Global Accounting Alliance

Connectivity in Governance and Processes

GAA Connectivity in Reporting Series



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Foreword



The Global Accounting Alliance (GAA) is an alliance of ten of the world's leading professional accounting bodies, together representing more than 1.4 million accountants across over 180 countries. Formed in 2005, the GAA works in the public interest to advance a high-quality accounting profession, sharing knowledge and collaborating on issues relevant to the international accounting profession. It is from this perspective that we offer the viewpoints set out in this publication series.

Connectivity in reporting is becoming a feature of high-quality corporate reporting, and accounting professionals are well positioned to lead in delivering it. The first publication in this series established what connectivity means and why it has become essential to high-quality corporate reporting. As the expectations placed on corporate reporting continue to grow, organizations increasingly need to understand how to produce connected information in practice. This second publication turns to the question of how connectivity is achieved in governance and processes.

Connectivity in reporting depends on integrated processes, consistent data, assumptions and time horizons, aligned reporting cycles and systems that connect financial and sustainability information. Connectivity in reporting also relies on strategy and governance, on boards and audit committees that oversee the connections between sustainability reporting and financial reporting. Achieving connectivity in reporting depends on leadership that treats sustainability information with the same discipline that is applied to financial information.

These are foundations the accounting profession is well placed to build and deliver. Designing processes and controls, ensuring the consistency of data and assumptions, and supporting effective governance and oversight is well-established work for our profession. The opportunity now is to bring that same discipline to the internal governance and processes that make connected reporting possible.

Jim Knafo
CEO
Global Accounting Alliance

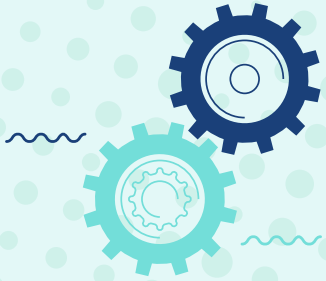
Executive Summary

This publication, the second in a series prepared by the Global Accounting Alliance (GAA), examines how connectivity between sustainability and financial reporting is achieved in practice. It addresses the practical question of how connected information is produced and governed within an organization.



A consistent theme running through the interviews on which this publication is based is that connectivity in reporting is achieved by extending the systems, controls, governance and judgment that the accounting profession already applies to financial information.

The first section, Connectivity in strategy and governance, discusses organizational strategy as the foundation for connectivity as well as the importance of embedding connectivity in policies, strategic processes, metrics and targets. It outlines governance and risk frameworks for connecting sustainability information and financial information and highlights the role of the board in overseeing high-quality reporting, including connections in reporting.



The second section, Operationalizing connectivity, examines how connectivity is embedded in an organization's internal reporting and decision-making, so that sustainability information is considered alongside financial information in decisions such as capital allocation. It sets out the key enablers of this work, a way for organizations to assess the maturity of their own practices, and how to overcome organizational silos and resistance that work against connectivity in reporting.

The final section, Connectivity in systems and processes, considers how connected information is produced. It examines the integration of the financial and sustainability reporting processes, so that the two draw on shared data, assumptions, indicators and timetables as well as the data architecture and systems that connect Enterprise Resource Planning (ERP) and ESG platforms. Finally, the section outlines how technology and artificial intelligence can be enablers of connectivity.

Introduction



Why was this publication developed?

The first publication in this series established a common understanding of the connected reporting landscape, clarified key concepts and highlighted the reporting gaps that exist today and the strategic role the accounting profession can play in connectivity in reporting.

This second publication in this series addresses how connectivity is embedded in governance, internal reporting and decision-making processes, covering strategy and governance, operationalizing connectivity, and the systems and processes that produce connected information.



The publication series at a glance

- **The Connected Reporting Landscape** sets out what connectivity means, the practical challenges and enablers, and the strategic role the accounting profession can play in connectivity in reporting.
- **Connectivity in Governance and Processes** (this publication) outlines how connectivity is embedded in strategy and governance, operationalized through internal reporting and decision-making, and delivered through the systems and processes that produce connected information.
- **Principles for Connected Reporting** provides a practical framework of principles for accounting professionals to apply in developing connected reporting.

As highlighted in the first publication in this series, while progress has been made in sustainability reporting, climate-related disclosures represent the most mature sustainability area in practice. However, climate-related disclosures are still in the early stages of maturity in comparison to financial reporting. A lack of connectivity between the two areas can make it difficult for users such as investors, lenders and other creditors to understand how sustainability-related matters affect financial performance, position and future prospects for an organization. At the same time, global standard setters and frameworks are embedding requirements around connectivity, requiring organizations to provide sustainability-related information in a manner that enables investors to understand the connections with financial statements, including assumptions, estimates and risk assessments.

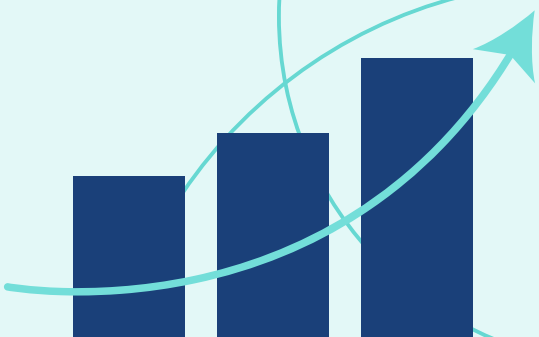
For the accounting profession, and accounting professionals, this presents both a challenge and an opportunity. The profession needs to understand how, and why, sustainability-related disclosures and financial reporting intersect, particularly in areas involving judgment, forward-looking information and uncertainty.

Approach taken

This work has been informed by interviews with more than thirty stakeholders across the accounting profession, including CFOs, finance leads, sustainability reporting leads, board members, auditors, assurance providers, standard-setters, regulators, investors and academics, and by published research on how connectivity is being delivered in corporate reporting.

The connectivity principles discussed in this series apply across all sustainability dimensions. We illustrate the principles primarily through climate-related disclosures, reflecting that these disclosures are currently more mature in practice.

As jurisdictions increasingly adopt more comprehensive sustainability reporting, many of these connectivity principles are also relevant to broader sustainability disclosures such as nature and social-related disclosures.



Who is this publication for?

This publication is written for global professional accountants including those working in business, audit, advisory, the public sector and within professional bodies, as well as for the wider community of organizations and stakeholders that rely on the profession.

It is particularly relevant to:

- **Boards and senior leadership** including directors, audit committee members and senior executives who depend on connected information to make strategic decisions.
- **Professional and management roles** including CFOs, controllers, finance leads and sustainability reporting leads responsible for preparing and overseeing connected reports.
- **Practitioners** including accountants, auditors, analysts and assurance providers who prepare, test and interpret the detail of connected reporting.
- **Organizations and stakeholders that influence or rely on annual reports** including standard-setters, regulators, policy makers, investors and governance bodies.

This publication is aimed at professionals who already have an understanding of corporate reporting and now need to connect that work with sustainability reporting, risk and broader organizational value creation.

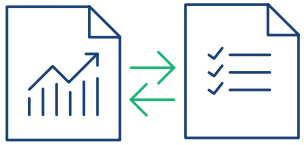
Key characteristics of connectivity in reporting



Coherence across the report(s). Coherence refers to a holistic and consistent set of information across the different sections of the annual report and the wider suite of corporate reports, so that the financial statements, climate-related disclosures and broader sustainability information provide a complete picture of an organization and organizational performance (see for example, EFRAG (2025), GSSB (2025) and IFRS Practice Statement 1, Chapter 6).



Connections between related items to which the information relates. For example, the connections between the various sustainability-related risks and opportunities that could reasonably be expected to affect the organization's prospects (IFRS S1, paragraph 21). As highlighted by the GSSB (2025, p. 10) '[m]any, if not all, of an organization's most significant impacts lead to risks and opportunities that become financially material over time.'



Connections between disclosures both within the sustainability information itself and between that information and the related financial statements (see for example, IFRS S1, paragraph 21 and B39–B44, and GRI 1, section 5.1).



A common reporting boundary with sustainability information and the information in the financial statements prepared for the same reporting entity, where applicable (see, for example, IFRS S1, paragraph 20 and GRI 2, section 2-2 and 2-3).



Consistent data and assumptions such that the data and assumptions underlying the sustainability information are aligned, as far as possible, with those used in the financial statements (see, for example, IFRS S1, paragraphs 23 and B42 and GRI 102, Guidance to 102-1-b).

Connectivity in Strategy and Governance

The objective of this section is to highlight how connectivity can be embedded into strategic planning, decision-making, governance structures and oversight. There are two key levels of connectivity in relation to strategy: integrating the underlying strategy itself by connecting policies and strategic processes, and by providing connectivity in reporting the strategy to stakeholders. For governance, connectivity operates as part of governance structures that oversee financial and sustainability information as well as in reporting how that oversight is exercised.



Strategy as a foundation for connectivity

Connecting policies and strategic processes requires accounting professionals to apply existing skills and knowledge to a wider set of topics.

The foundation for connectivity in reporting lies in an organization's strategy. This section sets out how an organization's strategic direction can be connected, in the strategic planning, capital allocation and target-setting processes through which strategy is delivered, and in the way those decisions carry through into the reports.

An organization's strategy sets its direction and approach over the medium and long term, including the markets it will serve, the offerings it will develop, the assets it will invest in and the way it will respond to climate-related risks and opportunities.

