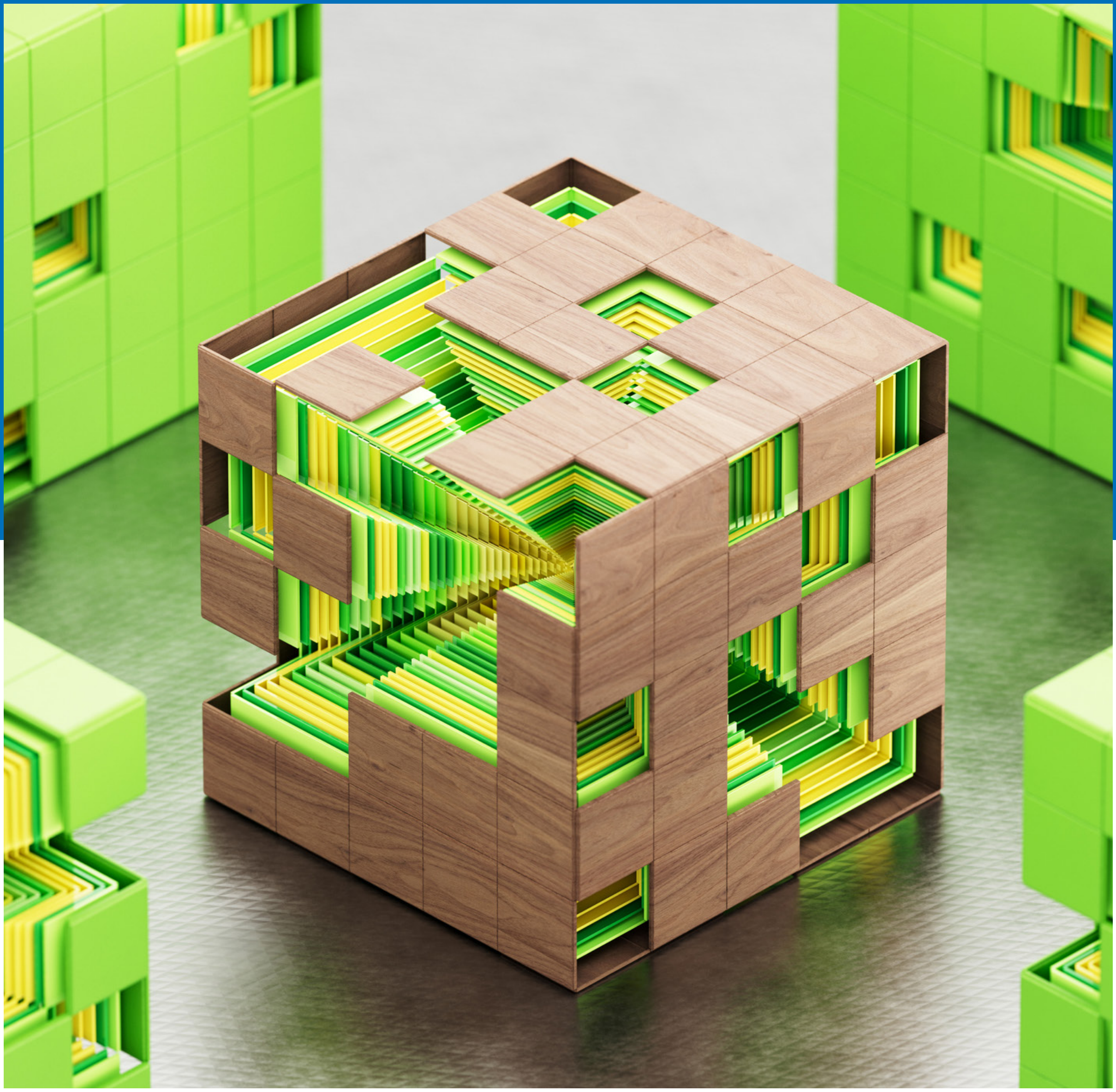
Committee of Sponsoring Organizations of the Treadway Commission



ACHIEVING EFFECTIVE INTERNAL CONTROL OVER SUSTAINABILITY REPORTING (ICSR):

Building Trust and Confidence through the COSO *Internal Control—Integrated Framework*

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COSO

Originally formed in 1985, COSO is a joint initiative of five private-sector organizations and is dedicated to helping organizations improve performance by developing thought leadership that enhances internal control, risk management, governance, and fraud deterrence. COSO's supporting organizations are the American Accounting Association (AAA), the American Institute of Certified Public Accountants (AICPA), Financial Executives International (FEI), the Institute of Management Accountants (IMA), and The Institute of Internal Auditors (IIA).

NONAUTHORITATIVE, INTERPRETATIVE PUBLICATION

This report is nonauthoritative. It expresses only the interpretations, opinions, and perspectives of the authors on how the COSO *Internal Control—Integrated Framework* may apply to sustainable business activities and information.

COSO BOARD MEMBERS

For more information, please visit **www.coso.org**.

PREFACE BY TWO PREVIOUS COSO CHAIRS: THE CALL TO ACTION

When first issued in 1992, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) *Internal Control—Integrated Framework* was focused on trying to resolve unprecedented, unexpected, and embarrassing fraudulent corporate financial reporting. Tarnished by these events, the sponsoring organizations banded together to try to heal their bruised reputations, mitigate these events, and develop a solution so that corporate fraudulent financial reporting would never reoccur. With the appointment and leadership of former U.S. Securities and Exchange Commission (SEC) Commissioner James C. Treadway Jr., they did so in the form of defining internal control and laying out a construct and model for all organizations of any size to use in order to develop and evaluate internal control, a key term that surprisingly had not been formally well defined in the past. Unfortunately, however, regulation to require the evaluation and reporting on internal control was proposed but not approved.

Fast-forward to 2000. Fraudulent corporate financial reporting crept back onto the landscape with numerous restatements and destruction of enterprise value at levels never seen before. This time, however, the U.S. Congress and SEC acted more decisively. As part of the Sarbanes-Oxley Act of 2002 (SOX) and formation of the Public Company Accounting Oversight Board (PCAOB), an evaluation of internal control over financial reporting (ICFR) by using a "suitable framework" became required, to which the 1992 COSO framework qualified. Today, the framework is essentially the only such suitable framework used by U.S. stock exchange companies to report on the effectiveness of ICFR through a management certification and, for large companies, additional external auditor assurance of ICFR.

A major revision and update to the 1992 edition occurred from 2011 to 2013 and culminated in the release of the revised 2013 *Internal Control—Integrated Framework*. The 2013 version is the most widely used internal control framework to meet the requirement of SOX Section 404 and reporting on ICFR. It has been translated into most of the languages of the major stock exchange countries.

An important modification in the 2013 edition was to eliminate the word "financial" from the reporting objective to expand the scope and application of the framework to all forms of reporting, which the revised version defines as internal, external, financial, and nonfinancial. One reason for this modification was the clear recognition in 2013 of additional corporate reporting already occurring in the form of enhanced regulatory reporting, corporate social responsibility, corporate citizenship, sustainability, and now, most recently, reporting on environmental, social, and governance (ESG), which reflects both financial and nonfinancial information with the lens of preservation of resources, performance, and value creation.

As past COSO chairs involved in the development and dissemination of the 2013 revised *Internal Control—Integrated Framework*, we are pleased to see the realization of the modifications made to increase the applicability to all forms of reporting and, in particular, to sustainability and ESG reporting. We are both thoroughly convinced that the use of the 2013 framework for sustainability and ESG reporting will greatly enhance the overall effectiveness, efficiency, and accuracy of the underlying processes and internal controls as well as the accuracy of this reporting. Sustainability and ESG reporting now seem to have become a permanent expansion of corporate reporting all over the world to better meet the needs of multiple stakeholders in understanding the sources of enterprise value. Accordingly, there should be effective internal control over this reporting. •

David L. Landsittel
COSO Chair, 2008-2013

Robert B. Hirth Jr.
COSO Chair, 2013-2018

EXECUTIVE **SUMMARY**

Effective internal controls are good for business.

This is perhaps an interesting way to introduce the purpose of this thought paper, but, as its authors, our collective knowledge is very straightforward in this regard. Internal controls have value beyond compliance and external financial reporting. Effective internal controls can help an organization articulate its purpose, set its objectives and strategy, and grow on a sustained basis with confidence and integrity in all types of information.

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) *Internal Control—Integrated Framework*, originally issued in 1992 and refreshed in 2013 (ICIF-2013 or Framework), was developed as guidance to help improve confidence in all types of data and information. We cite from the Framework's foreword, dated May 2013:

- The Framework will enable organizations to develop and maintain systems of internal control that can enhance the likelihood of achieving the organization's objectives and adapt to changes in the business and operating environments effectively and efficiently.
- The Framework continues to emphasize the importance of management judgment in designing, implementing, and conducting internal control, and in assessing the effectiveness of a system of internal control.
- The Framework has been enhanced by expanding the financial reporting category of objectives to include other important forms of reporting, such as nonfinancial and internal reporting.

We believe that this expansion is inclusive of **sustainable business information**. Often referred to as "nonfinancial," "balanced scorecard," "performance dashboard," "environmental, social, and governance (ESG)," "integrated," or "impact" data, this information is accelerating in importance as organizations seek to improve their enterprise performance and relationships with stakeholders, both local and global. Given the increasing complexities and challenges of doing business in the world today, organizations are doing so in order to generate sustained value—ethically and responsibly—over the longer term. Companies are improving their performance management systems to have reliable data for decision making. Meanwhile, investors and rating agencies around the world are increasingly seeking and relying on sustainability performance data. So, there is a need among all stakeholder groups for effective controls and oversight so that this information is high-quality and fit for purpose: decision making in this changing world.

Whether the 1992 or 2013 version, the COSO Internal Control—Integrated Frameworks (collectively ICIF) are holistic. An organization's entire integrated system supports how it achieves its objectives, and effective external ESG reporting rests on the totality of these enterprise-wide processes. Moreover, rather than bright-line differentiation, the substance of the respective components, principles, and points of focus overlap. Indeed, as the title indicates, the intention is integration.

The Road to ICSR

This paper updates and expands on the 2017 study ***Leveraging the COSO Internal Control—Integrated Framework to Improve Confidence in Sustainability Performance Data***, which was coauthored by Robert H. Herz, Brad J. Monterio, and Jeffrey C. Thomson, who received invaluable input and counsel from then COSO Chair Robert Hirth. That paper advocated for greater integration between sustainability and finance teams as an essential driver of the path forward to improved internal and external reporting on sustainability and enhanced data quality for management of sustainable business issues. While some of the people and companies interviewed for the 2017 paper embraced that premise and had started to implement processes and internal controls in this area, our overall sense was that most companies had not yet begun the journey.

Fast-forward to 2023. From our interviews for this publication, we perceive a sea change in attitudes since 2017. With sustainability and ESG reporting now having become a top area of focus for CEOs, senior management, boards, investors, regulators, customers, and other stakeholders, we find that many more companies are now in various stages of implementing controls and governance processes over the collection, review, and reporting of sustainability information, including creating multifunctional teams that bring together a company's sustainability, finance and accounting, risk management, legal, and internal audit professionals. So, akin to internal control over financial reporting (ICFR), we are now seeing the emergence of what we call internal control over sustainability reporting (ICSR). While organizations are at different stages in this process, the need to bring together people with experience and expertise in the many dimensions of sustainable business with people experienced in ICFR continues, in our view, to be an essential element of successful design and implementation of ICSR and management of sustainability issues. •

DEFINITIONS

Without precise, generally accepted definitions, many people conventionally use variations of the term "sustainability" or "ESG" interchangeably. Following this convention and without bright-line definitions, in this publication, we generally use the following terminology:

Sustainability: meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable business: the activities and transactions that an organization conducts to achieve long-term survival as a going concern and concurrently deliver value that meets the expectations of all stakeholders that contribute resources for the organization to achieve its objectives. Following from this, sustainable business information and sustainable business reporting mean the data or information that reflects an organization's sustainable business activities and transactions, and sustainable business management refers to the means by which an organization directs and oversees its sustainable business activities and reporting.

