

ESG Reporting Guide

The cornerstones of integrated ESG Reporting

Making
capital
matter.



ESG Reporting Guide

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1 Trust as a Success Factor: How ESG is Shaping the Reporting and Markets of Tomorrow

More and more investors, customers, business partners, and other stakeholders are incorporating environmental, social, and governance (ESG) criteria into their decision-making. While sustainability has always been a consideration for investors when evaluating companies, the strategic integration of all three ESG aspects is a recent development. Driven by the European Union's Sustainable Finance Initiative, sustainability has evolved from a niche topic into a significant strategic success factor for businesses.

ESG is fundamentally about trust, which companies primarily build through transparency. Therefore, reporting plays a crucial role in the context of ESG. Sustainable Finance requires financial service providers, especially institutional investors, to disclose the sustainability performance of their investment portfolios. To fulfil this obligation, financial service providers need relevant information and data from the companies in which they are or want to be invested.

Robust ESG reporting and persuasive communication on ESG topics offer substantial benefits beyond mere compliance. They can provide companies with a competitive edge in the capital market. For example:

- Enhanced visibility among investors, potentially broadening the investor base.
- A professional ESG strategy considers potential impacts on the environment and society, as well as future opportunities and risks (material topics). Investors view companies with such strategies as better prepared for future risks, such as those arising from climate change.
- A sound ESG strategy combined with effective ESG reporting can open up access to attractive new financing options, such as green bonds, green loans, or green promissory notes.

This guide from Deutsche Börse serves as a compass for issuers in a dynamic regulatory environment. ESG affects the entire company, changes responsibilities within groups, and strengthens the responsibilities of the supervisory board. It is also relevant to compliance and risk management. This ESG Guide highlights the information and data that are particularly important in this context. It primarily serves as a guide for companies that have had little or no previous contact with ESG reporting. The ESG Guide is designed to help companies navigate the field of ESG reporting. It also incorporates experiences gained by Deutsche Börse AG as a listed company.

2 Essential Components of Sustainability Reporting

For years, investors, analysts, and service providers such as rating and research agencies have sought a comprehensive picture of listed companies. They demand extensive consideration of sustainability information in corporate governance and reporting, and for good reason. External factors influence a company's value that cannot be adequately captured by traditional financial reporting. A reporting perspective that goes beyond pure financial data, encompassing environmental, social, and governance aspects, enables stakeholders to assess how companies create and preserve value based on solid information. Regulatory requirements in this area have also increased significantly in recent years, both in Europe and globally.



With the implementation of the Corporate Sustainability Reporting Directive (CSRD), the inclusion of this information in reporting is now mandatory for almost all listed European companies and the majority of medium-sized private companies, starting no later than the 2026 reporting year. Towards the end of the decade, other companies from other European countries will also have to fulfil the reporting obligations.

Companies should increasingly integrate sustainability aspects into their business activities and reporting if they want to remain or become attractive to investors. A key aspect of addressing ESG within a company is identifying opportunities and risks that arise from neglecting ESG factors. Viewing adequate sustainability management from an integrated perspective to develop appropriate strategies strengthens investor confidence and leads to lower capital costs, competitive advantages, and potentially higher market capitalization. The sustainability reporting process is divided into three parts, as shown in the following illustration.

Building Blocks of Effective Sustainability Reporting

1 Materiality Analysis

Before any reporting, a fundamental and company-specific analysis must be carried out to enable a better understanding and thus a better assessment of the context of sustainability reporting. The identification and prioritization of the material reporting topics is elementary and depends, among other things, on the business model, regulatory requirements, and stakeholders. A materiality analysis should not only refer to internal company issues but also consider external interest groups and their requirements. A materiality analysis thus forms the basis for the company's ESG strategy.

2 Reporting and Metrics

The report content should follow universally applicable reporting principles and regulatory reporting standards. For companies that are subject to reporting requirements according to the CSRD, this means applying the European Sustainability Reporting Standards (ESRS). Attention should also be paid to quantitative information. This enables translation into measurable and comparable goals and results.

3 Communication

The publication of sustainability information can take place via various channels, such as the annual report, a separate report, or the website. It also depends on applicable standards and regulatory requirements. Companies required to report under the CSRD publish a so-called sustainability statement as part of their management report. Additional communication of sustainability information outside of the management report is still possible.



2.1. Materiality Analysis

The materiality analysis serves as the starting point for strategy and reporting. It determines which sustainability topics are particularly important for the company and should therefore be the focus of sustainability management. It incorporates both internal and external topics. The goal of the analysis is to identify and evaluate the company-specific material sustainability topics. It provides an overview of stakeholder expectations and the company's own ambition level, thereby determining the structure and content of the sustainability report.

