benchmarking, using sector standards and norms, peer practices and regulatory requirements. This should provide a compiled list of potential ESG impacts across all three ESG factors.

c) **Engage interested parties**: identify interested parties to engage with and the best methodologies (e.g. surveys, workshops, consultations) and strategies for carrying out the engagement. It is important to engage all interested parties' views (this does not mean everyone has to be engaged with, but the views heard, even and especially if, they are not aligned with the organization's). List the purpose of the engagement, and record results of all engagements and key insights gained.

d) **Assess and prioritize the ESG impacts**: establish a credible, transparent criteria for assessment (describe the process and scoring criteria used). The criteria should enable a prioritization of ESG impacts (e.g. magnitude of impact on the organization, concerns of interested parties, alignment with organizational strategy). Materiality matrices are a useful tool for plotting results.

e) **Validate results**: internal reviews through the presentation of results to relevant senior management and departments for validation. External validation through the review of results and/or validation by interested parties.

The following associated activities complete the material assessment and close the loop:

— **Integrate into strategies and reporting**: development of action plans for the prioritized ESG impacts. Integrate the material impact activities and issues into transparent organizational strategies, risk and opportunity management and reporting processes. Ensure that there is a clear understanding of who is responsible for what, when and with what resources.

— **Communication and reporting**: reporting and disclosure (where appropriate) should incorporate the material assessment processes and results, in such a way that all relevant interested parties can interpret and understand the organization's approach and results.

— **Review and update**: materiality assessments should be carried out at scheduled intervals (or where necessary interim periods if circumstances change). Methodologies should be consistent across assessments to enable trends and comparability. Reviewing and updating is part of the continual improvement and development of organizational ESG maturity.

4.5.5 Further information

For more information on materiality, see References [14] to [20].

4.6 KPI measurement framework for ESG standardized reporting

4.6.1 General

Standardized quantitative data and qualitative assessable information play a crucial role in the global ESG landscape, building trust that can only be gained through a set of globally standardized and fully numeric/assessable indicators. High calibre data and information generated against KPIs enables organizations to understand and report on their status, set goals, make informed decisions, attract investment, manage risks and opportunities, engage their personnel and interested parties, meet relevant compliance requirements, while driving positive change within and outside their organization in line with ESG principles.

This document starts the journey on developing generic ESG KPIs. This should lead to the development of additional, consistent and benchmarkable standardized general and sector-specific KPIs over time.

4.6.2   Rationale

ESG KPIs are essential for organizations increasingly operating within an ESG framework.

a) **Data generation:** evidence can be derived from many sources. Data in particular may come from digital sources and feed into KPIs. This can lead to real-time KPI tracking, faster and more reliable data points for collection, analysis and interpretation for ESG performance reporting of KPIs.

b) **Measurement and reporting:** data helps organizations measure and report their performance in various ESG areas. It enables them to assess their environmental impact, social inclusivity and governance practices. By collecting and analysing relevant data, organizations can track their progress, set targets and report their achievements transparently.

c) **Decision-making and planning:** data-driven insights are crucial for informed decision-making and effective strategic planning. ESG data allows organizations to identify areas where they can improve sustainability, social equity and governance practices. Accurate, consistent and repeatable data results prioritize initiatives, allocate resources and develop strategies to address specific challenges or opportunities.

d) **Engagement with interested parties:** organizations engage with a diverse range of interested parties. ESG data provides a common language and framework for dialogue. It helps organizations communicate their sustainability goals, demonstrate progress and engage interested parties in collaborative efforts to address shared ESG priorities.

e) **Propelling growth and investment:** organizations that prioritize ESG initiatives are often highly regarded by investors, other businesses and clients. Data-driven evidence of an organization's sustainability performance, social inclusivity and governance commitments can enhance an organization's reputation and competitiveness. ESG data helps organizations showcase their commitment to sustainable development, which can lead to increased investment, economic growth and job creation. Globally standardized ESG data can strengthen an organization's credit rating and position in the global debenture markets.

f) **Risk and opportunity management:** ESG data enables organizations to identify and manage risks and opportunities associated with environmental, social and governance factors. For example, data on climate change impacts can help organizations develop resilience plans, mitigate or treat risks and adapt to changing conditions. Social data can highlight disparities and social challenges, prompting organizations to address issues such as inequality.

4.6.3   Guidance notes on KPIs

This KPI measurement framework for ESG standardized reporting is designed to guide organizations in building trusted, globally standardized data over time, regardless of their size, geographic location and income.

Each pillar of ESG includes a set of KPIs which have been built for an overall ESG measurement framework.

This set of KPIs is meant to serve as a starting point for organizations to report on their ESG performance. As the next step, organizations or users should develop appropriate data and information subsets and customized sets of KPIs based on their organization's individual circumstances and the specificity of the industry and sector. This set of customized KPIs should align with the organization's overall ESG goals and priorities.

As this KPI measurement framework for ESG standardized reporting is designed for organizations of all sizes, geographies and incomes, the document starts with a set of profile indicators for each reporting organization. Profile indicators ensure that the data are interpreted correctly and contextualized and can be compared across specific peer groups.

These profile indicators should be reported on as part of this measurement framework for ESG and include:

a) size of organization by number of full time equivalent (FTE) personnel (ranges to be defined and added);

b) size of organization by annual income (ranges to be defined and added);

c) location of organization: country and geographic region (official global regional groupings to be added);

d) location of organization by climate type (climate types to be listed);

e) type of organization by industry classification/sector (sectoral categories and classification system should be included).

KPIs in this ESG measurement framework are listed by subclause: environmental in 5.4, social in 6.4 and governance in 7.4.

4.7 Further information

For more information refer to the references listed in Table 1.

Table 1 — Sample of ISO and IEC documents for guidance on generic ESG issues

Issues	ISO and IEC documents
Accountability and transparency	ISO 37000,[9] ISO 37001,[21] ISO/IEC TR 38502[22]
Identification of and engagement with interested parties	ISO 9001,[23] ISO 10018,[24] ISO 14001[25]
KPIs	ISO 14031,[26] ISO 37005,[27] ISO 37122,[28] ISO 37124,[29] ISO 50006[30]

5 Environmental

5.1 General

Environmental considerations of ESG cover the risks and opportunities and impacts to the environment associated with the organization's activities and any associated impacts on the organization, products and services using the constructive challenge approach (see 7.5.2). This approach allows the risks and opportunities to be identified across multiple dimensions of the environmental activities including, but not limited to, temporary activities, across the life cycle of a product or service, geographically across the activities, consideration of assets and asset lifetime, finance/ownership considerations and supply chain considerations of an organization.

EXAMPLE

— Life cycle considerations related to risk and opportunity could include resource extraction or power generation through to recycling or absolute end of life.

— Geographical considerations could include water availability of the area or region.

— Asset considerations could include the energy source being used and the energy efficiency of the asset versus newer technology.

The activities of an organization are impacted by and can impact the environment in different ways. The impacts on the environment can be acute and cumulative on multiple local ecosystems as well as impacting more broadly on a global scale as part of climate change.

NOTE   One significant element of the environmental factors of ESG is the reduction of GHG emissions. ISO's net zero guidelines IWA 42[31] supports the scientific transitions to global efforts in this regard. ISO's London Declaration (https://www.iso.org/ClimateAction/LondonDeclaration.html) aims to support net zero emissions by 2050 through the integration of climate science into new standards and the revision of existing standards.

5.2   Environmental framework

5.2.1   Framework

Using the principles identified in Clause 4, the risk- and opportunity-based approach in 4.2.3 and systems thinking approach, a simple framework for the environmental aspects is shown as follows:

a) **Identifying environmental risks and opportunities:**

— Categorize environmental risks and opportunities.

— Understand interested party concerns and needs.

— Determine areas of environmental materiality.

— Identify risk and opportunity tolerance and vulnerabilities.

— Record evidence, rationale and outcomes.

b) **Evaluating and assessing environmental impacts:**

— Establish accurate, trustworthy, science- and evidence-based approaches and action plans for risk and opportunity evaluation.

— Where necessary, use environmental assessment tools, determine the materiality, significance, magnitude and likelihood of the identified impacts.

— Select areas of materiality to prioritize based on reported observations or assessment findings.

— Develop and manage evidence, information and data management systems, including transparency in uncertainties, assumptions, methodologies used and metrics.

— Identify dependencies that drive or influence environmental factors and vice versa, and also include social and governance factors.

c) **Establishing desired outcomes and implementation strategies and programmes/actions:**

— Determine and justify the baseline (aiming for stretch targets) and benchmarks against which success will be defined.

— Determine short-, medium- and long-term targets, metrics and critical success factors.

— Use or develop analytical (data or decision-based) tools, methods and techniques to measure and monitor performance and as part of an iterative process.

— Record achievements, barriers and how these were overcome.

NOTE 1   Methods used can be science-based. Such methods typically have correlation factors or an estimate of error or provide for alternative system or engineering checks and help to ensure a review of data quality and integrity.

d) **Reporting, disclosure and communicating environmental information:**

— Ensure outcomes in the form of claims that can be assessed, verified and/or validated using interpretable and repeatable methods.

— Ensure transparency and credibility are maintained by providing access to the reports and appropriate underlying evidence, methodologies, etc.

— Correct errors, omissions and misstatements as soon as possible, and communicate corrections to all interested parties.

The initial scoping and identification of the environmental factors (including boundaries) lead to an understanding of direct and indirect materiality in terms of significance and magnitude. There are a

number of effective tools used to help identify environmental risks and opportunities, including but not limited to: life cycle assessment (LCA), environmental impact assessment (EIA), water footprint (WF), air stack emission studies, energy and material balance, carbon footprint (CF), biodiversity net gain (BNG) and ecological footprint (EF).

An action plan, based on the principles of being focused on outcomes, evidence-based, sustainable and resilient (see 4.1), provides a structured approach to the proposed and adopted implementation of environmental programmes within the organization.

NOTE 2   Environmental regulatory compliance is an outcome of the governance model (see 7.2).

5.2.2   Environmental data, records and considerations

Inclusion of information, data collection methods and effective record keeping should be maintained to enable transparency, interpretability, reproducibility, repeatability and interoperability of results: all important aspects of an organization's environmental credibility and trustworthiness.

Areas to consider include but are not limited to:

a)   criteria development: realistic and practical;

b)   climate change, including GHG emissions;

c)   offsetting, insetting and the use of carbon credits;

d)   impact on supply chain, customers (across the life cycle);

e)   impact on waste management and disposal requirements;

f)   impact on biodiversity, land management and soil health;

g)   impact on waste management and potential for circular economy;

h)   limitations or boundary considerations;

i)   sources of water and energy type;

j)   interested party expectations including fair and equitable use of resources;

k)   trends and future considerations;

l)   changes in material sources and operations;

m)   technology and artificial intelligence (AI) options.

Many of the above considerations should be included in the materiality decisions in 4.5. However, these types of criteria help ensure environmental risks and opportunities align with organizational governance, vision and ESG objectives.

5.3   Examples of actions in relation to environmental considerations

Table 2 provides a few examples of actions that can be taken.

Table 2 — Examples of actions that can be taken in relation to environmental considerations

Environmental factors	Intended outcome/targets	Action examples
Climate change/ greenhouse gases (GHG) emissions	Establish GHG baseline. Benchmark against similar organizations within the sectors. Establish reduction strategies and implementation plans. Set GHG emission reduction targets or net zero targets. Strategy and implementation plan for personnel and operations/maintenance during extreme temperature event.	Carry out a GHG analysis following ISO 14064-1[32]. Identification of benchmarking partners and develop a benchmarking project, working with the sector trade association and academia. Set and monitor evidence-based targets for emissions reductions. Identify and be transparent about appropriate climate scenarios selected, identify potential risks and opportunities and impacts; vulnerable people and ecosystems; and effective adaptation and mitigation measures, procedures and actions. Test through simulation (e.g. climate stress testing) to assess resilience.
Energy, including energy management, substitution and reduction	Reduced consumption by x % against the base year. Transition to renewable energy (interim targets should be set where appropriate). Transition fleet vehicles away from fossil fuel to clean or cleaner sources (e.g. renewable energy, electric, hybrid, biofuel, hydrogen). Reduced GHG emissions. Improve energy efficiency of operations.	Development of monitoring and management of energy using product, distribution and consumption. Implement ISO 50001[33] to provide energy efficiency and energy performance improvement. Utilize energy audits to identify opportunities, see ISO 50002[34]. Increase on-site generation of renewables (e.g. photovoltaic arrays, battery storage, heat pumps). Where possible, only purchase energy produced by renewables.
Nature, biodiversity and ecosystem services	Increase use of certified wood materials and phase out non-recycled wood by 2030. Increase local biodiversity around sites. Establish conservation zones and protect existing conservation zones. Reduce wildfire risks in the local community by maintaining moorland. Reduce flood risks by integrating blue-green infrastructure, natural flood management in catchments and rewilding relevant land areas in catchments.	Increase own or partner certified plantations and natural capital. Improve soil quality, retain and plant trees and set aside/expand sensitive environments such as hedgerows, bog/fen and woodland areas. Planting appropriate native species that can survive changes in climatic conditions and increase cooling areas. Community engagement on, for example, moorland maintenance and natural flood management. Areas for biomass production are managed sustainably and that biodiversity friendly practices are used. Integrate biodiversity in decision-making.
Water	Reduce water consumption. Increase recycled water use throughout production processes. Improve water sanitation. Ensure water quality is fit for purpose (human and other life).	Develop a water footprint analysis and develop associated reduction plans. Increase recycled content water use in production by x % per year. Implement SDG management system.
Human and materials/ materials and products	Every product has a cradle to cradle or cradle-to-grave life cycle assessment. Material resources reduction by x % before a specific date. Adopt practices that promote efficiency, switching to less impacting materials and products, reduce consumption and waste and move towards circularity in production and products. Conduct a risk assessment.	Development of project team to evaluate and prioritize the life cycle assessment of the top x % per year of products by volume. Conduct an environmental risk assessment.