ESG: an acronym for environmental, social, and governance. Often, this term is used synonymously or as a shorthand for sustainability or sustainable business to refer to the internal and external information value chain. More narrowly and within, this term is used generally to describe the constructs of external disclosure of categories of sustainable business information to investors and other stakeholders. •

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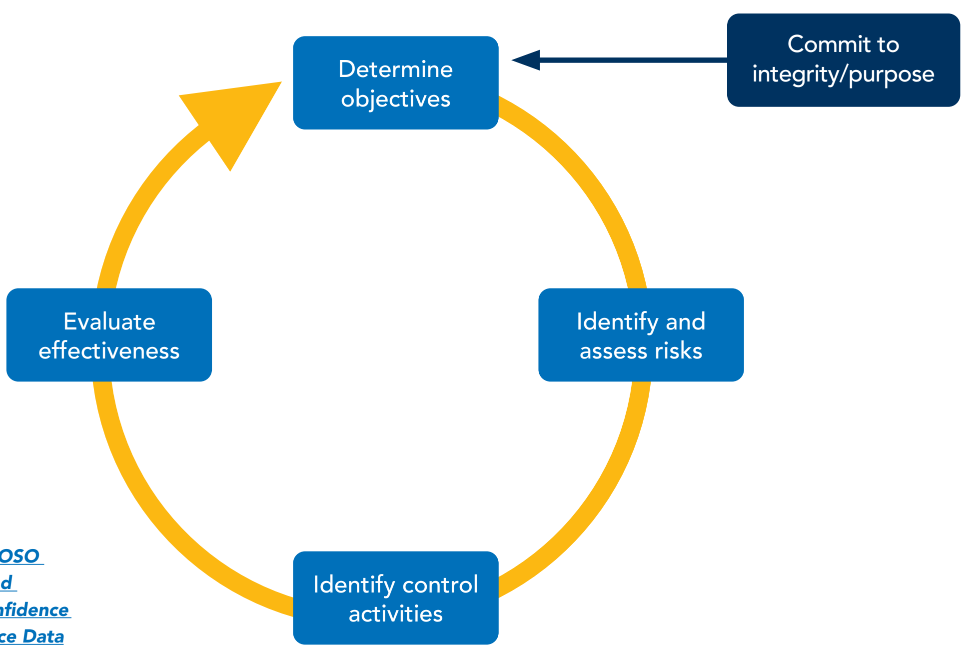
Recommendations: Building Trust and Confidence in Sustainable Business Information

As the discussion, insights, and illustrations make clear, applying effective internal controls to sustainability information for internal and external purposes constitutes a rapidly growing use of existing risk and control concepts. Few best practices have been established. While some larger institutions have progressed in building controls around environmental, social, and governance (ESG) reporting, many organizations have designed ad hoc controls around certain key sustainable business metrics. Many also perform internal verification and assurance procedures to ensure management comfort with this information. Yet few of them seem to have developed effective, integrated systems of internal control over their material or decision-useful sustainable business information. There is an expectation among policy makers, investors, and other stakeholder groups that some organizations will be able to achieve reasonable assurance, rather than limited assurance, on their external disclosures relating to climate and other ESG risks. All organizations, and particularly professional accountancy organizations, are on a learning and growth journey to build trust and confidence in sustainable business information for internal and external decision making. A good starting point for implementing internal control over sustainability reporting (ICSR) is the process and ecosystem of the **Committee of Sponsoring Organizations of the Treadway Commission (COSO) *Internal Control—Integrated Framework***—originally issued in 1992 and refreshed in 2013 (ICIF-2013 or Framework)—with a key addition, the concept of organizational commitment to integrity and purpose, which is an important aspect of sustainability (see Figure R-1: Flow of Internal Control Framework).

FIGURE R-1: FLOW OF INTERNAL CONTROL FRAMEWORK



Based on ***Leveraging the COSO Internal Control—Integrated Framework to Improve Confidence in Sustainability Performance Data***

This framework creates five action points:

1. Commit to integrity by stating your purpose: One of the key elements of beginning a sustainable business program is the articulation of an organization's purpose and commitment to acting with integrity. In many cases, an organization can look to its existing mission statement and values. In other cases, however, it may prove beneficial to consider a broader perspective: the reason that stakeholders contribute their precious resources to an organization and what they expect in return.

2. Determine objectives: The organization establishes, documents, and communicates internal and external sustainable business objectives and establish measurement and reporting principles for specific sustainable business factors with sufficient detail that they may be applied properly and considered in assessing potential risks in the process of preparing sustainable business data.

3. Identify and assess risks (and consider opportunities): To identify significant risks, the organization evaluates the relevant qualitative and quantitative risk factors—for example, those that might result in a misstatement—that are reasonably likely to jeopardize the achievement of its sustainable business objectives. This includes a determination of the extent of the risk and whether and how it may be managed. Moreover, one of the key benefits of developing and implementing sustainable business initiatives is highlighting means for turning risks into strategic opportunities, such as reduced waste, enhanced stakeholder engagement, and improved resource deployment.

4. Identify control activities: With an understanding of the risks to achieving sustainable business objectives and the processes that underpin the measurement, management, and reporting of the data, the organization identifies specific control activities to manage a risk or mitigate it to an acceptable level.

5. Evaluate effectiveness: Having established internal control over sustainable business activities and ESG disclosures, the organization can regularly evaluate system design and operation to determine whether or not the Framework components and principles (see **Background**) are present and functioning.

As some examples in this paper illustrate, applying ICIF-2013 as a systematic, consistent framework to the achievement of an effective system of internal control over sustainable business activities and reporting can result in a variety of benefits, including:

- Alignment of an organization's employees, partners, and stakeholders with its commitment to purpose and articulated objectives.
- Enhanced data quality, utility, comparability, and reliability.
- Strengthened ability to support operations and compliance objectives.
- Better-informed decision making by internal management, external investors, and other stakeholders.
- Enhanced understanding of risks and the ability to mitigate them.
- Greater overall market efficiency.
- Increased access to and lowered cost of capital.

These benefits are most likely to accrue to organizations that have aligned their sustainable business objectives with their business strategies and focused on the issues most likely to contribute to performance and value preservation and creation.

Aligning External Reporting and Internal Benefits

Delivering Internal Benefits

Metrics related to key sustainability issues can provide organizations with business intelligence to support internal decision making and the management of performance and impacts. In reviewing its management of key sustainable business information for internal reporting objectives, an organization may wish to consider the following factors related to its data governance and management practices (this does not represent a comprehensive list of considerations, but rather an attempt to highlight certain key aspects of such an assessment):

- Does the organization's creation, collection, validation, storage, use, archive, and deletion of sustainable business-related data assets adhere to its data governance policy or strategy to support responsible management?
- Is relevant, reliable sustainable business information integrated into existing management reporting systems, processes, and reports? If so, is management actively using this information to run its operations? If not, why not?
- Is data lineage (the connection to original sources) maintained throughout information systems and the supply chain?
- Does the organization leverage technology to establish and maintain data lineage, access information, and connect to source data? If not, can it readily do so?
- Are relevant connections and dependencies maintained and preserved between sustainable business information and other types of information?
- How often is key sustainability data collected? Can it be collected and reported internally in a timely and cost-effective manner?
- Is decision-useful sustainable business information integrated into the key analyses supporting management decisions, such as those related to resource allocation, product development, mergers and acquisitions, compliance, and risk management?
- Are employee and supply chain partner incentives aligned with the organization's sustainable business objectives, such as service and product development? Is product design in accordance with demands around sustainability from customers throughout the distribution chain?
- Do the reports have meaning and usefulness beyond compliance with financial reporting standards and support management decision making on the deployment and use of resources so that the organization produces results and achieves its purpose?

Delivering External Benefits

Meanwhile, the same information can provide decision-useful disclosures for external users, such as investors. In reviewing its data management practices for key performance indicators (KPIs) specific to external sustainability reporting objectives, an organization may wish to consider the following factors (this is not intended to be a comprehensive list):

- Is key sustainability information integrated into existing reporting systems? If not, can it be readily incorporated? Or can effective controls be built around current or other reliable systems and platforms?
- Have consistent, formal policies been established across the organization to help ensure reliable sustainability data collection, validation, analysis, and reporting/communication?
- Has the organization established and communicated clear ownership of and accountability for the collection, validation, and reporting/communication of key sustainability information and implemented means for intervention and correction toward the achievement of established objectives?

- Are the organization's sustainability reporting/communication processes well documented, including controls to prevent or detect misstatements? Are they aligned with other external communication channels for consistency?
- Have internal audit, the compliance team, the CFO team, and relevant third parties such as an external assurance provider (if required or deemed beneficial) been engaged to review the quality of key sustainability information, supporting processes, and the system of internal control?
- Is there confidence in data quality? Would a CEO or CFO feel enabled to sign a certification with confidence?

To realize both internal and external benefits of an effective system of internal controls over sustainable business reporting for both internal and external users, *data lineage and governance* is critical. KPIs and transactional data for financial and ESG/sustainable business decision support and reporting must be governed in a holistic and integrated data architecture. Today, much financial reporting data is likely to be structured, housed in the general ledger systems, and flowed through enterprise resource planning (ERP) processes. ESG and sustainable business information, on the other hand, tends to be longer-term and more qualitative, with data sources both within and outside of the organization's systems, and considerable estimation and data modeling are required. At the same time, operations teams may have access to specific data that is highly actionable for correcting deviations. It is extremely valuable to translate and connect financial information, operational data, and sustainable business information. This integration supports not only ESG reporting but also internal decision making.

Key Takeaways: Stakeholder Goals around Sustainability

A number of key themes—and important **top takeaways**—have emerged as organizations begin or continue their journeys toward establishing and maintaining an effective system of internal control over financial and sustainable business information. Despite the fact that ICSR is not well established in practice, crucial insights can be gained from the experiences of those organizations that are leading the way for others, including:

- **Cultivate a culture of accountability:** For internal control over sustainable business information and performance data to function effectively, it is essential that everyone involved in the collection, validation, management, and communication of sustainability information understands the strategic significance of organizational performance on key issues as well as the critical importance of effective controls to ensure that decision makers have access to reliable information about that performance.
- **Revisit the interrelationship of purpose and various objectives:** One of the primary means for an organization to use sustainable business concepts and practices strategically is to consider—and reconsider—how its stated mission or purpose drives its objectives. As ICIF-2013 demonstrates, it is important for an organization's objectives, whether financial, nonfinancial, compliance, operational, internal, or sustainable business to be balanced, harmonized, and understood throughout the organization. Effective controls begin by considering this balance.
- **Establish a cross-functional team:** Assembling and educating a cross-functional team can be a valuable early step to start the integration process. Such a team provides diverse perspectives and subject matter expertise in assessing sustainability-related issues, metrics, and controls. Organizations may wish to draw from a diverse set of departments, including finance and accounting; sustainability; environmental, health, and safety (EH&S); risk management; internal audit; investor relations; strategy; operations; information technology (IT); compliance; human resources; and legal. Some organizations might even consider inviting key value chain partners to participate.

- **Leverage existing expertise:** It's important to keep in mind that ICSR is a new application of tried-and-true concepts from control over financial information, and the CFO team has already developed considerable expertise in applying these concepts. The team has experience and understanding—not just with internal control but also with data measurement, management, reporting, and analysis—and it is well positioned to drive the design, establishment, and maintenance of internal control over sustainable business information. In addition, operations teams have valuable insights into how an organization is actually producing the goods and services that are being delivered. Over time, CFO teams can help educate and train other organizational functions on how to ensure their sustainability data achieves the same quality and credibility as financial data and how it can be integrated more easily into ongoing performance management and the periodic external reporting cycle.
- **Leverage existing controls:** Internal control over some sustainable business information may require the establishment of new processes and new controls. Yet the processes that already exist as part of internal control over financial reporting (ICFR) may be modified and applied to sustainability information. For example, automated controls built into IT platforms, data governance policies, or established monitoring techniques can be leveraged in the design and development of the control system over sustainability data.
- **Leverage enabling technologies and platforms:** Technologies may carry risks, such as business continuity risks related to system failure, security risks related to cloud-based data storage, and integration risks associated with "ripping and replacing" systems. Yet organizations consider how they might adapt existing or emerging technologies to establish and maintain an effective system of internal control over sustainable business information. The systems around sustainable business information are often immature and depend on spreadsheets with few formal controls. By incorporating this information into IT platforms with well-established controls, an organization can significantly improve decision-maker confidence in data that has previously been measured, validated, managed, and reported outside the formal financial control environment.
- **Focus on decision usefulness:** Organizations may be reluctant to establish internal control over sustainable business information due to many factors, not the least of which is the sheer volume of data that might be covered—for example, the dozens (or, in some cases, hundreds) of KPIs that are typically included in a sustainability report. Such an undertaking could involve a significant amount of time, effort, and cost. Traditionally, prioritizing information by its importance is captured by the concept of "materiality" (see **Principle 6** for discussion). By viewing sustainability through the lens of decision usefulness, an organization can focus on covering a small subset of metrics that are most important to its success over time by reducing risk and contributing to growth and value creation.
- **Start early:** It can take time to design and refine a system of controls that fully supports reporting objectives, so it's important to begin the conversation sooner rather than later.

Each of these lessons is likely to prove more valuable to an organization that has integrated its sustainability practices and business strategy. Just as an entity's control environment provides the foundation for effective ICFR, it is also an essential starting point for designing, implementing, and maintaining an effective system of internal control over decision-useful sustainable business information. •

Background

Sustainability is multidisciplinary. The professionals needed to bring sustainability to an organization have different backgrounds and areas of expertise. While some have significant familiarity with internal control systems, they may lack familiarity with sustainability. Others may have expertise in public policy or corporate social responsibility but lack the background in developing sophisticated governance and reporting systems. Further, sustainability means the involvement of participants from a range of other areas, such as legal, human resources, facilities, operations, and investor relations, all of whom may lack understanding of COSO and reporting systems.

The goal of this publication is to provide a valuable means for facilitating this interdisciplinary cooperation. As noted throughout, ICIF is holistic. While it indeed supports the development and execution of ICFR, it explains "how to" support the operationalizing of sustainability throughout an organization.

As a result, many readers will find this Background section helpful in providing context and understanding the Framework.

Nearly every modern global company issues some form of external reporting on sustainability. Some companies issue reports to comply with newly adopted or proposed regulations and securities markets listing requirements (see Figure B-1: Disclosure of ESG Information). Where not mandated, companies are issuing sustainability reports voluntarily to respond to stakeholder demands.

FIGURE B-1: DISCLOSURE OF ESG INFORMATION

Scope of Reporting and Assurance

Reporting:
Most companies reported some information on GHG, other environmental, social, and governance sustainability matters. 89% of companies provided information in all four of the ESG categories examined in this study.