A materiality assessment is mandatory under many international reporting standards such as the European Sustainability Reporting Standards (ESRS), Global Reporting Initiative (GRI), International Integrated Reporting Council (IIRC), and Sustainability Accounting Standards Board (SASB).

The extent to which companies must adhere to a mandatory structure for the materiality assessment depends significantly on the applicable framework. However, even a legally prescribed analysis according to ESRS guidelines offers companies sufficient flexibility to consider individual factors. Overall, the materiality analysis should follow these guidelines:

- 1) Stakeholder Engagement
Companies should involve relevant stakeholders, such as investors, employees, customers, and NGOs, to identify material topics.
- 2) Consideration of Regulatory Requirements
Companies may need to ensure that the analysis considers the requirements of EU regulations such as the CSRD and the EU Taxonomy
- 3) Consideration of the Entire Value Chain
The analysis must include impacts along the entire supply chain and not just within the company itself.
- 4) Review of Industry and Market Risk Profile
The materiality of topics depends heavily on the industry and market risks.
- 5) Reporting on the Methodology
The criteria, data sources, and processes used in the materiality analysis must be documented and disclosed in the report.

Since opportunities, risks, and societal expectations of a company are constantly changing, addressing ESG requires continuous analysis. Sustainability is not a result, but a process.

In addition to these guiding questions regarding the business model, stakeholders, and regulations, competitors and the requirements of international standard setters are also considered when determining material topics (see also chapters 5 & 6).



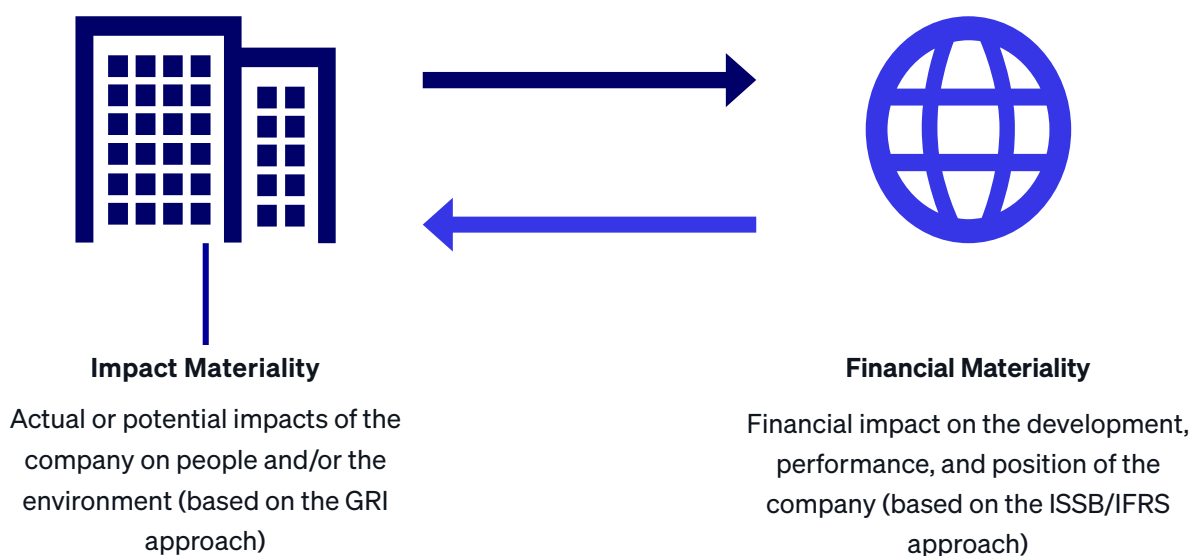
The principle of double materiality is crucial for the materiality analysis according to the ESRS. Its goal is to identify topics that are significant for the company and can influence it, as well as topics that the company itself influences, using two guiding questions:

1. **Financial Materiality:** What are the impacts of sustainability issues on the company's financial position, e.g., changes in cash flows, profit expectations, insurance costs, etc.?
2. **Impact Materiality:** What are the impacts of the company's actions and value chain on people and the environment?

The material topics included in the sustainability report are divided into impacts, risks, and opportunities (IROs). Impacts take an "inside-out" perspective, identifying the actual or potential impacts of the company on the environment, society, and economy along the entire value chain, including direct effects like CO₂ emissions and indirect consequences like working conditions in the supply chain. Risks and opportunities, on the other hand, adopt an "outside-in" perspective. Risks refer to sustainability factors that could negatively impact the company, for example, through regulatory changes, physical climate risks, reputational damage, or supply chain disruptions, which endanger the financial position, business success, or strategic goals. Opportunities are potential benefits arising from addressing sustainability, such as competitive advantages through innovative solutions, efficiency gains, access to sustainability-conscious markets, or improved stakeholder relations.