5.4   Environmental KPIs

5.4.1   General

This set of environmental (E) KPIs encompasses the following themes:

— carbon intensity;

— renewable energy;

— consumption (water and energy);

— waste management;

— biodiversity impact;

— ecosystem and climate resilience;

— supply chain sustainability and responsible procurement;

— eco-efficiency improvements;

— environmental stewardship;

— environmental compliance.

Each of these themes offers insights into different aspects of environmental performance and supports organizations in identifying areas for improvement and tracking progress.

KPIs under this thematic area provide a framework for assessing and enhancing an organization's environmental impact and sustainability efforts. For guidance, the KPIs have been sorted into first priority and second priority. The first priority indicators are intended to be applicable to small, medium and large organizations globally. The second priority indicators may not be reportable by all organizations in the beginning stages of their ESG journey but are aspirational and allow for more in-depth reporting over time.

5.4.2   First priority

KPI 1: Percentage of energy consumption from on-site renewables.

KPI 2: Normalized water consumption.

KPI 3: Scope 1, 2 and 3 GHG emissions.

NOTE   Some adoptees would not have data for Scope 3 emissions. Scopes 1 and 2 could be required and Scope 3 optional.

KPI 4: Total waste produced by type (hazardous versus non-hazardous).

KPI 5: Percentage of operational waste diverted from landfill, incineration, etc.

KPI 6: Normalized energy consumption.

KPI 7: Organization's annual expenditures directed to climate resilience as a percentage of annual total expenditures.

5.4.3   Second priority

KPI 8: Percentage of procurement budget spent with sustainable suppliers or those committed to developing sustainable practices over time.

KPI 9: Percentage of organization's annual expenditure action plans directed towards improving local biodiversity as a percentage of annual total expenditures.

KPI 10: Percentage of organization's buildings registered under voluntary environmental performance schemes.

KPI 11: Percentage of suppliers adopting science-based GHG targets.

5.5   Further information

For further information to help an organization with environmental factors, see the references in Table 3.

Table 3 — Sample of ISO and IEC documents for environmental factors

Issues	ISO and IEC documents
Risk assessments	ISO 13073 series,[35] ISO 14001,[25] ISO 14002-1,[36] ISO 14007,[37] ISO 14008,[38] ISO 14015,[39] ISO 14016,[40] ISO 14040,[41] ISO 14044,[42] ISO 14045,[43] ISO 14046,[44] ISO/TS 14048,[45] ISO 14055-1,[46] ISO 14067,[47] ISO 21365,[48] ISO 21931-2,[49] ISO 26000,[5] ISO/TR 27918,[50] ISO 28902 series,[51] IEC 31010[10]
Energy climate change	ISO 14001,[25] ISO 14064-1,[32] ISO 14067,[47], ISO 14068-1,[52] ISO 14090,[53] ISO 50001,[33] ISO 50002,[34] ISO 50004,[54] ISO 50006,[30] ISO 50047,[55] IWA 42[31]
Biodiversity	ISO 14002-2,[56] ISO 14006,[57] ISO 16677-1,[58] ISO 17298,[59] ISO 17317,[60] ISO 17620,[61] ISO 18725[62]
Human impact/ materials	ISO 4484 series,[63] ISO 7704,[64] ISO 14046,[44] ISO 21640,[65] ISO 24591-1,[66] ISO 22526 series,[67] ISO 37101,[68] ISO/TS 37107,[69] ISO 20400,[70] ISO 22316,[71] ISO 37122,[28] ISO 46001,[2] ISO 59010,[72] ISO 59020,[73] IWA 45[74]

6   Social

6.1   General

Social considerations of ESG can be viewed under the following three categories:

— **Category 1: Internal:**

   Working conditions, rights and fair practices of personnel (see Table 5 for examples).

— **Category 2: Direct interested parties:**

   Customers' fair treatment, activities of suppliers/third parties (see Table 6 for examples).

— **Category 3: Wider community/society:**

   Local or remote communities, direct and indirect effects of and on organizations of collective conditions and outcomes. These may be amplified or aggregated with the indirect effects of environmental impacts that change the ecosystem for an entire community, region or globally (in terms of climate change, resource availability, e.g. water, food, pollution) that can consequentially affect people's individual and collective lives (see Table 7 for examples).

While existing International Standards address many issues in the first category, the third category requires additional focus and understanding of an organization's ESG approach. Organizations and individuals will need to work closely together. New KPI measures can be needed (see 4.6) and governance will require a mind and culture shift (see 7.6).

One significant aspect of the third category is the organization's ability to identify particular individuals or groups who can be affected by their activities. However, more usually, the organization should consider its effects on the collective whole, i.e. the (local) community or society as a whole.

Organizations should have some understanding, appreciation and ability to action ESG activities that support how communities work, how they are interconnected, their culture, aspirations, needs, values and interests. As part of the organization's materiality assessment, it can be helpful to identify the most

influential or critical levers it can use to effect widespread and sustainable positive outcomes to improve communities/society or reduce risks and prevent harm.

In all three categories, but especially the third category, organizations may need new approaches, diverse ways of thinking and problem-solving solutions to calibrate social impacts, identify investment and evaluation of intervention options. These are often interdependent, such as a construction project may have social benefits arising from improvements in health (mental and physical), but detrimental environmental results, such as flooding risk, impaired water quality or availability, waste management or chemical contamination of soil.

Social value models and social cost-benefit analysis offer bases for managing relationships within the organization, between the organization and communities, suppliers, customers, environmental and economic issues and wider interested parties.

Clear communications facilitate these processes (see 7.7). The reporting to external interested parties of social outcomes is unlikely to fall neatly into regular accounting periods and some results can take a significant time to crystallize. That said, if the social impact has been identified as materially significant enough to report or disclose, then the report or disclosure should provide information and updates on progress, possibly including information on investigations, where it supports transparent and clear information (see 9.2.3.6).

6.2   Social framework

Using the principles identified in Clause 4, the risk- and opportunities-based approach in 4.2.3 and systems thinking approach, a simple framework for the social impacts is shown as follows:

a) **Identifying social risks and opportunities:**

— Identify, evaluate and categorize social risks and opportunities.

— Understand interested party concerns and needs.

— Determine areas of social materiality.

— Record evidence, rationale and outcomes.

b) **Evaluating and assessing social impacts:**

— Establish accurate, trustworthy, evidence-based approaches and action plans for risk and opportunity evaluation.

— Where necessary, use risk and opportunity evaluation and social assessment tools, and determine the materiality, significance and magnitude of the identified risks and opportunities.

— Select areas of materiality or relevant critical success factor to prioritize.

— Develop and manage evidence, information and data management systems, including assumptions, methodologies used and metrics.

c) **Establishing desired outcomes and implementation strategies and programmes/actions:**

— Determine short-, medium- and long-term targets, metrics and critical success factors.

— Use or develop analytical tools, methods and equipment to measure and monitor performance.

— Record achievements, barriers and case studies of how these were overcome.

d) **Reporting, disclosure and communicating social information:**

— Ensure outcomes in the form of claims can be assessed, verified and/or validated using interpretable, measurable and repeatable methods.

— Ensure transparency and credibility in the outcomes are maintained, including providing access to the reports and appropriate underlying evidence, methodologies and rationale, etc.

— Correct errors, omissions and misstatements as soon as practically possible, and communicate corrections to all interested parties in a timely and appropriate manner.

6.3   Examples of actions that can be undertaken in relation to social dimensions

Table 4 provides a few examples of actions that can be taken.

Table 4 — Examples of actions that can be undertaken in relation to social dimensions

Social dimensions	Intended outcome/targets	Action: actual examples
Category 1: Respecting difference and inclusion	All personnel and applicants are treated equally and with respect.	HR ensures that access to all job levels based on education, competence and experience through fair and open competition. Training opportunities open to all.
Category 1: Labour pay and practices	Pay equality based on job function, skills and abilities relevant to the role.	Review and implement levelized pay grades across the organization. Add budget line for the pay adjustment needed.
Category 2: Vulnerable consumers	Exclude underage gamblers and offer controls to all.	Daily spend limits, the ability to block certain websites or prevent payments to specific organizations' client needs.
Category 2: Modern slavery and exploitative employment	Audit suppliers on bases of composition of personnel, pay and conditions.	Refuse contracts to suppliers ignoring the health and rights of personnel, and enforcing low or no pay.
Category 3: Commitment to stress and violence reduction	Reduce harm caused by domestic abuse.	Fund a community support trust to provide advice, services may overlap with organizations' client needs.
Category 3: Localism: rebuilding local economy and community	Increase local employment opportunities, local supply and reduce transport and energy costs.	Re-location of maltings organization or plant to an island distillery, increasing local jobs, use local barley only, use renewable energy sources.

Table 5 provides examples of issues in the first category of 6.1.

Table 5 — Examples of issues in relation to identification of social risks and opportunities

Topic	Issues
Organizational governance	Encouraging organizations to operate in a transparent and ethical manner that contributes to the health and welfare of personnel.
Human rights	Emphasizing the importance of respecting human rights and recognizing their significance in the corporate context, e.g. equality, respect for difference and inclusion.
Labour practices	Addressing issues related to labour practices, including decent work, rights of personnel, pay parity, healthy and safe working conditions and practices, fair wages and the right to unionize.
Fair operating practices	Focusing on ethical conduct in dealings with other organizations, such as anti-corruption measures, fair competition and promoting responsible political involvement.

Table 6 provides examples of issues in the second category of 6.1.

Table 6 — Examples of issues in relation to valuation and assessment of social impacts

Topic	Issues
Treating consumers fairly	Delivery of products and services that are safe, reliable, fair and look after the consumer's health, along with information and education about the products.
Marketing and advertising	Justifying any ESG or green/sustainability claims as true, fair and not mis-leading.
Conditions for personnel in the supply chain	Communication of how the organization demonstrates and adopts healthy and safe labour practices that avoid trapping personnel in a spiral of poverty, modern-day slavery and child labour.
Vulnerable customers	Ensure services or products are accessible to and usable by the greatest number of consumers possible, including those more vulnerable to misunderstanding, mis-selling and harmful outcomes: helping consumers to control their own access to services, not unfairly penalizing consumers (e.g. by imposing financial penalties, higher costs or restricting ability to switch), offering a range of communication formats and payment types, dealing sensitively with complaints, delays and non-payment. Additional training for personnel, specialized teams for referral, care with data protection and monitoring progression.
NOTE These have been adapted from ISO 26000[5] and ISO 22458.[75]	

Table 7 provides examples of issues in the third category of 6.1.

Table 7 — Examples of issues in relation to desired outcomes and implementation strategies and programmes/actions

Topic	Issues
Interdependence and mutuality	Circular economies, local sourcing, local exchange/currencies, local product fora, community markets/pricing, renovation and re-use, food security, marks of provenance, local broadband networks, minimizing transport and waste (e.g. food miles or car sharing). Community interest companies.
Health and well-being	Actions promoting care in the community, improvement of public open spaces, community engagement offerings (e.g. access and use of organization's facilities: health care facilities, meeting rooms and sports facilities), designing public spaces for safety and security, alternative mobility schemes, transport to work schemes such as car sharing, active travel options, improving quality of life and the environment.
Culture and community identity	Preserving heritage, traditions, identity, sense of rootedness and place, exchanges between different cultures and territories, enhancing cultural diversity. Principled localism. Supporting community societies, self-help, faith bodies, charities, ethical schemes and community trusts.
Social cohesion	Facilitate equal and open access to activities and opportunities, including for disadvantaged, marginal and indigenous peoples. Intergenerational equity, affordable housing, viable local services and investment in social and physical sustainable infrastructure.
Innovation, creativity, and research	Encouraging innovation, creativity and research, innovation clusters, places of physical and virtual exchanges. Investment in all forms of education, building local capacity and capability.
NOTE These have been adapted from ISO 37104.[76]	

All examples in the third category should be supported by encouragement and resources to engage in local governance, formal and informal, consultation and feedback.