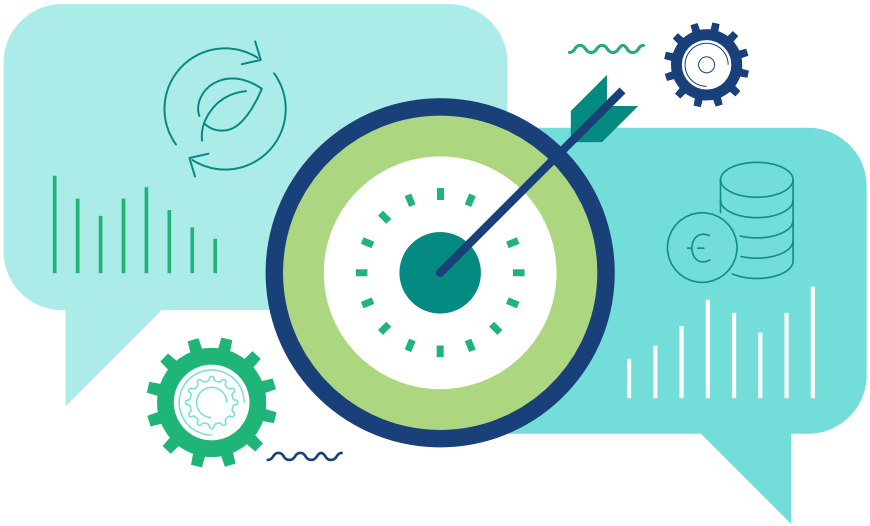
Strategy is developed through the strategic planning cycle, capital allocation and investment appraisal, target-setting and performance management. These processes form the basis for the assumptions, the timing and the commitments, targets, goals and objectives an organization works toward over the planning cycle. How an organization will deliver the strategy will be influenced by its read of stakeholder priorities as well as elements such as brand values and what it wants to be known for.

Connecting policies and strategic processes in terms of sustainability and financial information means bringing sustainability into the same processes as financial processes, so that climate-related and other broader sustainability considerations inform the strategic direction, capital commitments and targets, goals and objectives that are set, and so that the organization's transition plan, capital expenditure program and the financial statements are all based on a single source.



> I want to read across all of a company's external reporting. Where they target some metrics, I want to see the funding and the investment in place, including the capital allocation plan, and then see those commitments reflected in the financials. If there is no financial backing, they are unlikely to achieve the targets.
>
> **Sanel Tomlinson, Managing Director, Momentai Limited**

Connecting policies and strategic processes also helps to shape strategic decisions where sustainability considerations are assessed alongside financial ones in capital allocation, investment appraisal and target-setting, so that the reported outcomes can be traced back to business decision-making. Example 1 on the next page shows how this could apply.



From the stakeholder interviews, a key message was that improving connectivity does not require a complete system to be in place. One practical way to enhance connectivity is to start from the strategy the organization already has, take one or two decisions that involve clear financial consequences, agree on any underlying assumptions and then trace the decisions through to reporting. Using this as a basis the approach can be extended and developed further for each reporting cycle.

Example 1 – Strategy as the basis for connected reporting

A manufacturing company is planning to replace its aging gas-fired equipment with electric alternatives over ten years as the central part of a board-approved decarbonization strategy, and it wants that strategy to read consistently across its sustainability statement and its financial statements.

To achieve this objective, the company treats the strategy as the shared basis for both reports, so that the phasing of the replacement, the energy prices and the internal carbon price set out in the organization's transition plan become the same assumptions that finance uses when it reassesses the useful lives of the equipment due for early retirement, tests the affected assets for impairment and builds the replacement program into the capital expenditure plan and the budgets.

This process achieves connectivity in reporting by drawing the emissions reductions disclosed in the sustainability statement, the capital committed in the capital expenditure plan, and the depreciation and impairment reflected in the financial statements from a single set of strategic decisions, which management can then track against the same milestones and assumptions.

Connecting policies and strategic processes when reporting on strategy

Connecting the information reported in the financial statements and the sustainability disclosures improves how a company communicates the way its strategy and business model respond to its material impacts, risks and opportunities, and how those affect its prospects and future cash flows. Connectivity strengthens both the information content and the credibility of the annual report. Connectivity across strategy-related information is also important. In particular, the connections between sustainability-related risks and opportunities, strategy, capital allocation, performance management and reporting are central to achieving connectivity.

Connectivity in reporting on strategy also applies beyond the annual report and sustainability report. For example, in investor presentations, where investors are increasingly using financial and non-financial information together.



> Someone should be able to understand how sustainability relates to the business model and the strategy, what the company's doing about it, and how that flows through to the financial statements, the transactions and the assumptions – everything should be singing from the same hymn sheet. You often don't see that. You see a disjointed narrative, separate comments on strategy versus risk versus financial statements, and then the assumptions are just a sentence saying we considered climate risk and it's not material.
>
> **Hilary Eastman, CEO and Founder, Confluence Advisory**

The expectation for connectivity is included within reporting frameworks and standards, including the IFRS Sustainability Reporting Standards, IFRS S1 and IFRS S2. For example, IFRS S1 requires an entity to provide information that enables users to understand the connections between the items to which the information relates, such as the connections between the various sustainability-related risks and opportunities that could reasonably be expected to affect its prospects, and the connections between its disclosures both within its sustainability-related financial disclosures, across governance, strategy, risk management, metrics and targets, and across those disclosures and the other general purpose financial reports it publishes, including its financial statements. The application guidance in paragraph B43 of IFRS S1 also uses strategy as an example, noting that in providing connected information an entity might need to explain the effect, or likely effect, of its strategy on its financial statements and financial planning, or explain how that strategy relates to the metrics it uses to measure progress against its targets.

GRI 1 Foundation (2021) similarly highlights the connection between sustainability and an organization's business model more broadly, noting that most, if not all, of the impacts of an organization's activities and business relationships on the economy, environment and people will eventually become financially material issues. It further notes that sustainability reporting is therefore crucial for financial and value creation reporting (GRI, 2021a, Box 1).

For climate specifically, IFRS S2 sets the objective of the strategy disclosures as enabling users to understand an entity's strategy for managing climate-related risks and opportunities (IFRS S2, paragraph 8), and it requires disclosure of the effects of those risks and opportunities on the entity's strategy, financial position, financial performance and cash flows, including its transition plans where applicable.

Indications that strategy reporting may not be connected in practice

- The transition plan sets out strategic ambitions and expenditure that are not reflected in the financial statements.
- The strategy (or materiality matrix) prioritizes climate risks and opportunities that do not appear in the principal risks or the viability and going-concern assessments.
- Targets and metrics are disclosed in the sustainability reporting but cannot be tied or cross-referenced to any amounts, or narrative disclosure, in the financial statements.
- Expenditure described as "green" or transition-related in the sustainability reporting is not included in the capital commitments or elsewhere in the notes to the financial statements.



Connecting policies, strategic processes, metrics and targets

Connecting policies, strategic processes, metrics and targets means treating sustainability targets, goals and objectives in the same way as financial targets, goals and objectives. That is, they are set through the strategy, resourced in the budget, tracked in the forecast and reviewed alongside the financial results.

A key message from the interviews with stakeholders is that progress towards, and achievements of, targets need to be embedded within strategy and form part of the planning and performance cycle, including into the budgeting and planning process. If not, targets may be viewed as simply a data point in a reporting commitment rather than becoming embedded into strategy.

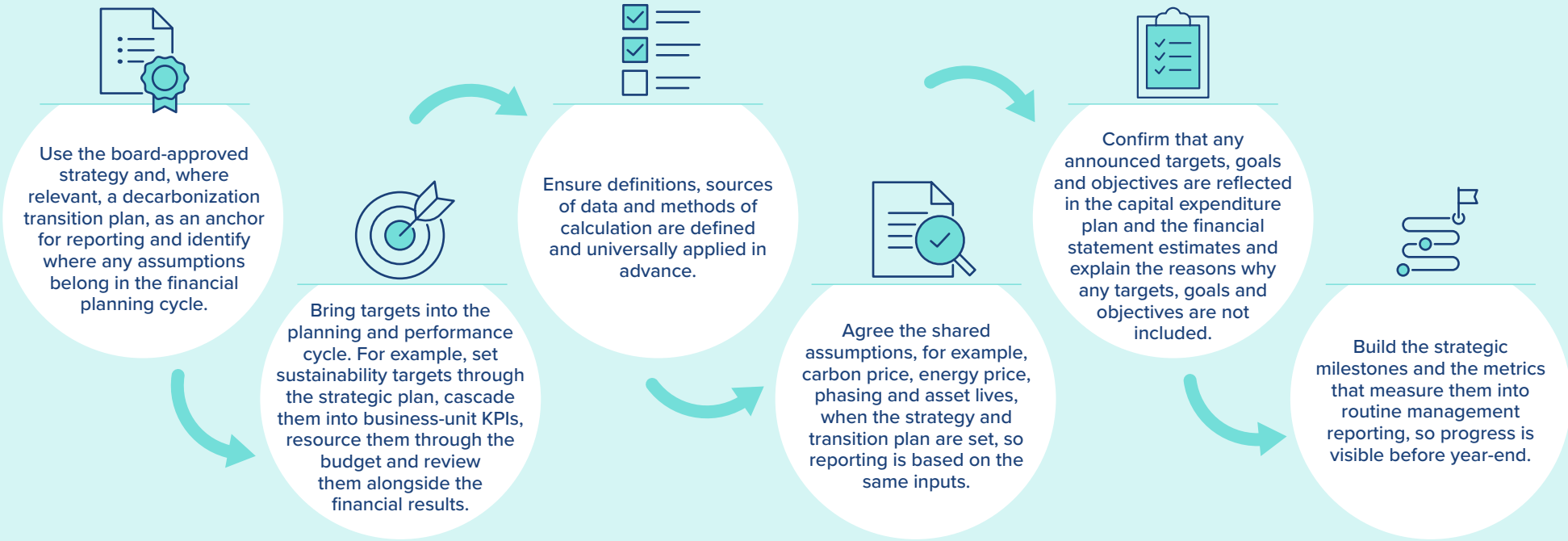
In practice, this includes incorporating sustainability targets, goals and objectives throughout the planning process into KPIs and budgets and reflecting them in performance management and incentives. In many organizations these processes are the responsibility of the finance function.

In addition, when the metrics are built into strategic plans and incorporated into the regular forecasting, they are planned and monitored on the same cycle (e.g. weekly, monthly or quarterly) that is already applied to financial reporting. Several interviewees described distinguishing sustainability costs within their corporate and business-unit forecasts and carrying the same measures through to procurement and supply-chain planning, so the information reaches management at the point where decisions are made, as the following example illustrates.



