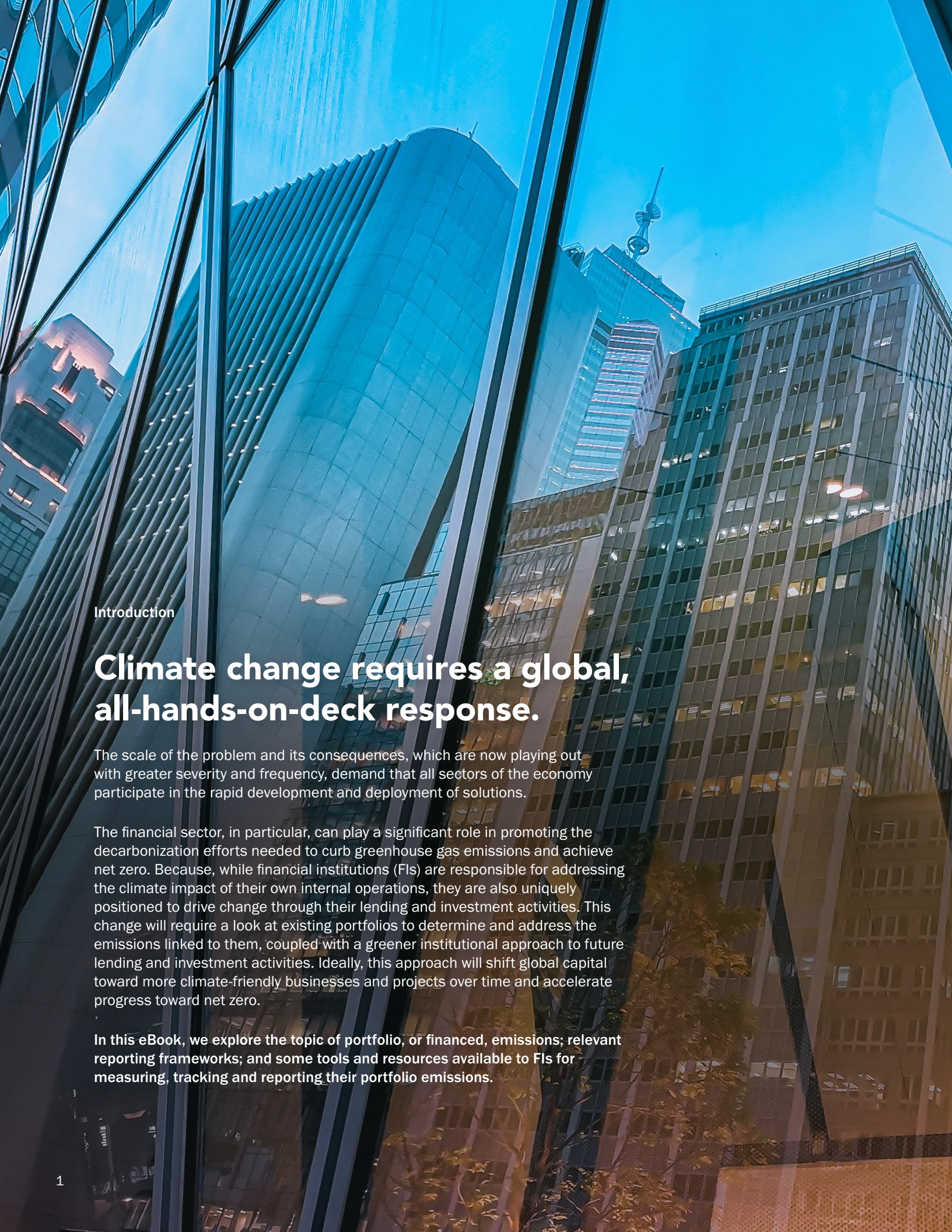


eBook

SpheraCloud Corporate Sustainability - Portfolio Management



Global Decarbonization and the Critical Role of Financial Institutions



Introduction

Climate change requires a global, all-hands-on-deck response.

The scale of the problem and its consequences, which are now playing out with greater severity and frequency, demand that all sectors of the economy participate in the rapid development and deployment of solutions.

The financial sector, in particular, can play a significant role in promoting the decarbonization efforts needed to curb greenhouse gas emissions and achieve net zero. Because, while financial institutions (FIs) are responsible for addressing the climate impact of their own internal operations, they are also uniquely positioned to drive change through their lending and investment activities. This change will require a look at existing portfolios to determine and address the emissions linked to them, coupled with a greener institutional approach to future lending and investment activities. Ideally, this approach will shift global capital toward more climate-friendly businesses and projects over time and accelerate progress toward net zero.