The figure below provides an overview of the different perspectives, impacts, and target groups of materiality. The figure also illustrates the double materiality perspective of the CSRD in the context of reporting on sustainability-related information.

Principle of Double Materiality



Companies can determine their material topics in different ways. They should analyze and weigh which topics are set by relevant market standards and ESG rating agencies or/and reported by competitors. Companies should also engage in direct dialogue with internal and external stakeholders to identify material topics.



The materiality analysis is an ongoing process, influenced over time by both changes within the organization and external factors such as regulatory changes or evolving stakeholder expectations. Accordingly, a regular review and, if necessary, reassessment of the reported content is required.

Based on the identified material topics, guidelines or concepts, measures, and targets are developed for the ESG strategy, and the organization of sustainability management is determined – along with the appropriate metrics for subsequent reporting.

2.2. Reporting and Metrics

Following the materiality analysis and the operationalization of the material topics, the identified topics must be addressed in the reporting and captured with appropriate metrics. The ESRS outline basic technical requirements for the sustainability reporting process.

The table below, listing qualitative characteristics of the standard, aims to ensure, among other things, that the sustainability reporting is reliable, relevant, and understandable. These characteristics form the basis for high report quality and are closely aligned with other international standards used for financial reporting (such as IFRS).

No.	Reporting Principle	Explanation
1	Relevance	The reported information must be relevant to the decisions of stakeholders. This means that it focuses on material topics and considers both financial and non-financial perspectives.
2	Faithful Representation	Reports must provide a true, fair, complete, and neutral representation of the company's sustainability performance. Inaccurate or biased information should be avoided.
3	Comparability	The reporting must allow for comparison of a company's performance over time and in comparison to other companies. This includes the consistent application of methods and definitions.
4	Verifiability	The reporting should be based on verifiable data that allows external auditors to validate the accuracy and completeness of the information.
5	Understandability	Sustainability information must be presented in a way that is clearly understandable by the target groups (e.g., investors, stakeholders). Complex issues should be presented in a clear and concise manner.



For meaningful reporting, it is necessary to translate the essential report content into metrics to make sustainability performance measurable and comparable. This allows for setting targets and assessing the current degree of target achievement. They serve the strategic orientation and can, for example, also be included as performance parameters in the management's performance-related pay. In this step of reporting, the reporting principles are particularly important, as this quantitative information is used, among other things, for investment decisions by third parties.

Which specific Key Performance Indicators (KPIs) are relevant for an organization depends on several company-specific factors – primarily the impacts, risks, and opportunities (IROs) identified in the materiality analysis, which in turn are influenced by the company's industry, business model, and location.

Due to increasing regulatory requirements, the degree of standardization and comparability is also rising, as is the number of indicators that must be disclosed mandatorily.

Below is a selection of KPIs derived from the standardized mandatory reporting and simultaneously considered relevant metrics in their respective topic areas.

ESG Dimension	Category/ Topic	KPIs
E	Climate Protection	Scope 1 GHG emissions
		Scope 2 GHG emissions
		Scope 3 GHG emissions
		Absolute and/or relative decarbonization target related to total emissions or Scope 1, 2, or 3 emissions
	Energie	Total energy consumption, broken down by renewable and non-renewable sources
	Environmental Pollution	Amount of pollutants released into air, water, and soil
	Water	Total amount of substances of concern generated, used, or procured during production
		Total water consumption
		Reclaimed and reused water
	Biodiversity	List of company sites located in or near protected areas
Waste	Waste, broken down by type	
	Proportion of recycled waste	
S	Company Workforce	Number of own employees, broken down by gender and type of employment
		Employee turnover rate
		Proportion of the workforce covered by collective agreements or collective bargaining agreements
		Average hours of further training, broken down by gender



ESG Dimension	Category/ Topic	KPIs
	Occupational Health and Safety	Occupational accidents
		Work-related illnesses
		Work-related deaths
		Lost days due to occupational accidents or work-related illnesses
	Remuneration	Gender pay gap (difference between the average income of female and male employees)
		CEO Pay Ratio (total remuneration of the highest paid individual to the median annual total remuneration of all employees)
G	Corruption and Bribery	Number of confirmed corruption cases
		Amount of fines
		Proportion of employees trained on anti-corruption
	Political Influence and Lobbying Activities	Amount of political donations (monetary or in-kind)

For a better understanding, the following table explains three of the 26 KPIs in more detail and refers to their definition and associated reporting standards or frameworks:



Three exemplary indicators from the environmental, social and governance dimensions

