Many professional accountants and finance professionals are relatively new to greenhouse gas (GHG) accounting and reporting. However, with disclosure of GHG emissions forming part of mainstream annual and financial reporting, their role is critical in driving effective and efficient solutions to generate decision-useful GHG emissions information to ensure:

- Timely, reliable, comparable, and consistent external reporting on GHG emissions based on an accounting approach aligned with financial reporting;
- Robust controls and systems are in place such that the GHG emissions disclosures are verifiable and can be subject to independent external assurance; and
- Reliable GHG emissions information for use in pricing climate risk and in responding to carbon pricing in the form of a direct levy or tax or through a cap-and-trade system that governments are increasingly using to achieve GHG emissions reductions.

Consistent and standardized entity-level and consolidated enterprise GHG emissions data, based on robust data collection and modelling, is the foundation for setting GHG emissions reduction targets, KPIs and budgets, and developing decarbonization plans. IFAC’s study on disclosure trends in the GHG emissions reduction targets and transition plans of the 40 largest exchange-listed companies in 15 jurisdictions, Getting to Net Zero: A Global Review of Corporate Disclosures, highlighted that inconsistency and incomparability of disclosures pose challenges, particularly for investors who require reliable, consistent, comparable and actionable information.
Eight Steps in Preparing for GHG Emissions Reporting and Disclosure Requirements

The roadmap below provides the CFO and controllership function with high-level steps to align GHG emissions accounting and financial accounting by extending existing financial systems and processes and enhancing the reliability of GHG emissions reporting, which requires that the data is collected within a strong control structure and environment. This will help prepare organizations for GHG emissions reporting and assurance, and ultimately provide the confidence in GHG emissions information to incorporate it into strategic and financial planning, capital allocation and performance management.

Given the urgency of enhancing GHG emissions and climate-related disclosures, accounting and finance professionals need to apply their expertise in the following key areas:

- Leading the climate and sustainability risk and materiality assessments to identify where to focus.
- Partnering and collaborating with sustainability and operational colleagues to connect financial and sustainability processes and information.
- Handling GHG emissions data in a similar way to financial data by incorporating it into financial accounting processes, systems, policies and decisions.

A ROADMAP

1. CFO/controller must work with sustainability leaders and drive collaboration
2. Undertake a risk and materiality assessment – together
3. Report to the Audit Committee – and get approval
4. Develop a new internal data manual with definitions of roles, KPIs, units and evidence
5. Expand the chart of accounts in financial/ERP and consolidation systems
6. Train financial and sustainability colleagues in data collection methods and evidence requirements
7. Expand existing internal control environment to cover emissions data
8. Share knowledge and experiences for continual improvement in data collection and reporting

Extending existing financial and enterprise resource planning (ERP) systems to capture and connect financial and emissions data.

Expanding the existing internal control environment and evidence base to capture reliable and verifiable GHG emissions data from various sources.

For further technical guidance on what is involved in measuring and reporting GHG emissions, GHG Reporting Building Blocks for Accountants provides additional guidance for accounting and finance professionals.
CFOs are in an ideal position to champion an integrated mindset to connect financial and sustainability data, processes and analyses that meets new standards and requirements. This involves breaking down siloes with the CFO and finance function enabling collaborative efforts on GHG emissions measurement and reporting across teams, and ensuring relevant information is incorporated into the decisions made by management and by the board of directors (or those charged with governance). Cross-functional collaboration involves:

- Working closely with the Head of Sustainability or Environmental, Social & Governance (ESG), or in a smaller organization, relevant operational colleagues, or external environmental advisers;

- Collaborating with operations, procurement, risk and business units to secure relevant and reliable data collection and provide integrated financial and other information to inform business planning, set KPIs and incentives to meet business and climate targets, and manage variances and trade-offs.

In building a relationship with sustainability teams, it is important to allow time to appreciate each other’s skills, coordinate key tasks and clarify roles and responsibilities between finance and sustainability teams. Professional accountants are experts in collecting and validating data, designing and implementing controls, and ensuring a reliable reporting process including bringing other teams together and consolidating information, and finalizing outputs. Sustainability and operational colleagues have a stronger connection with sustainability impacts arising from operations and can explain the development and trends in the emission data.