In this eBook, we explore the topic of portfolio, or financed, emissions; relevant reporting frameworks; and some tools and resources available to FIs for measuring, tracking and reporting their portfolio emissions.



What Qualifies as a Financial Institution?

When we talk about financial institutions in the context of financed emissions, we are referring to several types of entities:

Banks | Lenders | Real estate brokers | Investment houses | Finance companies | Insurance companies

This sector makes up approximately 20-25% of the global economy, and the industry is projected to reach a [value of \\$28.5 trillion by 2025](#).

However, there are organizations that are engaged in investing and lending but are not part of this industry. To provide a full and accurate account of their carbon footprint, these companies should also be tracking and reporting the emissions linked with their investment and lending activities.

FIs deal with different asset classes, and the four major asset classes are cash, fixed income (bonds), real assets and equities (stocks). However, the [Partnership for Carbon Accounting Financials \(PCAF\)](#), which is covered later in this eBook, uses seven asset classes for financed emissions accounting:

Listed equity and corporate bonds | Business loans and unlisted equity | Project finance | Commercial real estate | Mortgages | Motor vehicle loans | Sovereign debt

These asset classes encompass a wide range of economic activities. As activities that result from an FI's investment and lending activities, they constitute part of a financial institution's value chain.

Why Do Scope 3 Emissions Matter?

Financed, or portfolio, emissions represent the portion of an FI's carbon footprint that is linked to its lending or investing activities.

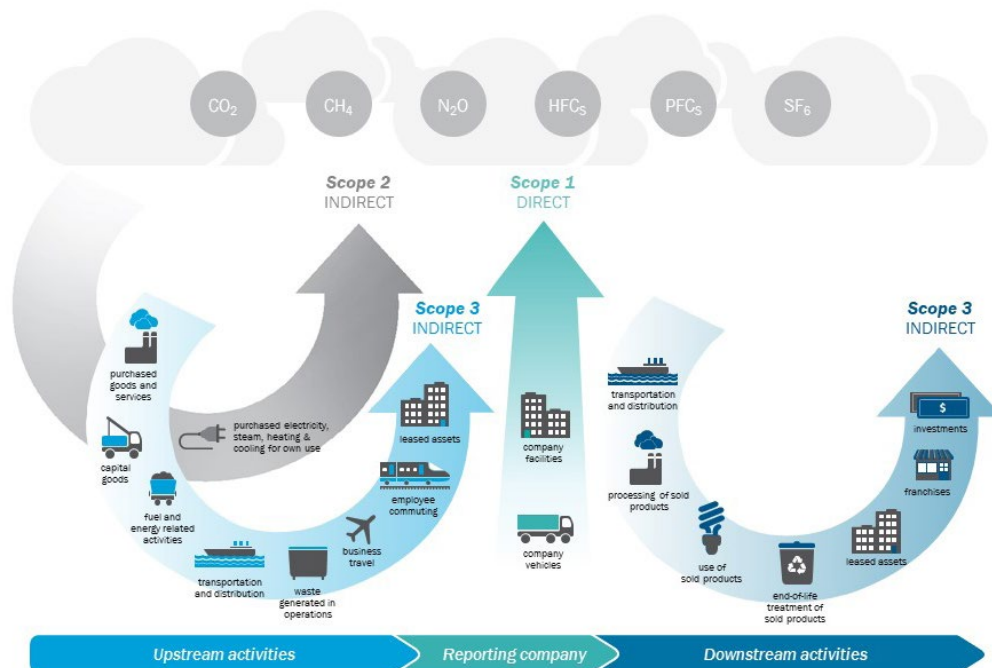
These downstream emissions typically fall into the category of Scope 3 emissions.

Financial institutions aren't the only organizations that are expected to disclose their Scope 3 emissions as part of broader environmental, social and governance (ESG) reporting requirements. Climate-related disclosure regulations and reporting frameworks, such as the EU's Corporate Sustainability Reporting Directive (CSRD) and the International Sustainability Standards Board's (ISSB) IFRS Sustainability Disclosure Standards, mandate the reporting of Scope 3 greenhouse gas (GHG) emissions for certain categories of companies. Upcoming requirements from the U.S. Securities and Exchange Commission (SEC) may also include Scope 3 disclosures for some large, publicly listed companies. But businesses have voiced concerns about Scope 3 reporting requirements because of the challenges associated with gathering, analyzing and reporting emissions data from value chain and supply chain partners.