GHG	Other Environmental	Social	Governance	All Topics
92%	98%	96%	95%	89%

Source: ***The State of Play in Reporting and Assurance of Sustainability Information: 2019-2020 Data & Analysis***

Sustainable business information from these reports, as well as from individualized questionnaires and commercial ratings, are readily delivered to investors, policy makers, and a range of stakeholders through modern software applications and platforms. Such information has become part of the data used in the competition for capital—particularly from institutional investors such as asset managers, insurance companies, and lenders with long-term horizons. At the same time, by articulating corporate purpose and objectives, companies are integrating sustainable business information with traditional performance metrics to identify and respond to risks, identify and realize opportunities, and create effective strategies for value preservation and creation over the short, medium, and long term. Organizations and their key stakeholders recognize that making effective business and investment decisions requires information beyond traditional, historic, short-term financial measures.

However, significant concerns remain regarding the nascent systems that are producing this decision-critical information. This raises the fundamental question: How can the ecosystem generate accurate and reliable sustainable business information that meets the dynamic needs of diverse stakeholder groups?

What Is COSO?

COSO refers to the Committee of Sponsoring Organizations of the Treadway Commission, which is made up of five global accountancy and auditing organizations: American Accounting Association (AAA); Association of International Certified Public Accountants (AICPA); Financial Executives International (FEI); Institute of Management Accountants; and The Institute of Internal Auditors (IIA) (see Figure B-2: Sponsoring Organizations). COSO was founded in 1985 in response to regulatory and market concerns about the quality of financial reporting. Today, these five organizations continue to work collaboratively under the COSO partnership.

FIGURE B-2: SPONSORING ORGANIZATIONS

American Accounting Association
AICPA
fei
ima The Association of Accountants and Financial Professionals in Business
The Institute of Internal Auditors

In COSO's earliest days, the five organizations sponsored the National Commission on Fraudulent Financial Reporting (Commission), a nongovernmental initiative that included representatives from corporations, audit firms, investment firms, and the New York Stock Exchange. The Commission's first chair, James C. Treadway Jr., general counsel of Paine Webber, was particularly passionate about the quality of financial information and the need for potential reform. In 1987, the Commission issued a set of recommendations that highlighted the need for a workable framework to address internal controls—a system of governance, processes, and oversight—that produced relevant and reliable financial information.

Ultimately, in 1992 (with some revisions through 1994), COSO published its first framework, called the *Internal Control—Integrated Framework*. The publication made two giant steps forward. First, it provided a definition of "internal control." Second, it provided a common framework for evaluating and improving internal control systems. The goal of issuing this framework was to support various professionals in financial reporting with common language and concepts.

Later, ICIF became a premier tool for operationalizing and implementing the Sarbanes-Oxley Act of 2002 (SOX), which gave both the U.S. Securities and Exchange Commission (SEC) and the Public Company Accounting Oversight Board (PCAOB) responsibility to issue interpretive regulations for implementing SOX's provisions, many of which were novel.[1] The PCAOB describes its authority "to establish auditing and related professional practice standards for registered public accounting firms to follow in the preparation of audit reports for public companies, other issuers, and broker-dealers."

With respect to annual report filings, these new requirements for public companies under the SEC's

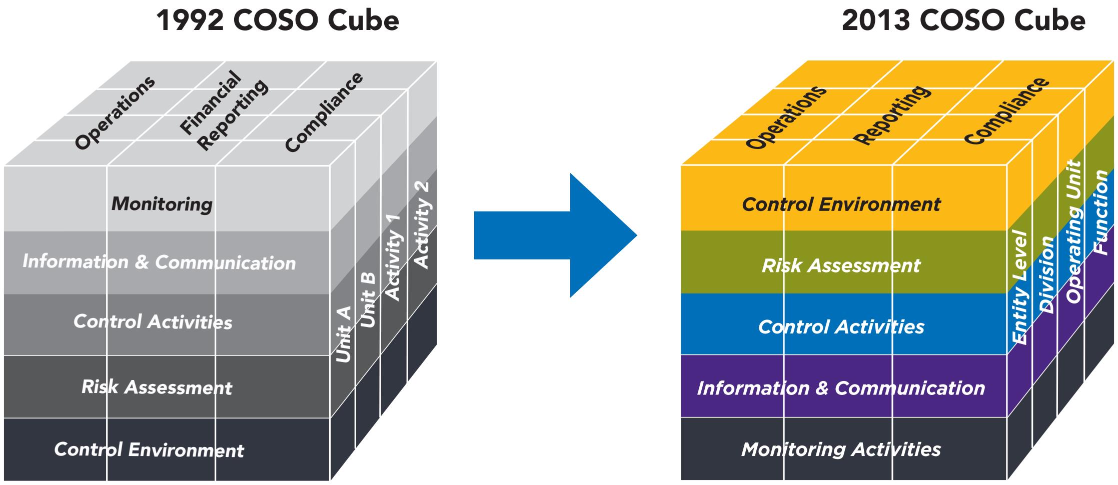
[1] This publication does not offer legal advice. Any references to legal and regulatory matters in this publication are for educational and descriptive purposes.

authority included:

- A report by management that assesses how well ICFR is functioning, commonly known as SOX Section 404(a), and
- An auditor's report attesting to management's report, commonly known as SOX Section 404(b).

Formally, the SEC did not mandate use of ICIF, but instead mandated the use of a suitable framework that satisfies four suitability criteria to operationalize SOX's assessment standards.[2] Professionals with responsibilities for compliance with SOX look to ICIF for guidance. Therefore, the Framework, while not mandatorily imposed by the SEC, may be considered "generally accepted."

FIGURE B-3: EVOLUTION OF ICIF



Source: COSO materials

In 2013, COSO released an updated framework (ICIF-2013) that superseded previous versions and became the operative document (see Figure B-3: Evolution of ICIF). The updated Framework incorporates a risk-based approach to designing, assessing, and reporting on internal controls. In addition, the update responded to the evolution of audit procedures and critiques because the original formulation was sometimes inadequate for practical, real-world preparer and audit challenges. ICIF-2013 endured and remains a gold standard framework regarding internal control, oversight, and governance of information used not only for external reporting but also for sustainable business management.

Although ICIF-2013 generally finds its roots in the United States, it is also used internationally, in countries such as Japan, Canada, and China, where there are similar mandates to SOX for internal control assessment and reporting. Multinational companies that must file with the SEC look to ICIF-2013 and apply its well-accepted concepts and principles to units operating around the world.

[2] *Final Rule: Management's Report on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports* states that a suitable framework must (1) be free from bias; (2) permit reasonably consistent qualitative and quantitative measurements of a company's internal control; (3) be sufficiently complete so that those relevant factors that would alter a conclusion about the effectiveness of a company's internal controls are not omitted; and (4) be relevant to an evaluation of internal control over financial reporting.

ICIF-2013: The Basics

ICIF-2013 defines internal control as follows:

> *Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance.*

ICIF-2013 is comprised of five components:

- Control Environment
- Risk Assessment
- Control Activities
- Information and Communication
- Monitoring Activities

Following from the definition of internal control, the model provides three categories of objectives: operations objectives, reporting objectives, and compliance objectives. The interaction of the objectives and the components leads to the iconic diagram that demonstrates ICIF-2013 as a cube (as shown in Figure B-3). The cube is further subdivided to correspond to the way entities are typically organized. These categories are the levels of entity, division, operating unit, and function.

Each of the five components contains three to five principles, for a total of 17 principles. These make up the heart of the Framework in describing how effective internal controls can be operationalized. An organization has achieved an effective system of internal controls when all principles are present and functioning. As shown in Figure B-4: Components, Principles, and Points of Focus, each principle is further subdivided into points of focus that explain how the principle works in practice. Generally, the

FIGURE B-4: COMPONENTS, PRINCIPLES, AND POINTS OF FOCUS

Components	Principles	No. of Points of Focus
Control Environment	1. Commitment to integrity and ethical values	4
	2. Independent board of directors oversight	4
	3. Structures, reporting lines, authorities, responsibilities	3
	4. Attract, develop, and retain competent people	4
	5. People held accountable for internal control	5
Risk Assessment	6. Clear objectives specified	15
	7. Risks identified to achievement of objectives	5
	8. Potential for fraud considered	4
	9. Significant changes identified and assessed	3
Control Activities	10. Control activities selected and developed	6
	11. General IT controls selected and developed	4
	12. Controls deployed through policies and procedures	6
Information & Communication	13. Quality information obtained, generated, and used	5
	14. Internal control information internally communicated	4
	15. Internal control information externally communicated	5
Monitoring Activities	16. Ongoing and/or separate evaluations conducted	7
	17. Internal control deficiencies evaluated and communicated	3

Source: Protiviti

points of focus help the user interpret and apply the Framework's principles to the organizational levels.

Through its components, principles, and points of focus, ICIF-2013 provides a comprehensive road map for handling sustainable business activities and information.

Applying ICIF-2013 to Nonfinancial Information

Corporate reporting teams, regulators and standard setters, investors, policy makers, and other stakeholders have been responding to vocal and active demands for sustainable business information. Initially, this information was termed "nonfinancial" for multiple reasons. First, the information was for reporting outside the basic financial statements and notes to the financial statements so that the term "nonfinancial" distinguished information that was not part of an annual report subject to audit. In addition, the term reflected the fact that some of the metrics, indicators, and qualitative descriptions of sustainable business information were not monetized. For example, corporate reporting of greenhouse gas (GHG) emissions typically follows the **GHG Protocol**, which generally calls for information-based carbon dioxide equivalents rather than dollars. Similarly, corporate reporting under the category of diversity, equity, and inclusion (part of the "S" in ESG as it addresses social inclusion and the value of human resources) is based on percentages of representatives from specific demographic groups, such as the percentage of women on a board of directors. This information is nonmonetized or nonfinancial.

As various stakeholders showed increased interest in sustainable business information, COSO responded by issuing materials that expressly endorsed the use of ICIF-2013. COSO incorporated the term "nonfinancial" directly into the 2013 Framework. In addition, with respect to applying its ***Enterprise Risk Management—Integrating with Strategy and Performance*** framework (ERM Framework), COSO delivered two publications:

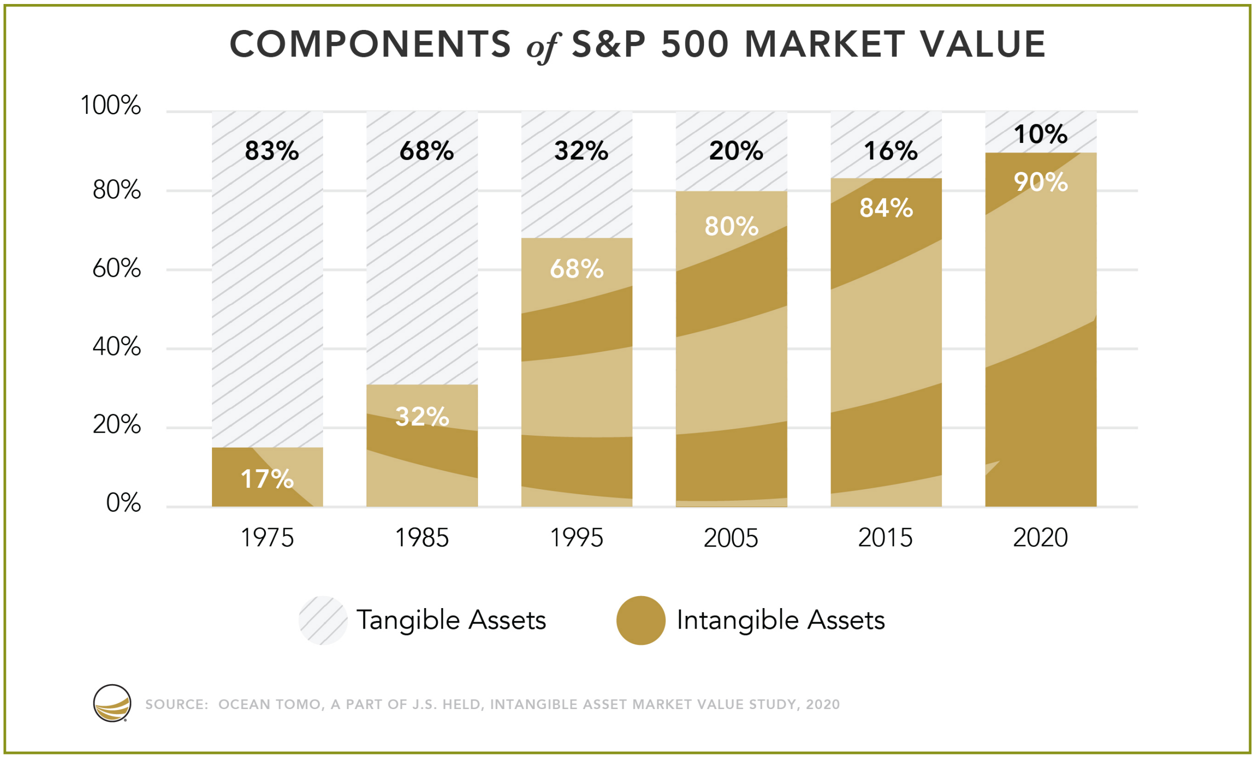
- ***Demystifying Sustainability Risk: Integrating the triple bottom line into an enterprise risk management program***
- ***Enterprise Risk Management—Applying enterprise risk management to environmental, social and governance-related risks***

These publications demonstrate how the ERM Framework can be interpreted and applied to support an organization's sustainable business strategy that it carries out through its internal control system (**Principle 7**).

Sustainable Business Information: Goals and Users

Following global drivers for sustainable development, organizations around the world are reconsidering their activities and producing new information.

