



VIBE

Navigating ESG Reporting Frameworks

A Comprehensive Guide

Verdani Institute for the Built Environment (VIBE)

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Sponsors





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Verdani Institute for the Built Environment, Inc. (“VIBE”)

A nonprofit corporation

6130 Innovation Way
Carlsbad, CA 92009

info@verdani-institute.org

(213) 281-5990

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Credits

Author: Carli Schoenleber, Content Writer, VIBE and Verdani Partners

Research and Editing: Reagan Redd, Research Assistant, VIBE

Editor: Bennett Rea, Editor, VIBE

Graphic Design:

Art Ace Samson, Lead Graphic Designer, VIBE

Jackie Royds, Graphic Designer, Verdani Partners

Cassandra Taylor, Lead Designer, Template Creator, Verdani Partners

Content Advisors:

Daniele Horton, Founder and CEO of Verdani Partners, Founder of VIBE

Chika Acholonu, Associate Director of ESG, Verdani Partners

Zach Brown, Senior Director of ESG, Verdani Partners

Shubha Maheshwari, Vice President, Global ESG, Verdani Partners

Ying (Paris) Mo, ESG Manager, Verdani Partners

Final Proof: Simone Fraid, Communications Manager, Verdani Partners

Project Management and Logo Clearances:

Julie Jacobson, Executive Director, VIBE and Senior ESG Manager, Verdani Partners

Paulynn Cue, Chief Communications Officer, Verdani Partners

Volunteer Researchers:

Elletta Callahan

Nolan De Jesus

Shawn Hoffman

Julia Lavarney

Jiaqi Zhang

Coral Tapia

Blair Englert

Rahmel Evans

Raeah Woodson

VIBE Sustainable Built Environment Guidance Report Series

This publication is the second volume in VIBE's 13-part Sustainable Built Environment Guidance Report Series. This collection of resources aims to teach critical aspects of sustainability for commercial real estate and the built environment. With a focus on addressing the climate crisis, this series will serve as a go-to resource for professionals, educators, students, and all

those inspired to take positive action through the practice of sustainable real estate. To learn more, check out our 2023 guidance report on an Introduction to Sustainable Real Estate. To get notified for our upcoming reports on Green Certifications and Rating Systems: Building, Professional, and Product and Corporate ESG Strategies, see links below.

INTRODUCTION TO SUSTAINABLE REAL ESTATE (sponsored by RE Tech)
Read published report here

ESG REPORTING FRAMEWORKS (sponsored by GID)

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GLOBAL DECARBONIZATION

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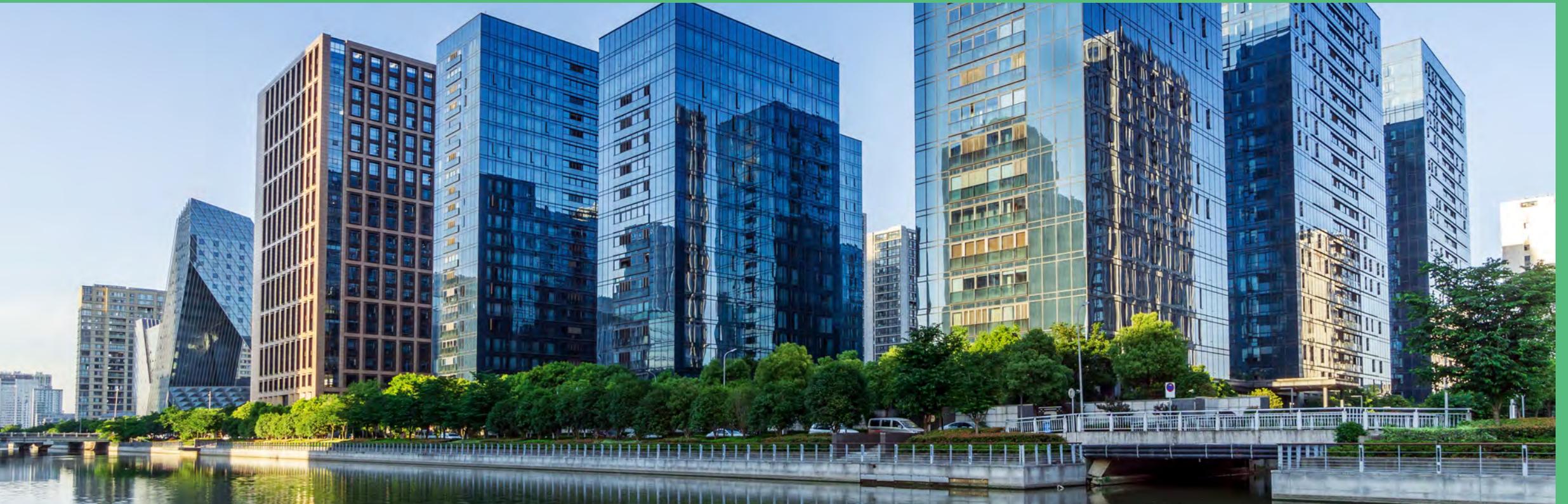


Executive Summary

In recent years, companies, investors, and regulators have increasingly prioritized the disclosure, interpretation, and application of Environmental, Social, and Governance (ESG) data. Commonly reported by companies, NGOs (non-governmental organizations), governments, and investment vehicles, ESG data can encompass sustainability-related impacts, performance, risks, opportunities, and strategies. As expectations to report ESG data have intensified, myriad ESG reporting frameworks have been developed to guide organizations' reporting content and processes. While all frameworks demand some form of ESG data, they vary widely in reporting methodology, disclosure content, target audience, and level of industry adoption. In response to the recent proliferation of ESG reporting frameworks, calls from investors to improve data quality and standardization have begun to shift the industry toward framework consolidation and regulated reporting.

This guidance report aims to provide clarity on the current ESG reporting landscape by identifying, describing, and categorizing the key ESG reporting frameworks and offering insight into why, how, and when they should be applied. Given the Verdani Institute for the Built Environment's (VIBE) focus on built environment sustainability, the frameworks covered are most relevant for the commercial real estate industry, yet this information is also intended to be useful for most U.S.-based companies. Toward these objectives, we organize the frameworks into five categories (i.e., standards and guidance frameworks, voluntary disclosure frameworks, involuntary third-party aggregators, net zero emissions initiatives, and regulations), and for each category, provide tables that allow for easy interpretation of the frameworks' similarities and differences. For more thorough coverage and analysis of this topic, stay tuned for the upcoming book on ESG reporting frameworks in VIBE's Sustainable Built Environment Guidance Report Series.

Introduction





Widely accepted as the common sustainability language connecting the public, corporations, and the financial sector, ESG—environmental, social, and governance—rapidly evolved throughout the 21st century to become the foremost ethical investing and corporate sustainability framework. The concept of ESG officially emerged at the 2006 launch of the Principles for Responsible Investment (PRI), a United Nations-sponsored network of institutional investors committed to incorporating ESG considerations into investment decisions. From the time of its coining, ESG quickly grew to become a fundamental concern among both investors and corporations. Since 2006, PRI assets under management (AUM) have grown by nearly 1,800%, booming from \$6.5 trillion in 2006 to \$121.3 trillion in 2021.^[1] Similarly, investment toward ESG funds has snowballed, growing from \$285 billion to \$649 billion between 2019 and 2021, now comprising 10% of the world’s fund assets.^[2] As flows into ESG funds have increased, there is mounting evidence that stronger ESG performance leads to stronger financial performance; reporting on 2021, Morningstar noted that the U.S. Sustainability Leaders Index, comprising 50 companies with the highest Sustainalytics ESG scores, outperformed the overall U.S. stock market by over 8%.^[3] Mirroring investment growth, more companies are disclosing ESG data now than ever before. According to a 2021 analysis by Bloomberg Law, only 12% (60 companies) of S&P 500 companies cited climate change or greenhouse gas (GHG) emissions as risk factors in their 10-K financial filings in 2019, yet by the next year, this proportion had soared to 44% (220 companies).^[4] As of 2021, approximately 70% of S&P 500 companies publicly reported their GHG emissions.^[5]



The factors behind ESG’s meteoric rise are both ethical and economic. On the one hand, the increasing significance of ESG issues across investing and corporate disclosures can be attributed to a global shift toward sustainability among the public, particularly since the COVID-19 pandemic.^{[6][7][8]} A 2021 global survey of 5,000+ consumers from PwC found that 76% of respondents would stop buying from companies that “treat the environment, employees, or the community in which they operate poorly.”^[9] While research indicates all generations expect brands to become more sustainable,^[10] issues like climate change are particularly relevant for

younger generations’ spending and investing decisions.^[11] As millennials accumulate more wealth and purchasing power throughout the next decade, there is little doubt that sustainable business practices will only grow in importance to the public.^{[12][13]}

Beyond an ethically motivated society, investors recognizing the financial implications of sustainability are becoming more adamant in their demands for standardized disclosures around ESG risks, impacts, and performance. With evidence mounting on the financial materiality of sustainability^[14] and the positive impact of ESG on financial performance,^{[15][16]} investors are increasingly compelled to

consider ESG as part of their fiduciary duty.^[17] Major investment firms such as BlackRock, Vanguard, and State Street have expressed universal support to incorporate ESG risks and opportunities in investment decisions.^{[18][19][20]}

ESG support is further reflected in the real estate sector, as 98 of the top 100 real estate investment trusts (REITs) by equity market cap reported on ESG in 2020.^[21]

To satisfy consumer and investor demands for corporate ESG disclosures, the number of ESG reporting standards, frameworks, and assessments available to companies has skyrocketed. As more ESG data are publicly disclosed, myriad third-party aggregators

Top ESG Key Performance Indicators

ENVIRONMENTAL	SOCIAL	GOVERNANCE
<ul style="list-style-type: none"> • Environmental Policy • Environmental Conservation (<i>Energy, Water, Waste</i>) • Climate Resilience (<i>Environmental Risk Management</i>) • Net Zero & Decarbonization • Biodiversity • Environmental Management System (<i>EMS</i>) • Supply Chain Sustainability (<i>Carbon Emissions</i>) 	<ul style="list-style-type: none"> • Supply Chain Sustainability (<i>Human Impact</i>) • Health, Wellbeing & Safety • Diversity, Equity & Inclusion • Human Rights • Workforce Development (<i>Human Capital, Employees, Organization</i>) • Stakeholder Engagement (<i>Tenants, Residents, Community, Investors, Vendors, Customers, etc.</i>) 	<ul style="list-style-type: none"> • Governance Policies • Board Oversight of ESG • Risk Management • Business Ethics • Compensation Policy • ESG Disclosures & Transparency

To address this standardization shortcoming, major reporting frameworks have begun consolidating and aligning over the past year, the most notable being the 2022 consolidation of the Value Reporting Foundation, which managed the Sustainability Accounting Standards Board (SASB) and Integrated Reporting (IR), and the Climate Disclosure Standards Board (CDSB) into the International Financial Reporting Standards (IFRS) Foundation

have also emerged to provide investors with ESG scores useful for investment analyses and decision making. Today's companies are faced with seemingly countless frameworks to report on their ESG efforts, each with a unique materiality scope (i.e., financial versus non-financial) and industry-specific approach for selecting, measuring, and weighing ESG issues. Although having a wide variety of options can benefit companies by enabling a tailored ESG reporting approach, having too many options results in poor comparability and standardization between frameworks. This undermines the ability of the public and investors to definitively identify the actual ESG leaders and laggards.

To address this standardization shortcoming, major reporting frameworks have begun consolidating and aligning over the past year, the most notable being the 2022 consolidation of the Value Reporting Foundation, which managed the Sustainability Accounting Standards Board (SASB) and Integrated Reporting (IR), and the Climate Disclosure Standards Board (CDSB) into the International Financial Reporting Standards (IFRS) Foundation.^[22] A standard-setting board within the IFRS Foundation, the International Sustainability Standards Board (ISSB) is responsible for creating the IFRS Sustainability Disclosure Standards, a globally applicable ESG disclosure framework that will also align with the Task Force on Climate-related Financial Disclosures (TCFD) and the Global Reporting Initiative (GRI) Standards.^{[23][24]}

Meanwhile, financial regulations are trending toward requiring standardized ESG disclosures. Entered into force in 2020, the European Union (EU) Taxonomy requires large EU companies and EU financial market participants to disclose alignment with the Taxonomy's definition of "environmentally





sustainable economic activities.”^[25] In concert, the EU’s 2019 Sustainable Finance Disclosure Regulation (SFDR) requires financial market participants to disclose sustainability risks and impacts.^[26] In the U.S., the Securities and Exchange Commission (SEC) recently proposed rules around climate risk disclosures for U.S. public companies^[27] and ESG disclosures for investment advisors and investment companies.^[28]

Preparing for a more rigorous, standardized, and regulated ESG landscape is critical, yet it could be years before regulations and consolidations render other reporting frameworks obsolete. Therefore, it remains important for companies to understand the wide array of ESG reporting frameworks in use today. Acknowledging few comprehensive resources exist to help companies navigate the complexities of ESG reporting, this guidance report aims to provide an easy-to-reference guide that can assist companies in identifying the key ESG reporting frameworks, what differentiates them, and what criteria should be considered when choosing one or more to adhere to. Some of the questions this report aims to address are:

- Which reporting frameworks are the most widely adopted?
- Which reporting frameworks have more rigorous requirements?
- What ESG criteria do different reporting frameworks assess?
- What disclosures and actions are needed for compliance?
- Which reporting frameworks are aimed at investors versus the public?
- What is the reporting burden and cost difference between reporting frameworks?
- For what industries and locations are reporting frameworks applicable?

This report covers 41 ESG reporting frameworks across five main categories available for companies to report and/or interpret ESG data: standards and guidance frameworks, voluntary disclosure frameworks, involuntary third-party aggregators, net zero emissions initiatives, and regulations. For each of these categories, a table is located at the top of the section to view the frameworks and their differences at a glance. Further, for each reporting framework, a more detailed description, informational table, and insights are provided in the middle, right, and left side, respectively, of the page.

5

CATEGORIES

41

ESG FRAMEWORKS

1. Standards and guidance frameworks
2. Voluntary disclosure frameworks
3. Involuntary third-party aggregators
4. Net zero emissions initiatives
5. Regulations

ESG in a Nutshell

ESG is a broad term for a company’s ESG practices and performance, which are measured and reported to stakeholders (e.g., investors, the public) using frameworks to evaluate the extent to which the company aligns with sustainability, ethics, and transparency. ESG data can encompass a company’s positive or negative environmental and social impacts (e.g., GHG emissions, human rights violations), performance (e.g., water efficiency, gender diversity), governance (e.g., anti-corruption), and/or risk mitigation strategies (e.g., retrofitting assets to withstand climate impacts). For both investors and companies, ESG data are useful for assessing risks and opportunities, comparing sustainability impacts and performance within industries, and identifying non-financial factors that impact a company’s financial or operating performance.

Top ESG Reporting Frameworks

STANDARDS AND GUIDANCE FRAMEWORKS

Standards and frameworks that provide recommended methodologies and guidance as to how an organization might identify, manage, and report on sustainability-related impacts, performance, risks, and/or opportunities.



VOLUNTARY DISCLOSURE FRAMEWORKS

Frameworks that assess ESG performance via a questionnaire or assessment that evaluates, scores, and/or ranks organizations based on their ESG-related policies, practices, and/or performance data.