> From a performance and forecasting perspective, sustainability costs are embedded in all of our business group strategic plans, so they naturally flow through into our annual forecasts. Those costs are visible across corporate, business group and commodity forecasting, and their impacts are also reflected in our supply chain and procurement planning.
>
> **Amy Cox, Director of Sustainability Reporting**

Practical steps to embed connectivity in strategic processes



Existing guidance supports these practical steps, including the A4S guide Aligning Transition Planning and Financial Planning which sets out seven practical steps for finance teams, on the premise that transition plans without aligned financial plans are unlikely to succeed. The A4S Essential Guide to Strategic Planning, Budgeting and Forecasting also provides guidance on integrating sustainability into each stage of the planning, budgeting and forecasting cycle. In Australia, the ACSI/AICD guidance Governing for Net Zero: The Board's Role in Organisational Transition Planning also outlines considerations for board oversight of transition planning.

Integrated Performance Management (IPM) developed by AICPA & CIMA together with the WBCSD also provides a practical system for how connectivity can be embedded into operational management information and decision-making by creating a clear line of sight between strategic objectives, supporting initiatives, operational activities and performance measures. This allows management information to include both financial outcomes and the operational and sustainability drivers of the information.

Governance and risk frameworks that support connectivity

Connectivity is achieved by adapting and extending to sustainability information the internal control, governance and assurance frameworks that accounting professionals already apply to financial information.

Beyond reporting, connectivity is achieved by ensuring that sustainability-related risks and opportunities are governed and managed through the same structures that apply to the organization's strategy, capital allocation and performance management.

Jurisdictions with established integrated reporting traditions, such as South Africa, have demonstrated that connectivity is not a new concept and that governance, strategy, risk, performance and reporting have long been considered together as a single description of value creation.

Connectivity requires governance and risk frameworks that treat sustainability information with the same discipline as financial information, including defined ownership, controls, documented judgments and integration into enterprise risk management. Risk management more broadly is also an area in which the finance and sustainability functions are able to connect effectively.

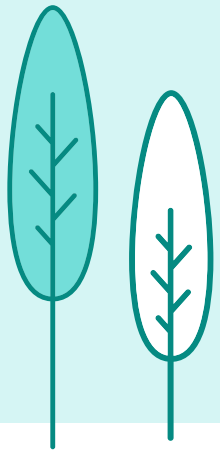
> Accountants are very good at risk management and we have a consistent appetite to reduce the impact of risk over time. The sustainability team can help the accountants look more long term. If we can achieve that, there are good partnerships that can help enhance connectivity overall.
>
> **Irene Chu, Partner, KPMG Hong Kong**

The stakeholder interviews identified six key aspects of governance and risk frameworks that support connectivity:

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- Integrating sustainability-related risks and opportunities into strategic planning, capital allocation and performance management.
- Developing sustainability processes and policies that are based on, and consistent with, those already used for financial information.
- Recognizing that sustainability risks are often interlinked with the organization's other risks and need to be managed within the risk framework.
- Maintaining the documentation, reporting and review processes that track sustainability risks and opportunities over time, so judgments are recorded, kept current and reported through governance.
- Applying and extending the control disciplines of financial reporting (data ownership, reconciliations, review and sign-off) to sustainability data.
- Preparing and documenting sustainability information so that it is assurance ready.

Internal controls and assurance are discussed further below.



Internal Controls

Applying the control disciplines of financial reporting to sustainability data is one of the most direct ways the finance function supports connectivity, because it provides the information with the traceability and reliability needed to support internal decision-making as well as assurance readiness. Internal control over financial reporting, including data ownership, documented methodologies, reconciliations, review and sign-off, is an established discipline for professional accountants, and extending internal controls to sustainability information applies this existing skill set. Governance over these controls includes the need for control ownership to be clearly assigned, methodologies and judgments documented and management review and sign-off performed for sustainability data. This sign-off should be on a basis that is comparable to that applied to internal control over financial reporting, with the board or audit committee providing oversight over the design and operation of the internal control system as a whole, as well as the monitoring activities over whether the controls are operating as intended.

Some organizations have created dedicated roles inside finance to lead this work, bringing data governance and assurance-readiness into a single point of ownership. One example is a dedicated ESG Assurance Manager, who takes on the data governance role and prepares the organization for the assurance process.

GAA, together with IFAC and the We Mean Business Coalition discussed the importance of governance and control for sustainability information in a 2024 publication Building Trust in Sustainability Reporting and Preparing for Assurance: Governance and Controls for Sustainability Information.

The publication sets out how governance and controls align sustainability and financial reporting in terms of quality, timing and connectivity. It is highlighted in the publication that CFOs, finance functions and ESG controllers should extend and apply their existing financial reporting systems, processes and tools to sustainability information, producing a single integrated governance and internal control environment. Extending internal control over financial reporting to sustainability data, the publication notes, raises information quality while reducing the cost of compliance, allows non-financial data to be validated through its alignment with financial processes, and makes it easier to incorporate material and connected financial and non-financial related sustainability information into the financial reporting cycle.

The publication frames this as an annual cycle of materiality assessment, risk assessment, control objectives, control catalogs, standard operating procedures, monitoring and external assurance, mirroring the financial reporting cycle, while cautioning that the materiality and risk assessments are distinctly different for sustainability. Doing this well allows the disclosures to be issued alongside the financial statements and reduces the likelihood of modified assurance conclusions or audit opinions.

> When I built the ESG reporting program … we were starting from scratch. There were no internal sustainability reporting processes to lean on, so I anchored the work in what I already knew best — the familiar processes, controls, and discipline of financial reporting. That choice wasn't accidental. The International Sustainability Standards Board (ISSB) requires material sustainability disclosures to be integrated with financial reporting. So I knew that any company preparing to bring these worlds together – whether voluntarily or because regulations demand it – would need to apply the same level of rigor, evidence, and data controls to sustainability information that finance teams have spent decades perfecting. What surprised people most was how naturally this approach fit. The teams already had the skills; the mindset was already there. It was the same foundation, just with a twist - instead of designing a process narrative and controls for cash handling or accounts payable, they were drafting one for carbon accounting or organizational culture and inclusion.
>
> **Sandy Kesseler, Principal, SK Advisory Solutions**

Assurance

In the stakeholder interviews an increasing number of organizations highlighted that they are voluntarily obtaining assurance over their sustainability disclosures ahead of any mandatory requirements.

> Non-financial information should be treated with the same rigor and care as financial information, because people make decisions based on what you disclose. That is where accountants give credibility and trust. A lot of companies now voluntarily audit their non-financial information, and that adds the same credibility it gives the financial information, because it has the same purpose – decision-useful information for users and investors.
>
> **Donna Buckland, Immediate past Chair, CA ANZ Hong Kong Council**

Preparing for assurance is, in large part, the internal control work described above. Applying the control disciplines of financial reporting to sustainability data including defined data owners, documented methodologies, reconciliations, review and sign-off, restatement and error thresholds agreed with the assurance provider are key elements.

One organization interviewed described reducing its assurance errors from twenty to four in a single year through new internal policies, controls and quality-review checks. As noted above, some organizations have created a dedicated role within finance to lead this work.

> We had this awareness of assurance coming our way, so a new role was developed in finance called the ESG Assurance Manager, who took on the data governance role and focused on helping us prepare for assurance. That finance thinking, that attention to governance, internal control processes and frameworks, is really important to drive credibility and improve data quality.
>
> **Annette Lister, Group ESG Governance & Reporting Manager, Weir PLC**

Two features of sustainability information often make assurance more challenging from a connectivity perspective:



Much of the information is forward-looking. For example, transition plans, targets and scenario analysis assumptions describe intentions and expectations rather than outcomes. Some interviewees described providing reasonable assurance to such disclosures as challenging in practice.



Sustainability data has often been produced in a time frame after the financial statements, on a separate cycle. Assuring sustainability information on the financial reporting timetable generally requires the equivalent data to be available at the same point in time. However, in some cases differences in time frames may be necessary (for example, in some jurisdictions, when gathering data for disclosure of scope 3 greenhouse gas emissions).

Governance and risk management beyond the reporting process

The governance and risk frameworks that support connectivity are not, however, limited to oversight of the reporting process. Achieving connectivity in reporting also depends on how sustainability-related risks and opportunities are integrated into the organization's strategic planning, capital allocation and performance management, as discussed in the strategy section above and on the governance and risk management processes through which the board and management oversee those decisions.

Enterprise risk management is a key part of this governance process. Where sustainability-related risks and opportunities are identified and assessed through the same enterprise risk management process as the organization's other risks, they can be included within strategic planning, budgeting and capital allocation on the same basis. This means the risks reported externally are consistent with the risks that inform the organization's decision-making.

In many organizations the finance function is already responsible for, or closely involved in, enterprise risk management, strategic planning, budgeting and investment appraisal. This puts accounting professionals in a strong position to bring sustainability-related risks and opportunities into these processes and to ensure that the assumptions used in the risk assessment, the strategic plan and the financial statements are consistent. The role of the board and audit committee in overseeing this process is discussed further below.





> Connectivity starts within the organization, not only at the reporting stage. It is reflected in how an organisation is governed, managed, and makes decisions. Companies that demonstrate strong connectivity are those that embed sustainability into their core business processes, including strategy and planning, enterprise risk management, budgeting and forecasting, capital allocation and performance management. When sustainability is integrated into these processes, connected reporting becomes a natural outcome
>
> **Bing Yi, Partner, Sustainability and Climate Change, PwC Singapore**

The role of the board and audit committee in embedding connectivity

The role of the board is to enable connectivity from the top, ensuring that sustainability and financial information are governed, controlled and assured as one coherent process.

IFRS S1 requires an entity to identify the governance body or individual responsible for oversight of sustainability-related risks and opportunities and to disclose information about how responsibility is reflected in the terms of reference, mandates, role descriptions and other related policies, how the board determines whether the appropriate skills and competencies are available, how and how often it is informed, and how it takes sustainability-related risks and opportunities into account when overseeing strategy, major transactions, risk management and the setting of, and monitoring of progress against, targets (IFRS S1, paragraph 27). IFRS S2 applies the same requirements to climate-related risks and opportunities (IFRS S2, paragraph 6).