FIGURE B-5: OCEAN TOMO INTANGIBLE ASSET MARKET VALUE STUDY



Source: Ocean Tomo, ***Intangible Asset Market Value Study***

A key goal is to provide information that utilizes a broader perspective of resources and resource contributors than under traditional financial accounting and reporting. Under mainstream generally accepted accounting principles (GAAP), internally generated intangible value is not reported on the financial statements; yet by 2020, it grew to comprise more than 90% of market value (see Figure B-5: Ocean Tomo Intangible Asset Market Value Study). A broad range of stakeholders, from management to investors, look at this disparity between market value and book value and realize that the sources of this value need to be identified and managed not only to avoid impairment but also to leverage it for additional future value creation. Otherwise, it can readily be wasted before an entity can realize it. Management needs tools to understand how this value arises and its relationships with various resource contributors, such as loyal customers, employees, vendors, long-term committed investors, and the community who expect to benefit from their relationships with the entity.

Groups other than investors are relying on corporate information to understand how a reporting entity's transactions, operations, and activities impact external stakeholders, such as policy makers that speak for communities—both local and global—and the people and natural resources that they represent.

As with any type of corporate reporting, it is beneficial to identify the "user," the shorthand term for the professionals and organizations that will consume the information. By 2022, in the U.S., $8.4 trillion (12.6%)

of assets under management reflected sustainability investing (see ***2022 Report on US Sustainable Impact Investing Trends***). As with mainstream financial reporting, much of the ESG information is delivered to capital markets.

Within the ESG world, it has been recognized that not all users can be considered the same. Indeed, there are short-term traders and investors (or even programmed investing) that aim for short-term pricing disparities and help streamline the markets and keep them functioning. There are also plenty of short- and medium-term investors who aim to hold particular instruments for one to two years with the objective of trading as conditions change. However, over the last 30 years, as investors began to rely on 401(k) and similar retirement vehicles, many asset managers have taken a longer-term view regarding investee activities. Their asset owners—future pensioners and retirees who direct their own funds—often hold underlying investments for decades. The use of index funds and exchange-traded funds (known as ETFs), moreover, makes it challenging for long-term asset managers to trade out of companies that are poor performers, slow decision makers, or fail to innovate. And these long-term asset managers, such as State Street, Vanguard, BlackRock, and pension funds from California to New York and throughout Europe, have been at the forefront of bringing about demands for corporate information regarding climate risk and other sustainable business concerns.

As long-term, committed investors seek ESG information as part of their decision making, other users along the information value chain have increased their demands for ESG information. For example, stock exchanges in varied geographic regions, such as Johannesburg, Amsterdam, Singapore, and Hong Kong, have all published guidelines on ESG reporting by listed companies, according to the **Sustainable Stock Exchanges Initiative**. This list isn't exclusive to the exchanges housed in developed economies, such as NASDAQ. Exchanges in developing countries see ESG requirements as a means for ensuring global investors that they are giving due attention to concerns about risk.

Rating agencies, data aggregators, data platforms, and similar investor service providers have grown in prominence in the ESG world. Partly because there is a lack of generally accepted reporting standards and regulations, these companies' business models depend on delivering ratings, rankings, and assessments of publicly listed companies. Many have developed their own proprietary models to create these ratings. Perceiving a lack of uniform reporting by corporate entities under voluntary guidelines, these data providers and financial services firms often seek to supplement their modeling by requesting information via survey or questionnaire from individual companies. Examples of these surveys include MSCI, S&P Dow Jones, and Morningstar Sustainalytics. CDP, a noncommercial organization, has also served as a premier collector of corporate data related to GHG emissions, climate strategy, and water management. CDP also has a system of awarding ratings that are widely used. While voluntary, many corporations make submissions to these surveys a high priority because their data and ratings will appear on the dashboards of many investors.

Interest in sustainable business information, however, is not limited to capital markets. It reflects the range of stakeholders interested in an organization's use of valuable resources in a way that meets diversified performance expectations (see Figure B-6: Who Uses Sustainable Business Information?).

Policy makers are also demanding new types of corporate reporting around sustainability-related issues. Many EH&S and occupational data points have been reported to regulators for decades, but now, sustainable business and financial reporting are connecting to a greater extent than in the past. This is leading to the issuance of new and proposed regulations and standards around sustainable business reporting.

Increasingly, customers—another category of stakeholders—are looking for sustainable business information. Large commercial buyers are seeking internal information from their suppliers so that the buyers, in turn, can tell consumers and their business buyers that the sourced goods and services are

FIGURE B-6: WHO USES SUSTAINABLE BUSINESS INFORMATION?

Source: Authors/IMA

sustainable. The buyers are responding to their own stakeholders as they commit to overall reductions in GHG emissions and waste, and avoidance of human rights issues, such as modern slavery or child labor.

Many employees also seem increasingly interested in their companies' policies and practices regarding major environmental and social issues. Some are refusing to work for a company with policies or practices they find concerning.

An organization's management as well as its board of directors are important users of sustainable business information for internal decision-making purposes. Access to quality information for internal use, as previously described, is critical to decision making. Additionally, information about tangible and intangible resources and the stakeholders who contribute them is necessary for managing an organization as a whole, ongoing enterprise.

Regulatory Bodies and Standard Setters that Oversee ESG Reporting

ESG reporting is moving from voluntary to mandatory. That is, increasingly, reporting regulations and standards are being proposed by securities regulators, governments, and standard-setting bodies.

In the U.S., the SEC oversees the delivery of required information from publicly listed companies. With respect to the financial statements of registrants, the SEC has designated the Financial Accounting Standards Board (FASB) to issue substantive generally accepted guidance, but the SEC can direct or overrule the FASB's work. Thus far, the **FASB** has largely taken the position that much of the ESG information today relates to sections of an annual report (Form 10-K) outside of the financial statements and notes, and, therefore, setting disclosure mandates is the SEC's remit. However, as accounting for ESG items evolves, it is likely that more items will indeed relate to the basic financial statements. This will likely include accounting for environmental credits and offsets, impairment of tangible and intangible assets due to physical and transitional climate-related risks, and financial instruments with links to ESG metrics.

The SEC also has jurisdictional oversight of the PCAOB, which oversees audit firms that examine the financial statements of publicly held companies. To the extent that the SEC adopts new reporting around ESG, the information reported in a filer's Form 10-K, even if it's within the unaudited sections, must be consistent with information provided in the financial statements.

Outside the U.S., more than 140 jurisdictions have adopted the International Financial Reporting Standards (IFRS; see **Who uses IFRS Accounting Standards?**). Although IFRS is issued for global use, the actual standards are adopted on a jurisdictional basis. For example, Canada, Japan, and the Netherlands have each adopted IFRS for reporting entities within their authority.

In 2021-2022, the IFRS Foundation, which oversees the International Accounting Standards Board (IASB) that issues IFRS, established the International Sustainability Standards Board (ISSB) to address sustainable business reporting (see Figure B-7: Organization of the IFRS Foundation, IASB, and ISSB). As its initial work, the ISSB released two proposed standards, IFRS S1, ***General Requirements for Disclosure of Sustainability-related Financial Information***, and IFRS S2, ***Climate-related Disclosures***. These proposals incorporate existing voluntary standards, such as the GHG Protocol, the Sustainability Accounting Standards Board (SASB) standards, and the ***Recommendations of the Task Force on Climate-related Financial Disclosures*** (TCFD). These guidelines have been adopted, to some extent, by many entities for voluntary external reporting. Importantly, although this standard setting seeks connectivity between sustainable business and financial reporting as a priority, much of that connectivity was vague or unexplained in the initial proposals. It is expected that the IASB and the ISSB will work collaboratively in issuing standards so that the corresponding effects can be considered.

The first of the voluntary reporting standards were developed in the 1990s and issued by the Global Reporting Initiative (GRI). Generally, the GRI states that its standards use a "multistakeholder" approach. In recent years, GRI has clarified that this concept means an impact accounting approach that makes the effects of an entity on external stakeholders its primary goal. GRI's approach aligns well with the United Nations Sustainable Development Goals (SDGs), which aim to operationalize national commitments to sustainable development and contributions to progress by individual organizations.

FIGURE B-7: ORGANIZATION OF THE IFRS FOUNDATION, IASB, AND ISSB

Source: IMA

Note: SASB merged with the IIRC in 2021 to become the VRF. Subsequently, in 2022, the IFRS Foundation acquired the VRF, along with the CDSB, as it organized the new ISSB.

The European Commission adopted its Non-Financial Reporting Directive (NFRD) in 2014. The NFRD required member states to transpose new ESG-related disclosure requirements into national law by 2016. Taking a step further in 2019, the **European Green Deal** was introduced. This sweeping initiative provides a set of interrelated climate, energy, transport, and taxation policies to reduce GHG emissions and, in turn, strengthen the European economy.[3] Following from the initiatives, the European Commission aimed to update the NFRD with a more comprehensive Corporate Sustainability Reporting Directive (CSRD) and designated its European Financial Reporting Advisory Group (EFRAG) to issue standards to operationalize the proposal.[4] These European authorities are seeking to incorporate an impact accounting approach under the CSRD.

In its December 2021 report, the **G7 Impact Taskforce**, which is advising the G7 leaders on ways to increase the mobilization of capital to address climate change and other global environmental and social issues, including enhancing the transparency and integrity of reported ESG information, strongly supported the mission of the ISSB to create a common global baseline for reporting sustainability information and further urged the rapid development of standardized methodologies on impact valuation that would enable reporting of impacts in monetary terms. To that end, in July 2022, the International Foundation for Valuing Impacts (IFVI) was established to bring together existing impact valuation initiatives by the **Harvard Impact-Weighted Accounts Project** and the **Value Balancing Alliance** and to coordinate with other efforts in this area such as that of the **Capitals Coalition**.

ESG: Types of Sustainable Business Information

In the 1990s, John Elkington, considered by some as the father of modern sustainable business reporting, coined the term "triple bottom line," which is also referred to as the "3 P's": people, planet, and profit. His metaphor suggests the interrelationship of financial, environmental, and social concerns.

[3] As part of the European Green Deal, the European Commission adopted the European Union Taxonomy Regulation (Taxonomy), which provides classification rules for the labeling of activities and investments as "sustainable." Related to this, under the Sustainable Finance Disclosure Regulation (SFDR), certain entities (primarily financial institutions) must disclose information regarding their operations and portfolios in alignment with the Taxonomy.

[4] In 2001, when the IFRS Foundation and IASB were founded, the European Union, working with the business community, established EFRAG to provide it technical advice on accounting and reporting matters.

Similarly, and regardless of the particular framework employed, sustainable business information generally falls into one of three categories: environmental, social (human resources), and governance (see Table B-1: ESG Topics).

- **Environmental** information includes considerations of GHG emissions, the use of water, the release of waste, and the use of other natural resources such as forests. It addresses not only the use of energy and physical resources but also the transformation of the economy and value chain. The movement of economic actors from fossil fuel-dependent assets, operations, and investments to those with low or zero emissions creates risks (and opportunities) to existing value. For example, companies that produce diesel fuel trucks (and their input parts) need to consider potential impairment risks to their assets and expected value (that is, both tangible and intangible, even if unrecognized) as their customers and competitors look to electric vehicles.
- **Social** refers to resources or value contributed through relationships with humans. There are many ESG data points, metrics, indicators, and disclosures that relate to human resources (or synonymously "human capital" or "human capital resources"). These include information about employee turnover, diversity, and training. It can also include the protection of personal data that an organization collects. In 2020, the SEC adopted new regulations that require disclosures concerning human capital resources that are material to an understanding of a registrant's business (see Release No. 33-10825, ***Modernization of Regulation S-K Items 101, 103, and 105***). For example, healthcare, financial services, and technology entities are highly dependent on access to skilled professionals with expertise. For certain sectors, such as pharmaceuticals, it also includes human-related outcomes and risks from product safety. The "S" category also includes the organization's role and influence in areas such as human rights.
- **Governance** refers to how an organization executes its transactions and manages its business. This includes business ethics, such as anti-bribery and anti-corruption. Some would also categorize compliance with data security and privacy protection as part of this category. In addition, an organization's established processes for internal and external audits demonstrate a commitment to good governance and oversight and that activities are conducted responsibly.

Of course, these are not bright-line classifications. Some sustainability items can be classified in multiple categories. For example, anti-bribery and anti-corruption can represent a "social" issue, a means for promoting equitable access to resources and opportunities; at the same time, it might be considered a governance issue for board and audit committee oversight.

Delivery of ESG Reporting

As noted previously, companies are releasing sustainable business information to multiple parties, in multiple formats, via multiple channels.

Certain information may be released in annual reports, such as on Form 10-K or Form 20-F (for non-U.S. filers). In fact, many disclosures that can be classified as sustainable business information overlap with current disclosure requirements. For example, ***Commission Guidance Regarding Disclosure Related to Climate Change*** states that information relating to the effects of climate change is subject to reporting on Form 10-K.