INVOLUNTARY THIRD-PARTY AGGREGATORS

Organizations that provide ESG scores, ratings, and/or rankings for companies based on aggregated, publicly available sustainability data (e.g., sustainability reports, company website).



NET ZERO EMISSIONS INITIATIVES

Initiatives developed to standardize and validate corporate net zero targets, evaluate target progress in relation to global net zero goals, and provide target-related reporting guidance.



REGULATIONS

Regulations applicable to companies and/or financial market participants that mandate reporting of sustainability-related impacts, risks, and/or opportunities in a standardized and comprehensive manner.





About the Verdani Institute for the Built Environment and Verdani Partners

The Verdani Institute for the Built Environment (VIBE) is a San Diego, California-based nonprofit organization with the mission to position the global building sector as a positive force for sustainable development through green building and resilience practices, education, and collaboration. This guidance report is the first publication under the umbrella of VIBE's Sustainable Built Environment Guidance Report Series. VIBE was founded in 2016 by Daniele Horton, a leader in the rapidly growing green building and corporate sustainability industries.

Horton is also the founder and CEO of Verdani Partners, a full-service corporate ESG consulting firm with the mission to empower organizations with cost-effective strategies to create sustainable buildings and communities. Based in San Diego, California, Verdani Partners leads sustainability efforts, including ESG reporting, for national and international real estate firms with more than 4,500 diversified properties, representing 1.1 billion square feet and \$460 billion AUM.





Disclaimer

This publication aims to cover the key ESG reporting frameworks pertinent to most companies and industries. This report focuses primarily on reporting frameworks most relevant to the commercial real estate industry. Still, this publication is not exhaustive of all ESG reporting frameworks currently in use across the United States or globally. Moreover, the information presented for individual ESG reporting frameworks, though aimed to be comprehensive and consistent, is not exhaustive of all framework details or requirements.

Further, evaluations on "time commitment" are subjective and are based on Verdani Partners' experience using ESG reporting frameworks with commercial real estate clients. Time commitment evaluations are only relative to other evaluations within the same ESG reporting framework category; for example, the time commitment evaluation for the Better Buildings Partnership would only be comparable to evaluations on other net zero emissions initiatives. Similarly, where citations are not provided, insight content, located on the left-hand side of each framework page, is subjective and is primarily based on Verdani Partners' experience using ESG reporting frameworks.

It is also essential to point out that, due to the rapidly shifting nature of ESG, this report is limited to the ESG reporting landscape at the time of its publication (August 2022). As new reporting frameworks are released, older frameworks are consolidated, and new regulations are passed, VIBE aims to release periodic, updated versions of this report to reflect these changes and associated implications.

To ensure completeness and accuracy of content for each ESG reporting framework included, to the extent possible, VIBE attempted to collaborate with the governing organization behind the reporting framework to obtain review and verification of content for individual framework pages. Some reviews were initiated but were incomplete at the time of publication. For each ESG reporting framework that completed this review process, a rectangle reading "verified" is included on the respective framework page. However, the verified designation should not be interpreted to apply to the subjective and largely unverified insights located on the left-hand side of each framework page. This publication is intended for educational purposes only and should not be considered or used as investment, accounting, legal, or other professional advice. Despite VIBE's belief that it has taken all reasonable efforts to ensure the accuracy of all sections of this publication, neither VIBE nor its sponsors can guarantee the accuracy of the materials provided within.

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Useful Terms

Net zero emissions:

Net zero emissions is a concept broadly defined as a state in which an entity's GHG emissions generated reach zero or when the amount of GHG emissions generated by an entity are balanced by an equivalent amount of GHG emissions permanently removed from the atmosphere, resulting in a “net” emissions level of zero. The net zero emissions initiatives reviewed in this report define net zero in various ways and similarly offer different accepted methodologies to reach net zero. Net zero initiatives may vary in their consideration of some of the following variables: emissions scopes (i.e., 1, 2, 3), carbon dioxide versus all GHGs, what level of carbon offsetting is acceptable to reach net zero, and the time in which an entity should achieve net zero.

Materiality:

There are various ways in which ESG reporting frameworks define materiality. In the context of ESG, financial materiality is generally concerned with sustainability issues that have an impact on a company's financial performance, operating performance, or ability to create value. Non-financial materiality, on the other hand, is generally understood as a reporting entity's impacts on society or the environment. Double materiality is a concept that concerns both financial materiality and non-financial materiality. It is also important to note that issues considered material often vary depending on the reporting entity's sector or industry.

Scope 1, 2, and 3 emissions:

According to the GHG Protocol—

Scope 1: “occur from sources that are owned or controlled by the company, for example emissions from combustion in owned or controlled boilers, furnaces, vehicles”

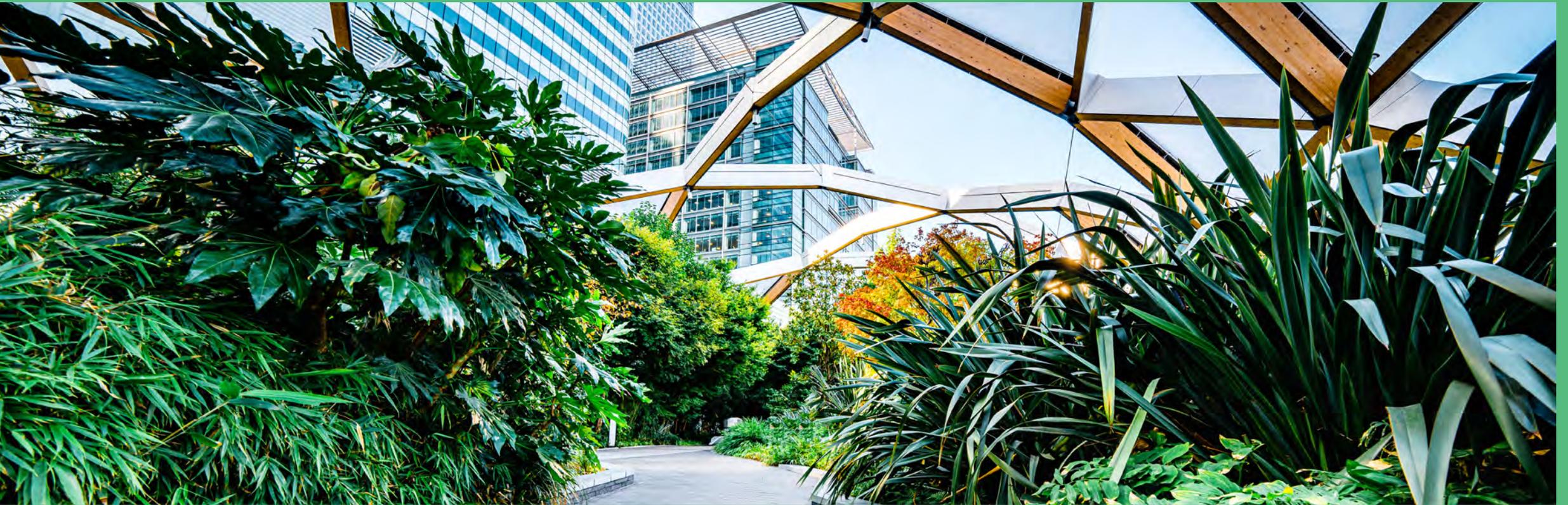
Scope 2: “accounts for GHG emissions from the generation of purchased electricity consumed by the company”

Scope 3: “are a consequence of the activities of the company, but occur from sources not owned or controlled by the company” (e.g., purchased materials, transportation of goods, tenant energy use)^[36]

Sector-specific vs sector-agnostic:

Many ESG reporting frameworks or parts of frameworks throughout this report are sector-specific, meaning standards, guidance, and/or rating methodologies differ based on what ESG issues are relevant for different industries or sectors. On the contrary, many reporting frameworks are sector-agnostic, meaning their standards, guidance, and/or rating methodologies are consistent regardless of the reporting entity's industry or sector.

Standards and Guidance Frameworks



Standards and Guidance Frameworks

	ESRS	GHG PROTOCOL	PCAF	GLOBAL ESG DISCLOSURE STANDARDS FOR INVESTMENT PRODUCTS	GRI	IFRS	IR	ISO 14000	NCREIF/PREA	SASB	SBTI	TCFD	TNFD	UN SDGS
REPORTING METHODOLOGY	Management report via sustainability statements	GHG emissions report	Publicly reported	ESG Disclosure Statement	Publicly reported	General purpose financial reporting	Integrated Report	Privately submitted to auditor for certification	Investor due diligence questionnaires	General purpose financial reporting	Publicly reported	General purpose financial reporting	General purpose financial reporting	Publicly reported
REPORTING TIMELINE	Annually	—	Annually	Annually/ conditionally periodic	—	Annually	—	—	Periodically/ annually	Annually	Within 6 months of target approval	Annually	Annually	Annually
PARTICIPATION	Mandatory	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary
DISCLOSURE CONTENT	ESG-related risks, impacts, and opportunities	GHG emissions inventory	Financed GHG emissions	Investment product ESG approach	Economic, environmental, social, and governance impacts	Sustainability information relative to enterprise value	Information material to value creation, preservation, and erosion	Environmental management system data	Firm and vehicle ESG data, ESG KPIs	Financially material impacts of sustainability issues on company	GHG emissions, progress toward targets	Climate-related financial risks and opportunities	Nature-related financial risks and opportunities	SDG-related goals and progress against them
FEES	Free	Free	Free	Free	Free	Free	Free	\$60-\$200 per standard	Free	Free	Standard is free, near-term or net zero target submission: \$9,500	Free	Free	Free
APPLICABILITY	Large and listed EU companies; non-EU companies with EU branches/ subsidiaries	All organizations	Financial institutions	Investment products	All organizations	All companies	All organizations	All organizations	Private real estate companies	Public companies	All companies (except oil and gas)	All companies	All companies	All organizations
LOCATION	EU	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global
TIME COMMITMENT	—	Medium	Medium	Medium	Medium	—	High	Medium	Medium	Low to Medium	Medium	Low to Medium	—	Low to Medium
INDUSTRY ADOPTION	Requirements to be applied in stages from 2025-2029	92% Fortune 500 companies reporting to CDP in 2016 used GHG Protocol	300+ signatories to PCAF	—	10,000+ reporters	—	2,500+ businesses	340,000+ certifications to ISO 14001	—	2,000+ reporters	1,600+ companies with approved SBTs	3,400+ supporters	—	40% companies in 2020 GRI survey committed to SDGs



Standards and guidance frameworks represent the first category of ESG reporting frameworks. They provide methodologies and guidance as to how an organization might identify, manage, and report on sustainability impacts, performance, risks, and opportunities. While each serve to guide reporting content and format, standards (e.g., GRI, GHG Protocol) tend to demand more rigorous and detailed disclosures than frameworks (e.g., TCFD, SDGs, IR). As the name suggests, standards aim for standardization and allow for direct comparison of metrics between companies.

Standards may establish a threshold that illustrates full versus partial compliance. For example, both the GRI Standards and GHG Protocol Corporate Accounting and Reporting Standard specify what disclosures are required to be “in accordance” with the standard. On the other hand, frameworks allow for more flexibility in how disclosure guidance is applied. In short, all standards are frameworks, but not all frameworks are standards.

European Sustainability Reporting Standards (ESRS)



The intention of the ESRS is to 1) ensure corporate sustainability disclosures are relevant and comparable across companies for investors and the public and 2) to create a mechanism for enforcing and assuring sustainability reporting.^[30]

The ESRS requirements are intended to align with and work alongside other EU sustainability disclosure regulations (e.g., Taxonomy Regulation, SFDR) and global voluntary sustainability reporting standards (e.g., IFRS, TCFD) to minimize reporting burden.^[30]

The ESRS are reporting standards that, if adopted, would specify annual sustainability reporting requirements for all large EU companies, listed EU small and medium enterprises (SMEs), and some non-EU headquartered companies with subsidiaries or branches in the EU. The ESRS are part of the Corporate Sustainability Reporting Directive (CSRD), a proposed EU law that would amend existing sustainability reporting requirements in the 2014 Non-Financial Reporting Directive (NFRD).^[29] Following the proposal of the CSRD in April 2021, the EU Council and EU Parliament reached a provisional political agreement on the CSRD in June 2022.^[209]

The ESRS are currently in development by EFRAG, a technical advisory group to the EU Commission.^[30] Per the ESRS exposure drafts, published in April 2022 for public consultation, companies would be required to report on sector-agnostic, sector-specific, and entity-specific ESG topics covering how the company impacts society and the environment and how sustainability issues impact the company’s financial performance (i.e., double materiality).^[31] EFRAG is anticipated to deliver the first set of ESRS drafts to the EU Commission by mid-November 2022; following a consultation process, the first set of final standards are to be adopted by the EU Commission by June 30, 2023.^[210]

REPORTING METHODOLOGY	Publicly reported in management report in the form of sustainability statements
REPORTING TIMELINE	Alongside annually reported financial statements
PARTICIPATION	Mandatory
DISCLOSURE CONTENT	Sector-agnostic, sector-specific, and entity-specific material ESG-related risks, impacts, and opportunities. Reporting areas include strategy and business model; governance and organization; materiality assessment; implementation measures; and performance metrics in three topical areas: environmental, social, and governance.
FEE TO ACCESS STANDARD	Free
APPLICABILITY	Companies currently required to report under the NFRD and companies covered by the forthcoming CSRD: all large EU companies, listed EU small and medium enterprises (except micro-enterprises), and some non-EU headquartered companies with branches or subsidiaries in the EU
LOCATION	EU
TIME COMMITMENT	—
INDUSTRY ADOPTION	Mandatory ESRS reporting anticipated to apply in stages: <ul style="list-style-type: none"> • Companies within scope of NFRD (starting in 2025, reporting on 2024 financial year) • Other large companies within scope of CSRD (starting in 2026, reporting on 2025 financial year) • Listed SMEs (starting in 2027, reporting on 2026 financial year) • Non-EU headquartered companies with EU branches/subsidiaries (starting in 2029, reporting on 2028 financial year)

[Sources: [32] [30] [33] [209] [210]]



The GHG Protocol Corporate Accounting and Reporting Standard has been in place since 2001 and is globally recognized as the top standard for managing and reporting GHG emissions.^[36] We recommend aligning corporate GHG policies with the GHG Protocol for better industry standardization of GHG data.

Both the IFRS Sustainability Disclosure Standards and proposed SEC climate rules align with the GHG Protocol methodology.^{[52][202]}

Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard

The GHG Protocol provides standards for measuring and disclosing GHG emissions. The GHG Protocol Corporate Accounting and Reporting Standard is the most widely adopted standard;^[34] it is applicable to all organizations and covers the seven GHGs required by the United Nations Framework Convention on Climate Change.^[35] The standard helps companies report accurate, transparent, and consistent scope 1, scope 2, and scope 3 GHG inventories to the public, investors, and mandatory and voluntary (e.g., CDP, SBTi) reporting frameworks.^[36] Comprehensive GHG inventories aid companies in reducing emissions, managing climate risks, and engaging in carbon markets. Other GHG Protocol standards include the Corporate Value Chain (scope 3) Standard, GHG Protocol for Cities, Mitigation Goal Standard, Policy and Action Standard, Product Standard, and Project Protocol.^{[37][38]}

VERIFIED

REPORTING METHODOLOGY	Standalone public GHG emissions report
REPORTING TIMELINE	—
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	GHG emissions inventory (scope 1–2, scope 3 is optional). Scope 3 is required under the Scope 3 Standard, which is a companion to the Corporate Standard.
FEE TO ACCESS STANDARD	Free
APPLICABILITY	All organizations
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	92% of Fortune 500 companies reporting to CDP in 2016 used the GHG Protocol.