Areas that should be considered dependent on the social programmes and activities adopted are:

— criteria development for fair operating practices, including safe and healthy labour practices, human rights equality and respect for difference and inclusion;

— criteria for social value identification, evaluation and action plans;

— impacts on health and well-being;

— limitations on social boundary considerations;

— consideration of digital technology and AI options and impacts;

— considerations of community engagement;

— risk and reputational management, including contingency planning (e.g. how to run an effective organization while the personnel perceive that they are not valued, or buildings cannot be used for organizational activities [e.g. if a factory is flooded out for a few months]).

6.4 Social KPIs

6.4.1 General

This set of social (S) KPIs encompasses the following themes:

— personnel satisfaction;

— diversity;

— health and safety;

— personnel training and development;

— personnel engagement;

— community investment;

— human rights compliance;

— social impact of the enterprise's accessibility initiatives and operations on local customer and community well-being.

KPIs under this thematic area provide a framework for assessing an organization's social inclusion. For guidance, the KPIs have been sorted into first priority and second priority. The first priority indicators are intended to be applicable to small, medium and large organizations globally. The second priority indicators may not be reportable by all organizations in the beginning stages of their ESG journey but are aspirational and allow for more in-depth reporting over time.

6.4.2 First priority

KPI 1: Annual number of work-related incidents of discrimination, hate and violence.

KPI 2: Gender pay gap.

KPI 3: Percentage of people representative of diverse groups, having met the competency requirement(s) in senior management.

KPI 4: Percentage of products and services provided meeting accessibility standards.

KPI 5: Annual percentage of personnel that participated in regular performance and career development reviews.

KPI 6: Percentage of women in senior management.

KPI 7: Average total weeks for paid parental leave.

KPI 8: Percentage of personnel that are representative of diverse groups.

KPI 9: Percentage of personnel participating in interviews or satisfaction surveys about their workplace experiences.

6.4.3 Second priority

KPI 10: Percentage of annual charitable contributions directed to the local community and regional community.

KPI 11: Hours of personnel time in organization-led volunteering and/or charitable initiatives as a percentage of total personnel hours.

6.5 Further information

For further information to help an organization with social factors, see the references listed in Table 8.

Table 8 — Sample of International Standards available for social factors

Issues	International Standards
Social responsibility	ISO 26000[5]
General social issues	ISO 20121,[77] ISO 22458,[75] ISO 37101,[68] ISO 37104,[76] ISO 45001,[78] ISO 45004[79]
Governance of social issues	ISO 37000,[9] ISO 37005[27]
NOTE BS 8950[80] can also assist in relation to social value.	

7 Governance

7.1 General

Governance considerations of ESG can be viewed at three levels:

a) strategic governance of the organization, integrating all levels, from purpose and principles to practice and reporting;

b) specific governance managing ESG outcomes;

c) operational governance of the organization, including systems and controls underpinning and integrating E and S.

Ethics, value generation, ESG policy, risks and opportunities, conformity and compliance (and going beyond minimum requirements) and accountability are central to usual methods of governance. There are many International Standards that help organizations of all types and sizes to develop integrated governance frameworks and practices, through which they can disclose good governance practices including the governance of environmental and social factors. International Standards are flexible enough to allow users to meet local, sector-specific and international governance codes and regulations. ISO 37000,[9] which gives guidance on the governance of organizations, provides the basis for Clause 7 and is supported by a range of quality standards such as ISO 9001[23] (see also 7.8).

7.2 Governance framework

The following shows a simple framework for the governance factors of ESG:

a) **Establishing or refining a governance framework:**

— Overall and specific objectives of governance: disclose the organization's overarching objectives of governance and the process for achieving the objectives so the organization is credible, trustworthy and sustainable.

— Create or refine an integrated governance framework: this would be appropriate for any organization. Where there is an oversight board, some members should be completely independent with a spread of competences and experience in risk and opportunity management, finance and audit, nomination

and remuneration committees. Each of these areas should be chaired by an independent board member. They should also have:

- short lines of reporting;

- clear mapping of responsibilities;

- effective KPIs;

- strategy, planning and policies;

- systems and controls for accountability;

- recording and reporting;

- training and continuous improvement;

- resources for setting, leading and monitoring vision values and ethical standards;

- sufficient resources for compliance monitoring (including cybersecurity, data protection, bribery and corruption, fraud and money laundering).

- Identify and categorize governance risks and opportunities, highlighting those specifically relating to ESG.

- Develop a culture of good governance including managing the barriers and incentives for change and raising concerns, such as using whistleblowing hotlines or other mechanisms for raising concerns (see ISO 37002[81]).

- Audit significant risks (harm) using independent third-party bodies, especially where significant violations may have been committed by the organization.

b) **Evaluating and assessing risks and opportunities impacts in relation to governance:**

- Quantify risks and opportunities, e.g. impact, likelihood and magnitude on or from different communities and the environment.

- Where appropriate, determine inherent and residual risks and opportunities values, such as "high", "medium" or "low".

- Decide and record risk and opportunity strategies within a defined risk and reward appetite.

- Appoint board members for a limited time period and regularly review the board's performance, occasionally using periodic reviews by independent persons.

c) **Establishing desired ESG outcomes and implementation strategies and programmes/actions:**

These include:

- board diversity and executive compensation (for all personnel and suppliers);

- anti-fraud, money laundering, corruption, market abuse and bribery;

- data privacy;

- shareholder and interested party engagement;

- ethics, including training and codes/policies;

- board and leadership independence and integrity;

- transparency and disclosure;

- risk and opportunity management effectiveness;

— resource utilization and management (including energy efficiencies, water, waste and circularity);

— emissions identification and reduction strategies.

d) **Accountability and reporting:**

— Select the relevant disclosure topics for governance, including those of interested parties, considering the characteristics of the organization's sector and the nature of its business, as well as appropriate methodologies. Appropriate selection methods include due diligence, brainstorming, market research, etc.

— Establish overarching and specific objectives for governance and disclose the specific processes and eventual outcomes of the organization's efforts to achieve the ESG objectives.

— Impartiality: make the report, disclosure and communication factual, truthful, accurate and complete in what it discloses about the governance of the organization, without concealing facts.

— Make accurate claims, reports, disclosures and communications with impartiality, promptness and with consideration of the concerns of interested parties.

— Obtain views and feedback from interested parties before, during and after reporting, disclosure and communication, including but not limited to organization partners and supervisory functions.

— Check the consistency between the actual and desired outcomes and implementation strategies and programmes/actions.

— Create and maintain a culture of organizational memory and learning.

— Educate all interested parties on the reasons for the organization's outcomes and relevant decisions and actions.

— Promptness: set the time interval and timing of risk/opportunity disclosure based on the reporting frequency, nature and consequences of the risk/opportunity, and make immediate disclosure of urgent and vital risks/opportunities that have the potential to cause significant losses or opportunities to interested parties.

7.3   Examples of actions based on governance aspects

Table 9 provides a few examples of actions that can be taken.

Table 9 — Examples of actions based on governance aspects

Governance factors	Intended outcome/targets	Action examples
Board diversity, independence and executive compensation	Composition of board to cover the range of competences necessary and to reflect the diversity of the interested parties impacted. Achieve x % of board of directors that are representative of diverse groups. Achieve x % of board that are women. Achieve x % executive compensation ratio: the ratio of total median executive compensation to the median personnel compensation. Achieve x % executive compensation growth rate: annual percentage change in executive compensation. Achieve x % of executive directors and senior management compensation be linked with performance/sustainability performance of the organization. Achieve x % of board directors that are independent. Achieve x % of board that are non-executive. Report competence matrix of board composition.	Report competence matrix of board composition. Track representation of different groups on board of directors. Report executive compensation in relation to average personnel wage and organization performance. Track the proportion of independent directors on the board and report any conflicts of interest.
Anti-corruption and bribery	Annual number of cases involving bribery/corruption-related penalties or dismissal. Achieve x % of third-party relationships that have undergone due diligence checks and are compliant with anti-corruption policies.	Track compliance with anti-corruption regulations.
Regulatory compliance	Number of incidents of non-compliance with industry or regulatory labelling and/or marketing codes. Report x % of annual income spent on fines, penalties, compensation and damages resulting from violation of applicable laws and regulations.	Track compliance with applicable laws and regulations. Track trends in compliance and changes in regulatory requirements.
Privacy and data management	Annual % of data breaches of customer privacy resulting in losses of customer data. Achieve x % of personnel required to complete cybersecurity training and complete quarterly firm-wide phishing tests.	Track the number of data breaches and violations investigated and resolved to provide insights into the organization's commitment to addressing risk, potential wrongdoing and maintaining data integrity.
Engagement with interested parties	Achieve x % of shareholders attendance, engagement in various forms. Different formats and methods of interested party engagement. Achieve x % of interested party involvement.	Track shareholder participation in meetings and engagement with the organization. Track interested party participation in engagement with the organization.

Table 9 *(continued)*

Governance factors	Intended outcome/targets	Action examples
Ethics training and policies	Achieve x % of personnel that have completed ethics training programmes per year. Achieve x % ethics policy violation rate: annual percentage of personnel found in violation of the organization's code of conduct.	Monitor the implementation of ethics training programmes and establish ethical guidelines and codes of conduct.
Transparency and disclosure	Achieve x % disclosure compliance rate: annual percentage of required disclosures made within established deadlines as mandated by relevant regulatory bodies or others requiring the disclosures. Annual number of formal grievances filed.	Implement financial and non-financial reporting to ensure accurate and timely disclosure of information.
Risk management effectiveness	Repair of x % of operations or assets assessed to be at risk. x % of total revenue invested in climate and/or disaster risk mitigation activities. x % of assets and business activities covered under the organization's business continuity plan.	Implement a robust risk management framework to identify, assess and mitigate or treat risks to promote resilience.

Significant inherent risks and opportunities topics: screen and disclose significant inherent risks and opportunities topics according to the demands and expectations of interested parties including, but not limited to, anti-corruption, codes of ethics and conduct, unfair competition, investor relations management, product or service opportunities and environmental events.

Risk/opportunity management: disclose whether uncertainty of a topic or relevant risks/opportunities have been effectively and adequately managed, for example, by reporting on failure rates, levels of exposure, risk, threat and vulnerability, as well as on controls and safeguards to protect both the premises and the people in or on it.

Assurance: engage, where necessary, with assurance bodies with sufficient credibility for the organization's disclosures on governance.

Feedback and review: after disclosure, check the consistency between the actual outcome(s) and implementation strategies and programmes/actions with those desired in steps c) and d) of the governance framework in 7.2, taking into account interested party opinion on the issue.

7.4   Governance KPIs

7.4.1   General

This set of governance (G) KPIs encompasses the following themes:

— risk and opportunity management framework to promote resilience;

— data management;

— ethics training and policies;

— health and safety;

— security protection (physical and cyber);

— regulatory compliance;

— anti-corruption regulations.

Each theme provides insights into various aspects of governance performance, helping organizations track progress and identify areas for improvement.

KPIs under this thematic area provide a framework for assessing an organization's governance practices. For guidance, the KPIs have been sorted into first priority and second priority. The first priority indicators are intended to be applicable to small, medium and large organizations globally. The second priority indicators may not be reportable by all organizations in the beginning stages of their ESG journey but are aspirational and allow for more in-depth reporting over time.

7.4.2 First priority

KPI 1: Annual number of reportable/material data breaches of customer privacy.

KPI 2: Annual number of cases involving bribery/corruption-related penalties or dismissal.

KPI 3: Annual number of violations of local environmental regulations, permits and legal requirements.

KPI 4: Ethics policy violation rate: Annual percentage of personnel found in violation of the organization's code of conduct.

KPI 5: Percentage of third-party relationships that have undergone due diligence checks and are compliant with anti-corruption policies.

KPI 6: Total recordable occupational injury and illness rate (per 100 personnel) according to local regulations.

KPI 7: Annual number of incidents of non-compliance with industry or regulatory labelling.

KPI 8: Percentage of annual income spent on fines, penalties, compensation and damages resulting from violation of applicable laws and regulations.

KPI 9: Percentage of assets and business activities covered under the organization's business continuity plan.

7.4.3 Second priority

KPI 10: Percentage of personnel completing physical security awareness training and cybersecurity training.

7.5 Leadership

7.5.1 General

ESG may require a change of perspective, mindset and culture, usually starting at the top management level in an organization and being transmitted throughout the organization consistently. The purpose of ESG and the organization's approach to it should be clearly articulated and led from the board or governing body by example throughout all levels of the organization.