A great many reporting entities elect to issue sustainable business information pursuant to the United Nations SDGs, SASB, TCFD, GRI, and the Integrated Reporting Framework of the former International Integrated Reporting Council (IIRC) separately from their regulatory filings and annual financial reports. Companies electronically post their sustainable business reports on their websites. Many also submit to CDP. Data aggregators and rating agencies strip information from these reports and make it available via complex investor platforms, such as Bloomberg or Refinitiv. However, much of the information issued by different reporting entities is not directly comparable for multiple reasons, including the lack of uniform,

TABLE B-1: ESG TOPICS

Environmental	Social	Governance
Biodiversity	Community relations	Anti-bribery and anti-corruption
Climate change	Data privacy	Anti-fraud
Deforestation	Diversity, equity, and inclusion	Corporate board, structure
Energy use	Education and training	Data protection
Extreme weather	Employee compensation and benefits	Executive compensation policies
GHG emissions	Employee engagement	Regulatory compliance
Landfill	Health and safety, product use	Shareholder rights and engagement
Oceans	Health and safety, production	Transparency, disclosure
Recycling	Human rights	Whistleblower policy
Soil health	Modern slavery	
Transportation	Opportunities for meaningful work	
Water management	Union rights	

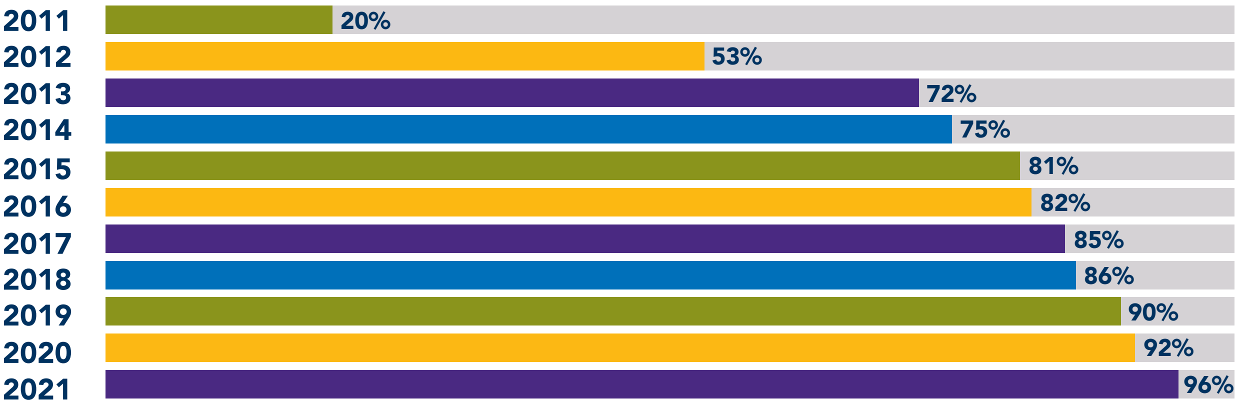
global standards. At the same time, companies today build business models that utilize unique strengths and positions, and competition is unlike the days when products and services were more commoditized than they are today.

The gathering and aggregating of data (sometimes referred to as "scraping"), however, occurs not only from annual reports and company websites. ESG information can show up on an investor's dashboard from a variety of sources, such as other regulatory filings, environmental reports, legal databases, employee rating sites, and reports of nongovernmental (NGO) organizations.

Critically, a publicly held entity in the U.S. is subject to anti-fraud securities rules for all of the information that it releases, even if it is released for some other purpose than a securities filing. For example, a healthcare company that misstates known dangers from a particular pharmaceutical or medical device can be held responsible for investor losses even if the misstatement is in another regulatory report or part of a product release (Securities Exchange Act of 1934; **SEC Rule 10b-5**). This is important to remember when considering sustainable business reporting and internal controls.

By 2020, nearly every global company was issuing some form of external reporting on sustainability. The **Governance & Accountability Institute**, which monitors the pervasiveness of ESG reporting by large public companies, reported that by 2021, 96% of the S&P 500 and 81% of the Russell 1000 published sustainability reports (see Figure B-8: 11-Year Track Record of S&P Reporters).

FIGURE B-8: 11-YEAR TRACK RECORD OF S&P REPORTERS



Source: *2022 Sustainability Reporting in Focus: Examining 2021 trends of companies on the S&P 500®+ Russell 1000®*

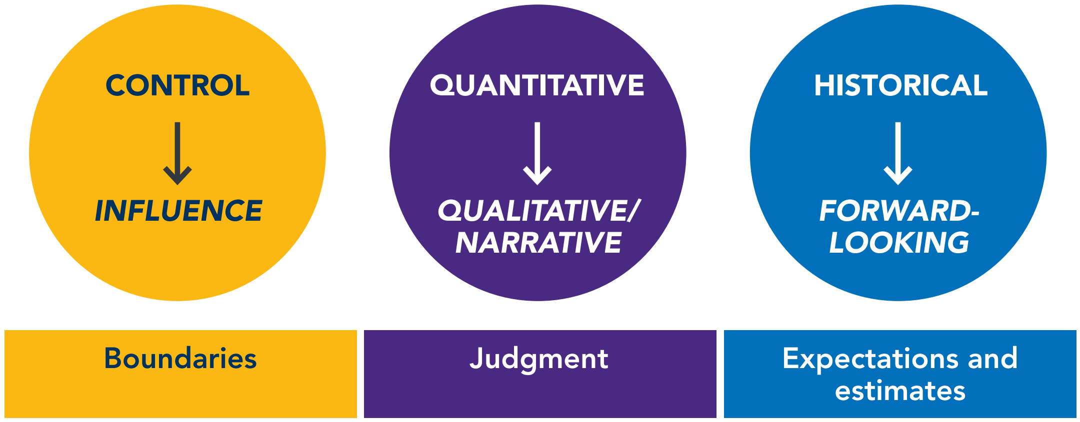
Differences between Conventional Financial Reporting and Sustainable Business Information

Although market demand for sustainable business information continues to rise steadily, internal stakeholders (management, staff, and board members) as well as external stakeholders (asset managers, asset owners, and policy makers) often do not have the same level of confidence in the reliability, utility, and quality of currently available information that they have in traditional financial data.

Some of these concerns follow from the somewhat different qualities of sustainable business information and reporting. As demonstrated in Figure B-9: Three Attributes of ESG Reporting that Differ from Financial Reporting, Douglas Hileman has summarized this into three categories: control vs. influence; quantitative vs. qualitative; and historical vs. forward-looking. More specifically:

- **Control vs. influence:** There are unresolved differences regarding the setting of organizational boundaries between financial reporting and sustainability frameworks. Financial accounting principles define a "consolidated entity" and detail how to account for minority investees. Depending on the framework or standards, however, sustainability reporting may be based on different concepts of "control" or "influence" (Principle 3 and Principle 12). As rules and standards evolve, alignment may follow.
- **Quantitative vs. qualitative:** Because the goal is to estimate and assess expectations of ongoing availability of resources and stakeholder willingness to make these resources available, sustainability information is inherently more qualitative than traditional financial reporting. The goal is to produce information so that users may assess short-, medium-, and long-term future performance and expectations that relate to an ultimate enterprise value (or going concern value).
- **Historical vs. forward-looking:** Sustainability information can be more forward-looking and long-term than financial information as organizations set goals and targets. Traditionally, financial accounting rested on the summarization of past transactions and events. Over time, however, reporting evolved to reflect economic expectations and estimates of the future. At its heart, sustainability is about wise use and preservation of resources over the long term. Long-term sustainability targets and goals inform business objectives. Further, communicating long-term goals and targets sets the stage for future reporting on the achievement of targets. The process of estimation is the same, but the time horizon is longer.

FIGURE B-9: THREE ATTRIBUTES OF ESG REPORTING THAT DIFFER FROM FINANCIAL REPORTING



Courtesy [Douglas Hileman Consulting, LLC]

In addition to these inherent differences, the drivers around sustainable business information raise additional challenges:

- **Voluntary reporting ecosystem:** Even the companies that issue reports generally do not follow a single set of uniform standards. Instead, they have been selecting aspects of different guidelines, such as SASB, TCFD, GRI, and the SDGs. This fragmentation makes the development of information and reporting systems challenging.
- **Acceleration toward regulation:** Enacted and proposed legislation, regulation, and listing requirements are coming to the forefront. In addition, regulatory authorities, such as the SEC, are increasing their oversight of filings even under existing regulations. This movement brings a more structured approach and the input of legal counsel and compliance professionals.
- **Novel data streams:** Much of the information that a company needs to gather for ESG reporting and management of sustainability initiatives has never been gathered, summarized, and analyzed. Examples are numerous. Many companies did not gather information on GHG emissions, water use, employee turnover, diversity, waste management, and energy sourcing and usage. Or, if they did gather this information, it was with the narrow objective of complying with local laws or regulations and not for disclosure in securities filings.
- **Talent availability and competence:** Local operating units may not have the resources or competence to support the gathering of new types of data. Alternatively, they may respond with apprehension regarding new metrics of performance oversight. Members of remote teams may resist strongly if they do not understand the purpose of these new demands for information or if the requests are seemingly unsupported by management.
- **Immature systems and unstructured data:** Largely, the IT solutions for financial reporting are mature. They incorporate information technology general controls (ITGC) and follow well-defined and consistent processes with the goal of supporting an independent audit. Much of the data is structured. It comes from systems that identify information from its source, through processing, and results in detailed reports on sales, receipts, purchases, payments, inventory, and plant assets. With respect to sustainable business information, at many companies, generally, comprehensive systems are not yet in place and data comes from a variety of sources, including spreadsheets and email. It does not flow

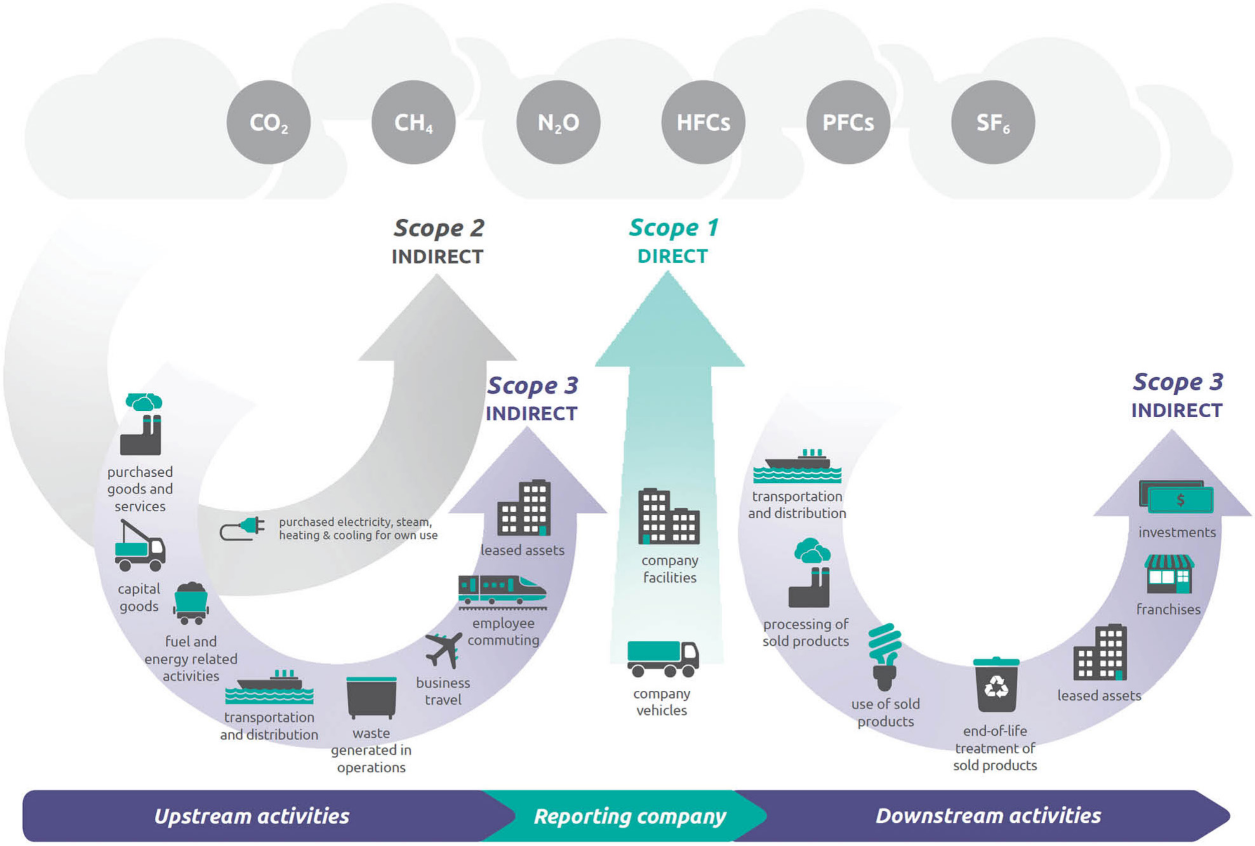
from technology solutions that have built-in data controls. There is much hope that these will develop in a way that produces information that is useful not only for ESG reporting but, as importantly, for internal decision support.

- **Proliferation of reporting platforms and software services:** Along with new reporting demands, commercial providers have been entering the space to provide reporting platforms and tools. However, some preparers find that these standardized approaches are inadequate for their organizations' unique data and information streams. And, as professionals in the finance, internal audit, governance, risk, and compliance functions become increasingly part of sustainability reporting teams (that is, the sustainable business information value chain), they instill attention to data quality and internal controls. Many of these reporting professionals, however, have had disappointing results with some of these platforms. Yet others are finding that some of the platforms incorporate many of the same desired features and functionalities as their financial and regulatory reporting systems and thereby can help instill good controls and oversight systems, including documentation and review, by relying on the system's ability to track data. However, if poorly used, these platforms can create even more challenges.
- **Sustainability reporting relies on third-party data:** A good portion of sustainability accounting relies on gathering, assessing, and reporting on information sourced from third parties. GHG Protocol accounting, for example, calls for Scope 1, Scope 2, and Scope 3 accounting, depending on the source of emissions (see Figure B-10: Overview of GHG Protocol Scopes and Emissions across the Value Chain).[5] The impact accounting approach favored by certain sustainability advocates also depends on information from external sources, including government and NGO statistics. This raises concerns from preparers, compliance professionals, and auditors on the quality and reliability of externally sourced data on which a reporting organization relies.
- **Demands for external assurance:** Users of sustainability information are seeking the comfort that third-party independent assurance provides in the financial reporting arena. They want similar assurance that the information that a company issues externally results from rigorous oversight systems—both internal and independent—that they have come to rely upon from financial reporting. Today, certain types of information that is now considered under the ESG umbrella, such as environmental data, is audited before submission to agencies. However, as more sustainability information is delivered via general corporate reporting such as Form 10-K, voices are becoming louder in seeking independent assurance and moving from limited assurance to reasonable assurance (which also provides opportunities for feedback on process effectiveness; see **Principle 15**, **Principle 16**, and **Principle 17**). This demand is being reflected in the proposed rules and regulations. For example, the **SEC's proposed rules regarding climate-related disclosures** call for larger accelerated filers to obtain limited assurance for Scope 1 and Scope 2 emissions disclosures within one year of adoption and an additional two-year period to obtain reasonable assurance.