[Sources: [37][38]]

Global GHG Accounting and Reporting Standard for the Financial Industry (PCAF)



The Partnership for Carbon Accounting Financials has been designed for:

- 1) commercial, investment, and development banks
- 2) asset owners/managers (including real estate investment managers)
- 3) insurance companies^[39]

Created by the Partnership for Carbon Accounting Financials (PCAF), the Global GHG Accounting and Reporting Standard for the Financial Industry enables financial institutions to measure and disclose GHG emissions associated with lending and investments across six asset classes: 1) listed equity and corporate bonds, 2) business loans and unlisted equity, 3) project finance, 4) commercial real estate, 5) mortgages, and 6) motor vehicle loans. The PCAF Standard specifically focuses on measuring and reporting scope 3, category 15 emissions, also known as “financed emissions.” Standardized measurement and reporting of financed emissions helps institutions evaluate climate-related risks and opportunities of portfolios, set and act on net zero targets, and provide transparent GHG disclosures to stakeholders. It also requires the reporting financial institution to disclose their scope 1–2 emissions, along with other relevant scope 3 emissions categories per the GHG Protocol. Built upon, reviewed, and approved by the GHG Protocol, the Standard

REPORTING METHODOLOGY	Publicly reported via annual report, company website, etc.
REPORTING TIMELINE	Alongside annually reported financial disclosures
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Scope 3, category 15 emissions (financed emissions): scope 1, scope 2, and where relevant, scope 3 GHG emissions from loans and investments across six asset classes. Reporting financial institution: scope 1–2 GHG emissions and other relevant categories of scope 3 GHG emissions per the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.
FEE TO ACCESS STANDARD	Free
APPLICABILITY	Financial institutions
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	300+ signatories to PCAF

[Sources: [41][39][40][206]]

can be viewed as an extension to the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. All seven GHGs in the Kyoto Protocol are covered.^{[39][40][206]}



As ESG disclosures are increasingly demanded among investors and regulators, the ESG reporting landscape is witnessing both framework consolidations (i.e., IFRS), making way for standardization, and the release of industry-tailored standards, such as this, that provide nuanced guidance and complement more broadly applicable ESG disclosure regulations and standards (i.e., SEC climate rule).

Global ESG Disclosure Standards for Investment Products

Issued by CFA Institute, the Global ESG Disclosure Standards for Investment Products (the “Standards”) are standards guiding disclosure on how ESG issues are considered in an investment product’s objectives, investment process, or stewardship activities. The Standards aim to improve investment product transparency and reduce the potential for greenwashing by providing consistent and complete disclosures to help investors better understand and compare investment products that have ESG approaches. The term “ESG approach” is used by the Standards to refer to investment approaches that include, but are not limited to, ESG integration, screening, best-in-class, thematic investing, sustainability-themed investing, impact investing, and stewardship. The Standards can be applied to all investment vehicles and all asset classes. An ESG Disclosure Statement must cover at least one year or the period since the product was created if less than one year. An investment manager may choose, but is not required, to have an independent third party provide assurance for one or more of its ESG Disclosure Statements.^{[42][43]}

VERIFIED

REPORTING METHODOLOGY	ESG Disclosure Statement—Investment managers must submit an initial ESG Standards Compliance Notification Form to CFA Institute before any ESG Disclosure Statements are made available to investors.
REPORTING TIMELINE	The ESG Standards Compliance Notification Form must be updated annually. ESG Disclosure Statements must be updated if the Standards’ requirements change or if information contained in an ESG Disclosure Statement is inaccurate or becomes outdated.
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	How an investment product considers ESG issues in its “objectives, investment process, or stewardship activities”
FEE TO ACCESS STANDARD	Free
APPLICABILITY	All investment products
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	—

[Source: [42][43]]



The GRI Standards are the most widely adopted standards for annual ESG reports. We recommend all companies report to GRI, particularly if the company’s environmental KPIs include GHG emissions, energy use, and/or water use, or if its social KPIs include gender diversity.

In 2021, 67% of 100 largest U.S. REITs used GRI for ESG reporting.^[51]

Global Reporting Initiative (GRI) Standards

The first globally applicable ESG reporting system,^[45] the GRI Standards help organizations of all types (e.g., corporations, NGOs, governments) accurately and consistently report a broad range of sustainability impacts.^[46] Impacts are defined by GRI as “the effect an organization has on the economy, the environment, and/or society, which in turn can indicate its contribution (positive or negative) to sustainable development.”^[47] With plans to eventually publish 40 sector-specific standards, GRI currently offers sector-specific guidance for oil & gas and coal; other sector standards in development are mining and agriculture, aquaculture, and fishing.^{[48][49]}

Global Reporting Initiative (GRI) is the independent international organization – headquartered in Amsterdam with regional offices around the world – that helps businesses, governments and other organizations understand and communicate their sustainability impacts .

VERIFIED

REPORTING METHODOLOGY	Publicly reported via sustainability/ESG report, web pages, annual report
REPORTING TIMELINE	—
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Economic, environmental, social, and governance impacts
FEE TO ACCESS STANDARD	Free
APPLICABILITY	All organizations
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	10,000+ reporters in 100+ countries

[Sources: [50][49]]

International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards



Once the IFRS standards are finalized, public companies will likely be expected to use both the general and climate-related standards to report on their financially material ESG risks and opportunities. On the other hand, there is currently little adoption of the SASB Standards among private companies, who may only be expected to use the climate-related IFRS standards.

Anticipated to be published by the end of 2022, the IFRS Sustainability Disclosure Standards will be a globally applicable set of sustainability-related reporting standards for reporting on a company’s sustainability-related information relevant to enterprise value across the value chain, including scope 1–3 emissions (reported per GHG Protocol).^[52] The new IFRS Sustainability Disclosure Standards build upon the work of the TCFD, the CDSB, and the Value Reporting Foundation (VRF) (including SASB and IR).^[23] The CDSB and the VRF consolidated into the IFRS Foundation during 2022.^[22] The IFRS Sustainability Disclosure Standards aim to reduce reporting burden and increase ESG reporting standardization across global financial markets; they will develop a global baseline which individual jurisdictions can build on, catering to specific jurisdictional needs, including the forthcoming climate disclosure regulation from the U.S. Securities and Exchange Commission. They also aim to align with the GRI Standards.^[24] Draft general- and climate-related IFRS standards are currently available.^[53]

REPORTING METHODOLOGY	Within general purpose financial reporting
REPORTING TIMELINE	Alongside annually reported financial disclosures
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Sustainability-related information relative to enterprise value across governance, strategy, risk management, and metrics and targets
FEE TO ACCESS STANDARD	Free
APPLICABILITY	All companies
LOCATION	Global
TIME COMMITMENT	—
INDUSTRY ADOPTION	—

[Sources: [52][53]]



While companies in all industries can use the IR Framework, the IR Framework is popular with public companies outside of the commercial real estate industry.

Stakeholders who might be interested in an organization’s integrated report include providers of financial capital, employees, customers, suppliers, business partners, local communities, legislators, regulators, and policymakers.^[54]

Integrated Reporting (IR) Framework

Intended for, but not limited to, providers of financial capital, the IR Framework (part of the IFRS Foundation) guides organizations to periodically report information to investors that could be material to “value creation, preservation, or erosion” over the short-, medium-, and long-term, with the scope of materiality extending to the organization’s reciprocal relationship with the environment, society, and economy.^[54] By using systems thinking to understand and report on how the organization impacts and is impacted by its external stakeholders and capitals (e.g., financial, human, natural) over a long time, organizations benefit from more effective risk management and decision-making processes.^[55]

VERIFIED

REPORTING METHODOLOGY	Publicly reported via Integrated Report or other public report (e.g., financial, sustainability)
REPORTING TIMELINE	—
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Information material to value creation, preservation, and erosion
FEE TO ACCESS STANDARD	Free
APPLICABILITY	All organizations
LOCATION	Global
TIME COMMITMENT	High
INDUSTRY ADOPTION	2,500+ businesses in 75 countries

[Sources: [56][54][55]]

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International Organization for Standardization ISO 14000

We recommend companies align their EMS with the ISO 14000 family of standards. Their “Plan, Do, Check, Act” framework is useful to ensure an ESG program covers components critical for success. Companies reporting to GRESB earn points for aligning their EMS with the ISO 14001 standard.

ISO 14000 is a family of globally applicable standards any organization can use and certify against when designing and implementing environmental management systems (EMS). ISO’s EMS standards help organizations meet legal requirements, optimize environmental performance (e.g., energy, water, waste), minimize operational costs, and increase competitive advantage. The standards are regularly revised to encourage EMS improvement over time per new technologies, regulations, and stakeholder expectations.^[57]

REPORTING METHODOLOGY	Data are privately submitted
REPORTING TIMELINE	—
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Facility EMS data per standard certification requirements
FEE TO ACCESS STANDARD	Range from around \$60-\$200 per standard
APPLICABILITY	All organizations
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	348,218 valid certifications to ISO 14001 (key standard for environmental management systems) across 171 countries in 2020

[Sources:[57][58][59]]

NCREIF and PREA ESG Principles of Reporting for Private Real Estate and ESG KPIs



In response to confusion around diverse and evolving ESG reporting expectations, the Reporting Standards ESG KPIs were born out of a collaborative effort within the real estate industry to broadly inform companies on what ESG metrics should be tracked and reported as industry best practice. Instead of functioning as another ESG reporting framework that companies are expected to report to, the ESG KPIs are intended to act as guidance so that companies can disclose their KPIs in a comprehensive and standardized manner across existing reporting frameworks like GRESB, CDP, and GRI.^[61]

Focused specifically on the real estate industry, the ESG Principles of Reporting for Private Real Estate were developed by the NCREIF PREA Reporting Standards, an initiative co-sponsored by the National Council of Real Estate Investment Fiduciaries (NCREIF) and the Pension Real Estate Association (PREA).^[60] The Principles offer best practices for real estate managers to report on firm- and investment vehicle-related ESG data.

In May 2022, NCREIF PREA released an Excel template containing ESG key performance indicators (KPIs) to be used in parallel with the Principles.^[61] For both firms and vehicles, the guidance outlines what metrics should be reported across ESG subcategories (i.e., climate change, physical risk, human capital, investment allocation), linking each metric to corresponding Reporting Standards Principles and requirements of external reporting standards (e.g., GRESB, CDP, GRI, SDGs).

The Principles and KPIs are suggested as ESG best practices and are not required for compliance with the long-standing Reporting Standards that

REPORTING METHODOLOGY	Investor due diligence questionnaires, vehicle formation documents, investor reports
REPORTING TIMELINE	Initial reporting at time of investor interest or vehicle formation, updated periodically/annually
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Firm ESG information; vehicle ESG overview; vehicle strategy and objectives; vehicle ESG performance. ESG KPIs can be used to report on ESG metrics, environmental performance, and diversity.
FEE TO ACCESS STANDARD	Free
APPLICABILITY	Private real estate companies
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	—

[Sources: [60][63][62]]

establish, manage, and promote transparent and consistent reporting (i.e., valuation, performance, risk, and fair value accounting) for the real estate industry to facilitate informed investment decision-making.^[62]



With a variety of industry-specific standards available and its ability to normalize ESG performance metrics, SASB Standards may be the best choice if a company is interested in benchmarking its performance against its peers on an apples-to-apples basis.

Companies should choose SASB Standards if their priority is attracting ESG-minded investors, lenders, and creditors who demand financially material ESG disclosures to guide their decision-making.

SASB Standards

Part of the IFRS Foundation, SASB Standards guide publicly listed companies in assessing and disclosing how sustainability issues and management processes could impact the company’s financial or operational performance, information that would be relevant to investment decisions and Regulation S-K disclosure requirements. Covering 77 industries, SASB Standards offer disclosure guidance on 30 sustainability topics across five dimensions: environment, social capital, human capital, business model and innovation, and leadership and governance. On average, each industry standard has six disclosure topics and 13 accounting metrics. Financially material ESG data disclosed using SASB Standards can lead to improved operational performance and risk-adjusted returns for companies and more efficient capital allocation for investors.^{[64][55]}

VERIFIED

REPORTING METHODOLOGY	Within annual financial filings (e.g., 10-K, 20-F, 40-F), annual sustainability reports, on corporate website, etc.
REPORTING TIMELINE	Alongside annually reported financial disclosures
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Financially material impacts on company of up to 30 sustainability topics (average of six per industry) across five dimensions: environment, social capital, human capital, business model and innovation, and leadership and governance
FEE TO ACCESS STANDARD	Free
APPLICABILITY	Public companies
LOCATION	Global
TIME COMMITMENT	Low to Medium
INDUSTRY ADOPTION	2,000+ reporters

[Sources: [64][65][55]]

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Currently, companies in all sectors besides oil and gas can set science-based targets. SBTi’s draft guidance for oil and gas companies is under review. SBTi will share further updates regarding this guidance later in 2022.^[74]

Science Based Targets initiative (SBTi)

The SBTi is an initiative that provides target-setting frameworks aimed at aligning corporate decarbonization and net zero targets and their implementation with the objectives of the Paris Agreement: limit global warming to only 1.5°C and achieve net zero global GHG emissions by 2050. In 2021, SBTi launched the Corporate Net-Zero Standard, which guides companies toward setting credible and robust near-term (5-10 year) and long-term (2050 or sooner) science-based targets that align with the Paris Agreement, cover scope 1–3 emissions, and prioritize rapid decarbonization of operations and supply chains.^[66] The SBTi also offers guidance for near-term target setting, the only target-setting and validation framework available until the Net-Zero Standard was released in 2021. The SBTi currently validates near-term and net-zero targets, the latter of which involves setting both near- and long-term science-based targets.^[67] SBTi validated targets must be recalculated and revalidated every five years.^{[68][69][70][71]}

VERIFIED

REPORTING METHODOLOGY	Publicly reported via CDP questionnaire, annual reports, corporate sustainability reports, and/or company website
REPORTING TIMELINE	Must publicly announce target within six months of approval. Recommended to recalculate target projections annually and report any changes publicly.
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	GHG emissions inventory and progress towards published targets
FEE TO ACCESS STANDARD	Access to Net-Zero Standard is free Near-term or net-zero target submissions: \$9,500 Near-term and net-zero target submission package: \$14,500 Target update service: \$4,750
APPLICABILITY	All companies with the exception of companies with any level of direct involvement in exploration, extraction, mining, and/or production of fossil fuel
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	3,000+ businesses in SBTi initiative, 1,000+ with commitments aligned with 1.5°C of global warming, 1,600+ with approved science-based targets

[Sources:[66][72][73][68][69][70][71]]



TCFD is the appropriate choice for assessing and preparing for climate-related risks and opportunities.

Companies should choose TCFD if their priority is attracting ESG-minded investors, lenders, and creditors who demand financially-material climate risk disclosures to guide their decision-making.