Leadership involves motivating groups of people towards a common goal and relies on key skills and abilities, along with the necessary capabilities and resources, such as inspiration, positive attitude, decision-making and demonstrable personal values. Examples of leadership values and behaviours are:

— probity and integrity;

— competence;

— transparency;

— diversity and inclusion.

NOTE   See ISO 37000[9].

Specific responsibilities of leadership relating to ESG can include:

— fostering exchanges of information, tools, knowledge and experience with other agencies, bodies, communities, firms, groups, institutions and organizations;

— facilitating the commitment of elected or appointed representatives to drive forward ESG principles;

— ensuring appropriate customer focus to meet customer expectations of product, service and performance quality (see ISO 9001[23]);

— demonstrating a clear commitment to the achievement of its own interim and long term targets (e.g. for net zero, see IWA 42[31]);

— safeguarding social priorities, community cohesion and identity and other human needs (see IWA 42[31]);

— embedding a culture of a duty of care for vulnerable customers (see ISO 22458[75]);

— ensuring the organization establishes and implements a process(es) for consultation and participation of personnel and other interested parties (see ISO 45001[78]);

— demonstrating a clear commitment with respect to the environment and to climate change (see ISO 14001[25]).

Specific ESG responsibilities can be assigned and mapped to specific roles or named persons to ensure ESG accountability. Likewise, specific ESG responsibilities may be written into job role definitions and responsibilities.

7.5.2 Constructive challenge structure

Constructive challenge is a system for enabling and facilitating a broader range of perspectives, risks, opportunities and interests to be considered or brought to bear on decision-making or strategy. This is achieved primarily by providing a flexible structure and set of governance arrangements that specifically allow a wider range of questions to be asked and voices to be heard in any formal or informal decision-making or planning process. The results of constructive challenge can provide an opportunity for more robust challenge, when necessary, and can bring to the surface important views and information that otherwise might be missed or over-ridden. The approach also aims to improve mutual understanding, aid the exchange of ideas and information within and outside the organization, help build trust and empower relationships.

Constructive challenge, in the context of a new and complex area, such as ESG, becomes a fundamental leadership and governance practice and should be embedded into organizational culture at all levels. Enabling constructive challenge within an organization requires confident leaders and managers to create the "safe" environment in which people feel comfortable, confident and equipped to make contributions and to challenge the status quo. This helps to take ESG beyond a culture of box-ticking.

Table 10 sets out examples of the kinds of questions an organization can ask and determine how interested parties can engage with answering the questions. The questions should be amended and refined with experience. Some specific training may be necessary in the use of these questions for a constructive challenge.

Table 10 — Sample ESG questions for a constructive challenge structure

ESG	Questions
Environmental	1. Are we reporting progress in a transparent and easily understandable way for everyone, or are there areas where clarity is lacking? Does our data indicate that we are conforming to standards or not? If so, why?
	2. How do we know that the whole organization is committed to environmental sustainability? Which of our interested parties are assisting us and/or are we encouraging or supporting?
	3. How do we measure the direct and indirect environmental effects of our activities (and those of our supply chain and main customers) on the everyday lives and health of surrounding or wider communities?
	4. How do we share our environmental expertise with other organizations and with the communities we affect? In what ways are we clearly demonstrating ESG leadership?
Social	1. What are the indirect and direct consequences of our activities on the everyday lives of the communities which we serve or reside in? How do we set and measure long term and significant impacts?
	2. How do we encourage communities to engage with us and what external or internal resources or tools are used to explain our ESG decisions and actions?
	3. Who benefits and who loses out (disproportionately) in terms of social value from our activities? Should they? Why?
	4. How do we innovate or break down barriers in the development of local social value shaping the cohesion and well-being of communities?
	5. How do we ensure a reasonable level of inclusion and equity in opportunities internally and within and between the communities and groups that we affect?
Governance	1. How do we encourage and facilitate diversity of views and constructive challenge at all levels of our decision-making and governance processes?
	2. How do we evaluate our overall ESG maturity: how do we use our ESG maturity matrix? What special measures and controls have we introduced to achieve our ESG vision/values?
	3. Do we report to the levels of requirements or have we identified further opportunities for improvement? How do we share ESG information more widely?
	4. Is our ESG strategy giving us a competitive advantage?
	5. How have we evolved our management procedures to take into account external interests and impacts alongside internal?
	6. How do we encourage everyone to see ESG as something that is wanted rather than just box ticking responses to external requirements? How does ESG (as a framework or an on-going programme of work) add value to the organization? Where does it diminish value and how do we mitigate or adapt?

7.6   Organizational culture and commitment

Organizational culture is the set of shared assumptions, attitudes, ethics, values and everyday practices that shape and influence personnel behaviour. The vision, mission and strategy set by top management should be consistent with ESG. A commitment to ESG values can attract some recruits and this appeal is likely to grow as awareness and understanding of ESG issues continue to increase. Also, ESG specifically includes a focus on sound personnel practices such as the promotion of diversity, equity, fairness, health and well-being, inclusion, safety, security and a sense of belonging. Positive ESG behaviours may be incorporated in compensation mechanisms and performance appraisals. Culture reflects the predominant attitudes towards ESG. The ESG mindset develops alongside the broader maturity set out in Table 11.

Table 11 — Stages of ESG maturity and cultural attitudes

Stages of ESG maturity	Cultural attitudes to ESG
Stage 1 Minimum standards ESG	— Responding: driven by external requirements/reporting. — Satisfied with meeting only basic external requirements: by easiest and lowest cost means. — The ESG policy aims to avoid possible legal penalties, or it is in place to obtain a licence to operate, or to become eligible to win a contract. — Avoid third-party validation and verification unless required. — "Lip service" internally and externally. ESG seen as a "cost". — "Greenwashing" to gain competitive advantage.
Stage 2 ESG compliance	— Going through the motions. — ESG reporting and conformity and/or compliance in a mechanical way with box-ticking, often lacking focus, over-engineered and costly. — ESG decision-making by committee to disperse responsibility. — ESG primarily to manage reputational risk and often misses the bigger picture and leaves significant gaps. — Inconsistent, weak measures.
Stage 3 Developing ESG	— Sees competitive value of ESG, positioned as a win-win situation, i.e. supportive investors, shareholders and/or member relations. Attracts customers and value-conscious personnel. — Reporting to sell brand, beyond minimum requirements. — May use independent third-party conformity and accreditation. — At risk if organizational conditions, objectives, interests or top management changes. May vary between jurisdictions or with fashions and still primarily driven by organizational requirements.
Stage 4 Values-led ESG (mature)	— Committed to ESG because they want to be, i.e. internal driver. — Community and environmental outcomes core to objectives, vision and values. — Good governance standards and pro-ESG culture embedded. — Goes beyond any external requirements. Principle-driven. — Measure outcomes in open and balanced, fair way. — Provides leadership and shares ESG learning and innovations with the wider community. — Sustainable outcomes, resilient and reliable. Accountable. Builds capabilities and maturity/continual improvement cycle.

7.7   ESG communications

7.7.1   General

Communicating ESG effectively can significantly influence the organization's strategic success, including raising finance and investment, as well as the organization's reputation. ESG communications are especially important due to the influence of both internal and external interested party involvement. This underscores the need for active listening, understanding and engagement in key ESG decision-making processes. Internally, this can motivate personnel to engage in the organization's ESG journey, thereby increasing productivity, reducing emissions and improving retention, as many personnel prefer to work for organizations that align with environmental values and community-focused outcomes.

The most trustworthy ESG communications can only be carried out when the organization has validated and verified evidence and analytics to support aspirations, public statements, strategies and targets. Understanding the interests of different audiences and communicating relevant information to each group of interested parties is important for ESG to be successfully integrated across the organization.

7.7.2 Actions

The following key actions should be considered:

a) Shape the message to fit the audience: language used and the way it is presented, including how it would be translated, should be accessible and aimed towards the interests of possible users. Be aware of your target audience's cultural, social, educational and economic backgrounds.

b) Choose an accessible format: a variety of formats should be used (e.g. brochures, games and challenges, online reports, physical and e-newsletters, posters, printed reports, social media). Suitability will depend on the target group, the message to be delivered, budget and geographical spread and technological abilities/viability.

c) Be creative: positive engagement with interested parties requires attention to detail, commitment, creativity and a level of effort. It is important not to underestimate the personal skills and capacities of interested parties. Instead, try to define the communication target and provide engaging settings for participatory processes and complement this with creative, honest and engaging communication.

d) Raise awareness and improve understanding, both internally and externally of the strategies and objectives of the ESG reporting. Emphasis should be provided on what is being communicated as well as what is not and more importantly, why and how the ESG risks and opportunities assessment leads to that position.

e) Enhance the reputation of the organization's ESG through accountability, integrity and openness, which strengthens trust in the organization.

f) Demonstrate and explain the engagement activities carried out and the influence that implementing ESG has had on the organization's strategies and planning activities. The benefit of communicating effectively demonstrates that the organization is open and prepared to be accountable. ESG is a journey and should be communicated in terms of the organization's maturity in ESG.

g) Provide information and impacts of the organization's activities on the environment and society, while explaining the impacts that could affect them. This communication should also include the mitigation and adaptation strategies the organization is taking.

h) Provide relevant and transparent information on the organization's ESG strategies, action plans, management and governance, to enable interested parties to understand and engage with the organization.

i) Demonstrate the organization's compliance to legal and regulatory requirements.

j) Facilitate comparison with peer organizations by using standardized measures.

Information should be factually correct and provide sufficient detail to be useful to those receiving the communications. The information should include comparisons both to previous information and to other organizations to ensure there is context for the intended user to understand the whole picture. ESG sector comparisons and KPIs are helpful in explaining the organization's position.

Communicating for the sake of ticking a box, without the underlying work on ESG policies, strategies and activities, is likely to become apparent quickly and diminish or create negative communications efforts.

7.7.3 Types of communication

Information should be presented in a way that is inclusive, understandable and not overpowering, especially to vulnerable consumers. Consideration should be given to how people internalize information and their needs, whether they require information to be in electronic or paper-based formats, or if there is a preference

for aural, Braille, data set, digital, graphs, etc. Communication is only effective if the intended user can understand it. Where there are specific needs and/or neurodiverse needs, these should be accommodated, if possible.

Typical types of ESG communications are:

— ESG reports: organizations usually publish annual sustainability or ESG reports that outline their ESG performance, goals, initiatives, performance and progress. These reports provide detailed information on the organization's environmental impact, social initiatives, governance practices and future targets.

— Publicly and internally available dashboards of key ESG statistics: organizations maintain dedicated sections on their websites, intranet or online platforms that provide ESG information. These platforms may include interactive dashboards, KPIs and data visualizations to help interested parties understand the organization's ESG efforts.

— Investor presentations and meetings: organizations communicate their ESG strategies and performance to investors through conferences, meetings and presentations. This allows investors including shareholders to make informed decisions based on their sustainability practices.

— Regulatory filings: organizations may be required by regulatory bodies to disclose certain ESG-related information in their financial reports, such as the impact of climate change on the organization, diversity and inclusion metrics, or governance practices.

— Interested party engagement: engaging with interested parties is crucial for effective ESG communication. Organizations may conduct focus groups, regular meetings or surveys to understand interested party expectations, address concerns and communicate progress on ESG initiatives (see 4.4).

— Social media, newsletters, games and competitions: organizations use social media platforms, newsletters and other methods to share ESG-related news, updates and success stories with a wider audience. This helps raise awareness and engage with the public on sustainability topics. Increasingly, games, challenges and competitions are being included to communicate messages.

— Third-party ratings and rankings: organizations can provide independent assessments of their ESG performance. Many often share their ratings and rankings from reputable ESG rating agencies to showcase their commitment to sustainability and transparency. However, it is important that models, algorithms and the like that are relied upon are also transparent and trustworthy.

7.7.4   Vulnerable groups

There are styles of communications for those experiencing neurodiversity and/or vulnerable groups:

a) **Contacting the organization**: make customer aware of other methods of contact (e.g. email, letter, phone, direct contact with a person) if they appear uncomfortable using one method.

b) **Formats of communications**: offer alternative formats of communicating information to the individual and be willing to accept communication in different formats from the individual.

c) **Ownership of the communications**: avoid passing individuals around lots of different departments and personnel to get at the relevant ESG information or understanding.

d) **How to communicate**: where appropriate, consider translation of information, reports and evidence, or in special circumstances offer access to specialist support, such as a translator or an interpreter.

e) **Time and resources for effective communications**: allow extra time and human interaction for processing information and decision-making/reflection (including pausing the process, to help overcome the effect of any temporary difficulty). This can be especially important when communicating with people where the information is not in their native language or is technical.

f) **Access enabling engagement**: ensure that multiple forms of access to engagement are available, for example, providing equal opportunities to engage can mean being flexible and going into communities or providing additional support.

NOTE   See ISO 22458[75] and ISO 20121.[77]

7.8   Further information

For further information to help an organization with governance factors, see the references listed in [Table 12](#).