According to the CDP (formerly the Carbon Disclosure Project), Scope 3 emissions constitute the majority of most companies' combined Scope 1, Scope 2 and Scope 3 GHG emissions.

Regulators appreciate the scale of the challenge, but have held fast to their Scope 3 mandates, and for good reason.

Among high-impact sectors such as capital goods, construction, metals & mining and oil & gas, [Scope 3 emissions account, on average, for 75%](#) of total Scope 1, 2 and 3 emissions. In food manufacturing, [Scope 3 emissions can represent 90-95%](#) of a food manufacturer's total GHG emissions. So, progress toward net zero cannot be achieved unless Scope 3 emissions are accurately quantified, transparently reported and addressed with urgency.



Source: GHG Protocol, [Technical Guidance for Calculating Scope 3 Emissions \(version 1.0\)](#)



The financial sector is not exempt from this task. The [CDP](#) reports that the portfolio emissions of global financial institutions are “on average 700x larger than direct emissions.” If FIs omit portfolio emissions from their GHG disclosures, their reports are incomplete.

700x

Portfolio emissions of global financial institutions are, on average, over 700x larger than direct emissions, per organization reporting financed emissions.

27%

Under half of disclosing financial institutions and only 27% of insurers report actions to align portfolios with limiting global warming to a well-below-2-degree-Celsius world.

\$1T

Financial Institutions are underestimating the most significant climate-related risks, with a potential financial impact of over US \$1 trillion.

[Source: CDP, The Time to Green Finance](#)

Reporting requirements, however, will reach well beyond the companies that fall within their scope. Smaller supply chain partners must quantify and report their emissions to their larger partners, and the companies that resist this will find it increasingly difficult to maintain relationships with these partners.

The same holds true in the financial sector. The businesses that benefit (or hope to benefit) from financing and investments don't necessarily need to report their emissions to their investors and lenders. But they should measure and attempt to reduce the size of their carbon footprint or face the possibility of limited access to capital in the future.



The Pressure Behind Reporting Requirements

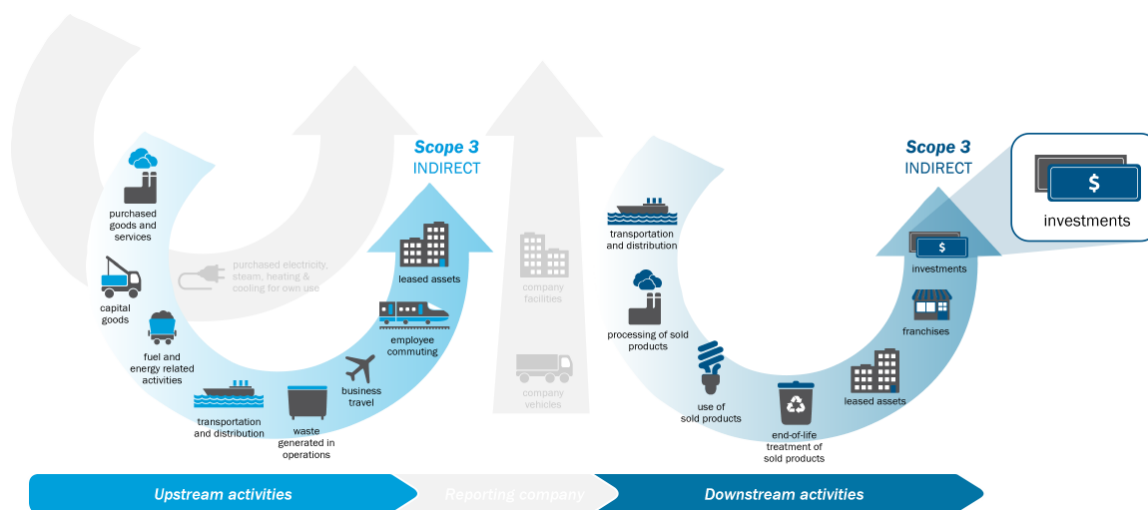
Many large companies and FIs are pursuing the expertise and tools they need to measure, track and report their emissions, with the intent that their smaller partners and investees follow suit. A good number of these large enterprises are also making and publicly stating their sustainability commitments, science-based targets or net-zero goals. Some are doing this voluntarily, in response to stakeholders—customers, surrounding communities and board members, for example—who are pushing for conduct that’s more respectful of the environment. For other enterprises, regulatory pressure is the driving force.