Task Force on Climate-related Financial Disclosures (TCFD)

Based on the premise that climate change has a material impact on companies' financial performance, TCFD recommendations ask businesses to disclose how climate change presents risks and opportunities to the company across four themes: governance, strategy, risk management, and metrics and targets. TCFD provides universal guidance for all sectors and sector-specific guidance for financial (e.g., banks, insurance companies, asset owners, and asset managers) and non-financial industries (e.g., energy, transportation, materials and buildings, and agriculture, food, and forest products).^[75] TCFD recommendations form the foundation of IFRS's climate-related standards (draft available), to be officially released by the end of 2022.^[52]

REPORTING METHODOLOGY	Within annual financial filings (e.g., 10-K, 20-K, 40-F)
REPORTING TIMELINE	Alongside annually reported financial disclosures
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Climate-related financial risks and opportunities across governance, strategy, risk management, and metrics and targets
FEE TO ACCESS STANDARD	Free
APPLICABILITY	All companies
LOCATION	Global
TIME COMMITMENT	Low to Medium
INDUSTRY ADOPTION	3,400+ supporters in 95 jurisdictions

[Sources:[76][77][78]]

Taskforce on Nature-related Financial Disclosures (TNFD)



TNFD is the best choice for assessing and preparing for biodiversity-related risks and opportunities.

Companies should choose TNFD if their priority is attracting ESG-minded investors, lenders, and creditors who demand financially-material biodiversity disclosures to guide their decision-making.

TNFD is a forthcoming reporting framework focused on providing financial markets with corporate assessment and disclosure of nature-related risks and opportunities. The framework is currently in development and anticipated to be finalized by 2023. TNFD’s structure is based on TCFD, with nature-related risk and opportunity assessments and disclosures to be framed around the company’s governance, strategy, risk management, and metrics and targets. TNFD will likely consider both impacts and dependences on nature in recommended assessments and disclosures, aiming to align with how the forthcoming IFRS Sustainability Disclosure Standards define materiality. TNFD will provide guidance for both non-financial and financial entities.^{[79][80]}

VIBE is a member of the TNFD Forum

REPORTING METHODOLOGY	Likely within annual financial filings (e.g., 10-K, 20-K, 40-K)
REPORTING TIMELINE	Likely alongside annually reported financial disclosures
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	Nature-related financial risks and opportunities across governance, strategy, risk management, and metrics and targets
FEE TO ACCESS STANDARD	Free
APPLICABILITY	All companies
LOCATION	Global
TIME COMMITMENT	—
INDUSTRY ADOPTION	—

[Sources: [79][80]]



If educating customers and employees is the main priority, companies may be better suited to report against the UN SDGs, which cover a broader scope of ESG data.

United Nations Sustainable Development Goals (UN SDGs)

Adopted by UN member states in 2015, the SDGs are comprised of 17 goals and 169 associated targets focused on ending poverty and achieving global social, environmental, and economic sustainability by 2030, according to the UN's 2030 Agenda for Sustainable Development.

^[81] To guide integration of the SDGs into corporate strategy and reporting, the UN Global Compact and GRI worked in collaboration to create two guidance documents for businesses: 1) Business Reporting on the SDGs: Integrating the SDGs into Corporate Reporting: A Practical Guide and 2) Business Reporting on the SDGs: An Analysis of the Goals and Targets. Together, these documents help businesses prioritize targets based on where business activities present the most risk and benefit to people and the environment, identify actions to achieve those targets, select indicators to measure progress, and integrate disclosures into regular reporting.^{[82][83]} Not intended to act as a new reporting framework or encourage a standalone SDG report, these documents are designed to help incorporate SDG-related disclosures into existing corporate reporting processes, namely annual sustainability reports.

REPORTING METHODOLOGY	Publicly reported via regular reporting cycle (e.g., annual report, ESG/sustainability report)
REPORTING TIMELINE	Alongside annually reported sustainability disclosures
PARTICIPATION	Voluntary
DISCLOSURE CONTENT	SDG target-related priorities, impacts, strategies, actions, and indicators based on risks and benefits organization poses to people and environment
FEE TO ACCESS STANDARD	Free
APPLICABILITY	All organizations
LOCATION	Global
TIME COMMITMENT	Low to Medium
INDUSTRY ADOPTION	40% companies in 2020 GRI survey of 200+ companies committed to SDGs.

[Sources: [82][84]]

Voluntary Disclosure Frameworks



Voluntary Disclosure Frameworks

	CDP	GRESB REAL ESTATE ASSESSMENT	INREV SUSTAINABILITY ASSESSMENT	S&P GLOBAL CSA	PRI SIGNATORY QUESTIONNAIRE
ASSESSMENT METHODOLOGY	Annual questionnaire	Annual questionnaire	Self-assessment via online questionnaire	Annual questionnaire	Annual survey to signatories
DISCLOSURE CONTENT	Impacts and stewardship: climate change, forests, water security	21 sustainability aspects across management, performance, and development components	Vehicles' sustainability-related long-term strategy, objectives, and portfolio information	Financially material economic and ESG data points	ESG integration into investment decisions
REPORTING TIMELINE	April to July	April 1st to July 1st	At least annually	April to July	Annually
PARTICIPATION	Voluntary	Voluntary	Voluntary	Voluntary (invitation only)	Voluntary
RATING SCALE	D- to A score	1-5 star rating 0-100 score	% compliance or adoption score	0-100 score	0-100 indicator scores 1-5 module star gradings
PARTICIPATION MEMBERSHIP FEES/PRICING	\$2,725 standard contribution	\$5000 per fund/entity	Free for INREV members	Free	AUM dependent
APPLICABILITY	All companies & public entities	Global real estate	Non-listed real estate vehicles in EU and globally	Public and non-public companies	Asset owners, investment managers, service providers
LOCATION	Global	Global	EU/global	Global	Global
TIME COMMITMENT	Medium	High	Low	High	Medium
INDUSTRY ADOPTION	13,000+ reporters	1,500+ reporters	491 member organizations	2,270+ participants	5,000+ signatories



Often taking the form of a questionnaire used for evaluation, scoring, and ranking, voluntary disclosure frameworks help assess ESG policies, practices, and performance data. Like standards, voluntary disclosure frameworks evaluate companies across a similar set of dimensions and indicators, some of which may be industry specific. Online platforms are often used to collect data and report results to participants, which can be used to compare performance between years, identify strategies to improve performance, or make industry

peer comparisons. As most voluntary disclosure frameworks are geared toward an institutional investor audience, many platforms offer investor subscriptions to view assessment results across companies. Voluntary disclosure frameworks may allow companies discretion to publicly report their results (e.g., GRESB, CDP), automatically publish a portion of the results or scores (e.g., PRI, S&P Global CSA), and/or highlight industry-leading companies (e.g., CDP, GRESB, S&P Global CSA).



Companies should choose CDP if their priority is to assess and prepare for climate-, water security-, and/or forest-related risks and opportunities.

In 2021, 53% of the 100 largest U.S. REITs used CDP for ESG reporting.^[51]

GRESB has slightly higher adoption rates than CDP among the largest U.S. REITs. Whereas reporting to GRESB is considered industry best practice among real estate companies, CDP reporting is often driven by investor and customer requests.

Unlike GRESB, which focuses on real estate and infrastructure, CDP applies to all sectors more broadly.

CDP

CDP (previously known as the Carbon Disclosure Project) is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states, and regions to manage their environmental impacts. CDP offers three assessments (i.e., climate change, forests, water security) that evaluate different aspects of an organization’s environmental impact.^[85] Often triggered by a request from a larger customer or investor, companies disclose both general and sector-specific information. Based on both level of impact and management of impacts, each assessment results in a score. After scoring, CDP annually publishes top performers in their A List.^{[86][87][205]}

VERIFIED

ASSESSMENT METHODOLOGY	Annual questionnaires with general and sector-specific questions
DISCLOSURE CONTENT	Impacts and stewardship related to climate change, forests, and water security across company’s value chain
REPORTING TIMELINE	April to July
PARTICIPATION	Voluntary
RATING SCALE	D- to A (industry-relative score for sector-specific questions)
PARTICIPATION FEE	\$2,725 (standard contribution) or \$6,500 (optional, enhanced contribution)
APPLICABILITY	All companies and public entities (e.g., cities, states, regions)
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	13,000+ companies reported in 2021

[Sources: [86][88][89][90][87]]



G R E S B

The GRESB Real Estate Assessment is one of the most respected and adopted ESG reporting frameworks globally. In 2021, 58% of the 100 largest U.S. REITs used GRESB for ESG reporting.^[51] GRESB is a good fit if a company's priority is to attract investors that integrate ESG into decision-making.

The GRESB Real Estate Assessment is a good choice for assessing absolute or relative ESG performance.

GRESB Real Estate Assessment

The GRESB Real Estate Assessment enables listed property companies, private property funds, developers, and real estate investors to disclose and manage financially material real estate asset ESG data. The assessment is broken into three components: management (e.g., leadership, policies, risk management), performance (e.g., GHG emissions, water, waste), and development (e.g., ESG goals in design and construction), each of which receives a separate score. Each company's or fund's assessment results in an aggregated score, rating, and guidance for improving upon environmental performance. Global peer comparison benchmark reports are delivered based on which components were submitted; the Standing Investments Benchmark Report is provided after submitting both the management and performance components, and the Development Benchmark Report is provided after submitting both the management and development components. Through GRESB's online data platform, companies can share their results with investors and other stakeholders.^{[91][92]}

VERIFIED

ASSESSMENT METHODOLOGY	Annual questionnaire
DISCLOSURE CONTENT	21 sustainability aspects across management, performance, and development components
REPORTING TIMELINE	April 1 st to July 1 st
PARTICIPATION	Voluntary
RATING SCALE	1-5 star rating 0-100 score
PARTICIPATION FEE	\$5,000 per fund/entity
APPLICABILITY	Global Real Estate
LOCATION	Global
TIME COMMITMENT	High
INDUSTRY ADOPTION	1500+ real estate companies, REITs, funds, and developers participated in 2021.

[Sources:93][94][91][92]]



The INREV Sustainability Reporting Guidelines should be used by non-listed real estate entities in the EU. In some cases, EU non-listed real estate investors request that investee funds and companies fill out the INREV Sustainability Assessment to ensure their compliance with sustainability expectations.

European Investors in Non-Listed Real Estate (INREV) Sustainability Assessment

Applicable to non-listed real estate vehicles in Europe, and increasingly on a global scale, INREV offers a suite of industry guidelines, standardized templates, and tools that enable investment managers to measure, track, and report on their vehicles' performance in a consistent and transparent way. Users can test and demonstrate their level of compliance with the INREV Guidelines by using a self-assessment tool. One of the INREV self-assessments, the INREV Sustainability Assessment, helps managers evaluate their vehicles' adoption and compliance with INREV's Sustainability Reporting Guidelines, which offer both best practices and mandatory requirements. All mandatory criteria (e.g., GHG emissions, ESG action plans) should be disclosed to claim compliance with the Sustainability Reporting Guidelines. The best practice recommendations can be used to assess the degree of alignment with INREV's sustainability best practices. The self-assessment process results in a score which can be given to investors and used to identify opportunities to strengthen vehicle performance.^{[95][96][97]}

VERIFIED

ASSESSMENT METHODOLOGY	Self-assessment via online questionnaire
DISCLOSURE CONTENT	Non-listed real estate vehicle performance against INREV's Sustainability Reporting Guidelines, with mandatory disclosures covering vehicles' sustainability-related long term strategy, objectives, and portfolio information
REPORTING TIMELINE	Compliance with guidelines requires annual disclosure, at the minimum
PARTICIPATION	Voluntary
RATING SCALE	INREV assessments are self-conducted and result in a percentage of compliance or adoption score.
PARTICIPATION FEE	Free for INREV members
APPLICABILITY	Non-listed real estate vehicles in Europe and globally
LOCATION	EU/global
TIME COMMITMENT	Low
INDUSTRY ADOPTION	491 member organizations

[Sources: [98][99][95][96][97]]

S&P Global Corporate Sustainability Assessment (CSA)

VERIFIED

Applicable to public companies,^[101] the S&P Global CSA is a good choice for assessing absolute or relative ESG performance.

CSA scores can increase the visibility of a company's ESG performance and help influence stock prices and investment decisions.

The S&P Global CSA ('CSA') is an annual assessment of company sustainability performance, asking questions across the Environmental, Social, and Governance and Economic (ESG) sustainability pillars.

The CSA offers 61 industry-specific assessment frameworks to account for the variance in material factors between different sectors and industries.^[100] Publicly listed companies are invited to participate in the CSA if they meet a market capitalization threshold.^[101] Non-listed, Micro, and NanoCap companies may also participate in an adjusted form of the assessment designed for their specific reporting requirements.

The CSA is used to produce multiple levels of ESG score metrics that are comparable within each industry. Questions are scored using a pre-defined, rules-based framework and are aggregated into Criteria-level scores using industry-specific materiality weights. Industry-specific weighting is used to aggregate Criteria-level scores into ESG Dimension-level scores and to aggregate Dimension-level scores into one overall S&P Global ESG Score. Publicly listed companies that receive higher S&P Global ESG Scores are eligible for inclusion in specific indices maintained by S&P Dow Jones Indices, including the S&P ESG Indices and the Dow Jones Sustainability Indices (DJSI). S&P Global ESG Scores are also accessed

ASSESSMENT METHODOLOGY	Annual online questionnaire with general and industry-specific questions
DISCLOSURE CONTENT	Financially material economic and governance, environmental, and social data points
REPORTING TIMELINE	April to July
PARTICIPATION	Voluntary (invitation only or on request) For companies that do not respond to the invitation, S&P Global analysts use publicly available data to complete the questionnaire on the company's behalf.
RATING SCALE	0-100 industry-relative score 100 represents the maximum possible score
PARTICIPATION FEE	Free
APPLICABILITY	Public and non-public companies
LOCATION	Global
TIME COMMITMENT	High
INDUSTRY ADOPTION	2,270 companies participated in 2021

[Sources:[103][104]]

and utilized by investors, companies, and other stakeholders to inform insightful and relevant decision-making.^[102]



The PRI Signatory Questionnaire is the best option for asset owners and investment managers aiming to assess how their ESG integration compares to peers.

The PRI Signatory Questionnaire is more widely adopted in Europe. Companies with European investors are more often asked to become signatories and participate in the assessment.