	Environment	Social	Governance
Indicator	Global Scope 1 GHG-emissions	Percentage of active employees covered by collective bargaining agreements	Percentage of employees completing anti-corruption training
Category	Climate change	Labor practices	Business ethics
Definition	<p>Direct Scope 1 GHG emissions arise from sources owned or controlled by the organization, including:</p> <ul style="list-style-type: none"> – Electricity, Heat, Steam – Physical or chemical processes – Transportation of materials, products, waste, workers or passengers – Fugitive emissions 	<p>Percentage of active employees covered by collective bargaining agreements. This includes all negotiations between employer and employee organizations to determine working conditions, conditions of employment and regulations governing employer-employee relations.</p>	<p>Anti-corruption training familiarizes employees with laws that criminalize bribery and corruption and helps employees identify and mitigate associated risks.</p>
Unit	Tons of CO ₂ Equivalent	Percent	<ul style="list-style-type: none"> – Absolute number – Percent
Framework / Standards	<ul style="list-style-type: none"> – GRI-Code: 305-1/a – SDGs: 12.4, 13.1, 14.3, 15.2 – ESRS E1-6 	<ul style="list-style-type: none"> – GRI-Code: 2-30 – SDGs: 8.8 – ESRS S1-8 	<ul style="list-style-type: none"> – GRI-Code: 205-2/b – SDGs: 16.5 – ESRS G1-3

Based on the updated GRI Standards (2021), which come into force on 01.01.2023

In addition to the potentially mandatory sustainability-related key figures under CSRD reporting, generally accepted reporting standards or frameworks like the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) standards can support the selection and preparation of ESG metrics. They provide general guidance for identifying and implementing material topics and their disclosure content.

The most relevant standards and associated organizations are explained in more detail in Chapter 5.

The collection methods for legally required ESG metrics are also often based on established frameworks. This applies particularly to disclosures relating to climate data. For instance, the European legislator's



framework for calculating emission values is strongly based on the Greenhouse Gas Protocol (GHG Protocol), and re-reporting on climate risks is based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

The most important climate-related frameworks are discussed in more detail in Chapter 6.

3 What are the drivers of ESG?

As mentioned at the beginning of this document, the role of ESG reporting and the requirements for effective communication have steadily increased. The reasons for this growing importance can be attributed to various actors and developments. In this section, we will analyze three key drivers: regulators, society, and investor associations.

3.1. Regulators

The "Paris Agreement" was signed at the United Nations Climate Change Conference in December 2015. With this international treaty, the participating states commit to mitigating climate change and limiting global warming to well below 2 degrees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

Previously, in autumn 2015, the United Nations General Assembly adopted the 2030 Agenda. It comprises 17 global Sustainable Development Goals (SDGs). The goal of the 2030 Agenda is to make global development ecologically, economically, and socially sustainable.

In December 2019, the European Union launched the Green Deal. According to this, the 27 member states aim to become climate-neutral by 2050. As a first step, greenhouse gas emissions are to be reduced by at least 55 percent by 2030 compared to 1990 levels. The EU has recognized that directing financial resources towards sustainable companies and projects is a prerequisite for the success of the Green Deal. Sustainable Finance therefore calls for the inclusion of ESG aspects in the decisions of financial actors. A central element is the Sustainable Finance Taxonomy. In the future, this is intended to help classify economic activities across the EU according to their sustainability. The EU's main objectives are:

- Reorienting capital flows towards sustainable investments to achieve sustainable and inclusive growth.
- Integrating sustainability into risk management
- Promoting transparency and long-termism in financial and economic activity

The figure below provides an overview and supporting information for three key EU regulatory measures on ESG topics (EU Sustainable Finance Initiative).



EU Sustainable Finance Initiative

The EU Sustainable Finance Initiative aims to redirect capital flows towards sustainable investments to promote the transition to a climate-neutral and resource-efficient economy. It was developed to create transparency and standardization in the financial sector, especially through measures such as the EU Taxonomy, which defines sustainable economic activities, and the Sustainable Finance Disclosure Regulation (SFDR), which obliges investors to provide information on the sustainability aspects of their products. In the long term, the initiative is intended to help companies, especially financial service providers, to better consider environmental and social risks through increased transparency and thereby achieve the goals of the European Green Deal.

The EU Sustainable Finance Initiative

Key EU Sustainable Finance Regulations

Corporate Sustainability Reporting Directive (CSRD)

Who is affected: Large listed companies, SMEs, and some private companies

The new EU directive on sustainability reporting replaces the previous directive on non-financial reporting (Non-Financial Reporting Directive, Directive 2014/95/EU). Companies are obliged to make extensive disclosures on their impacts, risks and opportunities in relation to sustainability. The new directive (CSRD) will lead to a significantly larger group of users in future. Not only large, listed EU companies, but also small and medium-sized companies, some of which are private and based in other EU countries, will have to prepare a corresponding report in future.