Table 12 — Sample of ISO and IEC documents available for governance factors

Issues	ISO and IEC documents
Risk assessments	ISO 31000,[8] IEC 31010[10]
Governance principles and mechanisms	ISO 37000,[9] ISO 37004,[82] ISO 37005[27]
Compliance management	ISO 37301[7]
Ethical factors	ISO/TS 17033,[83] ISO 37001,[21] ISO 37002,[86] ISO 37003,[84] ISO/TS 37008[85]
Social factors	ISO 53800,[86] ISO 30415,[87] ISO 20121[77]
Competence of audit	ISO/IEC 17021-1[88]
Organizational culture	ISO 10010,[96] ISO/TS 24178,[90] ISO 37000,[9] ISO 37001[21]
Leadership	ISO 9001,[23] ISO 30415,[87] ISO 37000,[9] ISO 45001,[78] IWA 42[31]
ESG communications	ISO 9001,[23] ISO 26000,[5] ISO 14004,[91] ISO 14063,[92] ISO 45002,[93] ISO 37000[9]
Vulnerable groups	ISO 22395,[94] ISO 22458,[75] ISO 26000[5]

8   Compliance and conformity

8.1   General

Compliance and conformity of ESG factors in organizations play a crucial role in promoting sustainability and corporate citizenship. These mechanisms aim to demonstrate organizations' commitment and accountability to the ESG principles by reliably and transparently reflecting the degree of compliance and/or conformity in ESG areas.

The expectation in all ESG regulated and non-regulated ESG reporting frameworks and ESG requests (e.g. by clients for an ESG statement) is the need for conformity assessment and/or assurance that those claims (in whatever form) have been assessed and are a fair reflection of the position being stated (e.g. that the organization has reduced its GHG emissions by x % over the last year).

NOTE   Conformity assessment is not necessarily a certification process, but a validation and verification process (see below and [Clause A.3](#)).

Conformity with ESG standards and requirements, whether imposed (regulated or contracted) or voluntary, is a key indicator of an organization's commitment to ESG, its maturity and transition into ESG behaviours, practices and processes, organizational confidence and performance in this area.

Assessing conformity in ESG aspects involves the review and verification (current or historic) and/or validation (future) of an organization's claims and practices based on the evidence presented to independent (impartial and uninfluenced) assessors, whether first, second or third-party (see [Table 13](#)). These evaluations use specific methodologies and standards to evaluate the organization's performance and conformity in areas such as corporate governance, environmental management, GHG emissions, organizational ethics and social values.

By demonstrating conformity to ESG factors, organizations can attract and retain talent, create sustainable business opportunities, drive positive changes, enhance investor and interested party trust, and strengthen their reputation.

8.2   Difference between compliance and conformity

The two concepts of compliance and conformity are related. It is generally accepted that compliance is influenced by direct requests or rules (e.g. from authority figures or formal directives). Conformity refers to the adherence to established norms or specifications.

Compliance is typically used to denote legal or regulatory requirements, whereas conformity is a voluntary demonstration that the subject matter meets the requirements set out in standards, documented requirements, specifications, etc. These terms are often interchangeably used and compliance through conformity is a way of demonstrating that legal or regulatory requirements have been achieved.

Compliance may be against standards or written requirements; the organization, if it fits within the set criteria (e.g. sector the organization operates in, size of organization, turnover of organization), is bound by law to comply.

Conformity assessment on the other hand is voluntary and if anything, conformity assessment is more relevant and likely to be used by many more organizations as they look to demonstrate their sustainability and ESG credentials, either because they want to or because their interested parties need the information on which to base decisions.

8.3   Conformity assessment

Many aspects are individually assessable for conformity, such as carbon footprints, environmental management system, GHG emissions, etc. In principle, such evidence and conformity-assessed activities may form part of an overall ESG assessment. A key element in providing robust ESG conformity assessments should be the understanding of who the interested parties and intended users are and their needs from the ESG claim. Having a broad context for the ESG conformity assessment ensures the ESG claim is not perceived to be a tick-box exercise or greenwashing.

Conformity assessment can be carried out in several ways that determine the level of confidence provided by the assessment. ISO's committee on conformity assessment, CASCO, has published several standards as part of the CASCO toolbox[1]. These standards set out the requirements for the impartiality, competence and consistency of the conformity assessment and define conformity assessment terminology. These standards cover activities such as testing, auditing, examination, evaluation, inspection, validation, verification, certification (of systems, services, products and persons) and accreditation. The CASCO toolbox also has useful documents that provide guidance on conformity assessment practices and requirements, including on how to write documents that can be conformity assessed.

To understand conformity assessment, it is helpful to understand the terminology. Conformity assessment is the demonstration that specified requirements are fulfilled (see ISO/IEC 17000:2020,[95] 4.1) and specified requirements are the need or expectation that is stated (see ISO/IEC 17000:2020,[95] 5.1).

The determination and demonstration of how specified ESG requirements are fulfilled involve systematic evaluation, validation and verification processes, against documented claims.

As claims need to be based on data and information (evidence), the assessment of whether the claim has been, or is, achievable can be tested. In ESG-related claims, the assessment of quantitative and qualitative evidence will be considered relative to the claims being made.

Some claims can be assessed relatively easily, as they are process-driven (such as doing a carbon footprint assessment, mass balance or GHG assessment, e.g. a change of input materials), while others will take additional expertise and judgement of the competent assessor or assessor team to come to a conclusion (e.g. whether the social cost benefit of employment or health improvements outweighs the policies implemented to meet the improvement target, such as changing working shift patterns or changing child labour policies).

ESG conformity assessments should be taken in the context of geographical location, or position of importance in the community or marketplace as well as criteria, specifications, regulations and markets (e.g. planting more trees than were removed may meet a biodiversity net gain criteria, but fail in other ESG-related factors).

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1)   More information on ISO/CASCO can be found at https://www.iso.org/casco.html

The organization being assessed will need to explain how it chose the evidence, methodologies and actions related to ESG and why that was appropriate in relationship to the claim. The conformity assessment body/assurance practitioner will determine, within reason, if the claim has merit based on the organization's choices and actions. The conformity assessment body/assurance practitioner may also consider the veracity of internal checks and impartiality of those carrying out assessments (e.g. by reviewing competencies of personnel, interviews).

Who carries out the conformity assessment activity determines the relationship between:

— the conformity assessment body: the body that performs conformity assessment activities, excluding accreditation (see ISO/IEC 17000:2020,[95] 4.6); and

— the object of conformity assessment (see ISO/IEC 17000:2020,[95] 4.2), such as the organization or the organization's claims, disclosures, products, reports, services, etc.

The bodies carrying out conformity assessment activities can be first, second or third parties (see Table 13). These parties should not be confused with legal entity descriptors.

Table 13 — Parties carrying out the conformity assessment activities.

Party carrying out conformity assessment activities	Description and examples
First party	Performed by a person or organization that provides or is the object of conformity assessment (e.g. in ESG terms, the first party is the organization itself for the products that are being assessed). (This also includes external bodies that are controlled by the providing organization.)
Second party	Performed by a person or organization that has a user interest in the object of conformity assessment [e.g. in ESG terms, the second party may be the investor (or their representative due diligence expert), purchaser or user of the claim, report or disclosure]. (This also includes external bodies that are controlled by the organization with the user interest.)
Third party	Performed by a person or organization that is independent of the provider of the object of conformity assessment and has no user interest in the object. Third parties may provide opinions or a certificate based on the conformity assessment activities.

For compliance purposes, the mandating body (regulator, government, etc.) may require third-party opinion (assurance) and/or certification before the claim, report or disclosure is accepted as valid and fit for purpose.

The object of conformity assessment (object), such as the claims, disclosures and reports, are evidence-led. From a conformity assessment stance, the quality and veracity of the evidence can determine the confidence in the object and the assurance level provided by the conformity assessment body.

It is therefore important that the organization checks their information and data sources for accuracy and certainty when establishing the claim, disclosure or report. Transparency and effective management of information and data will also aid any conformity assessment carried out.

The responsibility for the claim, report or disclosure does not transfer to the body carrying out the conformity assessment.

NOTE   See Annex A for further details.

9   Reporting

9.1   General

Reporting is a fundamental element of the ESG framework, which enables both internal and external interested parties to understand the organization's approach to ESG, its performance in relation to ESG factors and its claims. Any report should include and represent the position at the date of the report (typically

at the end of a fiscal year). It should be a fair representation of all identified, relevant and prioritized ESG-related impacts, risks and opportunities reasonably expected to affect the organization, individuals or communities affected or likely to be affected and the environment (e.g. intended users and/or interested parties).

The report is developed through risk based and evidence-based processes, and the outcomes should provide a reliable, accurate, understandable and true representation of the impacts, risks and opportunities identified as materially worth reporting to and by the organization and how the organization impacts others. Credible information and reliable scientific data are critical to trustworthiness and result in the ability of others to rely on the organization.

An ESG report may be part of an integrated annual report (e.g. describing the organization's operations and financial position) or a separate document that covers non-financial issues. The report is best structured to connect and integrate with financially relevant information and the financial reporting, to allow the user a complete understanding of the ESG position.

Compatibility, interpretability and interoperability with other frameworks and standards enable the broadest use of this document.

As part of the reporting transparency (see 9.2.3.6) and to aid the reader's understanding of the data and information, identification and referencing of sources (e.g. conversion factors, standardized data, which methodologies are used and from which organization and country) should be provided in a clear and easily accessible format.

9.2   Reporting principles and quality

9.2.1   General

Using the reporting principles (see 9.2.2) ensures the integrity and reliability of the reported ESG information. This section provides the reader with an understanding of data validation, verification and assurance processes to enhance the credibility of the reported data.

Reporting principles serve as foundations to guide organizations structuring their ESG reporting. However, the specific set of principles and frameworks adopted by each organization may vary based on their industry, geographical location, jurisdiction and interested party expectations. Therefore, a set of minimum reporting principles are set within this context to enable a consistent and clear approach for organizations who are using International Standards or other documents having wide acceptance and authoritative status.

The reporting principles in 9.2.2 are fundamental to ensure high-quality ESG reporting. These principles help organizations establish consistent and transparent reporting practices, enabling interested parties to assess the organization's ESG performance and make informed decisions. Many organizations adopt the use of multiple frameworks and standards depending on their specific needs and industry requirements. It is important for organizations to conform to this document's principles to ensure the integrity of their report and that their reported information is reliable.

9.2.2   Guiding principles for reporting

The following guiding principles should be applied:

a)   strategic focus and materiality of ESG and their metrics that are consistent with the organization's strategy, objective(s) and values;

b)   an approach that is practicable to the organization's operating model and external context, based on a cost benefit comparison, including opportunity cost (e.g. time, quality, volume) analysis (financial and/or non-financial values);

c)   relevance for organizations of all types, sizes, sectors and geographic locations;

d)   valid and reliable evidence-based measures and the integration of high-quality data to provide insight that informs organizational decision-making;

e) comparability of reported metrics across similar organization types and sectors (e.g. using benchmarking methods and establishing baselines, or using risk and opportunity metrics, or collecting evidence from comparable analysis);

f) ESG narrative based on the concept of materiality that identifies the important and relevant impacts for the organization and its internal and external interested parties (see 4.5);

g) transparency of reporting that clearly identifies ESG risks and opportunities to key governance bodies and interested parties;

h) ensure established good practice on data and information, communication and consultation between management and personnel representatives is respected and protected during the planning and implementation of any related changes;

i) respect confidentiality of data and information when reporting, ensuring it is not used as an overly restrictive measure.

9.2.3 Specific principles for reporting

9.2.3.1 Accurate

Organizations should report information that is true, verifiable and/or validatable and adequately detailed to allow a review of the organization's ESG impacts.

Poor and incomplete data may lead to poor or inaccurate or skewed decision-making. Only accurate information helps to clearly understand the current situation. Any quantitative and qualitative information should be consistent with the available evidence and other reported information.

Accurate information typically comes from:

— internal and external data collection (manual or electronic) coming from many quantitative and qualitative sources, including:

  — pollution monitoring;

  — waste collection statistics;

  — recycling rates;

  — meter readings (e.g. energy and water);

  — building management systems (BMS) data;

  — plant operational data (run hours, maintenance costs, labour hours, etc.);

  — machine sensor data, learning tools/AI data collection and other credible sources of published information;

— measurement, based on recognized methodologies and metrics;

— interested party engagement workshops, workshops comprising focus groups and or feedback from interested parties;

— publicly available information, such as regulatory filings and reports, and media and public records, such as news articles, press releases and other public records relevant to ESG information, including metrological data;

— peer reviewed information [e.g. trend data or sector specific data and information (such as average transport miles for logistics operations)];

— use of default values to aggregate and calculate information (set by regulators and calculation algorithms/ methodologies);

— data analytics and rating agencies, such as platform-based report generators.