Principles for Responsible Investment (PRI) Signatory Questionnaire

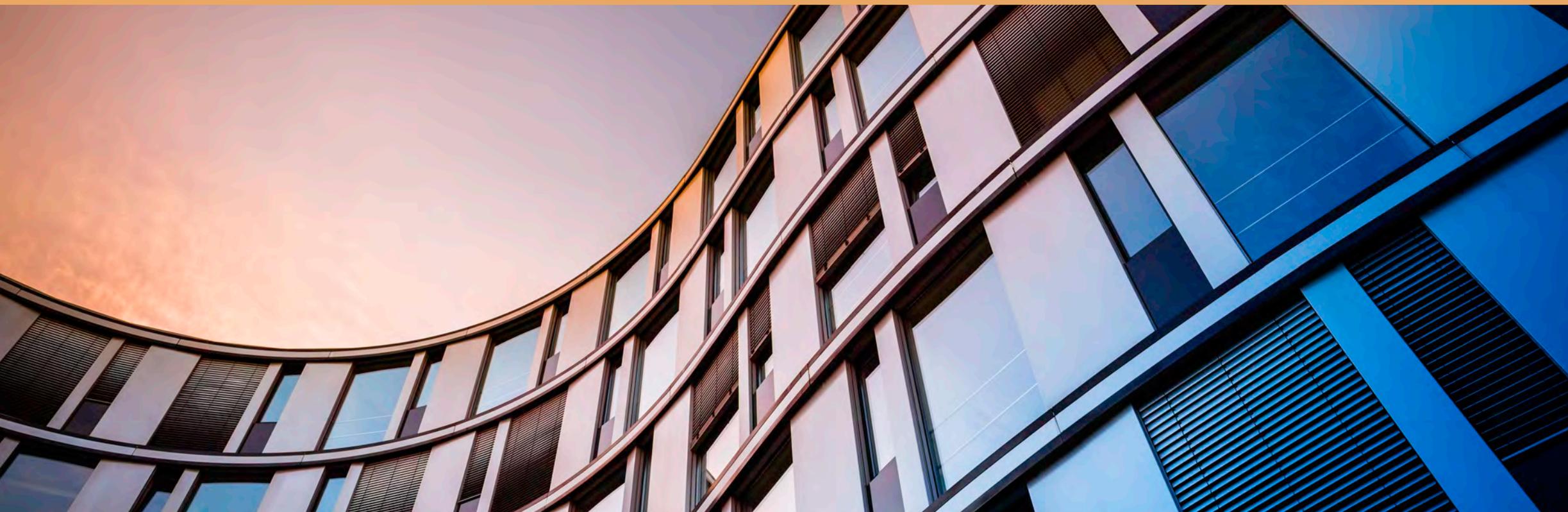
The PRI Signatory Questionnaire is used by PRI signatories (i.e., asset owners, investment managers, service providers) to annually report on their investing activities and how they align with PRI's six principles to responsible investing.^{[107][108]} The assessment covers core (i.e., mandatory) and plus (i.e., voluntary) indicators, with the former indicators focused on how ESG factors are integrated into investment decisions, stewardship processes, and asset classes.^[109] No specific investment strategies are prioritized in scoring. Core questions are graded and published via a public transparency report; each module receives a star grading and there is no overall organization score. Private transparency reports, containing core and plus results, are confidentially delivered to participants.^[110]

VERIFIED

ASSESSMENT METHODOLOGY	Annual survey to all signatories
DISCLOSURE CONTENT	ESG integration into investment decisions, stewardship processes, and asset classes
REPORTING TIMELINE	Annual
PARTICIPATION	Voluntary
RATING SCALE	0-100 indicator scores 1-5 module star gradings
PARTICIPATION FEE	Fee dependent on AUM
APPLICABILITY	Asset owners, investment managers, service providers
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	5,000+ signatories in 80+ countries

[Sources: [111][112][113][109][107][110]]

Involuntary Third-Party Aggregators



Involuntary Third-Party Aggregators

	BLOOMBERG	FTSE RUSSELL	GRESB PUBLIC DISCLOSURE ASSESSMENT	ISS ESG CORPORATE RATING	ISS ESG GOVERNANCE QUALITY SCORE	ISS ESG E&S DISCLOSURE QUALITY SCORE	MORNINGSTAR SUSTAINALYTICS	MSCI	REFINITIV
RATING METHODOLOGY	Financially material ESG metrics	ESG exposure and performance data	ESG disclosure transparency	ESG risks, opportunities, and impacts	Governance risk	Disclosure practices	ESG risk exposure and management	ESG risks, risk management plans, and opportunities	ESG performance data
RATING TIMELINE	Annually	Annually	Annually	Annual and ad hoc	Annual and event driven	Annual and event driven	Annually	Annually	Continually throughout year
PARTICIPATION	Involuntary	Involuntary	Involuntary	Involuntary	Involuntary	Involuntary	Involuntary	Involuntary	Involuntary
RATING SCALE	0-100 score	0-5 rating; 1-100 percentile rating	A-E rating; 0-70 score	A+/4.00 to D-/1.00 score	1-10 decile rank	1-10 decile rank	0-100 score; 5-category rating	0-10 score; AAA-CCC rating	0-100 score; D- to A+
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Access via Bloomberg Terminal	Free	Free	Free	Free	Free	Free	Free	Free
APPLICABILITY	Public companies	Public companies	Listed property companies and REITs	Public companies	Public companies	Public companies	Public companies	Public companies	Public and private companies
LOCATION	Global	Global	Global	Global	Global	Global	Global	Global	Global
TIME COMMITMENT	Low	Medium	Low	Low	Low	Low	Low to Medium	Low	Low
INDUSTRY ADOPTION	13,000+ companies	7,200 securities scored	850+ companies and REITs	12,000+ issuers	7,300+ companies	5,300+ issuers	14,000+ companies	9,800+ companies	12,500+ companies



Aimed at institutional investors, involuntary third-party aggregators collect and analyze publicly available ESG data and offer scores, rankings, and subscription-based data analytics services. Aggregators are primarily focused on evaluating public/listed companies' financially material ESG data related to performance, risk exposure, risk management, and opportunities. Most aggregators' ESG scores are only comparable to companies in the same industry (e.g., MSCI, Refinitiv), but a few provide industry-agnostic scores (e.g., Morningstar Sustainalytics, FTSE Russell), comparable to any company in any industry (while scores themselves are agnostic, the scoring methodologies for both Morningstar Sustainalytics and FTSE Russell are influenced by the company's industry). Some aggregators' scores and methodologies are publicly available (e.g., MSCI, Morningstar Sustainalytics), while others require a subscription to access (e.g., Bloomberg, ISS).

There are several actions companies can take to optimize their ESG scores from third-party aggregators. First, to determine what KPIs should be emphasized in a company's ESG-related public disclosures, companies should engage with their largest investors to determine which ESG ratings are prioritized in investors' decision-making. To ensure aggregators can locate relevant KPIs for scoring, it is important to publish an annual ESG report that publicly discloses information regarding the company's key ESG-related initiatives, impacts, and/or risks. Sometimes, even if ESG KPIs are publicly available, companies can receive zero points on certain metrics because aggregators' analysts did not find or incorporate data on that metric. Companies should provide a table in their ESG report that assists aggregator analysts in navigating the report and locating relevant ESG KPIs. Moreover, companies should engage with aggregators to ensure all relevant ESG-related public information was collected. Most aggregators covered in this section allow companies to review, amend, update, and/or provide feedback on public data collected.

Bloomberg®

Companies should track their Bloomberg scores as they can influence investor decisions and be used in research reports and for portfolio construction.^[118]

Increasing the amount of publicly available ESG program data on company websites can help improve Bloomberg ESG scores.

Bloomberg

Bloomberg helps firms set and manage sustainable investment targets and account for ESG-related risks by providing ESG data, analytics, research, and tools. Bloomberg offers proprietary and third-party ESG scores to help investors and corporations evaluate performance and disclosure and perform benchmarking. Bloomberg scores are data-driven and transparent, allowing users to examine the methodology and underlying data.^[114] Bloomberg's scores are derived from publicly available company-reported data and are organized into 1) Environmental and Social, and 2) Governance scores.^[115]

Industry-specific Environmental and Social scores currently span 12 industries (e.g., consumer staples, oil & gas, chemicals, metals & mining) and focus on financially material metrics, which can be accessed, analyzed, and ranked (based on risk and opportunity) via the ESG<GO> function on the Bloomberg Terminal or accessed as an enterprise data feed. Bloomberg's proprietary, industry-agnostic Governance scores on 4,300+ global companies are similarly available on the Terminal and reflect risks and opportunities related to board composition and executive compensation.^[114] Companies can review and provide feedback on the ESG data collected.^[116] Bloomberg also provides ESG disclosure scores, which rate companies on their level of ESG data disclosure, as well as ESG scores from other providers (e.g., MSCI, Morningstar Sustainalytics, S&P Global).^{[117][118]}

VERIFIED

RATING METHODOLOGY	Publicly available company-reported data are used to calculate industry-specific ESG scores. ES score is based on financially material environmental and social metrics. G score reflects governance-related risks and opportunities.
RATING TIMELINE	Conducted annually
PARTICIPATION	Involuntary (listed companies)
RATING SCALE	0-100 scale
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Bloomberg ESG scores and data are available on the Terminal and as enterprise data feeds. Companies can find out more by emailing bbesg@bloomberg.net.
APPLICABILITY	Public/listed companies
LOCATION	Global
TIME COMMITMENT	Low
INDUSTRY COVERAGE	Bloomberg provides company-reported ESG data on 13,000+ companies.

[Sources: [119][115][116][114][117][118]]



An LSEG Business

FTSE Russell ESG ratings may not be as important as other third-party aggregator scores (e.g., MSCI, ISS, Morningstar Sustainalytics), which likely have a larger influence on stock prices. If commercial real estate companies have limited capacity, they may want to focus on providing feedback to and aligning published data with more prominent ESG aggregators.

FTSE Russell

FTSE Russell offers industry-agnostic and -specific ESG ratings for companies based on publicly available ESG exposure and performance data. Companies are allowed to provide feedback on data collected. Companies are scored across ESG themes (e.g., climate change, corporate governance, labor standards) and theme scores are weighted based on exposure, with higher thresholds assigned to companies with higher exposure. In addition to an industry-agnostic overall ESG rating, industry/peer-relative scores are also calculated. FTSE Russell ESG ratings are used to create FTSE sustainable investment indexes.^{[120][121]}

VERIFIED

RATING METHODOLOGY	Industry-agnostic and -specific scores calculated from publicly available ESG exposure and performance data from >300 possible indicators
RATING TIMELINE	Annually, in two installments (June and December)
PARTICIPATION	Involuntary
RATING SCALE	Industry-agnostic: 0-5 rating; industry-specific: 1-100 percentile rating
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Free to access own rating but must subscribe to FTSE Russell online data model to access other companies' ratings
APPLICABILITY	Public/listed companies
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY COVERAGE	7,200 securities scored

[Sources: [122][123][120][124][121]]

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G R E S B

The GRESB Public Disclosure Assessment is useful for comparing a company's level of ESG disclosure to peers or if a company wants to identify public ESG disclosure gaps.

GRESB Public Disclosure Assessment

A supplement to the GRESB Real Estate Assessment, the GRESB Public Disclosure Assessment is a dataset gathered from public sources from over 850 listed real estate companies and REITs on ESG governance, implementation, operational performance, and stakeholder engagement practices.^[125] Data are gathered and uploaded to GRESB's online portal for both participants and non-participants of the GRESB Real Estate Assessment, allowing investors to access documentation and compare ESG disclosure performance across all major property companies. Companies and REITs are allowed to review and update public disclosure data before they are uploaded. Using these data, GRESB creates a Public Disclosure Scorecard where companies are rated and assigned a score.^{[126][92]}

VERIFIED

RATING METHODOLOGY	Publicly available data are used to assess ESG disclosure transparency. Scoring is based on 23 indicators covering ESG governance, implementation, operational performance, and stakeholder engagement.
RATING TIMELINE	Annually, constituents can review and update from April 1 st to July 1 st
PARTICIPATION	Involuntary
RATING SCALE	A-E rating; 0-70 score
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Free; must create GRESB Portal account to review and upload data
APPLICABILITY	Listed property companies and REITs
LOCATION	Global
TIME COMMITMENT	Low
INDUSTRY COVERAGE	Data collected for 850+ real estate companies and REITs

[Sources: [125][126][92]]



ISS ESG is among the more prominent ESG aggregators. If companies must prioritize their efforts to review data and provide feedback, they should focus on ESG aggregators that are likely to have a stronger influence on stock pricing (i.e., ISS, MSCI, Morningstar Sustainalytics).

ISS ESG Corporate Rating

Based on publicly and non-publicly available data, the ISS ESG Corporate Rating assesses companies both on their material sustainability risks (exposure and management) and impacts on society and the environment. Each company is provided an industry-specific overall score, peer relative decile rank, and cross-sector comparison score. “Prime” status is awarded to top industry performers, the threshold of which is higher for higher-risk industries (i.e., oil and gas). Companies can send updated ESG information to ISS at any time.^{[127][131]}

VERIFIED

RATING METHODOLOGY	Based on publicly and non-publicly available data, drawing from a pool of 800 indicators, the ESG Corporate Rating evaluates companies’ sustainability performance, including ESG risks, opportunities, and impacts, along the entire corporate value chain.
RATING TIMELINE	Annual and ad hoc updates
PARTICIPATION	Involuntary (listed companies)
RATING SCALE	Industry-specific overall rating: from A+ to D- (numeric score from 4 to 1) Peer relative decile rank: 1-10 Cross-sector comparison score: 0-100
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Free via ISS’s Governance analytics platform
APPLICABILITY	Public/listed companies
LOCATION	Global
TIME COMMITMENT	Low
INDUSTRY COVERAGE	12,000+ issuers

[Sources: [128][129][130][131]]



ISS ESG is among the more prominent ESG aggregators. If companies must prioritize their efforts to review data and provide feedback, they should focus on ESG aggregators that are likely to have a stronger influence on stock pricing (i.e., ISS, MSCI, Morningstar Sustainalytics).

ISS ESG Governance QualityScore

Based on publicly available data, the ISS ESG Governance QualityScore measures and identifies companies' governance risk across four variables: board structure, compensation, shareholder rights, and audit and risk oversight. Scores are region-relative, based on the ISS-determined Country of Coverage. Companies are allowed to review and verify data collected.^{[132][131]}

VERIFIED

RATING METHODOLOGY	Based on publicly available data, the Governance QualityScore draws from 260 factors and results in company-level decile scores assessing a company's governance risk drivers and pillar scores assessing governance attributes on: board structure, compensation, shareholder rights, and audit and risk oversight. Scores are region specific.
RATING TIMELINE	Annual and event-driven updates
PARTICIPATION	Involuntary (listed companies)
RATING SCALE	Peer (by region) relative decile rank: 1-10 (low- to high-risk)
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Free via ISS's Governance analytics platform
APPLICABILITY	Public/listed companies
LOCATION	Global
TIME COMMITMENT	Low
INDUSTRY COVERAGE	7,300+ issuers

[Sources:[132][131]]



ISS ESG is among the more prominent ESG aggregators. If companies must prioritize their efforts to review data and provide feedback, they should focus on ESG aggregators that are likely to have a stronger influence on stock pricing (i.e., ISS, MSCI, Morningstar Sustainalytics).

ISS ESG E&S Disclosure QualityScore

Based on publicly available data, the ISS ESG E&S Disclosure QualityScore measures and identifies areas of environmental and social risk in companies by measuring the completeness and transparency of their public disclosures. The scoring methodology reflects standards and guidance in ESG frameworks such as GRI, the SASB Standards, and TCFD. Scores are industry-relative. Companies are allowed to review and verify data collected.^{[133][131]}

VERIFIED

RATING METHODOLOGY	Based on publicly available data, the E&S Disclosure QualityScore draws from 380 factors to provide a numeric, decile-based score that indicates a company's disclosure practices relative to their industry group. Scores measure the depth and extent of disclosure.
RATING TIMELINE	Annual and event-driven updates
PARTICIPATION	Involuntary (listed companies)
RATING SCALE	Peer (based on industry) relative decile rank: 1-10 (low- to high-risk)
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Free via ISS's Governance analytics platform
APPLICABILITY	Public/listed companies
LOCATION	Global
TIME COMMITMENT	Low
INDUSTRY COVERAGE	5,300+ issuers (coverage varies per issuer)

[Sources:[134][133][131]]

Sustainalytics was acquired by Morningstar in 2020,^[144] lending more resources and credibility to their ratings.