Taxonomy Regulation

Who is affected: CSRD-affected companies, financial market participants

The Taxonomy Regulation (Regulation (EU) 2020/852) is one of the results of the EU Action Plan on Sustainable Finance. For financial institutions, the taxonomy provides a sustainability classification system through which investments must be classified in terms of their (environmental) sustainability. Companies must disclose the extent to which their economic activities contribute to the environmental objectives of the taxonomy.

Sustainable Finance Disclosure Regulation (SFDR)

Who is affected: Financial market participants (asset managers, fund providers, pension funds)

The Sustainable Finance Disclosure Regulation (Regulation (EU) 2019/2088) is one of the results of the EU Action Plan on Sustainable Finance. The Disclosure Regulation obliges providers of financial products to publish information on the (environmental) sustainability of their investments and the consideration of ESG risks, e.g. on the company website. In addition, "green" financial products must be classified according to their sustainability profile ("Light Green" - Art. 8; "Dark Green" - Art. 9). The aim of the regulation is to increase the level of transparency for consumers and minimize greenwashing.



3.2. Society

The importance of sustainability and climate change has increased in society in recent years. Consumers are increasingly paying attention to sustainability in their consumption, young people are asking about a company's sustainability goals when looking for a suitable employer, and overall, more and more people are interested and involved in climate policy regardless of their age. Accordingly, the demand for sustainable investments among private investors has risen significantly in recent years.

3.3. Investors/ Investor Associations

In 2018, one of the world's largest institutional investors, the Norwegian sovereign wealth fund with assets of around US\$1 trillion, decided to invest only according to ESG criteria¹. Many major investors have since followed suit.

Global investments in sustainable assets totaled approximately €30.3 trillion in 2022, with the USA representing the largest market at nearly €17 trillion, followed by Europe at approximately €12 trillion². Compared to 2020, global investments with sustainability features have declined slightly, which is partly due to increased regulatory requirements for fund classification and naming (e.g., through the SFDR in Europe).

According to the German Investment Funds Association (BVI), fund companies in Germany managed a total of €982 billion in mutual funds and special funds with sustainability characteristics in mid-2024³. This represents an increase of approximately 14% compared to the previous year⁴.

Many investors have now joined initiatives dedicated to sustainable investment, such as the Net Zero Asset Owner Alliance or the Net-Zero Banking Alliance, which aim to optimize investment portfolios with regard to climate strategies. More than 5,300 asset owners and asset managers with over US\$128 trillion in assets under management have signed the UN Principles of Responsible Investment (UN PRI)⁵. This international network of the UN initiative supports investors in integrating ESG factors into their investment decision-making processes.

Investors are following through on their announcements. It is becoming increasingly common for them to refuse to discharge management and supervisory boards at annual general meetings because they consider the companies' climate strategies insufficient.

4 Market Standards and ESG Ratings

Various market standards play an important role in assessing the sustainability performance of companies – such as GRI, TCFD, or SASB. Many investors, however, also seek a second opinion. Therefore, ESG ratings have become an important basis for investment decisions. These ratings evaluate the ESG profile of companies using sometimes different methods and with different focuses. The ratings are primarily based on information published by the company, which again underscores the importance of ESG reporting and communication. Many investors make a positive ESG rating a prerequisite for their decision to invest in certain securities. An ESG rating has become almost a matter of course, especially for IPOs. ISS, MSCI,



Sustainalytics (Morningstar), RobecoSAM (S&P), Vigeo Eiris (Moody's), and Refinitiv have established themselves as leading ESG rating agencies.

5 Important International Reporting Standards and Frameworks

Reporting standards and frameworks provide guidance throughout the entire process of data collection and subsequent reporting. They offer significant support regarding report structure, corresponding reporting requirements, and the general procedure – from identification to disclosure of material topics. They also make sustainability reporting more consistent and comparable.

Standards and frameworks differ in several aspects, including their definition of materiality, their target group, and their focus. For example, the GRI standards are universally applicable and strongly oriented towards the materiality concept. SASB, on the other hand, offers a variety of different industry standards with a strong financial orientation, ideally implemented in an integrated report. In addition, new frameworks are emerging through the merger of already recognized standard setters, one example being the International Sustainability Standards Board (ISSB) (see 5.3 ISSB). The following sections will explain some of the most established reporting standards and frameworks.

5.1. SDGs

The Sustainable Development Goals (SDGs) are 17 global goals⁶ for sustainable development. They were defined by the United Nations as part of the 2030 Agenda and are further explained and concretized by 169 sub-targets. Their overarching principles of action are enshrined in the five core messages: human dignity, protecting the planet, promoting prosperity and peace, and building global partnerships.

The SDGs are not prioritized, are universally applicable, and apply to all countries worldwide. They were adopted in 2015 at the United Nations summit in New York and have a term of 15 years until 2030.