Similarly, GRI 2 General Disclosures (2021) requires an organization to describe:

- the role of the highest governance body and of senior executives in developing, approving and updating the organization's purpose, value or mission statements, strategies, policies and goals related to sustainable development;
- the role of the highest governance body in overseeing the organization's due diligence and other processes to identify and manage the organization's impacts on the economy, environment, and people;
- how the highest governance body delegates responsibility for managing the organization's impacts on the economy, environment, and people; and
- the process and frequency for senior executives or other employees to report back to the highest governance body on the management of the organization's impacts on the economy, environment, and people (GRI, 2021b, Disclosures 2-12 and 2-13).

In relation to connectivity, the board's responsibilities, the specifics of which vary by jurisdiction, include satisfying itself that corporate reporting, taken as a whole, is comprehensive, coherent and balanced. Connectivity is enhanced where a board oversees strategy, risk management, risk appetite, capital allocation, business planning, budgets and long-term plans as a single set of decisions, rather than reviewing financial information and sustainability information separately. More broadly, connectivity may also depend on the information that the board requests from management, as highlighted below.

> Corporate data is too siloed. Board papers usually just stack different reports together under a strategic heading, but you only see the real connections at that top strategic level. If a board wants to make informed decisions, we have to start connecting that data to the wider business.
>
> **Paul Druckman, Deputy Chairman, Shift**

Effective oversight of connectivity may also be a matter of directors' fiduciary duties. For example, in many jurisdictions, directors' duties of care and diligence extend to the oversight of climate-related financial risks and opportunities and boards need to be able to demonstrate how their oversight of connected reporting satisfies those duties. Where directors recognize that their duties of care, skill and diligence include foreseeable sustainability-related financial risks, connected reporting becomes part of the evidence that those duties have been discharged as it demonstrates that the board has understood the key trends and factors affecting the organization's long-term prospects and has overseen a consistent response across strategy, risk management and reporting.

Example 2a: The UK Corporate Governance Code

Governance codes are increasingly embedding the expectations that support connectivity. The UK Corporate Governance Code states that a successful company is led by an effective and entrepreneurial board, whose role is to promote the long-term sustainable success of the company, generating value for shareholders and contributing to wider society (Principle A). The FRC's guidance to the Code further highlights that an effective board "understands the main trends and factors affecting the long-term sustainable success, resilience and future prospects of the company – for example technological change or environmental and social impacts. It will also be able to explain how these have been assessed in the delivery of the company's strategy and business model." (paragraph 9)

For example, the revised Provision 29 of the UK Corporate Governance Code (applying to financial years beginning on or after 1 January 2026) asks boards to monitor the company's risk management and internal control framework and, in the annual report, provide a description of how they have monitored and reviewed the effectiveness of the framework, declare whether the material controls were effective as at the balance sheet date, and provide a description of any material controls which have not operated effectively as at the balance sheet date, the action taken, or proposed, to improve them and any action taken to address previously reported issues. The declaration is broader than only financial reporting controls as it covers all material controls across the company's business model, future performance, solvency or liquidity and reputation. Accordingly, where sustainability-related controls are material, they will fall within the board's declaration.



Example 2b: King V Code (South Africa)

South Africa's King V Code, issued in October 2025 and applying to financial years commencing on or after 1 January 2026, builds on more than two decades of integrated thinking and integrated reporting practice in South Africa. The King V Code strengthens the principle of integrated thinking with the board overseeing governance, strategy, risk, performance and reporting on a connected basis, rather than as separate financial and sustainability information. In this most recent update, the Code also highlights that it "now definitively supports sustainability disclosure on the basis of double materiality. This means that an organisation should include in reports not only sustainability information about matters that significantly affect its finances and prospects (or are reasonably expected to do so) but also information about matters that impact its ability to create sustainable value for stakeholders over time." (page 5).



The interviews highlighted a number of practical factors that help boards embed connectivity in practice

Oversee strategy, risk and reporting together

Interviewees described the board's responsibility as seeing the full picture and satisfying itself that the reports are coherent. Reviewing the financial plan and the sustainability plan as a single set of decisions makes the connections between them visible and allows inconsistencies to be identified and challenged.

Provide leadership as well as information

Interviewees highlighted that the more challenging problem is leadership willing to act on the data, rather than the volume of data. The board sets the tone that allows each function to raise what it knows and supports decisions that do not follow the usual financial pattern. A culture set from the top that supports connectivity in thinking and reporting helps information flow across functional boundaries and be acted upon, both in terms of risks and opportunities.

Set clear ownership of oversight

Identifying who is responsible for overseeing sustainability-related risks and opportunities, and how that responsibility connects to the audit and risk committee, or other relevant committee, avoiding gaps and duplication. Where mandates overlap, for example between the audit committee, a sustainability committee, a risk committee and executive management, responsibility for connectivity should be explicitly allocated and reflected in each body's terms of reference.

Assign ownership of sustainability data

Boards should satisfy themselves that ownership of sustainability data is clearly allocated, and reported information is governed with the same clarity as financial data, including accountability for its outputs.

Build sustainability literacy on the board

Interviewees questioned whether boards always understand the full picture. Directors need enough understanding of the organization's material sustainability matters to judge whether the reporting holds together, rather than relying wholly on outside experts. Ongoing director education and training, and access to external expertise where needed, help keep this literacy current as reporting requirements and expectations evolve.

Focus on a small number of decision-relevant metrics

Concentrating on the few metrics and targets that bear on strategy, and working back from long-term targets to interim milestones, allows progress to be monitored without overwhelming the board.

Define the information the board receives

Setting out what information the board and audit committee should receive, and how often, supports consistent oversight. Board reporting dashboards that present financial and sustainability information together, on a consistent basis and with progress against targets, help directors see the connected picture at each meeting.

Connect incentives to the targets

Interviewees described tying remuneration to sustainability targets as a way of connecting what is reported externally with how performance is actually managed.

Expect balanced and transparent disclosure

Some interviewees expressed concern that politicization of sustainability reporting and the fear of greenwashing is suppressing useful disclosure and has potentially increased the risk of 'greenhushing'. The board can set an expectation of disclosure that is proportionate and supported.

Keep committee agendas connected

Where oversight is split across committees, for example a separate sustainability committee and audit and risk committee, interviewees described uplifting the charters of the sustainability committee and the audit and risk committee together, so that recommendations flow between them effectively.

Oversee engagement with investors and regulators.

The board also oversees how the organization engages with investors, regulators and other stakeholders on connected reporting, consistent with stewardship expectations, so that the messages are consistent with the reported financial and sustainability information.

Take a long-term horizon view

Interviewees observed that decade- and generation-minded organizations are better placed for connectivity in reporting than those governed to shorter-term results, because sustainability outcomes often play out over the long term.

Responsibility for sustainability reporting is increasingly being allocated to the audit committee. For example, in their 2026 publication The audit committee and sustainability oversight, PwC, drawing on Center for Audit Quality data, reported that 31% of S&P 500 companies assigned this responsibility to the audit committee. The audit committee can readily oversee connectivity in reporting as it already has oversight of the financial statements, the internal control system and the external audit process. For example, audit committees can assess sustainability risks in the same context and within the same risk framework as other risks such as where these risks may give rise to asset impairment, reassessment of useful lives and in assessing capital commitments.



CASE STUDY Siemens

As highlighted in its Corporate Governance Statement 2025, Siemens places responsibility for sustainability reporting with its Audit Committee. Siemens describes the Audit Committee's formal remit as follows:

The Audit Committee oversees, in particular, the accounting and the accounting process and conducts a preliminary review of the Annual Financial Statements of Siemens AG, the Consolidated Financial Statements of the Siemens Group and the Combined Management Report of Siemens AG and the Siemens Group, including the Sustainability Report and the statements regarding the EU taxonomy. After its preliminary review, the Audit Committee makes proposals regarding Supervisory Board approval of the Annual Financial Statements of Siemens AG, of the Consolidated Financial Statements of the Siemens Group and of the Sustainability Report. For these proposals and for its preliminary review of the Combined Management Report, the Audit Committee takes into account the reporting by the independent auditors and the reporting on the separate limited assurance of the Sustainability Report, including the statements regarding the EU taxonomy.

Further, in relation to controls and assurance, the Committee:

oversees the appropriateness and effectiveness of the risk management system and of the internal control system with particular regard to financial reporting and sustainability-related reporting. [...] It prepares the Supervisory Board's recommendation to the Annual Shareholders' Meeting concerning the election of the independent auditors and the election of the auditors of the Sustainability Report and submits the corresponding proposal to the Supervisory Board. [...] Based on the decision of the Annual Shareholders' Meeting, it awards the audit contract to the independent auditors and the audit contract for the separate limited assurance of the Sustainability Report, including the statements regarding the EU taxonomy. [...] The Audit Committee assesses, on a regular basis, the quality of the audit of the financial statements and of the audit of the Sustainability Report.

The Statement also highlights the cross-cutting importance of sustainability across its committees and Supervisory Board:

The Supervisory Board has not established a dedicated sustainability committee. Sustainability is one of the focus topics of the Supervisory Board's work. Sustainability is of such central importance for Siemens that it is discussed regularly and in detail at the Supervisory Board's plenary meetings. As a cross-cutting issue, sustainability touches on the areas of responsibility of several committees. To the extent that sustainability affects reporting, the Audit Committee considers sustainability-related questions in detail and reports on these matters at the Supervisory Board's plenary meetings.

Source: Siemens Corporate Governance Statement 2025

Responsibility for sustainability reporting is also often undertaken by a separate committee with appropriate communication and reporting to other board committees, including the audit committee. For example, in Australia, where mandatory climate-related financial disclosure commenced in 2025, Telstra (a large listed telecommunications company) replaced its combined Audit & Risk Committee with two separate committees – an Audit Committee and a Risk & Sustainability Committee.

CASE STUDY Telstra

The Risk & Sustainability Committee (RSC) assists the Board in discharging its responsibility for environmental, social and governance matters which include climate and nature as highlighted below.