All of these items make the interpretation and application of ICIF-2013 a practical challenge for professionals who are now part of the sustainable business information value chain. These include management, operational teams, financial reporting teams (preparers), internal audit, compliance teams, and independent auditors. Yet taking steps to do so furthers the delivery of relevant, reliable, complete, and unbiased information so that management, investors, business advisors, and other stakeholders can make informed decisions about the use of precious resources.

[5] **GHG Protocol**; see ***Management Accountants' Role in Sustainable Business Strategy: A Guide to Reducing a Carbon Footprint***.

FIGURE B-10: OVERVIEW OF GHG PROTOCOL SCOPES AND EMISSIONS ACROSS THE VALUE CHAIN



Source: [GHG Protocol]

Although new corporate ESG measures may seem novel, in many ways, they follow the traditional information flows of other types of corporate information. These key differences between mainstream financial reporting and sustainable business information, as addressed previously, highlight the need for organizations to consider data strategy and data governance. ICIF-2013, particularly the [Control Environment component] and the [Information and Communication component], supports the means for addressing these concerns (see [Recommendations]). While this represents a challenge, it also represents an opportunity. •

Applying the ICIF-2013 Principles to Sustainability: Building Internal Control over Sustainability Reporting (ICSR)

In this section, each of the 17 principles in ICIF-2013 is explained and interpreted for application to sustainability. It follows the following format:

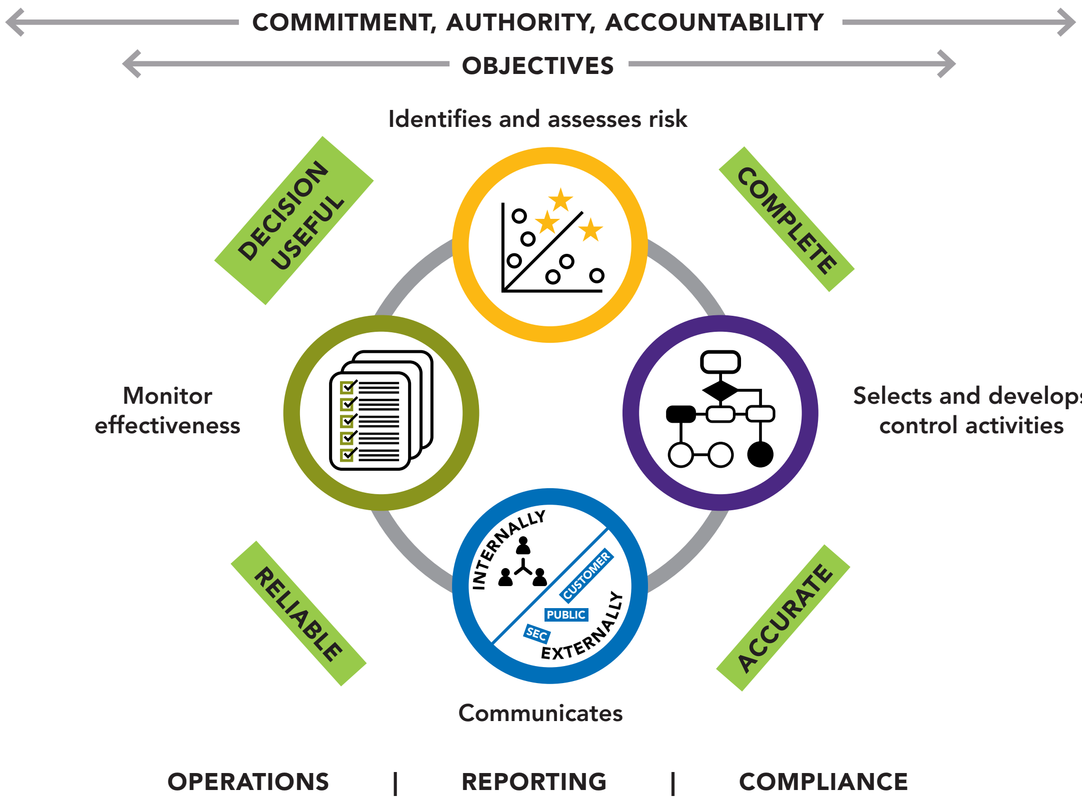
- Each principle is cited directly from ICIF-2013. Then, it is explained and stated as it may apply to sustainability.
- Each **point of focus** is cited from ICIF-2013. Then, each is explained and stated as it may apply to sustainability.
- **Insights** bring forward information on how the principles are being considered and implemented, either directly or indirectly, through new and proposed regulations, evolving professional standards, and organizational practices. They reflect a review of authoritative and thought leadership materials along with the authors' extensive interviews with professionals with a variety of relevant backgrounds. These points also reference selected, publicly available ESG reports. In sum, these informational insights reflect the views of the various stakeholders who affect how an organization responds to the drivers for sustainability by considering its processes.

As illustrated in Figure P1-1: Innovating ICSR, the components, principles, and points of focus interrelate. Therefore, certain explanations and insights may relate to multiple principles in a way that indicates overlap. This integration is part of the design of ICIF-2013.

The work begins with commitment, authority, and accountability and continues throughout the process as foundational themes. The organization considers objectives and reconsiders them on an ongoing basis. From there, it considers risks to meeting its objectives and how to counter them with systems and processes that are monitored for effectiveness. This facilitates the fundamental goals of delivering complete, accurate, reliable, and decision-useful information for all stakeholders.

> "Sustainability information is increasingly integrated into investor decision making, along with traditional financial data. This means sustainability information needs to be reliable and prepared with internal control processes and board governance and oversight, similar to the processes used for financial data."
>
> *—Janine Guillot, former Special Advisor to the International Sustainability Standards Board Chair; former CEO, Sustainability Accounting Standards Board and Value Reporting Foundation*

FIGURE P1-1: INNOVATING ICSR



Component: Control Environment

1. Demonstrates commitment to integrity and ethical values

The organization demonstrates a commitment to integrity and ethical values. (ICIF-2013-1)
An organization furthers its objectives by demonstrating to its stakeholders that it is trustworthy and acts in the public interest. An entity demonstrates its commitment to acting sustainably.

POINTS OF FOCUS

- **Sets the tone at the top**
  An organization's actors look to how senior leadership behaves, speaks, acts, and directs others to act.[6] Senior leadership can prioritize and facilitate the building of respect toward building a sustainable business. Senior leaders can influence conduct and performance by behaving as role models.

- **Establishes standards of conduct**
  Organizations establish standards of conduct for their actors. Often, an organization, at its highest levels, operationalizes its mission or purpose through a values statement. These values are then further operationalized with sustainable business programs and policies that are communicated throughout the organization.

- **Evaluates adherence to standards of conduct**
  Organizations establish a system or processes to assess whether its actors are complying with its established values and policies, including those that apply to values and policies that support the organization's efforts to act sustainably. This means developing oversight processes, including internal audit review, if appropriate.

- **Addresses deviations in a timely manner**
  An organization follows up when an actor (or group) diverges from its policies around sustainable business management and reporting. This is effectuated through communications and follow-up with the purpose of correcting course and supporting improvement and development.

INSIGHTS

Purpose of a corporation: Today, thought leadership in management and business strategy is addressing the concept of corporate purpose. In 2019, the Business Roundtable redefined the purpose of a corporation through the commitment of 181 CEOs to lead their companies for the benefit of all stakeholders—customers, employees, suppliers, communities, and shareholders. This is an example of the concept of multistakeholderism, which addresses the preservation and optimization of value over the short, medium, and long term for the benefit of all stakeholders that contribute resources.

This concept challenges the familiar maxim that the purpose of a business is the maximization of profits for the benefit of equity holders. However, Leo E. Strine Jr., former chief justice of Delaware, observes that the maximization interpretation of fiduciary duties is inexact, and we can "better align our corporate governance system with the interests of humanity in ensuring that in trying to build wealth, we

[6] As used in this publication, the word "actor" refers to all of an organization's personnel, including persons at subsidiaries, affiliates, and subdivisions. It also includes part-time employees, independent contractors, and externally hired consultants who are working on behalf of the organization. In the case of sustainable business, it also includes persons that are part of its value chain for which the organization may have responsibility, such as vendors and buyers. An actor can also refer either to an individual or an entity.

do not destroy the planet, injure customers, or otherwise cause more harm than good." In sum, adhering to a culture of ethics and principles is the first step (Principle 1) in stablishing an effective system of controls as foundational to trust. Expressing a corporate purpose helps the organization set specific objectives (Principle 6).

Thought leaders in sustainable business view a binary construct of shareholder vs. stakeholder as misguided. An organization cannot achieve its financial objectives, such as optimizing profits, without considering its other stakeholder groups, such as customers, employees, suppliers, and communities. Therefore, the culture that an organization creates is about discovering, prioritizing, and integrating sustainable business issues.

Fostering genuine change on managing resources and processes: Because the Framework has been utilized heavily for SOX compliance, there is a tendency to view it as narrowly focused on external reporting. However, achieving any form of reporting—whether internal or external—requires effective, enterprise-wide organizational elements that manage resources and processes. The Framework guides the design and implementation of effective control and oversight systems for an organization to achieve all of its objectives that align with its purpose (Principle 6).

United Nations Global Compact (UNGC): Organizations are demonstrating commitment to building a more sustainable world by becoming members of the UNGC. By 2022, more than 15,000 companies and 3,800 nonbusiness participants have become members of the UNGC. Among the requirements to join, an organization (1) commits to integrating the UNGC's principles into its organizational culture and decision-making processes, (2) issues a statement of commitment by its chief executive and board, and (3) agrees to make progress on the United Nations SDGs and regularly report on such progress. These actions align with Principle 1, which speaks of setting the tone at the top.

Instilling trust in sustainable business information: All actors are instrumental in executing an organization's commitment to act ethically and toward stakeholders' common purpose. Nevertheless, professional accountants—both internal and external—have a critical role to play (see IMA Statement of Position on Sustainable Business Information and Management). Trust, accountability, and transparency are the cornerstones of professional accountancy. The global community is seeking a thoughtful reconsideration of how all organizations use the planet's limited and precious resources and for businesses to deliver on sustainability with the same rigor, thoughtfulness, and energy used to deliver on traditional metrics of profits. At the same time, the information relied upon for decision making around sustainability issues must be high-quality, reliable, and produced through processes that instill this trust.

Benefit corporations and B Corps: Some companies are making commitments to sustainability as part of their organizational purpose. The requirements of becoming a benefit corporation or a B Corp are distinct but overlap.

Many jurisdictions now permit companies to incorporate with a stakeholder governance system. For example, in the U.S., a company can incorporate as a benefit corporation by stating, in its charter, conventional responsibilities to its shareholders and, concurrently, to a public benefit aligned with its business model, such as an educational or healthcare-related benefit.

A company also may elect to become a Certified B Corporation, which means that it has voluntarily decided to commit to the achievement of sustainability-related objectives as facilitated by B Lab.

Research on trust: The Edelman Trust Barometer delivers ongoing studies on trust in institutions, including business. Its 2022 global findings report that 81% of employees believe that CEOs should be personally visible in discussions of public policy with external stakeholders or the work the company has done to benefit society. The study also reflected stakeholder awareness:

- Customers: 58% buy or advocate for brands based on beliefs and values.
- Employees: 60% choose a place to work based on their beliefs and values.
- Investors: 64% invest based on their beliefs and values.

An organization's commitment to integrity is fundamental to internal control. It speaks to all stakeholders that their contributions of resources to the organization will be purposeful.

ICIF and reputational risks: Today, following up on commitments to act sustainably can be critical for an organization's reputation and survival. Consider, in recent years, the front-page news about companies and their reported failures to act sustainably. These include, for example, the sourcing of palm oil, crude and pipeline accidents, slavery in the supply chain, the sale of addictive opioids, and permissiveness in response to discriminatory behavior. These revelations can have particularly detrimental consequences with stakeholders if the organization has made public statements about its dedication to sustainability issues; it can readily be accused of "greenwashing," the term used to describe unreliable or untrustworthy claims of sustainability. Further, employees' perceptions that an organization's published values regarding sustainability and corporate social responsibility are hollow can result in disengagement, which is inconsistent to effective controls. Establishing governance, policies, and oversight by following ICIF can help an organization forestall detrimental and costly surprises.

Criticism of the business community: Reflecting cynicism and mistrust, there are voices that are critical of business efforts toward sustainability as inadequate. For example, a recent opinion in ***The New York Times*** asserted:

> On the face of it, E.S.G. investing could be transformative, which is why it's one of the hottest trends in the world of investing. After all, allocating more capital to companies that do good helps them grow faster and lower their cost of capital, creating an incentive for all companies to be more socially and environmentally conscious.
>
> But the reality is less inspiring. Wall Street's current system for E.S.G. investing is designed almost entirely to maximize shareholder returns, falsely leading many investors to believe their portfolios are doing good for the world.
>
> For E.S.G. investing to achieve its potential, Wall Street players will have to change their system.