They are not a binding framework or regulatory standard but an important guideline for businesses, which are also called upon to contribute to the SDGs. It is therefore advisable to integrate them into corporate reporting by aligning and synchronizing corporate activities with the defined goals for sustainable development.

The SDGs cover all three dimensions of sustainability – social, economic, and environmental – and include the following goals:



17 Sustainable Development Goals (SDGs)



Source: <https://sdgs.un.org/goals>

5.2. GRI

The Global Reporting Initiative (GRI)⁷ is a non-profit organization that develops sustainability reporting guidelines in cooperation with companies, industry associations, and non-governmental organizations.

Its standards are among the most widely used guidelines worldwide and are applicable to all organizations regardless of their industry. They include reporting principles and offer step-by-step guidance for determining and disclosing material topics. In addition to the universally applicable standards, they also develop sector-specific frameworks as further assistance.

The GRI standards aim to support companies in identifying and publishing their most significant impacts on the economy, the environment, and society. They place a particular focus on human rights.⁸

5.3. ISSB

The International Sustainability Standards Board (ISSB) was established by the IFRS Foundation⁹ with the aim of standardizing ESG reporting. Under this common goal, the two initiatives Climate Disclosure Standards Board (CDSB)¹⁰, a working group of NGOs from the business and environmental sectors, and the Value Reporting Foundation (VRF)¹¹, a merger of the International Integrated Reporting Council (IIRC) and the Sustainability Accounting Standards Board (SASB), were integrated into the ISSB.

The ISSB intends to develop globally consistent standards for corporate sustainability reporting, a so-called global baseline, which is intended to serve as a minimum standard. Its goal is to provide fundamental and comprehensive sustainability-related information for investors and other capital market participants. The



new standards are being developed in close consultation with the IASB to ensure compatibility between IFRS accounting standards and IFRS sustainability reporting standards. Despite the merger of IIRC and SASB to form the VRF, both organizations continue to exist and are independently responsible for their framework or reporting standards.

5.4. IIRC

The International Integrated Reporting Council (IIRC)¹² is the publisher of the IR Framework, the framework for integrated corporate reporting. The IIRC's objective with the IR Framework is to improve the quality of information available to providers of financial capital to enable more efficient and productive capital allocation. This is to be achieved through a holistic and efficient approach to corporate reporting, which draws on various reporting strands and thereby reflects the full range of material factors a company needs for short-, medium-, and long-term value creation. It should show how the company creates holistic value ("Value over time").

5.5. SASB

The Sustainability Accounting Standards Board (SASB)¹³ was founded in 2011 as a non-profit organization with the goal of helping companies and investors develop a common language about the financial impacts of sustainability. It publishes the SASB standards for identifying and disclosing material environmental, social, and governance impacts of companies. There are numerous industry standards with respective subsets that reflect the industry-specific materiality of topics and are structured into various industry sectors. The approach of industry-specific minimum requirements for reporting and the differentiation of industries based on sustainability aspects instead of financial indicators and revenue sources distinguishes SASB from other sustainability standards.

6 Climate-Related Frameworks

Climate-related disclosures are becoming increasingly important as companies and investors seek to better understand how climate risks and opportunities can impact earnings expectations, especially over the long term. Standards such as the Task Force on Climate-related Financial Disclosures (TCFD) have provided a framework since 2021 to transparently present financial risks from climate change. The GHG Protocol supports companies in accurately recording and disclosing their greenhouse gas emissions along the entire value chain. In addition, the Science Based Targets initiative (SBTi) sets clear standards for science-based climate targets, which provide a central basis for long-term disclosure strategies. With IFRS S2, a global standard will be created in the future that facilitates the comparability of climate-related financial information. Such frameworks strengthen transparency and help stakeholders make informed decisions about a company's climate protection strategy.



6.1. TCFD

The Task Force on Climate-related Financial Disclosures (TCFD)¹⁴ was launched by the G20's Financial Stability Board (FSB) in December 2015. Its aim is to create a better understanding of material climate-related risks and opportunities for investors, lenders, and insurance companies. Therefore, the TCFD has developed recommendations¹⁵ for voluntary climate-related corporate reporting that meet the criteria of consistency, comparability, reliability, clarity, and efficiency. The recommendations for disclosing climate-related financial impacts are applicable to organizations in all sectors and countries. The first version of the corresponding guidelines was published in June 2017. In addition to the guidelines that apply to all sectors, the TCFD provides further guidance for specific sectors of both the financial and non-financial sectors.

So far, the application of the TCFD recommendations is still largely voluntary. However, the recommendations are increasingly being integrated into standards and frameworks, including EU regulations (CSRD/ESRS, EU Taxonomy), ESG ratings (S&P, CDP, etc.), and market standards (PRI). Investors are also increasingly asking about TCFD compliance.