Globally, the [Paris Agreement’s goal](#) of limiting global warming to 1.5 degrees Celsius above pre-industrial levels is still in view. As a legally binding international treaty signed by 194 parties, it has prompted new—or in some cases, strengthened—regulations that mandate GHG emissions disclosures. It has also led government bodies and international organizations

to publish reporting frameworks and standards that provide guidance on what to report and how to report it.

Investors have actively campaigned for regulations that require climate-related disclosures from large companies because of the practical need to limit their exposure to risk. The physical risks and transition risks presented by a changing climate must be factored into their decisions, and this can only be done if companies are transparent about how they are impacted by climate change, as well as how their operations are affecting the climate. Disclosures of Scope 1, 2 and 3 emissions must be included in this assessment.

Investor pressure certainly helped prompt the CSRD (a revised and strengthened version of the EU’s earlier Non-Financial Reporting Directive) and the SEC’s climate-related disclosure rules for companies. But just as large companies must measure, report and then reduce their GHG emissions—including their Scope 3 emissions—so must the financial services sector.



What Is Scope 3 Category 15?

Several organizations have worked to reduce the complexity of Scope 3 accounting; the Global Reporting Initiative (GRI) is among them. The GRI facilitates the accurate reporting and understanding of businesses’ sustainability impacts by providing terms and language that can be used globally. As part of this effort, the GRI has identified 15 categories of Scope 3 emissions. Categories include purchased goods and services, upstream transportation and distribution, business travel and employee commuting.

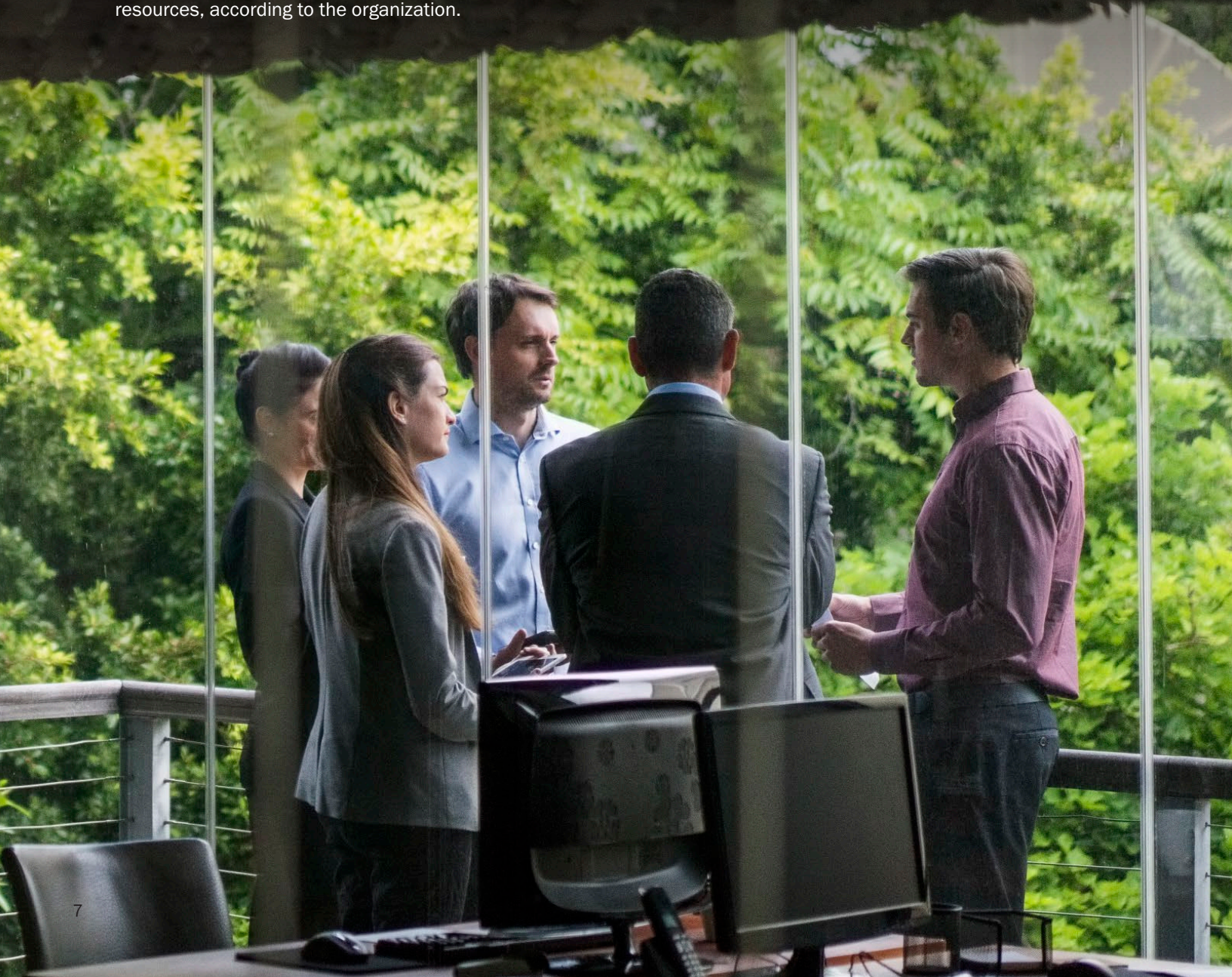
Investments fall into the GRI’s Scope 3 Category 15.