Morningstar Sustainalytics ESG Risk Ratings are well known in the U.S. If companies must prioritize their efforts to review data and provide feedback, they should focus on prominent ESG aggregators that might have a stronger influence on stock pricing (i.e., Morningstar Sustainalytics, MSCI, ISS).

Morningstar Sustainalytics

From publicly available data, Morningstar Sustainalytics calculates industry-agnostic ESG Risk Ratings based on exposure to material ESG risks and how effectively those risks are being managed, considering any controversies associated with the company. The three core elements to the Risk Rating include corporate governance, material ESG issues (MEIs), and idiosyncratic ESG issues (i.e., unpredictable, company-specific ESG risks). From a pool of 20 MEIs, a maximum of 10 are considered for one risk rating. After collecting data, companies are sent a draft report and are given an opportunity to respond and submit additional information for analyst consideration before ratings are finalized.^{[140][141]}

VERIFIED

RATING METHODOLOGY	The ESG Risk Rating (industry-agnostic) is calculated from publicly available data on material ESG risk exposure and management.
RATING TIMELINE	Conducted annually; timeline for updates varies for individual companies. Public controversies may prompt additional analyst reviews on a case-by-case basis.
PARTICIPATION	Involuntary (listed companies)
RATING SCALE	0 to 100 score 5-category rating: negligible, low, medium, high, severe
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Free via Sustainalytics Issuer Gateway
APPLICABILITY	Public/listed companies
LOCATION	Global
TIME COMMITMENT	Low to Medium
INDUSTRY COVERAGE	14,000+ companies rated

[Sources:[142][143][141]]



MSCI focuses its ESG ratings on how exposed companies are to financially material ESG risks. Compared to ISS and Morningstar Sustainalytics, a company's MSCI ratings are less impacted by its ESG performance and risk management practices.

We recommend prioritizing MSCI over less prominent ESG aggregators and providing feedback to MSCI since MSCI ratings typically influence stock prices.

MSCI

Using publicly available data, MSCI ESG Research offers industry-specific ESG ratings calculated from a company's financially relevant, material ESG-related risk exposure, risk management plans, and opportunities. The MSCI ESG Rating looks at 35 governance risks and industry-specific environmental and social Key Issues, which are selected and weighted based on impact and the time horizon of risk or opportunity. The MSCI ESG Ratings model focuses only on issues that are determined as material for each industry. To arrive at a final ESG Rating, the weighted average of individual environmental and social Key Issue scores and the governance pillar score is calculated and then normalized relative to industry peers to derive the ESG Rating. Companies can review the collected data and provide feedback.^{[135][136]}

VERIFIED

RATING METHODOLOGY	Using publicly available data, industry-specific ESG ratings are calculated based on ESG risks, risk management plans, and opportunities across 35 ESG issues.
RATING TIMELINE	Conducted annually, varies between companies and years
PARTICIPATION	Involuntary (listed companies)
RATING SCALE	0-10 industry adjusted score; AAA to CCC rating (high to low)
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Free via the ESG Ratings Search Tool and via ESG Issuer Communications Portal
APPLICABILITY	Public/listed companies
LOCATION	Global
TIME COMMITMENT	Low
INDUSTRY COVERAGE	9,800+ companies rated

[Sources: [137][135][136]]



Refinitiv scores are gaining momentum but may not be as important to investors as other third-party aggregator scores (e.g., MSCI, ISS, Morningstar Sustainalytics), which likely have a larger influence on stock prices. Therefore, if companies have limited capacity, they may want to focus on providing feedback to and aligning published data with more prominent ESG aggregators.

Refinitiv

From publicly available data, Refinitiv calculates relative ESG scores based on ESG “performance, commitment, and effectiveness.” There are 186 comparable ESG metrics that are used as inputs to the model, from a broader set of 630+ ESG data points and analytics. The 10 categories (e.g., emissions, human rights, management) are aggregated using weights determined based on the industry-specific financial materiality, except for governance category scores, which are weighted based on country of incorporation grouping. The scoring process results in: three ESG pillar scores (E, S, and G), an ESG score, an ESG controversies score, and a final ESG combined score (i.e., ESG score + ESG controversies score).^[138] Companies are invited to submit, verify, and update data through the Refinitiv ESG Contributor Tool.^{[139][121]}

VERIFIED

RATING METHODOLOGY	Relative scores calculated from publicly available ESG performance data, using 186 comparable metrics across 10 ESG themes.
RATING TIMELINE	ESG data are updated continually throughout the year; ESG scores and data are updated weekly
PARTICIPATION	Involuntary
RATING SCALE	Presented on a 0-100 scale; also available as letter grades ranging from D- to A+
FEE TO ACCESS SCORE AS COMPANY/ISSUER	Free
APPLICABILITY	Public /listed and private companies
LOCATION	Global
TIME COMMITMENT	Low
INDUSTRY COVERAGE	Data for 12,500+ public and private companies

[Sources: [138][139][121]]

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Net Zero Emissions Initiatives



Net Zero Emissions Initiatives

	BBP	CRREM	NZAM	ULI GREENPRINT	NZAOA	RE100	SBTI	WORLDGBC
NET ZERO GOAL	Portfolio-wide net zero carbon emissions by 2050	Paris Agreement-aligned 1.5°C/2°C net zero pathways	Support goal of net zero GHG emissions by 2050	Net zero carbon operations by 2050	Net zero emissions by 2050	100% renewable electricity by 2050	Net zero emissions by 2050; 50% emission reduction by 2030	Maximize operational and embodied carbon reductions by 2030
REPORTING METHODOLOGY	BBP Net Zero Carbon Pathway Framework	CRREM online tool	Must be science-based and Paris Agreement-aligned	To Greenprint directly	Alliance Target Setting Protocol	CDP Climate Change Questionnaire	Publicly disclosed	WorldGBC Commitment Reporting Form
DISCLOSURE CONTENT	Net Zero Carbon Pathway progress, energy performance, climate-related risks	Building characteristics, use, and energy data	% assets in commitment, interim targets, target methodology, TCFD disclosures, climate action plan (scope 1-3 emissions)	Net zero target progress: total carbon emissions, energy efficiency, renewable energy, offsets	Scope 1-3 emissions, decarbonization targets, GHG reduction strategies	Low-carbon energy use/production targets and energy initiatives, energy use performance	GHG emissions inventory and target progress	Operational and embodied carbon emissions
REPORTING TIMELINE	Annually	From 2018 onwards	Annually	Annually	1-year, annual, and 5-year requirements	Annually	Annually	Annually
PARTICIPATION	Voluntary	Voluntary`	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary
HOW TO COMPLY	Publish a Net Zero Carbon Pathway and annually disclose on progress	—	Work with asset owners on goals, set interim targets, strengthen target every 5 years, annual disclosures	Make portfolio-wide commitment and annual reporting	Publicly report targets, portfolio baseline assessment, set interim targets every 5 years	Public commitment, annual reporting	Set Paris-aligned near- and long-term targets, decarbonize >90% scope 1-3 emissions before 2050	Commitment to 2030 operational and embodied carbon goals, reporting after two years
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	Free	Free	Free	Free for Greenprint members	Annual €5,000-€20,000 fee	\$5,000 annual fee	\$9,500 target submission	Free
LOCATION	United Kingdom	Global	Global	Global	Global	Global	Global	Global
TIME COMMITMENT	Medium	Low	High	Low	High	High	High	Medium
INDUSTRY ADOPTION	11,000+ properties, +£400 billion AUM	10,000+ assets, €1 trillion AUM	273 signatories, \$61.3 trillion AUM	1.79 billion square feet, \$1 trillion AUM	\$10.6 trillion AUM, 74 institutional investors	370+ members, 380+ TWh/yr of renewable energy	1,200+ commitments aligned with 1.5°C pathway	20,000 assets, 169 signatories



In addition to standards, frameworks, assessments, and aggregators that cover a wide variety of sustainability metrics, there are also several voluntary emissions-reduction-focused initiatives that help companies make public net zero commitments, track GHG emissions, and report on net zero target progress. Given the construction and building industry contributes 37% of global GHG emissions,^[145] several initiatives focus on reducing commercial buildings' operational and/or embodied carbon emissions. Net zero commitment initiatives often require the following:

adherence to a specific science-based target setting and/or GHG tracking methodology, interim target setting, and annual public disclosure of progress toward the net zero target. Some commitments only cover scope 1 and 2 emissions, while others cover all emissions scopes. All net zero initiatives reviewed in this section attempt to align with the Paris Agreement goal to limit global warming to only 1.5-2.0°C^[146] by aiming for net zero GHG emissions by 2050; several also involve a 50% absolute or relative emissions reduction goal by 2030.



The portfolio coverage of signatories' net zero targets can vary depending on their business model and the real estate investment vehicles they manage. If a fund manager includes its investment vehicle in its own targets, all assets under management owned by the signatory must be included.^[147]

If real estate investments are managed by a third party (e.g., joint ventures and indirect real estate investments), these should be included on a proportional basis by ownership, or by operational control if applicable.^[147]

Better Buildings Partnership (BBP)

BBP is a collaboration of the UK's leading property owners who work together to improve the sustainability of the UK's existing commercial buildings. The BBP's Climate Commitment is a voluntary, portfolio-wide commitment for companies in the commercial real estate sector to reach net zero emissions by 2050 at the latest, deliver a Net Zero Carbon Pathway, and report annually on progress. The Commitment encompasses scope 1–3 carbon emissions, operational carbon across building performance (tenant carbon included), and embodied carbon across new and retrofitted developments.^[147] The Commitment is open to BBP members and non-members.^[148]

VERIFIED

NET ZERO GOAL	BBP Climate Commitment: Portfolio-wide net zero carbon by 2050 at the latest. Includes direct and indirect investments, operational and embodied carbon, scope 1–3 carbon emissions, and tenant carbon emissions.
REPORTING METHODOLOGY	Annual reporting per BBP Net Zero Carbon Pathway Framework
DISCLOSURE CONTENT	Net Zero Carbon Pathway progress update, portfolio or asset-level energy performance, and material climate-related risks
REPORTING TIMELINE	Annually
PARTICIPATION	Voluntary
HOW TO COMPLY	Publish Net Zero Carbon Pathway and annually disclose progress toward Pathway Disclose portfolio energy performance Develop comprehensive climate change resilience strategies for portfolio
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	Free (do not need to be a BBP member to become signatory)
LOCATION	United Kingdom
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	11,000+ properties, 34 signatories, +£400 billion AUM

[Sources: [149][147][148]]

Carbon Risk Real Estate Monitor (CRREM)



Currently, the CRREM tool is only easily applicable in the EU and UK but can be adapted to other regions by altering the tool's back-end.^[152]

The CRREM tool can be used to report climate-related risk data in accordance with TCFD, EU Taxonomy, and PCAF.^[153]

CRREM assesses an asset's total emissions, including scope 1–2 and scope 3 emissions from tenant energy use and embodied carbon.^[153]

CRREM is an online tool used to benchmark commercial and residential building performance data against Paris Agreement-aligned decarbonization pathways, which are country- and building type-specific. After asset managers submit building data (e.g., energy consumption, renewable energy, refrigerant losses, retrofit action, building characteristics, building use), CRREM outputs asset- and portfolio-level carbon risk results. The tool can be used to understand assets' exposure to climate-related stranding risk.^{[150][151]}

NET ZERO GOAL	CRREM estimates climate-related transition risk of assets by comparing baseline carbon intensity to building-type- and country-specific decarbonization pathways aligned with the Paris Agreement's 1.5°C/2°C target.
REPORTING METHODOLOGY	Asset managers upload commercial or residential building data to the CRREM tool (available in EU, U.S., and Asia Pacific) which are analyzed and benchmarked against CRREM decarbonization pathways (EU and global, non-EU pathways available).
DISCLOSURE CONTENT	To use the CRREM tool, asset managers submit building data on energy consumption, renewable energy, refrigerant losses, retrofit action, building characteristics, and building use. To output carbon risk results, certain fields are required (e.g., floor area, vacant area, property type, country).
REPORTING TIMELINE	From 2018 onwards
PARTICIPATION	Voluntary
HOW TO COMPLY	—
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	Free
LOCATION	Global (For properties outside of EU or UK, data on climate conditions, emission factors, and energy and carbon prices must be entered manually. Global, non-EU pathways can be easily inserted into the tool.)
TIME COMMITMENT	Low
INDUSTRY ADOPTION	10,000 assets optimized, 100 million square meters of lettable space analyzed, representing €1 trillion AUM (as of August 2022)

[Sources: [150][152][153][151]]

Net Zero Asset Managers (NZAM) initiative

The Net Zero Asset Managers initiative

Any asset manager globally that is also a member of one of the NZAM Network Partner organizations can sign onto the commitment. The following are NZAM Network Partners: Asia Investment Group on Climate Change; CDP; Ceres; the Institutional Investors Group on Climate Change (IIGCC); the Investor Group on Climate Change (IGCC); and Principles for Responsible Investment (PRI).^[154]

Signatories must set a net zero target covering scope 1 and 2 emissions, along with material scope 3 emissions where possible. For real estate companies, this means including emissions from energy use in tenant-controlled areas, which are a significant source of emissions for the industry.^[154]

The NZAM initiative encourages asset managers to commit to net zero emissions by 2050 in alignment with the Paris Agreement. Covering emissions from a portion of managers’ investment portfolios, the commitment involves partnering with asset owners to decarbonize per the 2050 target, creating Paris-aligned investment products, accounting for emissions (scope 1–2 and material scope 3 as feasible), setting interim targets (e.g., 50% reduction by 2030), and reviewing and updating the interim target every five years with the goal of eventually including 100% of managed assets in the commitment.^{[154][155]}

NET ZERO GOAL	Support goal of net zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5°C
REPORTING METHODOLOGY	Methodology agnostic so long as it is science-based and in line with Paris Agreement-aligned net zero pathways. Three target setting methodologies are recommended: Paris Aligned Investment Initiative Net Zero Investment Framework, Science Based Targets initiative for Financial Institutions, and Net Zero Asset Owner Alliance Target Setting Protocol.
DISCLOSURE CONTENT	Within one year of commitment, managers must disclose percentage of assets to be managed in alignment with net zero goal, interim targets and target date, and target setting methodology. Managers publicly disclose annually and submit for review by the Investor Agenda and partner organizations: TCFD disclosures and climate action plan (including scope 1-2 emissions and scope 3 if possible).
REPORTING TIMELINE	Annually
PARTICIPATION	Voluntary, but must be a member of one of the Network Partner organizations
HOW TO COMPLY	Managers must work with asset owners on Paris-aligned decarbonization goals, set interim decarbonization targets for portfolios, review and strengthen interim target every five years, and publish TCFD disclosures and a climate action plan annually.
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	Free (however the prerequisite of joining one of the Network Partner organizations may be associated with a fee)
LOCATION	Global
TIME COMMITMENT	High
INDUSTRY ADOPTION	273 signatories, \$61.3 trillion AUM