OVERSIGHT

BOARD
- Provides insight into, and approves, organisational strategy
- Monitors performance metrics of CF30 strategy
- Approves public climate and sustainability targets
- Approves climate and sustainability disclosures
- Oversees the Group's approach to climate and nature-related risks and opportunities

RISK AND SUSTAINABILITY COMMITTEE (RSC)
- Oversees the design, implementation and effectiveness of the Group's risk management framework
- Makes recommendations to the Board on public climate and sustainability targets
- Reviews and provides feedback on climate and nature-related risks, opportunities, plans and disclosures
- Monitors the effectiveness of the Group's governance, management systems and controls on climate-related matters
- Informs Board about matters discussed and resolved by the RSC
- Makes recommendations to the People and Remuneration committee on ESG-related metrics and targets in executive incentive plans and assesses performance against those metrics and targets

PEOPLE AND REMUNERATION COMMITTEE (PRC)
- Reviews and makes recommendations to the Board on remuneration arrangements for the CEO and Senior Management, including those related to performance against climate-related metrics and targets.

Extract from "Governance of climate and nature matters" Telstra Annual Report 2026 (page 204).

The structure adopted by Telstra requires coordination between oversight of the financial statements and oversight of sustainability matters as responsibility is shared across the Risk and Sustainability Committee and the Audit Committee which has oversight of external reporting of financial information. Telstra's governance arrangements include cross-membership such that a member of the Risk and Sustainability Committee will also be a member of the Audit Committee, and the Chair of the Audit Committee will be a member of the Risk and Sustainability Committee.

Whichever structure a board chooses, whether it is as a combined committee or as separate committees with designed information flows, the board needs to satisfy itself that the financial statements and the sustainability disclosures are overseen as a coherent whole and that responsibility for the connections between them is explicitly allocated.

For multinational groups, oversight of connectivity involves additional considerations. Responsibilities need to be allocated between the group board and subsidiary or local boards, which may face differing local reporting and assurance requirements. Group-level policies, controls and reporting timetables support consistency across the group, while local boards remain responsible for meeting their own regulatory obligations and for satisfying themselves that group-level disclosures fairly reflect local operations.

Operationalizing Connectivity

The foundations of connectivity in reporting lie within the organization. This section sets out how connectivity is operationalized, through internal reporting and decision-making, the integration of policies, reporting processes, data architecture and systems.



Connecting policies, internal reporting and decision-making processes

Internal reporting policies and processes are the methods by which an organization produces information for its own decision-making, for example by management and board, rather than for external users such as investors. Internal reporting includes organizational budgets, forecasts, cost and performance reporting, management dashboards and the periodic reporting packs for management, the audit committee and board. Often referred to as management information, this is a regular package of information provided within an organization to managers and leaders to help them understand performance, identify issues, make decisions, manage risks and identify opportunities, and it informs decision-makers about key actionable pre-financial levers across their business model.

Monthly management information reporting cuts across governance, strategy, risk management, and metrics and targets – both financial and non-financial. The information management teams use to run the business day to day should line up with the information received by boards and other governance bodies.

For example, typical components of regular management information include:

Financial performance (actual/budget/forecast/prior year)

Key Performance Indicators (KPIs): Measures linked to organizational objectives

Operational performance: Information about how effectively the organization is functioning

People and workforce information: Visibility of workforce health and capability

Risk and compliance: Highlights current and emerging risks

Project and change portfolio updates

Customer and stakeholder information: How external stakeholders perceive the organization

Strategic progress: Linking operational activity to long-term objectives

Embedding connectivity in these internal reporting and decision-making processes means bringing climate-related and other sustainability information into these same processes, so that the information that is needed to connect sustainability and financial performance is planned, forecast and monitored through the year in the same way as existing financial information that is provided in the regular management information. Including climate-related and broader sustainability considerations alongside financial considerations in decisions such as capital allocation, investment considerations, forecasting and performance management, also allows organizations to achieve a more complete view of both risks and opportunities and their impact on organizational performance.

An example of how this could apply in practice is outlined in Example 3 on the next page.



Example 3 – Connecting energy cost and emissions in the management accounts

A food manufacturer with several production sites reviews a monthly performance report at the executive level, with a summary being provided by the finance team to the board each quarter. Historically, the monthly performance report showed energy as a single cost line ($m), while emissions were tracked separately by the sustainability team and only reported once a year (tCO_2e).

The finance and sustainability teams worked together to update the monthly performance report so that each site's energy cost was shown alongside its emissions (tCO_2e). They also added two per-tonne energy measures – energy cost per tonne of product ($) and emissions per tonne (tCO_2e).

Measure	Q2	Q3	Change
Production (tonnes)	50,000	42,000	–16%
Energy cost ($m)	4.00	3.60	–10%
Emissions (tCO_2e)	20,000	18,500	–7.5%
Energy cost per tonne ($)	80	86	+7%
Emissions per tonne (tCO_2e)	0.40	0.44	+10%



Without the additional energy metrics, the monthly performance report would have only indicated that the organization had a lower energy cost in Q3 due to lower production levels. However, once the additional measures were included and the combined cost and emissions information was shown per tonne in the same report, the performance measures highlighted that the site was using more energy, and producing more emissions, for every tonne of product produced.

The previous monthly performance report would have recorded a favorable variance; however, the updated monthly performance report showing connected information highlighted that performance was, in fact, declining.

In response, the executive approved a heat-recovery project at the site, which was previously ranked too low to fund. However, with the additional information the project met all the relevant criteria to proceed once both the cost saving and the emissions reduction were considered together.

Evaluating the maturity of connectivity practices

The interviews with stakeholders suggest that organizations are at varying stages of maturity in relation to connectivity practices ranging from minimum compliance, through to some level of coordination (for example, shared timetables and joint review), to integration (for example, one reporting process, one data architecture and connected decision-making).



What shapes the maturity of connectivity

The maturity of connectivity is influenced by organizational factors and by external jurisdictional and industry factors. Organizations in jurisdictions moving toward mandatory sustainability reporting are more often further advanced, and organizations in industries with a stronger sustainability focus are also more likely to have more mature connectivity practices.

Key reasons provided for development of connectivity in reporting:

- Efficiency in reporting, for example, using one framework to serve multiple reporting regimes rather than developing several parallel reports
- Improving credibility by moving beyond a 'marketing document' to the standard expected of mandatory disclosure that is investor-focused and decision-useful
- Investor demand for company-sourced, decision-useful data
- Mandatory reporting and assurance requirements in progress or already in place

Interviewees saw connectivity as something organizations keep developing. Rather than assessing whether it has been 'achieved', they highlighted that it is often first helpful to understand where an organization is placed in considering connectivity:

Do the financial statements and sustainability report draw on a shared, documented set of key assumptions?

Is finance engaged from the start of the sustainability reporting cycle (and vice versa), or brought in only at the review stage?

Does sustainability data sit within a controlled environment with governance, controls, and audit trails comparable to financial data?

Does the board request one integrated picture of performance and risk?

Do the same people, systems, and timelines support both reports?

Do investors request financial and non-financial details for the same reporting period?

Where the responses to these questions reveal potential gaps in connectivity, it is useful to consider some of the key enablers for connecting internal reporting and decision-making processes.

Key challenges and enablers for connecting internal reporting and decision-making processes

The stakeholder interviews provided the following key challenges and enablers for connecting internal reporting and decision-making processes:

Challenge	Enabler	Explanation
Long-term, uncertain climate information does not fit short-term decision cycles	Shared assumptions and time horizons	The same assumptions and a consistent treatment of the short- and long-term time horizons across financial and sustainability information (where appropriate). Draw on management accounting and scenario analysis, which are built for forward-looking and uncertain conditions, to extend planning horizons where it matters and present a range of outcomes so that uncertainty is managed.
Sustainability information remains largely qualitative and is not translated into financial terms	Responsibility for the sustainability information is incorporated into the finance function	Sustainability information reports through the finance function, which has the processes, controls and the ability to translate the information into financial terms. Use the finance function to help quantify the effect of sustainability matters and frame them as a business case, expressing them through the measures decision-makers already use, such as cost, margin, discount rate and asset value, so that the implications are understood and can be acted upon.
Decision-makers do not trust the data	Reliable, consistent and verifiable data	A 'single source of truth', with sustainability data reconciled to financial information provides decision-makers the confidence to use it for capital allocation and performance decisions. Apply finance-grade internal controls and reconciliations so that management can rely on the information and set the 'tone from the top'. This includes the same disciplines applied to financial information such as clear data ownership, documented methodologies, reconciliation back to the financial systems as well as review and sign-off before the information is used.
Information prepared for external reporting is not reused for internal decisions and it is treated as compliance rather than decision-useful	Responsibility for the sustainability information is incorporated into the finance function	Sustainability measures reported alongside the financial items they relate to, and tracked through the year in routine management reporting, so that the link between sustainability and financial performance informs decisions between reporting dates rather than only at the year-end. Bring the data and analysis assembled for the report into routine management reporting and dashboards, so that the same information used externally informs capital allocation, performance management and day-to-day decisions, rather than being gathered only to satisfy a disclosure requirement.
Sustainability is not built into capital allocation and investment appraisal and decision-making	Taking a multi-capital approach to these processes	Finance, sustainability, risk and operations working together so that trade-offs are visible at the point of decision and the person who holds the relevant information is in the room when the decision is made. Embed sustainability into strategic planning and the capital appraisal process, requiring each significant investment to set out its sustainability impact alongside its financial case, and bringing finance, risk and sustainability together to understand and evaluate any trade-offs required.
Organizational silos and resistance to integrated approaches	Cross-functional collaboration	Making the connection in practice depends on the right people being involved at the right point in the disclosure process. Accountants able to translate sustainability matters into financial terms, a management-accounting mindset comfortable with forward-looking uncertainty and leadership that sets the tone for the collaboration. In addition, where appropriate, link the information to performance and reward, so that it is treated as decision-useful. Establishment of joint working groups with shared deliverables, jointly authored board papers, accountants embedded within sustainability teams and shared performance objectives. For example, transition plans can act as a catalyst for this joined-up working, since a credible transition plan cannot be produced without the finance and sustainability teams working from the same assumptions and plans.

Where interviewees saw connectivity working well, those with responsibility for technical accounting and for sustainability reporting tended to work closely together and the strongest examples highlighted were where the teams reported to a single reporting line. Connectivity was noted as being enhanced where the overall reporting team comprised a mix of financial and non-financial skills including a strong foundation of expertise in broader sustainability information.



Connectivity in Systems and Processes

Where financial and climate-related information are prepared by different teams, from different data, on different time horizons and using different assumptions, it can be difficult to achieve connectivity in the resulting reporting. Integrating the reporting processes, by bringing the data, the assumptions, the indicators and the timelines into alignment, is therefore one of the most practical ways to achieve connectivity in reporting.