In fact, it coincides with polls in recent years that find younger generations have negative views of capitalism (for example, see "**Eat the rich! Why millennials and generation Z have turned their backs on capitalism**" and "**A majority of millennials now reject capitalism, poll shows**"). Following ICIF-2013, particularly beginning with Principle 1, gives an organization the power and tools to consider its activities and statements to promote trust, transparency, and reliability.

CEO LETTERS

A widespread practice in setting the tone at the top and setting sustainable business priorities is the CEO letter. For example, in its 2021 sustainability report, United States Steel President and CEO David B. Burritt states:

> Steel is critical to a healthy manufacturing base, and it is incumbent upon companies like ours to take the necessary steps to remain economic engines that best support their employees, best serve their customers, best enrich their communities, and best reward their stockholders. We believe the key to achieving all of these things is making sustainability central to who we are and what we do.…our Best for All approach to sustainability…is making it possible for us to get to our future faster—a future where we are leading our industry in the development of innovative, profitable, and sustainable steel solutions that are best for people and the planet.

Moving to put the message into practice, Burritt and the company's board of directors appointed a new chief strategy and sustainability officer, who has joined the senior management team. This sends a message that sustainability is core to the company achieving its long-term strategy to further its mission.

CEO ANNOUNCEMENT: B CORP

In March 2022, The Vita Coco Company announced that it had become a Certified B Corporation. In the announcement, Mike Kirban, founder and co-CEO, stated:

> We've always been on a mission to create more equitable access to natural, better-for-you products in a responsible way. Joining a network of like-minded organizations will create collective impact to democratize health and wellness. We are honored to receive this distinction and become part of the B Corp community.

This is indeed a control activity, because it announces to all stakeholders the company's commitment to its mission. From this, the company engages all stakeholders to contribute resources to reach its objectives, which include positive impact on farming communities in the Philippines, Sri Lanka, and Ecuador.

Sustainable business management is becoming more important for organizations, increasing the urgency for reliable ESG information for decision-making purposes. The COSO ICIF model enables organizations to streamline their ESG strategy, goals, risks, and thus ultimately the reporting on this topic. This supports organizations in achieving their sustainability goals.

—Brigitte de Graaff, Assistant Professor, Researcher, and CMA Program Director, Vrije Universiteit Amsterdam; Chair, IMA Sustainable Business Management Global Task Force

2. Exercises board of directors' oversight responsibilities

The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal control. (ICIF-2013-2)

Oversight by an independent board of directors serves as a check that management is acting in accordance with the organization's sustainable business objectives.

POINTS OF FOCUS

- **Establishes oversight responsibilities**
  A board of directors executes its responsibilities over sustainable business management through a system of oversight that facilitates the organization's satisfaction of mandates and expectations. Often, the organization's board of directors establishes structures, such as a designated committee or subcommittee, to oversee the organization's sustainable business activities and reporting. This may necessitate amending existing organizational documents such as the articles of incorporation, bylaws, or charters.

- **Applies relevant expertise**
  A board of directors identifies requisite skills and areas of expertise for its own membership. Therefore, it ensures that board members charged with oversight responsibilities regarding sustainable business have the knowledge base and skill set to be effective.

- **Operates independently**
  A board of directors operates independently from management with respect to oversight and responsibilities for decision making on sustainable business issues. This point of focus operates in the same way with respect to sustainable business activities as it does for all other organizational activities.

- **Provides oversight for the system of internal control**
  The board oversees an organization's design, implementation, and performance of controls, systems, and processes related to sustainable business activities and reporting. Often, this is a check on management and an oversight of how the organization is utilizing its resources and processes to achieve sustainable business activities, such as programs around energy, waste, GHG emissions, supply chain, cybersecurity, and diversity, equity, and inclusion.

INSIGHTS

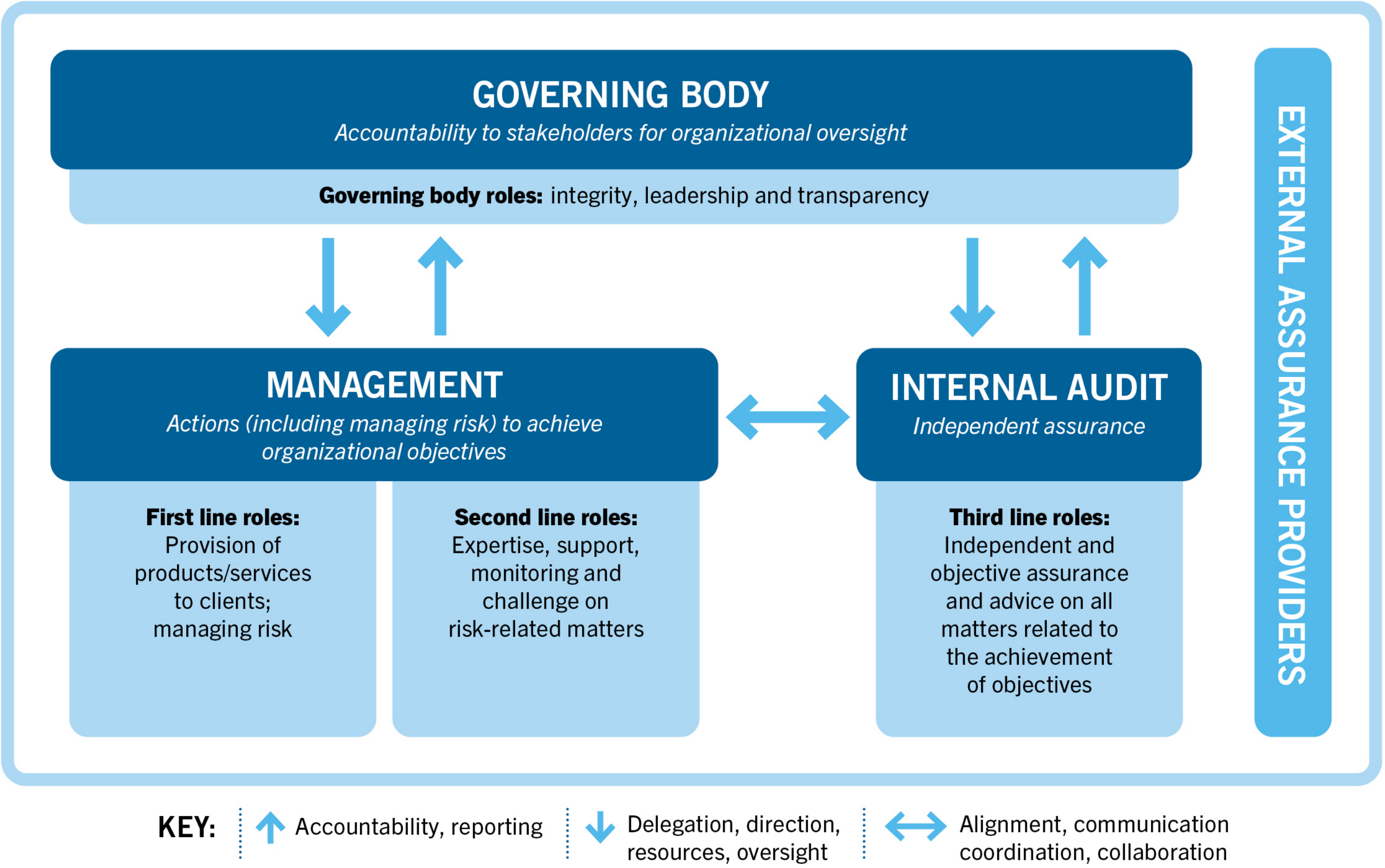
Comments by Allison Herren Lee: In 2021, former SEC Commissioner Lee gave the keynote address at the Society for Corporate Governance National Conference. Her remarks focused on the SEC's policy-making process, particularly around its attention to climate change and other ESG disclosures. She noted that boards increasingly have oversight obligations related to the identification, assessment, management, and disclosure of climate and other ESG risks. She further stated that these responsibilities "flow from both the federal securities laws and fiduciary duties rooted in state law," and they are fundamental to the success of companies, the markets, and the economy. Yet she observed that "there is more work to be done" at the board level with more specific mandates and management engagement. In her remarks, she encouraged boards to mitigate risks around ESG (Principle 7) by enhancing board diversity, increasing board expertise, and inspiring management success.

Audit committee activities: Often, a board of directors has various committees that oversee different aspects of sustainability activities. An organization may have an audit committee and a separate committee that oversees sustainability activities. As the organization releases additional sustainable business information to the markets and other external stakeholders, either to meet regulatory requirements or to respond to market demands, it may seek enhanced audit committee oversight. These circumstances bring about actions such as:

- Revising charters to include oversight of external reporting of sustainability information.
- Revising charters to include oversight of disclosures regarding the effectiveness of the organization's system of ICSR.
- Conducting educational sessions on recent developments regarding sustainable business.
- Overseeing the internal audit function and review of sustainable business information.
- Developing processes to operationalize oversight of external reporting, such as determining:
  - The frameworks, standards, and guidelines to follow for external ESG reporting.
  - The means for delivering ESG information externally.
  - A proposed timeline for review and delivery of ESG reports.
  - The person(s) who will be responsible for the process.
  - Processes that will be utilized to review disclosure prior to release.
- Evaluating the effectiveness of the reporting process as designed.
- Reviewing external ESG reports before issuance.
- Determining the extent to which ESG information is subject to independent assurance or verification.
- Determining the appropriate outside firm to perform independent assurance or verification. In some cases, an organization may look to the same firm that performs the audit of its financial statements. In other cases, it may be more appropriate to look to other specialist firms.

Control of sustainable business activities and reporting by internal audit: As Figure P2-1: IIA Three Lines Model demonstrates, the IIA has developed the **Three Lines Model** that is a means for an organization to implement segregation of responsibilities so that critical groups, including the governing body—typically the board of directors or the audit committee, providing oversight—as well as executive management (the first line), the risk management team (the second line), and the internal audit function (the third line) serve as checks and balances to guide the organization toward meeting its objectives (**Principle 3** and **Principle 6**). **Following this model**, the internal audit function takes on the critical role of providing objective assurance, independent from management, over the effectiveness of sustainable business risk management, reporting, and related regulatory compliance. As a means of responding to risks, the internal audit function can use an enterprise-wide perspective to highlight the extent to which sustainable business activities are following policies and procedures (**Principle 12**) and documented throughout the business.

FIGURE P2-1: IIA THREE LINES MODEL



Source: ***The IIA's Three Lines Model***

CASE IN POINT: BOARD OF DIRECTORS COMMITTEES' OVERSIGHT OF SUSTAINABLE BUSINESS

A publicly held company subject to the SEC's regulations has announced a commitment to several sustainable business objectives, including net-zero GHG emissions by 2030. As a result of these commitments and objectives, its board of directors has divided and assigned aspects of oversight to multiple committees:

- Sustainable business committee: oversight of the organization's assessment of transition risks related to climate change.
- Audit committee: oversight of the organization's external sustainability reporting of its progress toward emissions targets and financial effects, the internal audit function, and interaction with independent auditors.
- Nominating committee: recruitment and appointment of members with familiarity with sustainable business.
- Compensation committee: oversight of incorporating new metrics related to the achievement of certain sustainability goals and targets into the compensation scheme for the company's CEO and senior management.

The company has reflected these board activities into its annual proxy statement in accordance with the requirements under SEC rules (see Part 240, General Rules and Regulations, Securities Exchange Act of 1934, Regulation 14A).

OVERSIGHT OF SUSTAINABLE BUSINESS ACTIVITIES BY DIFFERENT BOARD COMMITTEES

As part of its publicly available information on corporate governance, Travelers describes the roles of its various board of directors-level committees, as follows:

> With respect to oversight of ESG-related risks and opportunities, each committee is assigned responsibility for oversight of matters most applicable to its charter responsibilities. We believe that allocating responsibility to a committee with relevant knowledge and experience improves the effectiveness of the Board's oversight. For example, as indicated above, the Audit Committee oversees risks related to regulatory and compliance matters; the Compensation Committee oversees implementation of our pay-for-performance philosophy and practices designed to ensure equitable pay across the organization; the Nominating and Governance Committee oversees our workforce diversity and inclusion efforts, public policy initiatives and community relations; and the Risk Committee oversees strategies pertaining to management of catastrophe exposure, changing climate conditions and information technology, including cybersecurity.
>
> With a focus on continually improving the ability of the Board to provide informed oversight, the Nominating and Governance Committee oversees educational sessions for directors on matters relevant to our company, business strategy and risk profile. For example, topics of those sessions have focused on the role that corporate culture and board oversight played in publicized lapses in corporate governance at other firms.
>
> The Board and each of its committees evaluate and discuss the allocation of oversight responsibility every year, along with their respective performance and effectiveness.
>
> In addition, our Chief Sustainability Officer and our ESG Management Committee – a multidisciplinary committee consisting of senior company executives that meets at least quarterly – drive the prioritization and management of, and reporting on, sustainability issues. We also regularly engage with our investors, our customers, our employees, our agents and brokers, regulators, rating agencies and other stakeholders on business issues and the ESG topics of interest to them.

3. Establishes structures, authority, and responsibilities

Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives. (ICIF-2013-3)

As it endeavors to meet its sustainable business objectives, an organization's management, with the oversight of the board of directors, establishes internal structures that set out authority and responsibilities.

POINTS OF FOCUS

- **Considers all structures of the entity**
  A board of directors and management consider organizational structures to support sustainable business activities and information systems. These structures include the establishment and interaction of operating units, affiliates, subsidiaries, divisions, geographic regions, and third-party providers.