In some organizations such as Deutsche Post DHL Group, a carbon accounting team has been formed within the finance team given their analytical mindset, the necessary skills and infrastructure to collect data across the global business (see Towards Net Zero – The Role of Carbon Accounting, Deutsche Post DHL Group).
IFRS Sustainability Disclosure Standards and jurisdictional standards and legislation related to climate and sustainability reporting require risk and materiality assessments. These are crucial for GHG emissions accounting and reporting given they determine which issues to address, measure and track across GHG emissions scope 1 (direct emissions generated by the organization), scope 2 (indirect emissions based on purchased energy consumption), and scope 3 (indirect emissions arising from the organization’s impacts on the wider economy) and inform assessments of climate risk and opportunity. While there might be differences in the exact requirements of these assessments, their importance is the same regardless.

Both financial and sustainability professionals should participate in the assessments and ensure a common understanding and application of different materiality lenses that are required by different standards and for different users (see Know Your Materiality).

Scope 3 GHG emissions arising from the value chain, are for many organizations, the largest portion of their GHG emissions footprint. Consequently, it is also necessary to identify the scope 3 categories (there are 15 in the GHG Protocol’s Value Chain Standard which complements the widely used GHG Protocol’s Corporate Accounting and Reporting Standard for calculating GHG emissions) that are material to operations and decide the level of estimation and margin of error that is tolerable or, where relevant, legally permissible.

**KNOW YOUR MATERIALITY**

- **Investor-focused materiality:** IFRS Sustainability Disclosure Standards and the requirements in some jurisdictions such as the US SEC are investor focused (sometimes referred to as “single materiality” or “outside-in”) to ensure investors understand sustainability/climate risks and opportunities relevant to their investment decisions and require a strong linkage with the financial statements.

- **Double materiality:** The double “impact” materiality lens is for instance required by the ESRS and means the materiality of disclosures is from an impact perspective (e.g., it affects employees, customers, vendors, environment), or it is material from the investor perspective (as described above) or a combination of both. Consequently, an organization would both consider the “inside-out” impact of the organization on its stakeholders and the outside world’s impact on the organization.

To fulfill the global baseline of disclosures established by IFRS Sustainability Disclosure Standards, which are comparable to the proposed US SEC requirements when it comes to climate, it is necessary to consider what to disclose to the extent it meets investor information needs.

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2. Undertake the risk and materiality assessments – together
Given the importance of risk and materiality assessments, it is essential to report the outcome of the assessments to the audit committee – and get their approval. In this way, the key sources of GHG emissions are understood, and material risks and opportunities and information disclosed about these are overseen by the board. Approval of the material GHG emissions sources is critical because the outcome of these assessments will determine future activities and investments to change and decarbonize the business model and will be the basis of reported GHG emissions information to investors and others.

Integrating GHG emissions data into regular financial accounting processes, systems, and rules is the optimal way to enable periodic reporting for functional monitoring and reporting to management and the board. The CFO also can ensure that the audit committee has sight of key judgements, assumptions and estimates in calculating GHG emissions from different sources, and in the data models that have been developed to capture relevant data and to develop KPIs.

With the outcome of the risk and materiality assessments, it is possible to define which climate-related KPIs to track and data points to collect. All companies, large or small, have a financial data process and system manual. Like a financial or accounting manual, the GHG policy, process and data manual defines each data point, the units it should be measured in, which roles various departments have in collecting the data, and what the documentary evidence requirements are for each data point. This is essential to obtain homogenous and repeatable GHG emissions data on the same cycle as financial data, which the organization at the group and entity level – and later external stakeholders – can use, trust, and understand. Such documentation will support disclosure of how and why the organization has used specific inputs, assumptions and estimation techniques to measure its GHG emissions.
Expand the chart of accounts in financial/ERP and consolidation systems

For many organizations, the easiest, cheapest and best solution may be to extend the existing financial/ERP system, and at the group level extend the consolidation system, to collect both financial and related GHG emissions data particularly given new requirements will require that GHG emissions information is on a par with financial information. Together with the policy, process and data manual, the chart of accounts informs subsidiaries across the entity of the parameters and details to provide the necessary and relevant data and avoid inconsistencies. Collecting the GHG emissions data together with the financial data will also make way for automated integrated controls (see point 7) that provide the most efficient way to ensure good quality data in organizations of all sizes.