[Sources: [154][156][155]]



Emissions from energy use in tenant-controlled spaces (i.e., scope 3) are excluded from the ULI Greenprint net zero goals.^[157]

ULI Greenprint Center For Building Performance (ULI Greenprint)

ULI Greenprint is an alliance of commercial building owners and portfolio managers collectively committed to decarbonizing the built environment in accordance with the Paris Agreement. There are two goals applicable to ULI Greenprint’s member base: 1) a member-portfolio-wide 50% GHG intensity reduction by 2030 goal (from 2009 levels) and 2) a voluntary net zero operational carbon emissions by 2050 goal. All members report monthly energy, water, waste, and emissions data to track progress over time and towards the 50% reduction by 2030 goal. For those aligned with the net zero goal, members must disclose their net zero target progress annually (including scope 1 and 2 GHG emissions), and other energy-related data to ULI Greenprint (e.g., on and offsite renewable energy purchases, carbon offset purchases). This information is aggregated across members and reported in the annual Greenprint Performance Report.^{[157][158][159][160]}

VERIFIED

NET ZERO GOAL	Net zero carbon operations by 2050—covers scope 1–2 carbon emissions under direct operational control
REPORTING METHODOLOGY	Members disclose data on net zero target progress to Greenprint annually, which are aggregated and collectively reported in the annual Greenprint Performance Report, with company-level individual reports delivered to members upon request.
DISCLOSURE CONTENT	Progress toward net zero target, including information on total carbon emitted (minimum scope 1 and 2), energy efficiency, renewable energy, and carbon offset projects
REPORTING TIMELINE	Annually
PARTICIPATION	Voluntary
HOW TO COMPLY	Commit entire portfolio under direct operational control to 2050 net zero target and annually report on target progress to Greenprint
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	\$5,000-\$15,000 annual membership fee, depending on AUM. Signing onto goal is free for Greenprint members.
LOCATION	Global
TIME COMMITMENT	Low
INDUSTRY ADOPTION	1.79 billion square feet and over \$1 trillion AUM (as of August 2022)

[Sources:[161][158][159][160]][207][208]]



The commitment covers all asset classes, including but not limited to fixed income, listed equities, private equity, real estate, infrastructure, and mortgages.^[162]

For real estate, emissions reduction targets must include both landlord-controlled and tenant-controlled spaces. At the real estate portfolio level, signatories must set an emissions reduction target per gross floor area. For scope 3 emissions, only electricity and heating in tenant-controlled spaces are in scope of signatories' targets.^[162]

UN-Convened Net-Zero Asset Owner Alliance (NZAOA)

The UN-Convened Net-Zero Asset Owner Alliance is an asset owner initiative whereby members commit to transitioning their portfolios to net zero emissions by 2050. Signatories to the Alliance are required to commit their entire portfolio (scope 1–3 GHG emissions), assist companies within their portfolio in meeting the target, and set interim targets every five years. In 2022, the second edition of the Alliance's Target Setting Protocol (TSP2) was released, laying out the 2030 interim target setting expectations. Signatories must report on progress annually.^{[162][163][212]}

VERIFIED

NET ZERO GOAL	Net zero emissions by 2050 for investment portfolios (proprietary included) across all asset classes
REPORTING METHODOLOGY	Decarbonization targets (subportfolio, sector, engagement, and financing) set and reported on via the Alliance Target Setting Protocol (current version: TSP2)
DISCLOSURE CONTENT	Scope 1–3 GHG emissions, decarbonization targets, and GHG reduction strategies
REPORTING TIMELINE	Within 12 months of joining Alliance: publish decarbonization targets; Annual: progress reporting on an aggregated basis (internal and public); Every five years: quantitative target progress reporting
PARTICIPATION	Voluntary
HOW TO COMPLY	Publish targets within 12 months of joining Alliance; Portfolio baseline assessment, publicly disclosed; Interim target setting required every five years per article 4.9 of Paris Agreement; First quantitative, portfolio-level report published by 2023
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	Annual €5,000–€20,000 fee, depending on AUM
LOCATION	Global
TIME COMMITMENT	High
INDUSTRY ADOPTION	\$10.6 trillion AUM, 74 institutional investors

[Sources: [164][165][162][163][212]]



The following industries are currently excluded from RE100 membership: fossil fuels, airlines, munitions, gambling, and tobacco.^[167]

Scope 3 emissions are outside the purview of RE100's target requirements. For real estate companies, this means that only landlord-controlled areas must be powered by renewables.^[171]

RE100

RE100 is an initiative encouraging corporations with at least 100 GWh of annual electricity consumption to commit to sourcing 100% of their operational electricity from renewable sources by a target date of their choosing, with a minimum ambition pathway of 60% by 2030, 90% by 2040, and 100% by 2050. RE100 aims to have zero carbon electricity grids by 2040. Renewable electricity can be generated from wind, solar, hydropower, sustainably sourced biomass, and geothermal sources. Annual reporting against the target via CDP is required.^{[166][167][168]}

VERIFIED

NET ZERO GOAL	100% renewable electricity by 2050 (target year varies between commitments) defined as “electricity generated from [sustainably sourced] biomass, geothermal, solar, water, and wind energy sources”
REPORTING METHODOLOGY	Annual reporting on progress via CDP Climate Change Questionnaire
DISCLOSURE CONTENT	Low-carbon energy use/production targets, low-carbon energy initiatives and related challenges, energy use performance, assurance of emissions, and climate-related supplier engagement strategy
REPORTING TIMELINE	Annually
PARTICIPATION	Voluntary
HOW TO COMPLY	Public announcement of commitment and annual progress reporting on commitment
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	Standard Membership fee US \$5,000; Gold Membership fee US \$15,000
LOCATION	Global
TIME COMMITMENT	High
INDUSTRY ADOPTION	370+ members, 175+ markets, 380+ TWh/yr of renewable energy

[Sources: [169][170][166][168]]



The SBTi Net-Zero Standard does not cover net zero targets for financial institutions. SBTi is developing a separate Net-Zero Standard for Financial Institutions, expected in 2023.^{[71][173]}

Currently, companies in all sectors besides oil and gas can have their science-based targets validated. SBTi's draft guidance for oil and gas companies is under review. SBTi will share further updates regarding this guidance later in 2022.^[74]

Scope 1–3 emissions must be covered. For real estate companies, this means the inclusion of emissions from energy use in tenant-controlled spaces.^[66]

Science Based Targets initiative (SBTi)

The SBTi is an initiative that provides target setting and validation frameworks corporations can use to set scientifically sound, Paris Agreement-aligned net zero GHG emissions targets that rapidly reduce all emission scopes. Released in 2021, the SBTi Corporate Net-Zero Standard provides guidance on setting near-term (5-10 year) and long-term (2050 or sooner) GHG mitigation targets, which together result in a net zero target and alignment with the Net-Zero Standard. The SBTi's Net-Zero Standard builds off previous guidance for setting near-term targets but includes additional requirements for near-term targets and new guidance on long-term targets. By committing to the Net-Zero Standard in submitting valid near- and long-term targets, companies enter into the Business Ambition for 1.5°C campaign and the UNFCCC Race to Zero. Annual reporting on GHG emissions (using GHG Protocol) and progress toward SBTi-validated targets is required.^{[67][68][172][69][70][71]}

VERIFIED

NET ZERO GOAL	Net zero emissions by 2050 consistent with Paris Agreement 50% emission reduction by 2030
REPORTING METHODOLOGY	Public disclosure of targets and target progress via CDP questionnaire, annual reports, corporate sustainability reports, and/or company website Emissions calculated and reported via GHG Protocol methodologies, including the Corporate Accounting and Reporting Standard, Corporate Value Chain (Scope 3) Accounting and Reporting Standard, and Scope 2 Guidance.
DISCLOSURE CONTENT	GHG emissions inventory and target progress
REPORTING TIMELINE	Annually
PARTICIPATION	Voluntary
HOW TO COMPLY	For net zero target, companies must set near- and long-term science-based targets that align with the Paris Agreement's 1.5°C and 2050 goals and decarbonize >90% of all emission scopes before 2050. Net zero targets are validated and approved by SBTi based on standardized, science-based criteria
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	Near-term or net zero target submissions: \$9,500 Near-term and net zero target submission package: \$14,500
LOCATION	Global
TIME COMMITMENT	High
INDUSTRY ADOPTION	Over 1,200 companies with net zero commitments

[Sources: ^[67]^[66]^[69]^[70]^[71]]



Only assets under direct control (operational and financial) of the signatory are in scope.^[178]

WorldGBC Net Zero Carbon Buildings Commitment

The WorldGBC Net Zero Carbon Buildings Commitment is a global alliance of businesses, organizations, cities, and subnational governments with a collective goal to decarbonize the built environment by 2050. The Commitment follows WorldGBC’s Whole Life Carbon approach, which considers both operational (i.e., Scope 1–2) and embodied carbon emissions (i.e., part of Scope 3). Signatories must commit by 2030 to: 1) “reduce energy consumption and eliminate [carbon] emissions from energy and refrigerants removing fossil fuel use as fast as practicable” in existing buildings and 2) construct new and renovated buildings to be “highly efficient, powered by renewables, with a maximum reduction in embodied carbon.” Where mitigation is not feasible, both goals involve compensating for residual emissions via offsetting. Annual reporting on emissions and energy demand is required.^{[174][175][176]}

VERIFIED

NET ZERO GOAL	The Commitment requires signatories, by 2030, to maximize their reductions on operational and embodied carbon emissions, then compensate for residual emissions through offsets.
REPORTING METHODOLOGY	Signatories report on progress toward decarbonization commitment using WorldGBC Commitment Reporting Form.
DISCLOSURE CONTENT	Operational and embodied carbon: Operational— asset- and portfolio-level energy performance and emissions Embodied— whole life carbon emissions
REPORTING TIMELINE	Annually (2022 reporting dates are 08/25/22-10/25/22)
PARTICIPATION	Voluntary
HOW TO COMPLY	Initial reporting required within two years of committing Signatories must commit to 2030 goals: Existing buildings—energy use reduced, carbon emissions-free energy and refrigerants, compensate for residual emissions New developments and renovations—highly efficient, renewable fueled, embodied carbon reduced as much as possible, and residual emissions compensated for
FEE TO MAKE COMMITMENT OR JOIN INITIATIVE	Free
LOCATION	Global
TIME COMMITMENT	Medium
INDUSTRY ADOPTION	Nearly 20,000 assets, 169 signatories

[Sources: [177][178][179][174][176]]

Regulations



Regulations

	CSR	EU TAXONOMY	NFRD	SFDR	SEC CLIMATE RULE
OBJECTIVE	Improve availability and standardization of corporate sustainability data	Formally define “environmentally sustainable” economic activities; encourage investment toward sustainable activities; prevent greenwashing	Improve availability of non-financial information from companies and financial institutions	Improve availability and standardization of sustainability disclosures for investors; mitigate greenwashing and adverse sustainability impacts	Improve availability and standardization of companies’ climate-related risk data
DATE OF OFFICIAL PUBLISHING	Proposed in April 2021	June 2020	October 2014	December 2019	Proposed in March 2022
REQUIREMENTS APPLY AS OF	Anticipated in stages, starting in 2025	July 2020	2018, for 2017 financial year	March 2021	Anticipated in stages, starting in 2024
LOCATION	EU	EU	EU	EU	U.S.
PARTICIPATION	Large and listed EU companies; some non-EU headquartered companies with EU branches/subsidiaries	EU financial market participants and large EU companies	Large EU companies	EU financial market participants, EU financial advisors, financial products sold in the EU	U.S. public companies
REPORTING METHODOLOGY	Via sustainability statements within management report	Financial products: Precontractual and periodic disclosures; companies under NFRD: Non-financial disclosures	Voluntary reporting guidelines for non-financial information	Website, pre-contractual disclosures, and periodic reports	General purpose financial reporting
DISCLOSURE CONTENT	Material sustainability risks, impacts, and opportunities related to ESG matters	Percent EU Taxonomy alignment via KPIs: turnover, capital expenditure, and operational expenditure, etc.	Non-financial disclosures related to environmental and social issues, human rights, and governance	Sustainability risks, principle adverse impacts, Article 8 and 9 product reporting	Scope 1-2 emissions, financially material scope 3 emissions, climate-related risk data



In step with the release and adoption of ESG reporting frameworks, regulations are progressively requiring companies to disclose comprehensive and standardized sustainability data. Though many sustainability disclosure regulations exist worldwide (e.g., Australia, United Kingdom, China), this section will focus on major regulations impacting U.S.- and EU-based companies: the 2019 Sustainable Finance Disclosure Regulation (SFDR), the 2020 EU Taxonomy, and the proposed U.S. Securities and Exchange Commission (SEC) rules on climate-related disclosures.

Though not focused explicitly on sustainability disclosures and therefore not in the scope of this guidance report, it is important to note the EU directive on Corporate Sustainability Due Diligence (CSDD), officially proposed on February 23, 2022. The directive on CSDD would require large and high-impact, limited liability companies (both EU-based and non-EU based companies operating in the EU) to identify and mitigate adverse impacts on human rights and the environment throughout a company's operations and supply chain.^[180] By outlining sustainability-related risks, impacts, and due diligence policies, the implementation of CSDD would complement several EU-based ESG reporting regulations: EU Taxonomy, SFDR, and the forthcoming CSRD.^[181]

Corporate Sustainability Reporting Directive (CSRD)

This updated reporting directive was developed to improve standardization in sustainability reporting across the EU to ensure investors and other stakeholders (e.g., civil society organizations, trade unions) have access to detailed and comparable sustainability disclosures. To assure accuracy and reliability, the proposed CSRD requires auditing of sustainability disclosures, starting with a 'limited' assurance requirement.^[30]

To improve the simplicity of sustainability reporting in the EU, the CSRD disclosure requirements (via the ESRS) are designed to align with reporting requirements of the SFDR and EU Taxonomy.^[30]

Proposed in April 2021 and provisionally agreed upon by the EU Council and EU Parliament in June 2022, the CSRD would amend the existing sustainability reporting requirements in the 2014 Non-Financial Reporting Directive (NFRD). The proposed CSRD expands the scope of the NFRD in requiring all EU large companies, listed small and medium enterprises, and some non-EU headquartered companies with EU branches or subsidiaries to annually disclose sustainability impacts, risks, and opportunities according to mandatory reporting requirements outlined in the European Sustainability Reporting Standards (ESRS).^{[29][209]}

OBJECTIVE	Improve standardization and availability of corporate sustainability data for investors and other stakeholders
DATE OF OFFICIAL PUBLISHING	Proposed in April 2021
REQUIREMENTS APPLY AS OF	Requirements to be applied in stages starting in 2025 (view more details on ESRS on page 19)
LOCATION	EU
PARTICIPATION	Required for all large EU companies, listed EU small and medium enterprises (except micro-enterprises), and some non-EU headquartered companies with EU branches or subsidiaries
REPORTING METHODOLOGY	Via sustainability statements within management report in accordance with proposed ESRS (view more details on ESRS on page 19)
DISCLOSURE CONTENT	Material sustainability risks, impacts, and opportunities related to ESG matters (view more details on ESRS on page 19)

[Sources: ^[30]^[29]^[31]^[209]^[210]]



Participation is mandatory for most EU-based asset managers, financial advisers, and insurance providers, including those which own, manage, and/or operate commercial real estate investments.^[184]

While this is an EU regulation, it also has the potential to impact funds outside the EU that are registered or marketed in the EU. Therefore, it is important for funds outside the EU to understand and screen their funds for potential implications of the EU Taxonomy and SFDR.