The Role of the GHG Protocol

The [GHG Protocol](#) also plays a role in GHG emissions reporting. It publishes GHG accounting standards that provide a framework for businesses, country and city governments and other organizations to calculate and report their GHG emissions. More specifically, its [Corporate Accounting and Reporting Standard](#) enables companies to improve consistency and transparency in their GHG accounting using a standardized approach that allows them to measure and report on the seven greenhouse gases identified in the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). The corporate standard also helps businesses create and carry out strategies for the management and reduction of GHG emissions.

The GHG Protocol's [Corporate Value Chain \(Scope 3\) Accounting and Reporting Standard](#) provides additional support for the calculation and reporting of corporate value chain emissions. The Scope 3 standard was released in 2011, offering one of the first globally accepted methods for value chain emissions accounting.

More than [nine out of 10 Fortune 500 companies](#) are reporting to the CDP using the GHG Protocol's standards and resources, according to the organization.



PCAF: Building on the GHG Protocol

In response to industry demand for a global, standardized approach that supports transparent and comparable reporting across asset classes, the Partnership for Carbon Accounting Financials (PCAF) developed the [Global GHG Accounting and Reporting Standard for the Financial Industry](#).

Reviewed by the GHG Protocol, the first edition of the PCAF Part A standard for financed emissions supplements the GHG Protocol's Scope 3 Accounting and Reporting Standard by providing additional detailed guidance and specific accounting rules for each asset class.

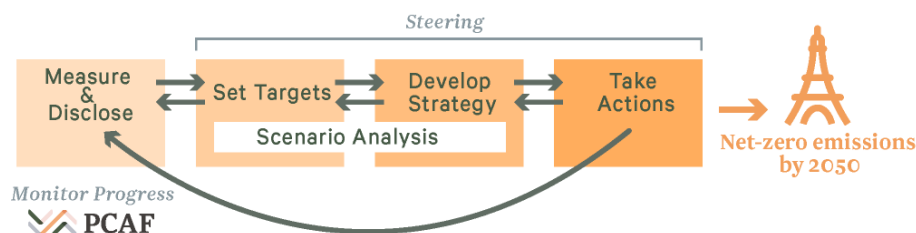


Source: [The Partnership for Carbon Accounting Financials \(PCAF\): Financed Emissions, The Global GHG Accounting & Reporting Standard PART A, Second edition, December 2022](#)

The PCAF standard for financed emissions offers FIs several benefits, enabling them to:

- 1 Assess climate-related risks according to the recommendations of the [Task Force on Climate-Related Financial Disclosures \(TCFD\)](#).
- 2 Set science-based targets using the sectoral decarbonization approach developed by the [Science Based Targets initiative \(SBTi\)](#), which is crucial for aligning with the Paris Agreement's goals.
- 3 Report to the [CDP](#) and other stakeholders, which helps build trust and demonstrates commitment to sustainability.
- 4 Develop innovative financial products that support the transition to a net-zero economy.

The PCAF standard for the financial industry is an essential tool for FIs that want to manage climate risks, set ambitious targets and support the global transition to a sustainable future.



Source: [The Partnership for Carbon Accounting Financials \(PCAF\): Financed Emissions, The Global GHG Accounting & Reporting Standard PART A, Second edition, December 2022](#)

The Complexities of Measuring Financed Emissions

Financed emissions offer another lens through which we can view business emissions, and FIs represent a lever of influence that can pressure companies to curb their emissions. The hope is that FIs will ultimately steer capital toward more climate-friendly businesses and projects.