The operational barrier to connectivity cited most frequently in the interviews is inconsistency of assumptions, where the same asset, transaction or commitment is described differently in different reports because the teams preparing them have not compared their inputs.

A common example of integrating reporting processes is the fixed asset register. A finance team typically maintains a register based on its capitalization policy and the book value of assets, while operational teams may maintain a separate register based on the number of physical assets in use, which generate GHG emissions. The two registers serve different purposes, and each may be reliable for its own purposes. However, reconciling these registers so that both reports describe the same asset base is what enables connectivity. For example, assets recorded at nil book value may still generate significant GHG emissions.

Achieving consistency requires a common foundation, such as a shared register of key assumptions (including, for example, asset lives, discount rates, climate scenarios and transition plan milestones) that is jointly owned by the finance and sustainability teams and reviewed at least each reporting cycle. It also requires each function to become comfortable with the other's tolerance for uncertainty. For example, sustainability data often originates with engineers and operational teams whose preference is for data based on actual figures, rather than estimates and assumptions. However, in developing sustainability information related to historical performance, assumptions and estimates may still be required because complete actual data is not always available within reporting timetables. This is consistent with financial reporting, which also relies on estimates and judgment. Accordingly, achieving connectivity requires mutual understanding of the different approaches to uncertainty across the relevant functions.

A practical starting point – Shared assumptions

Create a single register of the key assumptions used across the reporting suite, such as asset useful lives, discount rates, terminal values, climate scenarios and transition plan milestones, so that every report draws on the same agreed topics and inputs.



Assign joint ownership of the register to finance and sustainability and review it jointly at each reporting cycle to confirm the assumptions still hold and to capture any changes.



Where the two reports legitimately use different assumptions, disclose the difference and explain why it arises, so that readers can follow how the two sets of figures relate.



Test time-horizon consistency by checking whether the financial statements and the sustainability disclosures look forward over periods that can be reconciled and understand where, and why, they diverge. For example, if an organization expects demand for a product to decline over the next five years as customers decarbonize, this assumption should be consistent between the strategic plan, the useful lives and asset impairment assumptions and the climate-related disclosures.

However, it is important to remember that not all data will be consistent across sustainability reporting and financial reporting. The same underlying item can be measured for a different purpose, over a different scope or boundary, and to a different definition of what is material, so the numbers do not always align. In such circumstances it is important to explain the basis of preparation for each measure, set out any differences in scope, definition or method, and provide reconciliations and narrative explanations for any differences.



Policy and regulation were also noted by interviewees as significant drivers of process integration. The adoption of ISSB-aligned requirements in some jurisdictions, and the progressive tightening of regulatory expectations in other jurisdictions, is increasingly bringing sustainability information within the processes, controls and governance that already exist for financial reporting.

For example, a number of interviewees described preparation for regulation and assurance as the trigger for integrating their processes. Others noted that the phasing-in of assurance and the move to mandatory reporting are also drawing the processes together, as the analysis already applied to financial information by users of financial information is increasingly being extended to sustainability information.

Data architecture and systems

Connected data architecture matters for connectivity in reporting for two key reasons:

1. **Decision-usefulness** – sustainability and financial metrics draw on the same underlying transactions and operational sources.

2. **Assurance readiness** – as some jurisdictions are moving towards mandatory assurance over sustainability information, to be 'assurance ready' the data architecture requires a documented audit trail and controls, defined data owners and be able to be traced from the source system through to the final disclosure.

The interviews highlighted that, in practice, the way in which organizations connect their financial and sustainability systems evolves as connectivity maturity increases. There are three key systems layers that organizations commonly apply with increasing integration of sustainability and financial information:



spreadsheet-based aggregation;

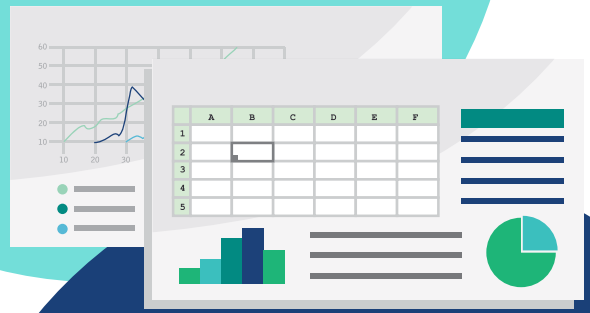


a dedicated sustainability platform over the existing systems, using connectors to draw energy, procurement and financial data from the ERP, workforce data from HR systems and activity data from operational sources, with the calculation, controls and lineage managed in the platform; and



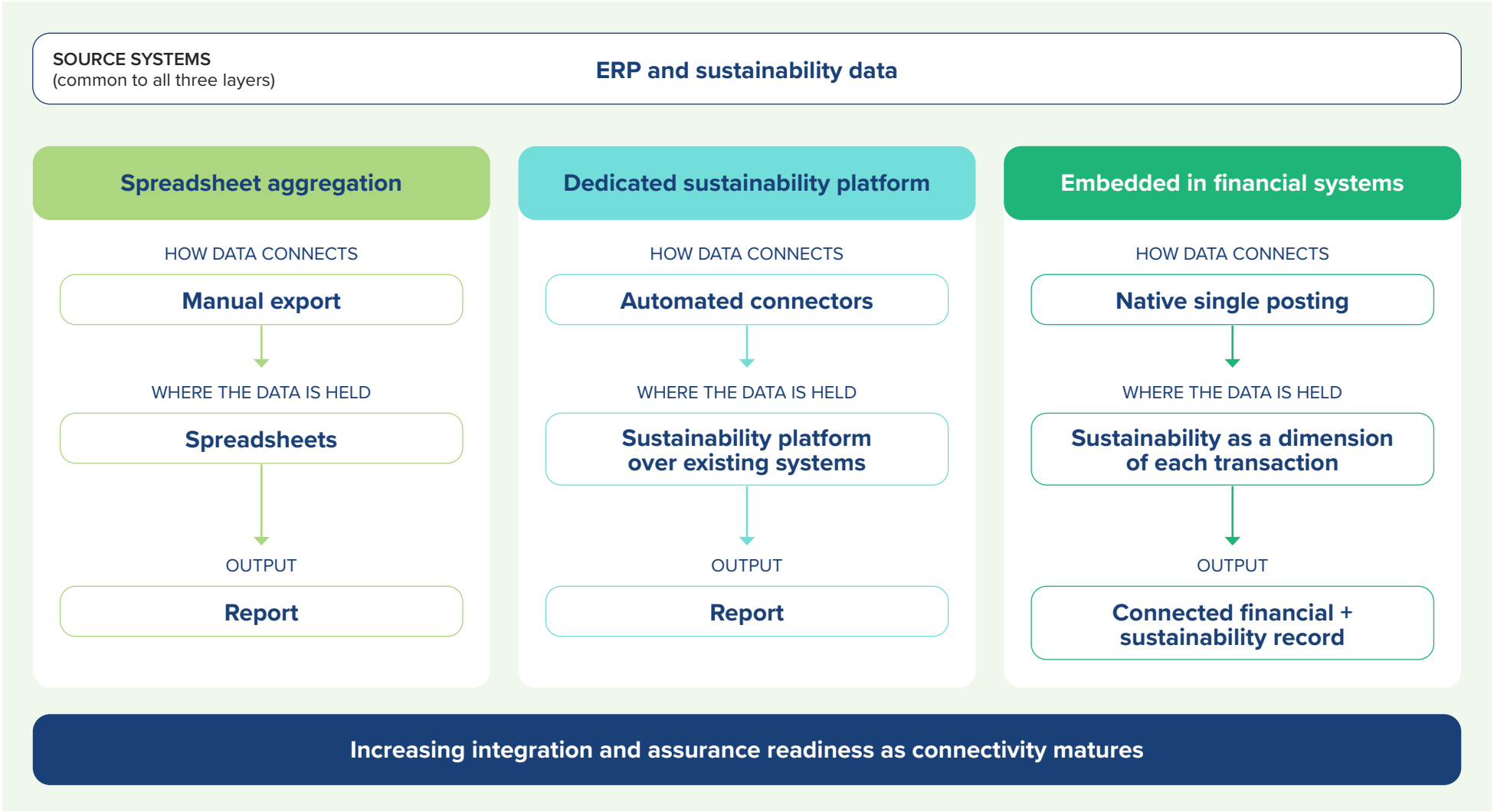
embedding sustainability data in the financial systems environment so that a single data point produces both a financial and a carbon view.

In a 2024 KPMG survey of 550 US board members, executives and managers, **47% of companies reported that spreadsheets were their primary ESG data management system**, ahead of ERP systems with ESG modules (38%) and dedicated ESG software (37%).



More recently, KPMG's June 2026 report, Closing the Sustainability Valuation Gap, found that while 72% of executives understand their sustainability strategies, **only 19% can quantify how sustainability will affect their future performance**, with four in five companies unable to measure how sustainability affects profits, cash flow or valuation.