The TCFD structures its recommendations into the four thematic areas of governance, strategy, risk management, and metrics and targets:

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Governance	Strategie	Risikomanagement	Metriken und Ziele
<p>Disclose the company's governance around climate-related risks and opportunities</p> <p>Recommended disclosure</p> <ul style="list-style-type: none"> a) Board's oversight of climate-related risks and opportunities b) Management's role in assessing and managing climate-related risks and opportunities 	<p>Disclose the actual and potential impacts of climate-related risks and opportunities on the company's businesses, strategy, and financial planning</p> <p>Recommended disclosure</p> <ul style="list-style-type: none"> a) Identified climate-related risks and opportunities over the short, medium, and long term b) Impact of climate-related risks and opportunities on business, strategy, and financial planning c) Resilience of the strategy under different climate-related scenarios, including a 2°C or lower scenario 	<p>Disclose how the company identifies, assesses, and manages climate-related risks</p> <p>Recommended disclosure</p> <ul style="list-style-type: none"> a) Processes for identifying and assessing climate-related risks b) Processes for managing climate-related risks c) Integration of processes for identifying, assessing and managing climate-related risks into general risk management 	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities</p> <p>Recommended disclosure</p> <ul style="list-style-type: none"> a) Metrics used b) to assess climate-related risks and opportunities aligned with the strategy and risk management process c) Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions and related risks d) Targets used to manage climate-related risks and opportunities and progress against targets



The proposed reporting is intended to support various capital market actors in fulfilling their role in promoting climate protection by creating transparency in how companies deal with the opportunities and risks of climate change. To account for the time horizon of climate change, the focus is on the medium- to long-term strategic orientations of the reporting companies. The Task Force recommends using various climate change scenarios from providers such as the IEA, IPCC, or PIK to identify the opportunities and risks of climate change.

6.2. GHG Protocol

The Greenhouse Gas Protocol (GHG Protocol)¹⁶ is the world's leading standard for measuring and managing greenhouse gas emissions. It was developed to provide businesses, governments, and organizations with consistent methods for recording, reporting, and reducing their emissions. It focuses on three emission scopes: Scope 1 (direct emissions, e.g., from own facilities or vehicles), Scope 2 (indirect emissions from purchased energy), and Scope 3 (indirect emissions along the value chain, e.g., from suppliers or through products).

The GHG Protocol helps companies present their climate footprint transparently and comparably, which is crucial for complying with regulatory requirements and voluntary standards such as TCFD or SBTi. It also offers guidelines for developing effective climate protection strategies, for example, by identifying emission hotspots and prioritizing reduction measures. It creates a trustworthy basis for investors and other stakeholders to assess the climate performance and risks of companies. The protocol is not merely a technical guide but also a tool that supports companies in measurably reducing their emissions and thus contributing to achieving global climate goals. Thanks to its global acceptance, it also promotes standardization of climate reporting and strengthens international comparability. Climate accounting within the European CSRD/ESRS legal framework is almost entirely aligned with the GHG Protocol.

6.3. SBTi

The Science Based Targets initiative (SBTi)¹⁷ is a partnership between CDP, the United Nations Global Compact (UNGC), the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF). The SBTi aims to show companies and financial institutions how quickly and intensively greenhouse gases need to be reduced to avoid the negative consequences of climate change.

Among other things, the SBTi highlights best practice examples and supports companies in setting science-based decarbonization targets.

6.4. CDP

Founded in 2000, the Carbon Disclosure Project (CDP)¹⁸ is to this day an independent non-profit organization that operates a disclosure system for investors, businesses, and cities, among others, to record, reduce, and manage their environmental impacts. The aim is to increase transparency and accountability in the context of environmental reporting. In this sense, the CDP is not in the same category as the previously described framework and standard setters in corporate reporting but rather as a rating agency in the fields of environment and corporate governance. The focus is on environmental data such as greenhouse gas



emissions, energy and water consumption, and deforestation. Once a year, company information is requested in the three categories Climate, Water, and Forests using a standardized questionnaire, although targeted participation in one of the three categories is possible. When participating in the CDP, all information must be actively entered by the company itself. This information is then evaluated and assessed based on its own scoring system. Due to the relevance and high participation rate in this rating, CDP is now considered the rating agency with the largest and most comprehensive dataset in the environmental field. However, the CDP also collaborates with larger standard setters (e.g., IIRC, SASB, CDSB) to further develop reporting as such and increase the transparency of environmental reporting.

6.5. IFRS S2

The IFRS S2 Standard¹⁹ is a reporting framework that helps companies identify, assess, and disclose their climate-related risks and opportunities. It is based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and focuses on the impacts of climate change on business. At its core, companies should explain how responsibility for climate-related issues is organized within the company.