FIs' portfolios likely include a mix of low, medium and heavy emitters, yet no bank or investor wants to be an outlier on the wrong end of the Scope 3 disclosure spectrum. The hotspots that FIs identify within their portfolios will be weeded out if they don't deploy emissions reduction measures with haste. And businesses that will soon need another round of capital must do the same. Clearly, as the agents who hold the purse strings, FIs constitute a key resource in the fight against climate change.

To serve as that agent for change among borrowers and investees, FIs need to understand and address the largest sources of GHG emissions within their portfolios. The accurate measurement and reporting of these emissions are part of this exercise, as is alignment with net-zero goals or science-based targets. But some assessments suggest that FIs have not yet achieved the level of quality needed in their reporting.


In its 2020 report, [The Time to Green Finance](#), the CDP noted a sizable gap between what financial institutions need to report and what they were reporting at that time. It stated that "...our data shows less than half of disclosing financial institutions and only 27% of insurers report actions to align portfolios with limiting global warming to well-below 2 degrees Celsius." Only 25% of them were reporting their portfolio emissions through the CDP at that time. More recent reports provide similar findings.

In April of this year, the European Central Bank (ECB) issued its third [review](#) of European bank disclosures of climate-related and environmental risks reported

by 103 "significant institutions (SIs)" and 28 "less significant institutions (LSIs)." The review is based on the expectations the ECB laid out in its [Guide on Climate-Related and Environmental Risks](#). Published in November 2020, the guide notes that institutions are expected to disclose their financed Scope 3 emissions. And while the ECB does not identify a particular measurement or attribution methodology, it advises institutions to use a granular approach to quantifying emissions in alignment with the GHG Protocol.

The ECB's review indicates that banking institutions demonstrate relatively low levels of maturity with respect to their disclosures. The report states that "...the majority of SIs now disclose at least basic information for most of the expectations," but it also acknowledges that "Notwithstanding the better provision of information, the quality thereof remains low and is unlikely to provide market participants with insights on which they can act." The ECB adds that 75% of the institutions assessed did not adequately substantiate their disclosures. And banks that reported on their financed emissions "rarely" provided a reporting date for the underlying data. The ECB found that when reporting institutions did provide the information, it often pointed to outdated data.

The cause of inadequate reporting likely isn't negligence on the part of FIs, but the simple fact that it's not easy to measure and report financed emissions. However, poor reporting has serious consequences. ***Reputational damage can easily result from the failure to fully and transparently disclose emissions. Consumers, regulators and other stakeholders are on alert for greenwashing, and any financial institution suspected of it will suffer in the court of public opinion. Inadequate reporting also has financial repercussions, as fines can be levied against FIs that fail to meet their reporting requirements. Additionally, when an FI's reputation takes a hit, an infusion of funds is often needed to reverse the damage.***



What Do Financial Institutions Need for Portfolio Emissions Measurement and Reporting?

FIs must measure emissions regularly to demonstrate progress over time, starting with a baseline measurement. FIs that are ready to determine their baseline face several challenges, including incomplete or inconsistent emissions data in some areas of the business. In other areas, data may be missing entirely.

To fully understand financed emissions, an overwhelming number of data points must be collected and calculated, and each financial asset class has a specific methodology for accurately measuring emissions. These methodologies consider different scopes, require different data sets with varying levels of validity and use different calculation methods.

To address expectations and requirements for measuring and disclosing portfolio emissions, FIs need solutions that help them overcome these challenges. They need products that:

- **Collect specific sustainability data from external sources.**
- **Accurately measure the carbon footprint of entire portfolios under a range of climate scenarios.**
- **Enable reporting on the portfolios' temperature alignment using a methodology that allows for comparison with other financial institutions.**

Sphera's Portfolio Management Solution

Sphera helps a wide range of organizations, including FIs, operationalize ESG and meet their compliance obligations.

[SpheraCloud Corporate Sustainability – Portfolio Management](#) is a solution-at-scale that supports investors and lenders across both public and private market domains in evaluating the carbon footprint of their investment holdings. The solution allows FIs to report against the GHG Protocol's Scope 3 accounting and reporting standard and the PCAF standard for financed emissions, providing the flexibility that FIs currently need.

With automated workflows for data collection, as well as advanced analytics, emission factor libraries and sophisticated reporting tools, the Sphera solution provides a powerful tool for financial institutions that need to measure and manage their carbon footprint. The platform enables companies to measure GHG emissions for each investment, assess the carbon intensity of their portfolios and produce disclosures that are reliable, clear and comparable. Its calculation engine uses PCAF methodologies for each asset class, covering asset class definition, emission scopes, attribution of emissions, equations for calculating financed emissions, required data and limitations.