Figure 1: Layers of increasing integration for connecting ERP and sustainability data



As highlighted in Table 1 below, each of these options for connecting ERP and sustainability data has pros and cons:

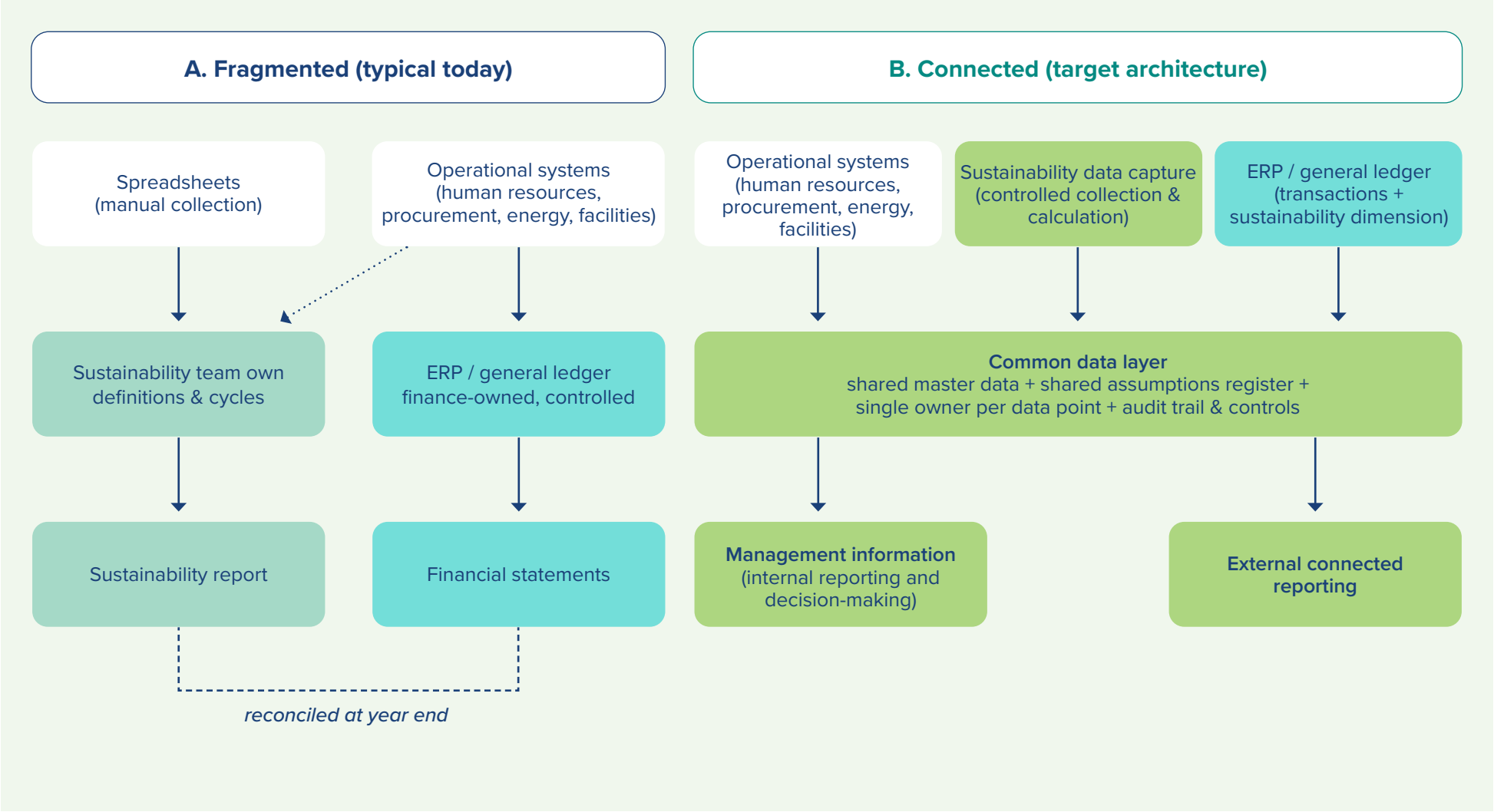
Table 1: Pros and cons of increasing integration

Challenge	Enabler	Enabler	Explanation
Pros	• Low cost and quick to set up with no new systems required • Flexible, such that it accommodates any data source or calculation method • Spreadsheets are already familiar software for preparers	• Calculation, controls and data lineage are held in one controlled environment • Reduced manual handling and error compared to spreadsheet aggregation • The source systems are left largely unchanged so that data can be traced, reviewed and assured	• A single posting produces both a financial and a sustainability analysis that can be reconciled • Applies double-entry discipline and finance-grade controls to sustainability data • Has the strongest traceability and assurance readiness
Cons	• Manual export and offline combination are error-prone • Calculations, adjustments and judgments sit outside any controlled environment • Lineage from source to disclosure is difficult to demonstrate; least defensible under assurance	• Results in an additional platform for preparers to procure, integrate and maintain • Sustainability data still sits outside the financial system with separate reconciliation to the ledger	• The technology is still maturing and vendor offerings are relatively limited • Requires significant implementation cost and effort • Requires transaction-level sustainability data of finance-grade quality that may not always be available

Figure 2 on the next page contrasts the fragmented, primarily spreadsheet-based, data architecture that is typical today (Panel A) with the integrated, connected architecture (Panel B). In the fragmented arrangement, sustainability information is collected manually in spreadsheets, covering areas such as energy, health and safety, and GHG emissions, and by extraction from operational systems including human resources, procurement and facilities. Responsibility for this information often sits with the sustainability team. Financial information follows a separate path through the ERP and general ledger, which is owned by finance and subject to established controls. The two processes run in parallel such that the sustainability report and the financial statements are reconciled only at year-end.

In the connected architecture the source systems are unchanged; however, a common data layer now sits between the source systems and the reports that are ultimately prepared. In the connected system the common data layer includes shared master data and an assumptions register, each data point has a single owner, and an audit trail and consistent controls apply across both financial and sustainability information.

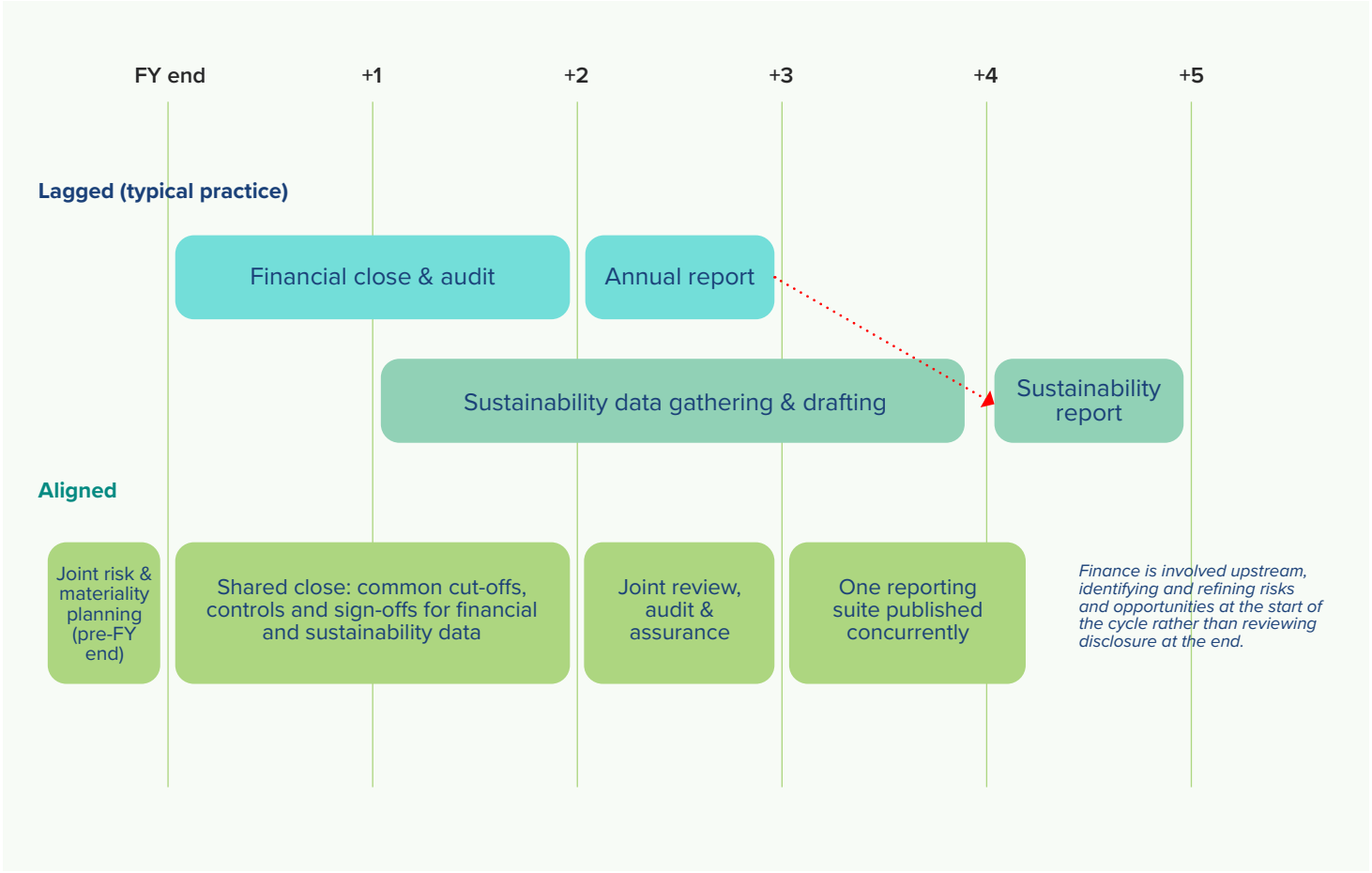
Figure 2: Data architecture



Alignment of sustainability and financial reporting cycles

Figure 3 compares two reporting timetables. The first timetable shows the typical lagged practice, in which the sustainability report is produced on its own cycle after the financial close and is often published months after the annual report. In the second timetable, the reporting timetables are aligned with joint risk and materiality planning before year end, a shared close with common cut-offs, controls and sign-offs, joint review, audit and assurance and a single reporting suite published concurrently. For jurisdictions adopting ISSB-aligned reporting, IFRS S1 includes a requirement for an entity to report its sustainability-related financial disclosures at the same time as its related financial statements, covering the same reporting period (IFRS S1, paragraph. 64).

Figure 3: Reporting timetable comparison

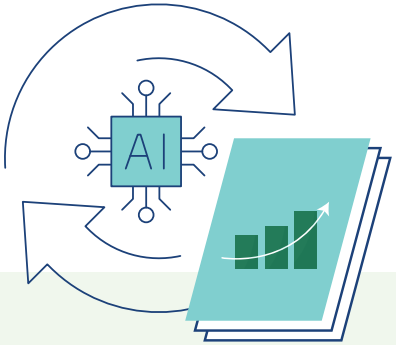


> The chief sustainability officer needs to be equivalent to the chief financial officer within the governance structures. Then the dialogue between those roles needs to be a two-way street throughout the year, not just at the annual reporting stage, so that issues identified by the sustainability team are fed through to the financial reporting team and vice versa.
>
> **Blaise Colyvas, Director, W.consulting; Chair – SAICA Accounting Practices Committee; Member – SAICA Sustainability Technical Committee; Member – Financial Reporting Standards Council of South Africa**

Using technology (including AI) as an enabler for connectivity

Integrated platforms provide management confidence in the data and help to automate the collection and integration of information across reporting streams. Adoption of AI in reporting processes is already well advanced. For example, KPMG research on AI in financial reporting highlights that a majority of US companies already use AI in financial reporting (52%, with 58% piloting or deploying generative AI), that virtually all companies surveyed (99%) expect to be piloting or using AI in financial reporting within three years, and that 73% of boards globally expect their auditors to prioritize the use of AI in anomaly and risk detection.