This step also involves reviewing and confirming the GHG inventory boundary and alignment with the financial reporting boundary. The GHG Protocol’s Corporate Accounting and Reporting Standard permits the use of two approaches to consolidate GHG emissions data at the group level: the equity share approach or the control approach, which in turn can be based on financial control or operational control (in reality three different boundary definitions). The definition and use of boundaries can be one of the biggest challenges in GHG reporting (see Knowing Your Boundaries).

KNOWING YOUR BOUNDARIES

In the context of reporting for investors, using the financial control boundaries maximizes the usefulness of the GHG information given its connectivity to the financial information in terms of testing data for completeness and calculating KPIs such as GHG Intensity (GHG emissions/revenue). It will also enable internal and external auditors to validate the GHG reporting for completeness because there is a validated context in the financial dataset to compare against.

Where the equity share or operational control approach is applied, the finance team can potentially conduct a reconciliation between GHG emissions calculated using these other approaches and compare the results with the financial control boundary used to prepare the financial statements. Where a company has many joint operations or has many leased in/out assets, there might be significant differences, which should be considered. Whichever approach is used, it should be applied consistently and disclosed as part of the accounting principles in connection with the GHG reporting to help investors understand the data and the climate risk exposure and targets.
Collaborative working between finance and sustainability colleagues should also include training in data collection and evidence requirements, methodologies, and controls. Finance and accounting professionals will typically understand process and system requirements, but may have to familiarize themselves with sources of GHG emissions data and measurement methodologies and calculations, and their reliability. For example, external evidence from invoices is typically more reliable than internally produced evidence such as manual meter readings.

Sustainability colleagues are likely to be subject matter experts across the organization’s GHG emissions data sets and typically understand the GHG accounting concepts, e.g., the scopes of GHG emissions and related methodologies but may not necessarily appreciate the corporate reporting process and how tools such as COSO’s Internal Control-Integrated Framework can be applied to GHG emissions data. Finance and sustainability professionals should ideally come together to understand each other’s questions and perspectives and to clarify roles and responsibilities, so they know who does what and who to contact when data collection commences. Collaboration will be particularly important in the engagement with customers and suppliers to source scope 3 GHG emissions in the value chain.

The internal controls environment should be extended to cover the systems and processes for collecting, aggregating and validating GHG emissions data. This will ensure that both the audit committee and later also the external auditor will be able to evaluate the quality and completeness of the collected data and enable a more efficient year-end reporting process. An effective internal control environment including an evidence trail will help give management confidence when using this data to inform their decisions and make the assurance engagement with the external auditor easier and faster. These controls can often be automated during the year, which will enhance the robustness and reliability of the data by minimizing and remediating potential errors and reduce the burden at year-end.

On behalf of the board, the audit committee should receive information that provides confidence in the internal control environment and the reliability and useability of GHG emissions information. An audit committee review of the effectiveness of controls over GHG emissions data should also include a report from internal audit where such a function exists.
GHG emissions data collection and reporting will be undertaken at least annually and should be a continual learning process. Knowledge-sharing sessions with all involved following the process each year will help to remediate potential mistakes and expand the knowledge of good solutions that others also can use to improve data collection and reporting processes. It is also necessary to undertake risk and materiality assessments every year and review estimates, unit conversions, and emissions factors. In the first year, the effort will be higher than in subsequent years when there are likely to be reductions in the demands of the process as data quality improves. However, there might also be important additions where GHG policy, processes, data documentation, and information systems will have to be adjusted accordingly for new or better information that enhances analysis and internal and external reporting.

Overall, it is important not to make the approach more complicated than necessary, so preparation is cost-effective, and the information collected and reported is enough, but not too much, to be decision-useful. Ultimately, it is critical that actions are taken as a result of the GHG emissions accounting to minimize risks and seize opportunities to become more climate resilient, and to provide information that is required for high-quality GHG emissions reporting in general purpose or mainstream financial reports.