In line with PCAF and the GHG Protocol, the solution provides three consolidation approaches for preparing GHG emission inventories, each affecting which activities are categorized as direct and indirect emissions.

- 1** The equity share approach accounts for emissions according to the organization's share of equity.
- 2** The financial control approach reports on GHG emissions that the organization controls as if they were its own.
- 3** The operational control approach accounts for 100% of emissions over which the organization has operational or financial control. This approach ensures that financial institutions report emissions from their lending and investment activities and reflects the emissions impact of their financing decisions.

For consistency, PCAF requires FIs to report using the operational control or financial control approach for investments. Eighty percent of companies chose operational control.

According to the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, GHG emissions from loans and investments should be attributed to reporting FIs based on the proportional share of lending or investment in the borrower or investee. Sphera's Portfolio Management software calculates the attribution factor by determining the share of the outstanding amount of loans and investments of an FI over the total equity and debt of the company / project that has received the FI's financing or investment. The use of a common denominator that includes both equity and debt funding ensures one common denominator across all asset classes. It also attributes emissions equally over equity and debt providers and avoids double-counting emissions between them. This methodology is important for FIs that hold both equity and debt positions within the same companies or projects.

$$\text{Financed emissions} = \sum_i \text{Attribution factor}_i \times \text{Emissions}_i \quad (\text{with } i = \text{borrower or investee})$$

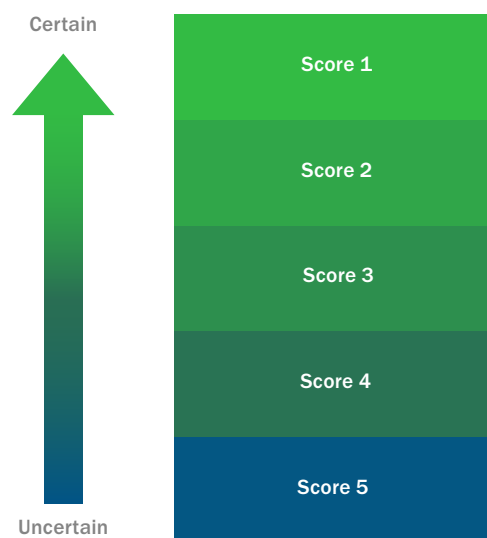
\downarrow
 $\frac{\text{Outstanding amount}_i}{\text{Total equity} + \text{debt}_i}$

[Source: The Partnership for Carbon Accounting Financials \(PCAF\): Financed Emissions, The Global GHG Accounting & Reporting Standard PART A, Second edition, December 2022.](#)

The Importance of Data Quality

GHG accounting must accurately reflect the emissions of an FI's loans and investments and meet the needs of its stakeholders. The FI should use the highest quality data available for each asset class and improve data quality over time. However, high-quality data can be hard to obtain, particularly for certain asset classes. In these cases, financial institutions should not be deterred from beginning the inventory process, as even estimated or proxy data can identify emission-intensive hotspots in portfolios. Various data inputs are required to calculate attribution factors and borrower/investee emissions, which may not always be readily available. In these cases, financial institutions should use the best available data.

Overall, emissions disclosures, and ESG reporting in general, require massive amounts of data, as well as individuals with the expertise to make use of it and technology that reduces the workload involved in collecting, analyzing and reporting it. Data represents the core of the accounting exercise, and better data yields stronger reports that lead to effective remedial action. FIs need to begin with what they have but continually work toward data that is consistently comprehensive, accurate and defensible. The graphic shows how certainty in accounting increases as the data quality score improves.