Companies should describe how they are affected by climate risks or opportunities and how these influence their business strategy. Furthermore, it should be disclosed how climate risks and opportunities are identified, assessed, and managed. Finally, it deals with the concrete disclosure of metrics (e.g., emissions, financial impacts) and targets for reducing climate risks.

For reporting according to IFRS S2, it is important to document both financial impacts of the climate and internal company measures. The aim of the framework is to provide investors and stakeholders with a clear view of the company's climate-related challenges and strategies.

Reporting according to IFRS S2 is currently not mandatory; however, some markets outside the EU are considering mandatory reporting based on IFRS.

7 Support from Deutsche Börse

Deutsche Börse offers various products and services that enable market participants to make better-informed decisions. Based on increased transparency, developments, changes, or transformations in the market can be assessed and priced in.

Below, some of our ESG solutions are listed and briefly explained.

7.1. ESG Visibility Hub

Deutsche Börse offers issuers the opportunity to publish their ESG commitment transparently and bundled in the ESG Visibility Hub²². The ESG Visibility Hub enables companies that have already established sustainability reporting to increase their reach among investors. Issuers can publish various ESG documents, such as sustainability reports, ESG ratings, or research reports.



In addition, the ISS ESG ratings (if available) are published on the ESG Visibility Hub. These ratings can be used to evaluate and compare the sustainability performance of companies.

Furthermore, the ESG KPI Report, a questionnaire provided by Deutsche Börse for issuers, can be uploaded. In this questionnaire, companies can present their key ESG data and facts clearly and comparably. The ESG KPI report also includes specific completion aids and is therefore also suitable for issuers preparing and publishing their ESG information for the first time.

7.2. Further ESG Support

Deutsche Börse Group – Trading & Clearing

Cash Market

- ESG Visibility Hub (see section 7.1)
- ESG-KPI-Report (see section 7.1)
- ESG Reporting Guide
- Cash Market Partnership with ISS Corporate Solution (ICS)

European Energy Exchange (EEX)

- Emissions trading / Auctioning allowances
- EU ETS Auctions
- EU ETS Spot Futures Options
- China Carbon
- NZ ETS Auctions
- nEHS
- Voluntary Carbon Market (product pipeline)

ISS-Corporate²³

ISS offers rating services that support management and investment decisions. ISS also offers solutions for complying with regulatory, governance, and market standards, as well as for meeting the expectations of shareholders and stakeholders.

With the products and services of ISS Corporate Solutions (ICS) in the areas of "Sustainability," "Executive Compensation," and "Corporate Governance," companies have the opportunity to compare their own ESG commitment with that of other companies. This allows the identification of improvement potential through targeted measures. Further information on the offerings can be found on the following websites:

- <https://www.iss-corporate.com/solutions/esg-solutions/plans/>
- <https://www.iss-corporate.com/solutions/execcomp-solutions/plans/>
- <https://www.iss-corporate.com/solutions/governance-solutions/plans/>



Sources and Links:

- ¹ <https://www.nbim.no/en/responsible-investment/>
- ² <https://www.gsi-alliance.org/global-sustainable-investment-review-finds-us30-trillion-invested-in-sustainable-assets/>
- ³ <https://www.bvi.de/en/positions/sustainability/>
- ⁴ <https://www.bvi.de/en/about-the-industry/sustainability/5> <https://www.unpri.org/download?ac=22048>
- ⁵ <https://www.unpri.org/download?ac=21727>
- ⁶ <https://www.undp.org/>
- ⁷ <https://www.globalreporting.org/>
- ⁸ <https://www.globalreporting.org/media/zaui12g3/public-faqs-universal-standards.pdf>
- ⁹ <https://www.ifrs.org/groups/international-sustainability-standards-board/>
- ¹⁰ <https://www.cdsb.net/>,
- ¹¹ <https://www.valuereportingfoundation.org>
- ¹² <https://www.integratedreporting.org/>
- ¹³ <https://sasb.org/>
- ¹⁴ <https://www.fsb-tcfd.org/>
- ¹⁵ <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>
- ¹⁶ <https://ghgprotocol.org/>
- ¹⁷ <https://sciencebasedtargets.org/>
- ¹⁸ <https://www.cdp.net/en/info/about-us>; <https://www.cdp.net/en/info/about-us/what-we-do>;
<https://www.cdp.net/en/info/collaborations>
- ¹⁹ <https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s2-climate-related-disclosures/>
- ²⁰ <https://www.gfanzero.com/>
- ²¹ <https://www.unpri.org/net-zero-financial-service-providers-alliance>
- ²² <https://www.live.deutsche-boerse.com>
- ²³ <https://www.iss-corporate.com/>

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