Organizations should:

— where appropriate (e.g. where there is not a standardized methodology or calculation), explain how the data and information used have integrity and credibility, along with any sources (e.g. standards followed, scientific peer reviewed articles, industry benchmarks);

— indicate which data have been measured and which have been estimated;

— explain underlying assumptions and techniques used for estimation, as well as any limitations of the estimates;

— understand the variability and uncertainty within the data used and communicate these when reporting;

— consider using methodologies to quantify qualitative data and information (e.g. using T-value, Likert scale or other appropriate analysis tools).

9.2.3.2 Timely

Organizations should report information on a regular schedule and make it available to relevant interested parties. For some organizations, meeting deadlines can have legal consequences if they are not met.

The usefulness of reported ESG information is closely tied to its availability in time for users to incorporate it into their decision-making. A report should be submitted at the required time (e.g. at the end of a net zero interim target or inclusion with the corporate accounts). If this does not happen, the report is not supportive and the effort expended in preparing it is also a waste. The absence of information at the required time contributes to making unsubstantiated decisions.

Organizations should find a balance between the need to make information available in a timely manner and ensuring that the information is of high quality. The report should also indicate the period covered by the reported information.

The principle "timely" also has the consideration of material change that can affect decision-making or how the organization is considered. Therefore, updated or amended reports and statements need to be implemented as soon as practically (or legally) possible.

9.2.3.3 Fair and unbiased

Organizations should report information in a balanced and unbiased way and provide a fair representation of the organization's adverse and positive ESG impacts, risks and opportunities.

ESG information should be presented in a way that allows:

— Users to see negative and positive year-on-year trends. Relevant information concerning its negative impacts should not be omitted. Over-emphasizing positive news or impacts should be avoided.

— When reporting on compliance performance related to applicable compliance obligations, there should be consideration of compliance and non-compliance such as summons, warning and notices.

— Interested party interests or concerns to be clearly understood from the ESG reports.

— Presentation of information such as data, year-on-year trends and analysis in such a way that it does not skew or influence the conclusions or assessments by interested parties.

9.2.3.4 Relevant to its ESG context

Organizations should report information about their impacts relevant to their ESG context. Having identified the intended users (interested party) of the report, the organization should ensure that the ESG data and information provided address the materiality determination, the accuracy of delivered information and the capability of intended users to make informed decisions when using ESG reports.

The objective of ESG reporting is to provide transparency on how an organization contributes or aims to contribute to sustainability. For this purpose, the organization should assess and report information about its impacts focusing on sustainability. This includes positive and negative impacts. Only relevant information should be included in the report. The inclusion of irrelevant or insignificant information may be confusing, a demonstration of a lack of focus and internal awareness and may be a waste of effort and resources. Insignificant information should be considered from the different interested parties' perspectives, which is why engagement is an important aspect of ESG. Therefore, organizations should consider the robustness of information and measures, using respected scientific research, other authoritative sector-specific data or agreeing with interested parties the limits or achievement of goals, as well as taking into account their location(s) to ensure that impacts are in relation to appropriate local, regional or national contexts.

9.2.3.5 Comparable

The organization should select, compile and report information consistently and in a comparable manner to enable an analysis of changes in the organization's impacts over time. The information should also consider the impacts relative to those of other organizations (i.e. benchmarking).

Organizations should ensure that information is able to be compared in the short, medium and longer term. This enables the organization and its interested parties to assess the organization's current impacts against its past impacts and its goals and targets, including environmental and social indicators, rating activities, investment decisions and advocacy programmes.

The information provided by reports may be supportive when it includes a provision to compare past figures, standards or objectives. The year-on-year trends in variations may be found by comparison and corrective action. The more accurate, relevant and transparent the information is, the more comparative the analysis will be. On occasions it may be impossible, inaccurate or misleading to compare report information to previous reporting periods (e.g. if the organization has changed very significantly structurally or strategically). It may then be appropriate to re-baseline reporting information so that comparisons re-start from a new point in time. If the re-baseline is carried out, there should be full disclosure on why it has taken place and clear information for interested parties to make decisions on.

Consideration should be given at an early stage as to what comparison is likely to be required of the information over the short, medium and long term and the time horizons should be referenced in the report.

Claims and reports, in whatever form, should include explanatory text setting out the reference used for the comparison (e.g. provide an explanation that would allow for an interpretation of a statement). The explanatory text should permit the identification of the reference data or information in specific quantitative or qualitative terms and how it was obtained (e.g. where a comparison of a products, services, impact, etc. is demonstrated in a report it should serve similar functions, where appropriate be supplied by the same or another producer or supplier and currently or recently have been in the same marketplace). This can be by peer review, analysis, etc.

9.2.3.6 Transparent and clear

The organization should present information in a way that is accessible and understandable.

The purpose of preparing ESG reports is to help the organization in presenting its ESG information which is useable by interested parties in decision-making. The information in the report should be clear, complete, concise and simple to interpret. The report should be straightforward, enable easy focus on issues and arrive at a conclusion.

The organization should also consider specific accessibility needs of its interested parties, associated with abilities, diversity, language and technology. The organization should present information in a way that interested parties can easily find the information they want, such as using tables of contents, maps, infographics or links.

9.2.3.7 Verifiable

The organization should gather, compile, analyse and record information in such a way that the information can be examined to establish its quality.

It is important that the reported information can be audited, analysed and evaluated to establish its accuracy and correctness and to determine the extent to which the above reporting principles have been applied. This also demonstrates an organization's accountability and transparency.

The organization should set up internal controls and organize documentation in such a way that individuals, other than those preparing the reported information (e.g. internal auditors, external assurance providers), can review them. The decision-making processes underlying the organization's ESG reporting should be documented in a way that allows for the evaluation of the key decisions and processes, such as the process of determining who the interested parties are, risk assessments, outcomes and materiality.

9.2.4   Report coverage

9.2.4.1   General

ESG reporting is not set in stone and it depends on what the organization determines is material to the users of the report, based on the materiality evaluation of environmental, social and governance, already outlined in this document; however, there are key elements that should be addressed within the report.

In the context of the reporting on ESG-related activities and issues, these should be considered as the environmental and social factors of ESG and how the organization governs itself to manage and achieve the environmental and social factors of ESG.

These include but are not limited to the reporting specified in 9.2.4.2 to 9.2.4.6.

9.2.4.2   Reporting on materiality

The report should provide an understanding of how and what factors, impacts and associated materiality issues (see 4.2) were identified. The report should also explain any relevant and significant risks and opportunities identified, along with significant impacts and trends associated with climatic impacts, industrial sector, organizational maturity, the organization's exposures to vulnerabilities and many others.

9.2.4.3   Reporting on the governance of the organization

Organizations have various reasons to report externally on their governance, some mandatory and others voluntary. Reporting on how the organization is governed, particularly concerning its sustainability strategies and actions, allows interested parties to determine if the organization aligns with their expectations. Internal reporting within an organization ensures there is transparency, a focus on outcomes and effective governance reflected in management practices.

The key governance areas to report on:

a)   Provide a clear understanding of who the reporting organization is. The organization should provide an understanding of the connection between ESG-related financial and non-financial ESG disclosures.

b)   There should be a description of the organization's organizational model.

c)   The ESG-related disclosure on governance should provide the users of the report with an understanding of the governance processes, controls and procedures for managing, monitoring and overseeing the ESG-related risks and opportunities.

d)   The report should include the structure of the organization, its relationship to other organizations and/or its relationship to other parts of a group and who is responsible and accountable for establishing, approving and signing off the ESG report.

9.2.4.4   Reporting on the strategy of the organization

The reporting organization should:

a)   explain the strategy for managing the sustainability-related risks and opportunities, its effectiveness and how and what the strategy is measured against;

b) cover what can reasonably be expected to affect the organization's prospects and how such current and anticipated effects can impact their business model, strategy and decision-making;

c) explain the resilience of the organization's organizational model and strategy to sustainability-related risks.

9.2.4.5 Reporting on the sustainability risks and risk management

The reporting organization should:

a) provide an understanding of ESG-related risks and opportunities that can reasonably be expected to affect the organization's ability to achieve its objectives;

b) specify the time horizons for short, medium and long term and how they are linked to the planning horizons used by the organization for strategic decision-making and activities.

9.2.4.6 Reporting on the ESG metrics and targets

The reporting organization should:

a) ensure the report is based on clearly defined metrics and targets where possible and these should allow for consistent, interpretable, replicable and reproducible outcomes;

b) ensure transparency in the reporting, where inconsistencies appear between ESG metrics and targets, these should be explained in clear, understandable and easy to find text (i.e. not hidden away);

c) ensure the metrics and targets are relevant to the organization and interested parties, in the short, medium and long term, to assist in comparability as the organization matures its ESG reporting;

d) be aware of any mandatory and voluntary frameworks, International Standards/documents, or client's requirements, that already have established metrics and align with regulations when mandated to do so and for consistency in reporting and benchmarking whenever possible;

e) provide evidence that supports the results against the metrics and targets with clarity and transparency (see 9.2.3.6), use recognized and accurate data sources and methodologies wherever possible, and qualifications about the data and information, including the rationale for selecting them, in the report.

NOTE   See the ISO 14019 series[96] for the validation and verification of sustainability, ESG information and assurance.

9.3 Assurance

In general terms, ESG assurance supports the organizational ability to demonstrate the credibility of claims, processes and procedures to deliver against set requirements (e.g. carbon reduction or that energy efficiency measures have delivered the desired or forecasted energy savings).

Assurance processes and procedures, by their very nature, allow an organization or its interested parties to identify how well the organization is achieving the desired outcomes. Good governance of processes, procedures, information, impact assessments and materiality for assurance assessments that are accurate, transparent and responsive help focus on how an organization presents its evidence and outcomes.

Assurance also supports organizational functional approaches by ensuring evidence is appropriate to the management practices, statements, claims, reports and disclosures.

In terms of demonstrating the above, when an independent (impartial and unbiased) assurance activity is carried out, the assessment should be an evidence-based approach, using risk-based sampling for validation and/or verification of the evidence.

The principles providing assurance for ESG reporting in assurance are:

— integrity;

— impartiality;

— objectivity;

— openness;

— professional competence and due care;

— professional behaviour;

— independence;

— responsibility;

— responsiveness to complaints;

— taking a risk-based approach;

— confidentiality.

The assessment may be considered an assurance engagement subject to the level of assurance being agreed prior to the start of the validation and verification activities (either through established assurance programmes or in a contract). This allows for the scope of the works to be defined, including the appropriate level of assessment design and implementation of the assurance engagement (e.g. time, resource and competency required to carry out the validation and verification).

The level of assurance engagement offered by a practitioner providing assurance is in terms of reasonable assurance engagement or limited assurance engagement (see Clause A.1). The level of assurance engagement offered depends on a number of factors, such as depth of testing, the level of evidence, the cost of assurance and the perception of credibility.

The outcome of the assurance activities should provide a fair presentation, through truthful and accurate validation and verification activities, findings, conclusions and reports, including significant obstacles encountered during the process.

When preparing data for assessment, it is important to consider the level of assurance that can be obtained through the engagement. No auditor is likely to give 100 % assurance against the evidence presented, as there is always some element of assumptions, conjecture and rationale associated with ESG evidence – it is not an exact science, variability and uncertainty exists.

Where assurance is to be given, it is incumbent on the organization to present the claims, evidence, disclosures and reports in a manner that provides the level of assurance needed.

The organization should consider its assurance needs and those of its interested parties to determine what the assurance practitioner is likely to require, based on the factors illustrated above. The difference between reasonable and limited assurance is typically in the depth of understanding/analysis needed (e.g. if only an evaluation of a GHG inventory and underlying data are looked at or a more extensive test of controls; validation and verification; evaluation of underlying assumptions; test of data management systems and data processes and equipment), resources available to carry out the audit and cost of the audit.

NOTE 1   See Annex A for more details on assurance and principles on validation and verification of ESG disclosures.

NOTE 2   Assurance in the form of conformity assessment is not part of this document; however, see Annex A for better understanding of how conformity assessment of the whole or parts of the ESG ecosystem can contribute to the credibility of the ESG claim, statement, report or disclosure.

NOTE 3   See the ISO 14019 series[96] for the validation and verification of sustainability, ESG information and assurance.

9.4   ESG and reporting schemes/directives

Using the embodied framework for ESG as a tool for managing environmental, social and governance activities invariably leads to the organization wanting or needing to state what they are doing (present), have done (historic) or are going to do (future). For ease of understanding, the collective can be considered as reporting.

Reporting schemes or programmes can be voluntary or have mandatory requirements (dependent on the size of the organization, geolocation, industry sector, etc.).

Existing and new schemes and programmes are developing all the time. Those in the regulated space are aligning their requirements and mutual recognition of standards is already taking place. There are several International Standards and guidance for ESG factors that can contribute to the evidence-based approach for reporting.