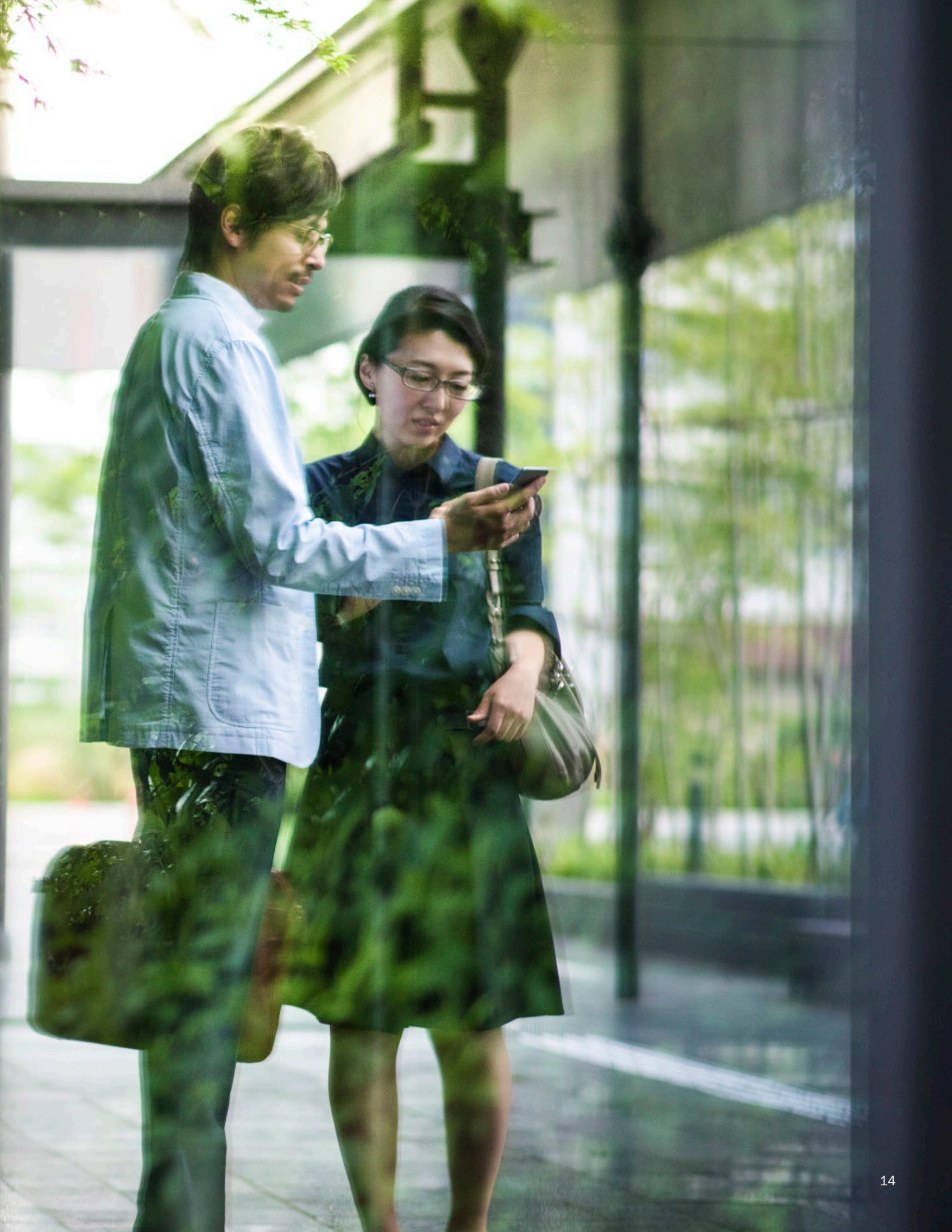
Conclusion

To shift global capital toward sustainable products and projects, the financial industry must start by identifying the climate risks within their portfolios.

They must calculate the GHG emissions linked to their lending and investment activities to determine where hotspots exist and take appropriate measures to encourage decarbonization. The companies and projects that receive financing and investments will soon learn—if they haven't already—that they also need to measure their environmental impact and develop a credible strategy for cutting emissions and addressing climate-related risks. Lenders and investors are watching, and so are consumers, who will also exert their influence through their spending power.

In the meantime, FIs need to build their reporting practice. A sound program begins with strong data. High-quality data is the aim, but it's best to start with what is available rather than wait for better data. Software is an essential tool for collecting, calculating, managing and reporting emissions, providing a faster, more accurate way for FIs to generate the information they need to disclose. The right software solution can help FIs achieve error-free reporting more quickly and with fewer resources.

Reducing Scope 3, or value chain, emissions is the greatest contribution the financial services industry can make in the global effort to build a green economy. Members of this sector exercise considerable influence, and by measuring and reducing the emissions tied to their portfolios and enacting greener lending and investing policies, they can lead a far-reaching effort to accelerate decarbonization.





SOURCES

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About Sphera

Sphera is the leading provider of environmental, social and governance (ESG) performance and risk management software, data and consulting services focusing on Environment, Health, Safety & Sustainability (EHS&S), Operational Risk Management (ORM), Product Stewardship and Supply Chain Risk Management (SCRM).



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