Investors may increasingly use SFDR and EU Taxonomy criteria in their due diligence processes to vet investments as a strategy to ensure alignment with long-term ESG goals. Therefore, it is recommended U.S. commercial real estate firms understand SFDR and EU Taxonomy criteria and update strategic plans accordingly.

Beyond acting as a regulation that mandates sustainability disclosures for EU financial market participants and companies, the EU Taxonomy can serve as a voluntary framework to guide corporate sustainability strategies and attract investors with ESG goals.^[184]

EU Taxonomy

Entered into force in 2020, the EU Taxonomy is a regulation applicable throughout the EU which formally defines “sustainable economic activities” via a classification system based on six “environmental objectives” and four conditions for an activity to be considered “taxonomy-aligned.”

Environmental Objectives:

- Climate change mitigation (Technical Screening Criteria established by Climate Delegated Act)
- Climate change adaptation (Technical Screening Criteria established by Climate Delegated Act)
- Sustainable use and protection of water and marine resources
- Transition to a circular economy
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems

Taxonomy-aligned Conditions:

- Making a substantial contribution to at least one environmental objective
- Doing no significant harm to any other environmental objective
- Complying with minimum social safeguards
- Complying with the technical screening criteria^[25]

The regulation requires that all large companies required to report per the Non-Financial Reporting Directive (NFRD) and financial market participants disclose the extent to which their business activities or financial products align with the Taxonomy’s definition of “environmentally sustainable.”^[25]

Thus far, two delegated acts and one complementary delegated act to the EU Taxonomy have been adopted. Published in December 2021, the Climate Delegated Act outlines technical screening criteria for defining sustainability under the first two objectives on climate change mitigation and adaptation; subsequent delegated acts will specify technical screening criteria for the remaining four environmental objectives. Supplementing Article 8 of the Taxonomy Regulation, the Article 8 Disclosures Delegated Act was published in December 2021, specifying the “content, methodology, and presentation of information to be disclosed by financial and non-financial undertakings concerning the proportion of environmentally sustainable economic activities in their business, investments, or lending activities.” Both delegated acts came into effect in January 2022. In March 2022, a Complementary Climate Delegated Act was adopted by the EU Commission, focusing on nuclear and gas energy economic activities: it will apply from January 2023.^[183]

^{[184][211]}

Continued on Page 69



EU Taxonomy

OBJECTIVE	According to the EU Commission, "the EU taxonomy would provide companies, investors and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable. In this way, it should create security for investors, protect private investors from greenwashing, help companies to become more climate-friendly, mitigate market fragmentation, and help shift investments where they are most needed."
DATE OF OFFICIAL PUBLISHING	Taxonomy Regulation: June 2020 Article 8 Delegated Act: December 2021 Climate Delegated Act: December 2021 Complementary Climate Delegated Act: July 2022
REQUIREMENTS APPLY AS OF	Taxonomy Regulation: July 2020 Article 8 Delegated Act: January 2022 for initial taxonomy-eligibility disclosures, January 2023 and 2024 for taxonomy-alignment disclosures for non-financial and financial companies, respectively Climate Delegated Act: January 2022 Complementary Climate Delegated Act: January 2023
LOCATION	EU
PARTICIPATION	Financial market participants (e.g., investment funds, asset managers, pension providers) selling financial products in the EU EU companies required to report under the Non-Financial Reporting Directive (NFRD) (i.e., large, public-interest companies with 500+ employees). The Corporate Sustainability Reporting Directive (CSRD) is a proposed amendment to the NFRD. Once adopted, taxonomy disclosure requirements will extend to all large EU companies and all EU small and medium enterprises listed on regulated markets.

REPORTING METHODOLOGY	Financial market participants selling financial products in EU: <ul style="list-style-type: none"> within pre-contractual and periodic disclosures according to the SFDR Regulatory Technical Standards and Annexes 2-5 EU companies required to report under NFRD: <ul style="list-style-type: none"> within NFRD-required non-financial disclosures if CSRD is adopted, within management report according to ESRS (see page 19)
DISCLOSURE CONTENT	Financial market participants selling financial products in EU (i.e., SFDR Article 8 products (environmental and/or social characteristics) and Article 9 products (sustainable investment objective)): <ul style="list-style-type: none"> EU Taxonomy alignment: % economic activities defined as sustainable under EU Taxonomy, reported graphically via KPIs: turnover, capital expenditure, and operational expenditure EU Taxonomy environmental objective(s) financial products contribute to Compliance with minimum safeguards related to 'do no significant harm' in EU Taxonomy Companies required to report under NFRD: <ul style="list-style-type: none"> EU Taxonomy alignment: % economic activities defined as sustainable under EU Taxonomy via KPIs: turnover, capital expenditure, operating expenditure, green asset/ investment ratio EU Taxonomy environmental objective(s) associated with alignment Plan to increase % of taxonomy-aligned activities

[Sources: [185][186][187][188][189][25][183][184] [211]]

Continued from Page 68

Non-Financial Reporting Directive (NFRD)

Described on page 67, the Corporate Sustainability Reporting Directive (CSRD) is a proposed EU law that, if adopted, would amend the NFRD by expanding its scope to more EU companies. The CSRD would also amend the NFRD by requiring detailed, standardized reporting according to the European Sustainability Reporting Standards (ESRS), proposed as a part of the CSRD in April 2021.^{[30][29]}

Adopted in 2014, the NFRD is an EU law that requires annual non-financial reporting across large EU companies with 500 or more employees. Companies within the scope of NFRD include companies listed on regulated markets, banks, insurance companies, and other designated “public-interest” entities. Required disclosures include data related to environmental and social issues, human rights, ethical governance, and board diversity. As part of the NFRD, companies are encouraged to follow voluntary reporting guidelines to disclose their environmental and social and climate-related information.^{[190][191][192]}

OBJECTIVE	Improve data availability of non-financial information from companies and financial institutions to measure performance and enhance accountability related to environmental and social issues
DATE OF OFFICIAL PUBLISHING	October 2014
REQUIREMENTS APPLY AS OF	2018 (for 2017 financial year)
LOCATION	EU
PARTICIPATION	Required for large, public-interest companies with 500 or more employees (i.e., listed companies, banks, insurance companies)
REPORTING METHODOLOGY	Voluntary reporting guidelines for non-financial information, published in 2017; additional climate-related guidelines were published in 2019
DISCLOSURE CONTENT	The law requires non-financial disclosures on policies, business models, risks, and KPIs related to environmental and social matters, human rights, board diversity, and anti-corruption and bribery.

[Sources: [194][190][191][192][193]]

Sustainable Finance Disclosure Regulation (SFDR)

The scope of SFDR extends to non-EU financial market participants managing EU domiciled funds or raising money/marketing financial products in the EU. Like EU-based financial market participants, U.S. firms marketing funds in the EU will be required to disclose both sustainability risks and PAIs.^[201]

As SFDR requirements are implemented across the EU, EU investors with U.S. investments may increasingly demand that U.S. firms align their reporting with the SFDR RTS disclosure requirements.

While there are varying interpretations of how to disclose PAIs at this stage, we recommend commercial real estate firms report on both mandatory indicators and one additional voluntary indicator.

Because many of the PAI indicators outlined in the RTS are EU-specific (e.g., Energy Performance Certificates for energy efficiency), many commercial real estate firms are actively collaborating on how PAI reporting guidance should be interpreted and adapted for regions outside the EU.

With initial disclosure requirements (i.e., Level 1) applying from March 2021 and increasing in phases thereafter, SFDR is a regulation applicable in the EU which requires financial market participants, financial advisors, and financial products (i.e., Article 6, 8, and 9) to disclose information related to sustainability risks and principal adverse impacts (PAIs) on society and the environment.^[195] SFDR is designed to provide more complete, standardized ESG disclosures which, in principle, will both mitigate greenwashing and help investors better integrate sustainability into decision-making. In April 2022, the EU Commission adopted a delegated act to SFDR specifying regulatory technical standards (RTS) for disclosing PAIs and reporting on Article 8 products (i.e., those promoting environmental and/or social characteristics) and Article 9 products (i.e., those with a sustainable investment objective). Understood as the SFDR Level 2 requirements, the RTS are anticipated to apply from January 2023.^{[196][197]}

For commercial real estate companies required to disclose PAIs, there are two required adverse sustainability indicators (i.e., fossil fuels, energy efficiency) and several voluntary indicators (e.g., GHG emissions, energy consumption, biodiversity), each with associated metrics, detailed in Annex I of the RTS.^[198]

OBJECTIVE	Improve availability and standardization of sustainability disclosures for investors; mitigate greenwashing and adverse sustainability impacts
DATE OF OFFICIAL PUBLISHING	December 2019
REQUIREMENTS APPLY AS OF	Level 1 requirements: March 2021 Level 2 requirements (i.e., Regulatory Technical Standards): January 2023
LOCATION	EU
PARTICIPATION	EU financial market participants (e.g., investment firms, portfolio/asset managers, insurance companies), EU financial advisors, financial products sold in the EU
REPORTING METHODOLOGY	Website Pre-contractual disclosures Periodic reports
DISCLOSURE CONTENT	Integration of sustainability risks into investment decisions, financial advice, and remuneration policies; impact of sustainability risks on financial product returns Consideration of principal adverse impacts on sustainability factors related to investment decisions, financial advice, and financial products Transparency on products promoting environmental and/or social characteristics (Article 8) or products with sustainable investment as objective (Article 9)

[Sources: [199][200][26][196][197][198]]

U.S. Securities and Exchange Commission (SEC) Enhancement and Standardization of Climate-Related Disclosures for Investors

If a company had previously set an emissions reduction target or goal that included scope 3 emissions, the proposed rule would require scope 3 emissions disclosure.^[27]

While private companies are not covered by the proposed rule, private companies may similarly be expected to disclose climate-related data due to requests from investors that need to comply with the new SEC requirements.

Proposed in March 2022, the U.S. SEC is anticipated to begin requiring annual climate-related disclosures for U.S. publicly traded companies starting in 2024. The TCFD- and GHG Protocol-informed regulation would require reporting on scope 1–2 emissions, financially material scope 3 emissions, financially material climate risks, and risk management plans alongside mainstream financial reporting.^{[27][202]} The proposed rule was open for public comment until June 17, 2022.^[203]

OBJECTIVE	Improve availability and standardization of companies' climate-related risk data so investors can make more informed capital allocation decisions
DATE OF OFFICIAL PUBLISHING	Proposed in March 2022
REQUIREMENTS APPLY AS OF	2024 for large accelerated filers (2023 financial year), 2025 for accelerated and non-accelerated filers (2024 financial year), and 2026 for smaller reporting companies (2025 financial year) *Scope 3 requirements come into effect one year later
LOCATION	U.S.
PARTICIPATION	Required for U.S. publicly traded companies
REPORTING METHODOLOGY	Alongside mainstream financial reporting within registration statements and annual reports
DISCLOSURE CONTENT	Scope 1–2 GHG emissions, financially material scope 3 GHG emissions, oversight of climate-related risks, short- to long-term financially material climate-related risks and their impact, climate-related targets, and climate-related risk management strategy

[Sources: [204][27][202][203]]

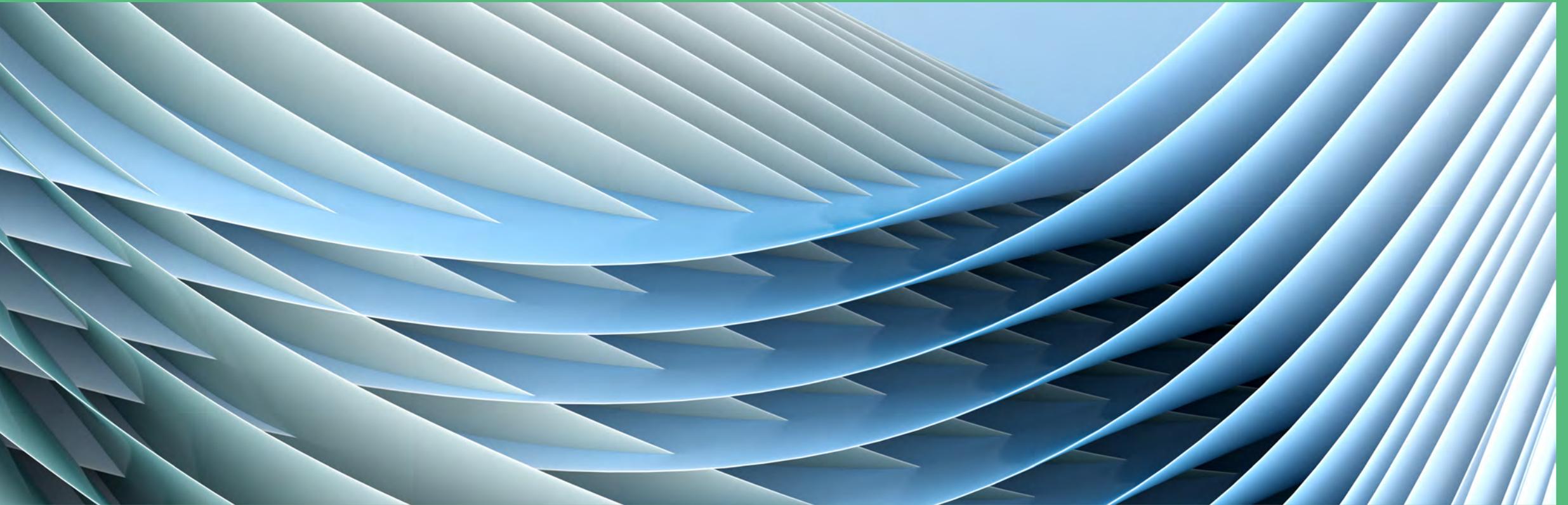
Conclusion





As expectations around sustainability reporting quickly evolve, companies are demanding more clarity and knowledge on ESG reporting frameworks. Common questions surrounding ESG reporting include: which frameworks are the most widely adopted, what differentiates them, how are they aligned, and what should be considered in an ESG reporting strategy. This guidance report aims to answer these questions, bring clarity to broad ESG reporting trends, and offer insights tailored specifically to the commercial real estate industry. In this report, we provide standardized and synthesized information on 41 ESG reporting frameworks, separated into five categories: standards and guidance frameworks, voluntary disclosure frameworks, involuntary third-party aggregators, net zero emissions initiatives, and regulations. We intend for this report to act as an easy-to-reference resource for companies, ESG professionals, and students on the top ESG reporting frameworks available today, in addition to reporting frameworks expected to be released in upcoming months and years. Beyond reducing confusion around the alphabet soup of ESG reporting, we hope this publication helps companies create an ESG reporting strategy that is not only in alignment with today's industry best practices and regulatory standards, but one that is also prepared for the ESG reporting expectations of tomorrow. Ultimately, we believe that increased corporate transparency on ESG will lead to better investor decision making, widespread industry ESG performance improvements, and accelerated progress toward a more sustainable economy.

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