Key frameworks have been established with recognition from global industry, as well as regional and national bodies. Where these frameworks support ESG disclosure, organizations should consider how their conformity to standards strengthens the foundation of their reporting. Organizations using ISO 14064-1[32], ISO 14001[25] and ISO 50001[33] should support robust evidence-based reporting.

However, there are many less obvious but equally important product and service standards that can be used to calculate or demonstrate evidence, such as the identification of solid recovered materials (ISO 21640[65]) and ISO 13612-1[97] for heating and cooling systems.

9.5   Further information

For further information to help an organization with reporting, see the references listed in Table 14.

Table 14 — Sample of ISO and IEC documents available for reporting

Issues	ISO and IEC documents
General principles	ISO/IEC 17000,[95] ISO/IEC 17029,[98] ISO/TS 17033[83]
Validation and verification programmes	ISO/IEC TS 17035[99]
Third-party marks of conformity	ISO/IEC 17030[100]
Supplier's declaration of conformity	ISO 14020,[101] ISO/IEC 17050-1,[102] ISO/IEC 17050-2[103]
Audit and certification of management systems	ISO/IEC 17021-1,[88] ISO/IEC 17024,[104] ISO/IEC TS 17035[99]

10 Continual improvement

Part of an ESG journey and maturity of an organization's ESG culture is a process of continual improvement where ESG progress is reviewed both horizontally and vertically, taking into account lessons learned. Table 15 shows the types of questions a continual improvement process would address.

Table 15 — ESG processes through a continual improvement lens

Status and effectiveness	Questions
ESG goals	Have the ESG goals been defined by the board (or top management) and are they aligned with the organization's mission and values?
	Have those goals and KPIs been embedded throughout the organization at the various levels?
	How, where and how often are ESG results of those goals reported?
	To what extent are ESG results being achieved and meeting the intended outcome of the organization?
	What are the emerging issues or trends in ESG that need to be considered?
	Do the current ESG goals address the identified risks and opportunities and strategies?
	What are emerging issues that are important to (any of) our interested parties?
	Are there any ESG goals that need to be revised or archived?
ESG KPIs	What are the mechanisms to collect/access, measure (KPIs) and/or monitor the ESG performance?
	Are appropriate and timely actions taken when the trends indicate (positive or negative) action is needed?
	Do the trends from the KPIs indicate the intended outcome is or is going to be achieved?
	What metrics are being reported by our competitors and partner organizations?
	What metrics are important to our interested parties?
	What metrics are needed for regulatory or reporting purposes?
Lessons learned	What ESG KPIs have been achieved?
	Are the results and/or KPIs regularly assessed and acted on to identify opportunities to improve the performance and integrity of the ESG work/programme?
	What new knowledge or information gathering has been integrated into the organization, improved or occurred in the past year?
	Have material impacts reduced/increased the risks/opportunities within the organization and for the environment and society? Can this be replicated?
	How do we compare to sector and organizational benchmarks available?
	Are there new issues that are important to our interested parties?
	Are we communicating the impact of ESG activities to internal and external interested parties effectively?
	Are we being honest with all interested parties, even when there have been issues achieving results?

Once the ESG progress has been assessed, the organization should take action to:

— monitor trends that indicate intended outcomes will not be achieved;

— re-align resources to address new issues;

— undertake any other actions.

The continual improvement process then provides input back into the materiality, risks and opportunities and interested party identification processes. This looping back to the beginning ensures that the ESG system continues to deliver results for the organization and its interested parties. An effective model for continual improvement is a management system. Management system standards (MSS)[2] can be used to help organizations with the continual improvement aspects of ESG.

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2) Additional information on MSS can be found at https://www.iso.org/management-system-standards.html

Annex A
(informative)

Assurance and conformity assessment

A.1   Assurance engagement levels

The planning by practitioners uses the same risk basis for planning their work and the same levels of materiality in evaluating the outcome for both reasonable and limited assurance. However, in some standards, such as ISO 14065,[105] validation would be restricted to a limited assurance (see Clause A.3), while verification can be performed as both reasonable and limited assurance. The determination is based on the detail in which the assurance engagement is carried out and the maturity of the subject matter (system, processes, procedures and sectors providing the evidence) presented. Limited assurance of non-financial matters is often less well defined.

Assurance engagement provides interested parties with either an opinion (reasonable assurance) by a competent practitioner about the assured assessment (testing, evaluation, claim, report, disclosure, etc.) or a limited assurance engagement may tackle a subject matter which is less well defined and for which the control environment is far less mature and robust.

Different levels of assurance can be applied to different components within a specific instance of declared ESG information.

The assurance statement of the limited assurance should be framed in a negative sense (e.g. "nothing came to our attention to indicate that the assertion on XYZ is materially misstated"). While reasonable assurance conclusions should be framed in a positive sense (e.g. "based on the procedures performed, in our opinion, the assertion on XYZ is reasonably stated").

NOTE   For a more detailed explanation of reasonable and limited assurance, see IESBA, *Proposed International Ethics Standards for Sustainability Assurance.*[106]

A.2   Principles for validation and verification of ESG disclosure reports

When conducting validation and verification of an ESG disclosure report, the principles set out in Table A.1 should be adhered to.

Table A.1 — Principles for validation and verification of ESG disclosure reports

| Principles	Description	ISO/IEC 17029[98] principles (summarized)
Independence and objectivity	The evaluation should be impartial and free from any conflicts of interest that could affect its assessment. The evaluation should be based on objective and fair criteria, avoiding biases or favouritism.	4.3.1 Impartiality: unhindered or not influenced verification/validation activities by other interest parties.
Rigour and thoroughness	The evaluation should be thorough, reviewing and analysing the provided data and evidence associated with ESG, including those that may be indirectly related, but the organization may not have estimated or considered to be within scope. Clear and consistent criteria should be used to assess the organization's performance and its alignment with ESG standards and best practices.	4.2.1 Evidence-based approach to decision-making: The process deploys a method for reaching reliable and reproducible validation/verification conclusions and is based on sufficient and appropriate objective evidence.\n4.3.7 Validation and verification bodies need to take into account the risks associated with providing competent, consistent and impartial validation/verification.\n4.3.5 Responsibility: The client of the validation/verification body, has responsibility for the claim and its conformity with applicable specified requirements.
Clear and constructive communication	The evaluation should communicate findings in a clear, precise and constructive manner. Observations may be provided with the aim of identifying areas of improvement in its ESG performance and reporting in the future, while avoiding any potential risks that could undermine the impartiality of the evaluation.	4.2.2 Documentation: the process for validation and verification should be clearly documented, to establish a basis for the validation/verification conclusion.\n4.2.3 Fair presentation: truthful and accurate reflections of the assurance should be presented, including any unresolved, divergent or significant obstacles encountered.\n4.3.4 As appropriate validation/verification bodies need to provide public access to, or disclose of, appropriate information about the validation/verification process.\n4.3.6 Responsiveness to complaints: Parties that have interest in the validation/verification outcome have the opportunity to make complaints. The complaints are managed appropriately and resolved. Responsiveness to complaints is part of the integrity and credibility of the validation/verification outcomes.
Competence	The individual and/or personnel involved should have the necessary knowledge and competency to effectively carry out the validation/verification activities.	4.3.2 Competence: Personnel have the necessary knowledge, skills, experience, training, supporting infrastructure and capacity to perform their validation/verification activities.
Confidentiality	Confidential information obtained or generated during the validation/verification activities should be safeguarded and protected.	4.3.3 Confidentiality: Information obtained or created during validation/verification activities is safeguarded and not inappropriately disclosed.

A.3 Conformity assessment: General principles and requirements for validation and verification bodies

As stated in 8.1, verification considers historic or current evidence, the data utilized is factual and can be assessed against the truthfulness of the claim.

EXAMPLE   The efficiency improvements of the plant have reduced unpaid overtime by x h and x % and a survey of personnel indicates satisfaction with being able to reduce the unpaid overtime hours by x %.

Assurance statements are based on validation activities concluded on the reasonableness of the assumptions, limitations and methods used to forecast information and not the forecast itself. Figure A.1 illustrates the direction for validation. Figure A.2 illustrates the direction for verification.
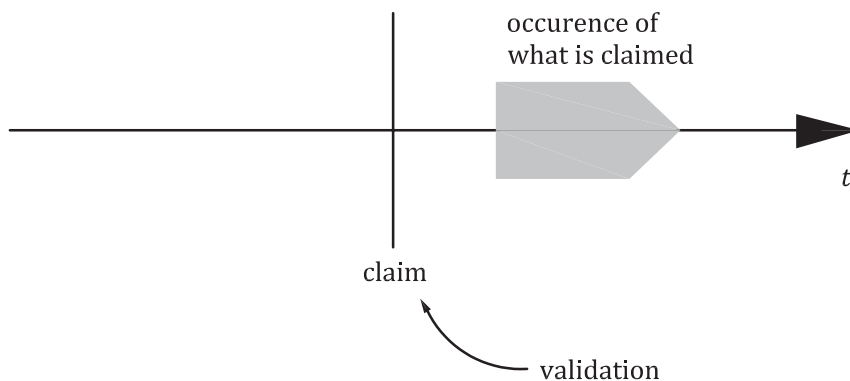
SOURCE: ISO/IEC 17029:2019,[98] Figure C.1.

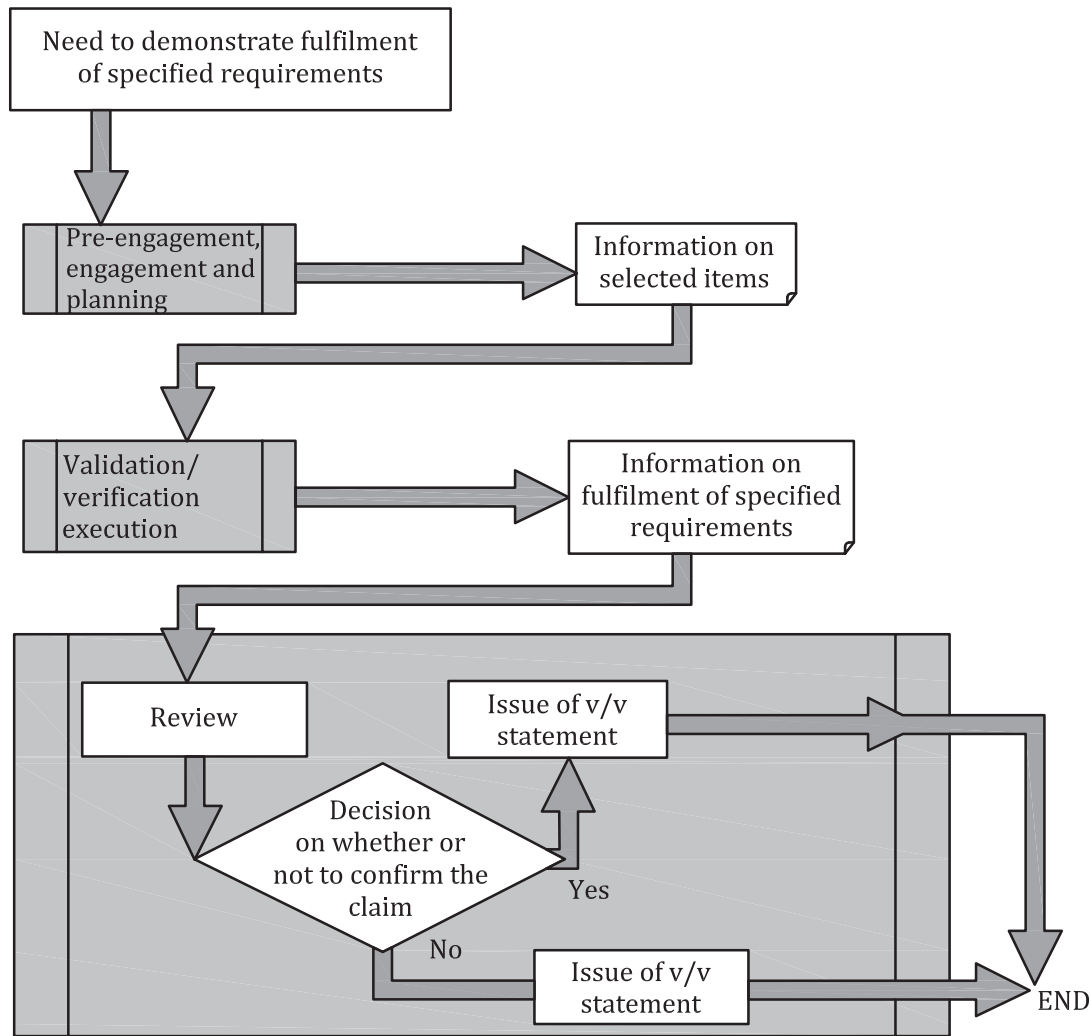**Figure A.1 — Validation**
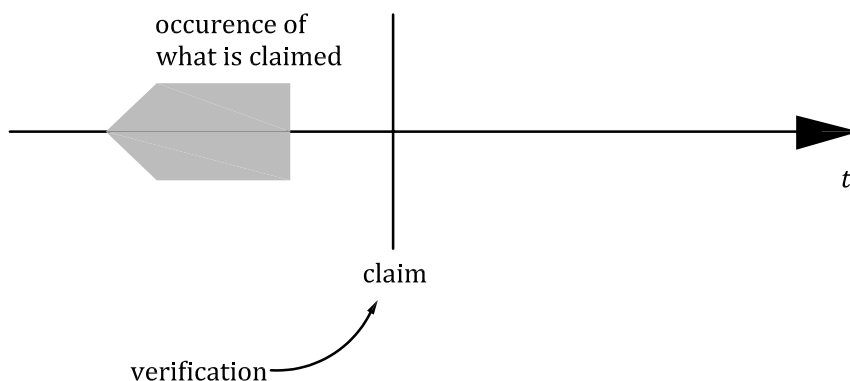
SOURCE: ISO/IEC 17029:2019,[98] Figure C.2.