A similar trajectory can be expected for sustainability reporting. However, interviewees also noted the importance of including human judgment and responsibility in connectivity in reporting.



Key areas where technology and AI can support connectivity in reporting:

Connecting the underlying data, including in applying digital reporting and taxonomy requirements

Extraction and assembly. Natural-language processing can pull sustainability data from unstructured sources, for example invoices, contracts, supplier documentation and regulatory texts and automate the collection

Consistency checking across the reporting suite. Large language models can read across the strategy, the sustainability disclosures and the financial statements and identify where assumptions, quantitative or qualitative information is inconsistent

Freeing up capacity. By automating collection, assembly and checking, technology can provide more time for the human judgment that is needed to produce decision-useful, connected reporting

> What do we get from technology? We get data. That data connects the impact of what we do with the financial drivers behind it. Technology enables the collection of that data and, importantly, the integration of financial and non-financial information into a coherent story. Connectivity is about building that story from the available evidence, whether that's a financial metric, an impact metric, an output, or an outcome.
>
> It's great when we can measure things quantitatively, but a lot of important outcomes can't be reduced to a number. The numbers are important, but they still need explanation. AI helps us develop that explanatory narrative and connect it back to the metrics at a scale that wouldn't otherwise be possible.
>
> **Professor Michael Davern, University of Melbourne**

However, interviewees also noted that even where preparers achieve connectivity in qualitative information, the digital taxonomies through which reports are increasingly consumed by users are not yet able to readily identify the connections between a sustainability disclosure and the related financial statement line item or note.

> At the moment the specification of XBRL has no mechanism for two instances to talk to each other. There is no way to create a sustainability tag – say, as a result of decisions we made we shut down a plant, people will be redundant and we have impaired assets – and point to the related financial statement note. Until XBRL creates a way for two instances to refer to each other, you can't connect, which is just fundamental to reporting.
>
> **Dr Alan Teixeira, Director, Deloitte UK & co-author of Sustainability Reporting: A Guide for Professionals and Students**

Conclusion



Conclusion

Effective connectivity is a key characteristic of high-quality corporate reporting. This publication examined how connectivity between sustainability and financial reporting is achieved in practice and addressed the practical question of how connected information is produced and governed within an organization. Connected reporting is the result of connected processes, data, systems and decisions.

A consistent theme from the interviews is that connectivity comes from applying to sustainability information the governance, judgment, policies, processes, systems and controls that the accounting profession already brings to financial information, such as measurement, estimation, documented assumptions, reconciliations, controls and assurance-readiness.



Connectivity is enhanced where finance is engaged at the start of and throughout the cycle, where sustainability information reports through the finance function, and where roles, ownership and cross-functional collaboration are deliberately designed. Connectivity in reporting is further developed when sustainability information is brought into strategy and strategic planning, including capital allocation and the performance framework, on the same basis as financial information, and when the board and audit committee oversee the connections between the information. There is an increasing need to move toward building the processes, controls and governance structures that link climate-related information with strategy and financial decision-making, in particular in areas involving judgment, forward-looking information and uncertainty.

However, interviewees noted that maturity in practice varies. While many organizations now recognize the importance of connectivity in principle, embedding it into strategy and governance remains in its early stages of maturity for many organizations. For the accounting profession, operationalizing connectivity is both a challenge and an opportunity. The profession is well placed to lead the work of connectivity. The areas examined in this publication, embedding connectivity in strategy and governance, operationalizing it through internal reporting and decision-making, and building the systems and processes through which connected information is produced, all build on disciplines that are already part of the profession's day-to-day practice. The opportunity for the profession is to extend that foundation, bringing sustainability information inside the control environment built for financial information and developing the new competencies that this strategic role requires.

The third publication in this series, **Principles for Connected Reporting**, builds on these foundations, setting out a practical framework of principles for accounting professionals to apply in developing connected reporting.

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Useful Resources

Applying Enterprise Risk Management to ESG-related Risks: A guide developed by COSO and WBCSD designed to help risk management and sustainability practitioners apply enterprise risk management (ERM) concepts and processes to ESG-related risks.

CA ANZ Acuity - Carbon crush: An overview of the carbon accounting software landscape.

CA ANZ Acuity - Australia's ESG reporting and the data challenge: An article on the data challenges organizations face in meeting ESG reporting requirements.

CA ANZ – Sustainability Playbook: A practical guide helping accounting and finance professionals build the skills to navigate climate-related disclosure and its connectivity to the audited financial statements.

Chartered Accountants Worldwide – Carbon Footprint Guide: A practical guide for accountants on measuring and managing an organization's carbon footprint.

Connectivity in Reporting: The joint IASB and ISSB project page tracking ongoing work on connecting financial and sustainability reporting.

Connectivity – what is it and what does it deliver? A short, accessible explainer on connectivity.

EFRAG – Connectivity of Financial and Sustainability Reporting: A discussion paper highlighting the importance of connectivity and its key characteristics.

Essential Guide to Building a Sustainability Governance Framework: A series of guides to help the finance and accounting community address the practical issues of integrating sustainability into their business processes and decisions developed by the Accounting for Sustainability Project (A4S) Chief Financial Officer (CFO) Leadership Network.

Governance for valuation: A guide developed by the Capitals Coalition to provide decision-makers with actionable insights into the suitability and confidence of capitals information in the context of valuation.

ICAEW – Connecting sustainability and finance: A practical resource series for finance professionals on why and how to connect sustainability and financial information.

ICAS Sustainability Governance Toolkit: An Eight-Step Toolkit for Sustainability Governance and Oversight for Accounting Professionals.

IFRS – Webcasts: Connectivity between the financial statements and sustainability-related financial disclosures: A series of IFRS Foundation webcasts explaining how the financial statements and sustainability-related disclosures connect, with worked examples for preparers.

The Integrated Performance Management (IPM) framework: A framework developed by AICPA & CIMA with WBCSD that creates a clear line of sight between strategic objectives, supporting initiatives, operational activities and performance measures, including the operational and sustainability drivers of performance.

Glossary

Climate-related disclosures
Disclosures, prepared in accordance with IFRS S2 or equivalent national or jurisdictional standards, that provide information about an entity's climate-related risks and opportunities.

Climate-related opportunities
The potential positive effects arising from climate change for an entity. Efforts to mitigate and adapt to climate change can produce climate-related opportunities for an entity (IFRS S2, Appendix A).

Climate-related risks
The potential negative effects of climate change on an entity. These risks are categorized as climate-related physical risks (acute and chronic risks arising from the physical impacts of climate change) and climate-related transition risks (risks arising from the transition to a lower-carbon economy, including policy, legal, technology, market and reputational risks) (IFRS S2, Appendix A).

Climate-related transition plan
An aspect of an entity's overall strategy that lays out the entity's targets, actions or resources for its transition toward a lower-carbon economy, including actions such as reducing its greenhouse gas emissions (IFRS S2, Appendix A).

Connected information
The term used in IFRS S1 to describe disclosures that enable users to assess the connections between an entity's sustainability-related risks and opportunities, and the connections between sustainability-related disclosures and information provided in the related financial statements (IFRS S1, paragraphs 21-24).

European Sustainability Reporting Standards (ESRS)
The set of sustainability reporting standards developed by EFRAG and adopted by the European Commission for application under the Corporate Sustainability Reporting Directive.

General purpose financial reports
Reports that provide financial information about a reporting entity that is useful to primary users in making decisions relating to providing resources to the entity. Those decisions involve decisions about:

(a) buying, selling or holding equity and debt instruments;

(b) providing or settling loans and other forms of credit; or

(c) exercising rights to vote on, or otherwise influence, the entity's management's actions that affect the use of the entity's economic resources.

General purpose financial reports include – but are not restricted to – an entity's general purpose financial statements and sustainability-related financial disclosures. (IFRS S1, Appendix A).

GRI Standards
The sustainability reporting standards developed by the Global Reporting Initiative, comprising the Universal, Sector and Topic Standards.

Integrated reporting
A process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regarding aspects of value creation, preservation or erosion (Integrated Reporting Framework, Glossary).

Sustainability-related financial disclosures
A particular form of general purpose financial reports that provide information about the reporting entity's sustainability related risks and opportunities that could reasonably be expected to affect the entity's cash flows, its access to finance or cost of capital over the short, medium or long-term, including information about the entity's governance, strategy and risk management in relation to those risks and opportunities, and related metrics and targets. (IFRS S1, Appendix A).

GAA member organizations

About the GAA

The Global Accounting Alliance (GAA) was formed in 2005 as a forum for 10 of the world's leading professional accountancy bodies whose members practice in major capital markets. Its purpose is to serve the public interest by leading the advancement of a high-quality accounting among GAA members, as well as advocating on international issues important to the profession.

The GAA's strategic priorities:

Information Sharing: The GAA member bodies will regularly convene their staff to facilitate the sharing and exchange of non-competitive information and to meet with relevant external stakeholders, via Board and Working Group in-person and virtual meetings, for the mutual benefit of the participating GAA member bodies.

Cooperation: The GAA member bodies will work together to identify challenges facing member bodies, and the profession in general, and consider how to meet these challenges and plan for the future, either as the GAA or as individual member bodies. Some, or all, of the GAA members may pursue joint initiatives and projects where the combination of their individual expertise and sharing of costs may result in economies of scale or other mutual benefits.

Influence and advocacy: The GAA maintains a regular review of the activities and plans of the International Federation of Accountants (IFAC) and engages in regular dialogue with IFAC leadership and other key stakeholders of the accounting profession. Where practical, the GAA will attempt to guide and influence the profession.



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