Figure A.2 — Verification

The functional approach (ISO/IEC 17000[95]) to demonstrate fulfilment of specified requirements can be seen in Figure A.3, adapted to the terminology and concepts of ISO/IEC 17029[98].

SOURCE: ISO/IEC 17029:2019,[98] Figure B.1.

Key

v/v   validation/verification

Figure A.3 — Functional approach to demonstrate fulfilment of specified requirements

Annex B

(informative)

Workshop contributors

The list of workshop contributors is available at: https://standards.iso.org/iso/iwa/48/ed-1/en

Bibliography

[1]   United Nations, *Sustainable Development Goals*, available at: https://sdgs.un.org/goals

[2]   ISO 46001, *Water efficiency management systems — Requirements with guidance for use*

[3]   ISO/UNDP PAS 53002, *Guidelines for contributing to the United Nations Sustainable Development Goals (SDGs)*

[4]   ISO Guide 82:2019, *Guidelines for addressing sustainability in standards*

[5]   ISO 26000:2010, *Guidance on social responsibility*

[6]   ISO 9000:2015, *Quality management systems — Fundamentals and vocabulary*

[7]   ISO 37301:2021, *Compliance management systems — Requirements with guidance for use*

[8]   ISO 31000, *Risk management — Guidelines*

[9]   ISO 37000, *Governance of organizations — Guidance*

[10]   IEC 31010, *Risk management — Risk assessment techniques*

[11]   ISO 31073, *Risk management — Vocabulary*

[12]   IWA 31, *Risk management — Guidelines on using ISO 31000 in management systems*

[13]   ISO 9004:2018, *Quality management — Quality of an organization — Guidance to achieve sustained success*

[14]   OECD, *Guidelines for Multinational Enterprises on Responsible Business Conduct*, available at: https://mneguidelines.oecd.org/mneguidelines/

[15]   EFRAG IG1, *Materiality Assessment*, available at: https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/IG%201%20Materiality%20Assessment_final.pdf

[16]   EFRAG IG2, *Value Chain*, available at: https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/Draft%20EFRAG%20IG%202%20VCIG%20231222.pdf

[17]   EFRAG IG3, *List of ESRS datapoints, Explanatory Note*, available at: https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/EFRAG%20IG%203%20List%20of%20ESRS%20Data%20Points%20-%20Explanatory%20Note.pdf

[18]   EFRAG IG3, *List of ESRS Data Points* (online spreadsheet), available at: https://efrag.sharefile.com/share/view/s6e410fb208aa4685bf9c482ee405f48d/foa75419-44c9-4081-85a5-43217a6e8732

[19]   UN guiding principles on business and human rights, available at: https://www.ungreporting.org/resources/the-ungps/

[20]   Regulation (EU) 2023/363, *Sustainable Finance Disclosure Regulation (SFDR)*, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0363

[21]   ISO 37001, *Anti-bribery management systems — Requirements with guidance for use*

[22]   ISO/IEC TR 38502, *Information technology — Governance of IT — Framework and model*

[23]   ISO 9001, *Quality management systems — Requirements*

[24]   ISO 10018, *Quality management — Guidance for people engagement*

[25]   ISO 14001, *Environmental management systems — Requirements with guidance for use*

[26]   ISO 14031, *Environmental management — Environmental performance evaluation — Guidelines*

[27]   ISO 37005, *Governance of organizations — Developing indicators for effective governance*

[28]   ISO 37122, *Sustainable cities and communities — Indicators for smart cities*

[29]   ISO 37124, *Sustainable cities and communities — Guidance on the use of ISO 37120, ISO 37122 and ISO 37123*

[30]   ISO 50006, *Energy management systems — Evaluating energy performance using energy performance indicators and energy baselines*

[31]   IWA 42, *Net zero guidelines*

[32]   ISO 14064-1, *Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*

[33]   ISO 50001, *Energy management systems — Requirements with guidance for use*

[34]   ISO 50002, *Energy audits — Requirements with guidance for use*

[35]   ISO 13073 (all parts), *Ships and marine technology — Risk assessment on anti-fouling systems on ships*

[36]   ISO 14002-1, *Environmental management systems — Guidelines for using ISO 14001 to address environmental aspects and conditions within an environmental topic area — Part 1: General*

[37]   ISO 14007, *Environmental management — Guidelines for determining environmental costs and benefits*

[38]   ISO 14008, *Monetary valuation of environmental impacts and related environmental aspects*

[39]   ISO 14015, *Environmental management — Guidelines for environmental due diligence assessment*

[40]   ISO 14016, *Environmental management — Guidelines on the assurance of environmental reports*

[41]   ISO 14040, *Environmental management — Life cycle assessment — Principles and framework*

[42]   ISO 14044, *Environmental management — Life cycle assessment — Requirements and guidelines*

[43]   ISO 14045, *Environmental management — Eco-efficiency assessment of product systems — Principles, requirements and guidelines*

[44]   ISO 14046, *Environmental management — Water footprint — Principles, requirements and guidelines*

[45]   ISO/TS 14048, *Environmental management — Life cycle assessment — Data documentation format*

[46]   ISO 14055-1, *Environmental management — Guidelines for establishing good practices for combatting land degradation and desertification — Part 1: Good practices framework*

[47]   ISO 14067, *Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification*

[48]   ISO 21365, *Soil quality — Conceptual site models for potentially contaminated sites*

[49]   ISO 21931-2, *Sustainability in buildings and civil engineering works — Framework for methods of assessment of the environmental, social and economic performance of construction works as a basis for sustainability assessment — Part 2: Civil engineering works*

[50]   ISO/TR 27918, *Lifecycle risk management for integrated CCS projects*

[51]   ISO 28902 (all parts), *Air quality — Environmental meteorology*

[52]   ISO 14068-1, *Climate change management — Transition to net zero — Part 1: Carbon neutrality*

[53]   ISO 14090, *Adaptation to climate change — Principles, requirements and guidelines*

[54]   ISO 50004, *Energy management systems — Guidance for the implementation, maintenance and improvement of an ISO 50001 energy management system*

[55]   ISO 50047, *Energy savings — Determination of energy savings in organizations*

[56]   ISO 14002-2, *Environmental management systems — Guidelines for using ISO 14001 to address environmental aspects and conditions within an environmental topic area — Part 2: Water*

[57]   ISO 14006, *Environmental management systems — Guidelines for incorporating ecodesign*

[58]   ISO 16677-1[3)], *Biobanking — Germplasm — Part 1: Agricultural animal species*

[59]   ISO 17298[4)], *Biodiversity – Requirements and guidelines for strategically and operationally addressing biodiversity at the organizational level*

[60]   ISO 17317[5)], *Biodiversity — Guide for the characterization of products derived from native species*

[61]   ISO 17620[6)], *Biodiversity — Process for designing and implementing biodiversity net gain*

[62]   ISO 18725, *Tourism and related services — Yacht harbours and drystacks — Requirements for clean harbours and active biodiversity harbours*

[63]   ISO 4484 (all parts), *Textiles and textile products — Microplastics from textile sources*

[64]   ISO 7704, *Water quality — Requirements for the performance testing of membrane filters used for direct enumeration of microorganisms by culture methods*

[65]   ISO 21640, *Solid recovered fuels — Specifications and classes*

[66]   ISO 24591-1, *Smart water management — Part 1: General guidelines and governance*

[67]   ISO 22526 (all parts), *Plastics — Carbon and environmental footprint of biobased plastics*

[68]   ISO 37101, *Sustainable development in communities — Management system for sustainable development — Requirements with guidance for use*

[69]   ISO/TS 37107, *Sustainable cities and communities — Maturity model for smart sustainable communities*

[70]   ISO 20400, *Sustainable procurement — Guidance*

[71]   ISO 22316, *Security and resilience — Organizational resilience — Principles and attributes*

[72]   ISO 59010, *Circular economy — Guidance on the transition of business models and value networks*

[73]   ISO 59020, *Circular economy — Measuring and assessing circularity performance*

[74]   IWA 45, *Sustainable critical mineral supply chains*

[75]   ISO 22458, *Consumer vulnerability — Requirements and guidelines for the design and delivery of inclusive service*

[76]   ISO 37104, *Sustainable cities and communities — Transforming our cities — Guidance for practical local implementation of ISO 37101*

[77]   ISO 20121, *Event sustainability management systems — Requirements with guidance for use*

[78]   ISO 45001, *Occupational health and safety management systems — Requirements with guidance for use*

[79]   ISO 45004, *Occupational health and safety management — Guidelines on performance evaluation*

[80]   BS 8950, *Social value. Understanding and enhancing. Guide*

---

3)   Under preparation. Stage at the time of publication: ISO/FDIS 16677-1:2024.

4)   Under preparation. Stage at the time of publication: ISO/DIS 17298:2024.

5)   Under preparation. Stage at the time of publication: ISO/DIS 17317:2024.

6)   Under preparation. Stage at the time of publication: ISO/DIS 17620:2024

[81]   ISO 37002, *Whistleblowing management systems — Guidelines*

[82]   ISO 37004, *Governance of organizations — Governance maturity model — Guidance*

[83]   ISO/TS 17033, *Ethical claims and supporting information — Principles and requirements*

[84]   ISO 37003[7], *Fraud control management systems — Guidance for organizations managing the risk of fraud*

[85]   ISO/TS 37008, *Internal investigations of organizations — Guidance*

[86]   ISO 53800, *Guidelines for the promotion and implementation of gender equality and women's empowerment*

[87]   ISO 30415, *Human resource management — Diversity and inclusion*

[88]   ISO/IEC 17021-1, *Conformity assessment — Requirements for bodies providing audit and certification of management systems — Part 1: Requirements*

[89]   ISO 10010, *Quality management — Guidance to understand, evaluate and improve organizational quality culture*

[90]   ISO/TS 24178, *Human resource management — Organizational culture metrics cluster*

[91]   ISO 14004, *Environmental management systems — General guidelines on implementation*

[92]   ISO 14063, *Environmental management — Environmental communication — Guidelines and examples*

[93]   ISO 45002, *Occupational health and safety management systems — General guidelines for the implementation of ISO 45001:2018*

[94]   ISO 22395, *Security and resilience — Community resilience — Guidelines for supporting vulnerable persons in an emergency*

[95]   ISO/IEC 17000:2020, *Conformity assessment — Vocabulary and general principles*

[96]   ISO 14019 (all parts)[8], *Sustainability information*

[97]   ISO 13612-1, *Heating and cooling systems in buildings — Method for calculation of the system performance and system design for heat pump systems — Part 1: Design and dimensioning*

[98]   ISO/IEC 17029, *Conformity assessment — General principles and requirements for validation and verification bodies*

[99]   ISO/IEC TS 17035, *Conformity assessment — Guidelines for validation and verification programmes*

[100]   ISO/IEC 17030, *Conformity assessment — General requirements for third-party marks of conformity*

[101]   ISO 14020, *Environmental statements and programmes for products — Principles and general requirements*

[102]   ISO/IEC 17050-1, *Conformity assessment — Supplier's declaration of conformity — Part 1: General requirements*

[103]   ISO/IEC 17050-2, *Conformity assessment — Supplier's declaration of conformity — Part 2: Supporting documentation*

[104]   ISO/IEC 17024, *Conformity assessment — General requirements for bodies operating certification of persons*

[105]   ISO 14065, *General principles and requirements for bodies validating and verifying environmental information*

---

7)   Under preparation. Stage at the time of publication: ISO/FDIS 37003:2024.

8)   Under preparation. Stage at the time of publication: ISO/DIS 14019-1:2024, ISO/DIS 14019-2:2024, ISO/DIS 14019-4:2024.

[106]   IESBA, *Proposed International Ethics Standards for Sustainability Assurance,* available at: https://www.ethicsboard.org/publications/proposed-international-ethics-standards-sustainability-assurance-including-international

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