- **Establishes reporting lines**
  Management designs the means of oversight over each of the organization's structural components. This includes designating responsibilities among these organizational components for the flow of information regarding sustainable business activities.

- **Defines, assigns, and limits authorities and responsibilities**
  A board of directors and management authorize and delegate responsibilities over sustainable business activities and information. This authorization and delegation incorporate the establishment of processes, including the use of technology. Together, management and the board determine the responsibilities and expected interaction among all actors.

INSIGHTS

Considering affiliates and investees in establishing structures: Principle 3 speaks to establishing organizational structures, an oversight system that will facilitate the organization achieving its objectives, including its sustainable business objectives (Principle 6). Implementing this guideline means considering equity investments, subsidiaries, joint ventures, and other third parties with whom an organization has relationships. Applicable ESG reporting regulations and standards may require a reconsideration of boundaries. Management, considering its sustainable business objectives, also may look beyond equity investees based on ownership to other parties that it can control or influence. This is a key difference between traditional financial reporting and sustainable business management.

For example, U.S. GAAP or IFRS may not require a franchisor to account for a franchisee organization. Yet the franchisor may have significant influence over a franchisee's sustainable business practices, such as its human resources policies, inventory purchases, and use of facilities. Information based on this ability to influence may be includable for sustainable business management and reporting standards. For example, in the accounting for emissions under the GHG Protocol (see Background), which appears to be generally accepted, an organization reports emissions not only from its own activities (Scope 1) but also indirect emissions from energy sourced from outside its business (Scope 2) and from the activities of organizations in its value chain. Depending on the approach taken by the company, Scope 3 requires the sourcing of information related to 15 categories of activities from assets not owned or controlled by the reporting organization.

The issue, however, is more than the ability to control or influence another organization, such as a franchisee's sustainability practices. It relates to the practical consequences of a franchisee's actions on the reputation and relationships of the franchisor. The activities of persons and entities affiliated or controlled by an organization can pose risks to reputation and similar components of intangible value.

> In terms of governance over ESG reporting, there isn't a one-size-fits-all approach—it's most often a cross-functional team that has to collaborate to build and manage the process to oversee improvements in reporting quality, consistency, and breadth.
>
> *—Marc Siegel, Assurance Partner, Corporate and ESG Reporting Thought Leader, Ernst & Young LLP*

The analysis of boundaries is important for understanding and potentially implementing current proposals to make aspects of sustainable business reporting mandatory. For example, the SEC and ISSB proposals point to the adoption of the same reporting entity as currently used for financial reporting. Yet these same proposals look to adopt language from other guidelines, such as the GHG Protocol, which may call for or permit different boundaries than those used for financial reporting.

An organization uses care, therefore, to ensure that it can interact and oversee other entities for which it may have some responsibility regarding sustainable business information. As Principle 3 indicates, regardless of the boundaries used for external reporting, it is beneficial for management to understand, from a strategic standpoint, the affiliates, subsidiaries, and other organizations and investees that it can control or influence to help it achieve its sustainable business objectives. An investee may be immaterial from a financial reporting standpoint but be highly relevant to decision making around sustainability-related risks, operations, and objectives.

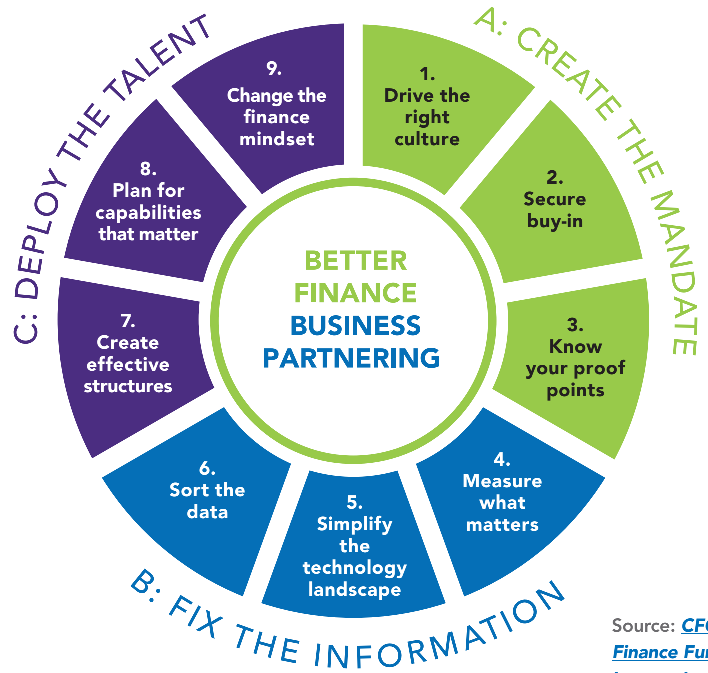
Cross-disciplinary approach to sustainable business management: At many companies, the road toward sustainable business activities begins with a management committee or task force that is assigned primary oversight of the organization's varied activities, such as setting objectives (**Principle 6**), overseeing processes, and reviewing reports. After initiation in somewhat ad hoc fashion, the group may become formalized by a written charter, assignment of responsibilities (Principle 3), and specified policies (**Principle 12**).

These cross-disciplinary groups include not only members of finance and accounting, internal audit, and sustainable business teams, but also, typically, participants from legal and policy, treasury, communications, human resources, investor relations, facilities, and operations. As Principle 3 instructs, this partnering becomes effective if the structures are considered and roles and responsibilities are defined.

The IMA report ***CFO as Value Creator: Finance Function Partnering for the Integration of Sustainability in Business*** utilizes a nine-step framework (see Figure P3-1: Finance Partnering Framework) developed jointly by IMA and the Association of Chartered Certified Accountants (ACCA) to describe the considerations of building internal, cross-disciplinary sustainable business teams with the leadership of the finance function. Regardless of the structure, it is beneficial for the organization to have the ability to articulate its oversight system to both internal (**Principle 14**) and external users (**Principle 15**).

ESG controller: Some organizations are creating a new functional role, "sustainability CFO" or "ESG controller," to oversee sustainable business information processes, manage sustainable business activities, and produce external ESG reporting. At some organizations, a specific aspect of sustainability may be more relevant than others, and it may prove beneficial to appoint a controller with responsibility for that one area. For example, a company with heavy manufacturing that is concerned about GHG emissions may create a specialized position called "GHG controller." The person in this role may be assigned the responsibility of evaluating and communicating current risks (Principle 6), keeping up to date on trends (Principle 7), proposing and managing policies (Principle 12), and coordinating data management (Principle 10).

FIGURE P3-1: FINANCE PARTNERING FRAMEWORK



Source: *CFO as Value Creator, Finance Function Partnering for the Integration of Sustainability in Business*

DISCLOSURE OF MANAGEMENT OVERSIGHT STRUCTURES

Whirlpool Corporation releases comprehensive ESG disclosures, including a report that follows the TCFD recommendations. As part of this reporting, Whirlpool details how its management team functions to set and meet its sustainable business objectives. For example, its TCFD report for 2021 states:

> **Management**
>
> At the management level, our ESG efforts are led by our Executive Committee and guided by our ESG Councils—one covering Environmental Sustainability, one covering Social and Governance topics. Our ESG Councils are composed of regional business leaders and senior leaders from our key operational and corporate functions. The ESG Councils evaluate our strategic priorities on relevant ESG issues based on results of our ESG Materiality Assessment and input from our ESG Task Force, a cross-functional team that embeds individuals and leaders from all core functions of the business. To further strengthen our ESG governance structure and integration into our business, we named a Senior Vice President, Communications, Public Affairs and Sustainability to join the Executive Leadership team and report directly to our Chairman and CEO. Whirlpool Corporation's Corporate Controller and Principal Accounting Officer is accountable for reporting to the EC and the Board of Directors on ESG matters, including climate change-related issues and financial impacts.

4. Demonstrates commitment to competent human resources

The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives. (ICIF-2013-4)

To meet its sustainable business objectives, an organization depends on its human resources.

POINTS OF FOCUS

- **Establishes policies and practices**
  The organization develops and implements policies and practices that communicate expectations regarding its actors' competence with sustainable business management and information. For example, the organization formalizes position descriptions and job responsibilities regarding its sustainable business activities and keeps these up to date.

- **Evaluates competence and addresses shortcomings**
  Working together, the board of directors and management evaluate the competence of personnel and service providers regarding sustainable business management and information. This includes assessing abilities against policies and practices around competency, that is, benchmark expectations. They also work to address shortcomings in their teams' knowledge regarding sustainability.

- **Attracts, develops, and retains individuals**
  The organization engages in activities to attract people who are competent regarding business sustainability. It provides mentoring and training regarding sustainability to meet its objectives. It engages in activities to retain competent personnel and service providers who are competent in sustainability.

- **Plans and prepares for succession**
  The organization, through its board of directors and management, develops plans of succession regarding those persons, both internal and external service providers that are part of its system of controls and oversight of sustainable business activities and information.

INSIGHTS

Talent to meet sustainable business objectives: An organization may find that its sustainable business team is woefully understaffed. This creates risks that the organization will be unable to meet its sustainable business objectives (Principle 6). It also leads to a suboptimal segregation of duties that serves as an internal check (Principle 10). From a strategic standpoint, understaffing sustainable business teams can deter synergistic innovation and leave an organization weak at seizing opportunities and implementing strategies rooted in sustainable business management.

Sustainable business activities and reporting also typically necessitate cross-functional collaboration between members from finance, legal, investor relations, health and safety, operations, facilities, human resources, and procurement teams (Principle 3). These professionals need to appreciate different perspectives and different terminology to meet an organization's sustainable business objectives. Therefore, in hiring and adding personnel, it is helpful for an organization to consider not only a person's specific skill set but, as importantly, the person's abilities to adapt, innovate, and consider the long term as well as the short term.

Further, organizations are finding it challenging to find people who have an adequate, combined understanding of sustainable business and financial reporting so that it can meet its various reporting objectives. Because it is a new discipline, most mid- to senior-level business professionals never receive training or exposure to sustainable business concepts and practices in their studies or early career. Only professionals from among the most recent graduates have had this direct exposure. Therefore, in practice, financial function professionals are teaching sustainable business teams about regulatory mandates, information quality, internal controls, governance systems, and the assurance process. At the same time, sustainable business teams, with the help of investor relations, are teaching finance function professionals about the diverse types of information requested by the market, rating agencies, NGOs, and other stakeholders.

> “The greater integration of climate and financial information and their supporting processes and systems under the stewardship of finance teams and accountants should lead to better reporting in the years to come.”
>
> *—Kevin Dancey, CEO, International Federation of Accountants*

Professionals in corporate finance functions (including management accountants with expertise in operations), along with their counterparts in internal and external audit, already have the fundamental skills to consider objectives, risks, structures, policies, and processes relating to sustainable business. It is primarily a matter of refocusing this existing talent toward new areas. Cross-training that includes finance function members can help promote good data collection practices, controls, and reporting infrastructure. Similarly, the sustainability teams can help train the finance team on the detailed subject matters related to various aspects of sustainable business management and ESG reporting in a way that considers the business model and strategic direction.

CASE IN POINT: SUSTAINABLE BUSINESS TALENT

Gary Industries, a privately held company (fictional), makes specialized packaging and cardboard cartons.[7] Many of Gary's customers sell to big-box retailers and e-commerce companies that are public companies with concerns about competition and reputation. Several of its customers have made public commitments to sustainability, and Gary views its own ability to provide information regarding its own sustainability as a critical strategic advantage in working with these customers. However, Gary's operations, facilities, human resources, and finance and accounting teams do not feel that they have the requisite understanding to further the company's sustainable business objectives. Looking to Principle 4, the company undertakes a series of steps to improve its talent capabilities to meet them. These steps include:

- Identifying its needs to understand various sustainability subject matters.
- Conducting training for management, full- and part-time employees, consultants, and independent contractors.
- Incorporating needs for people with sustainability knowledge into its hiring plans, including plans for its operations, finance, accounting, and internal audit functions.
- Integrating information about the company's sustainable business objectives into its onboarding materials.
- Supporting all members of the organization in obtaining training and certifications.
- Hiring new, experienced employees, or, in some cases, consultants, to instruct the teams toward the design and implementation of new processes for sustainable business initiatives.
- Conducting joint training or sessions with customers to understand their needs regarding sustainability.

[7] See ***Management Accountants' Role In Sustainable Business Strategy: A Guide to Reducing a Carbon Footprint***.

5. Enforces accountability

The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives. (ICIF-2013-5)

To meet its sustainable business objectives, an organization needs to establish and implement meaningful ways to support its human resources and, at the same time, monitor performance.

POINTS OF FOCUS

Enforces accountability through structures, authorities, and responsibilities

An organization's board of directors and management, working together, establish means to direct behavior of employees and other actors with respect to upholding established standards and processes regarding sustainable business activities and information, and hold them accountable. To do so, an organization may incorporate aspects of its sustainable business activities, as appropriate, into job descriptions and performance evaluations.

Establishes performance measures, incentives, and rewards

An organization's board of directors and management establish meaningful ways to measure progress on sustainability. This includes setting performance targets along with incentives and rewards for achieving these targets. The organization may establish compensation that is linked to meeting not only short-term objectives but also long-term sustainability-related indicators.

Evaluates performance measures, incentives, and rewards for ongoing relevance

Once a board of directors and management set performance targets and a reward system, they reevaluate them periodically to ensure that they remain relevant (see Principle 16 regarding ongoing evaluation).

Considers excessive pressures

In setting targets, it is beneficial for the board and management to consider conditions that could drive performance that is ineffective, contrary to achieving objectives, or detrimental to the organization. In establishing sustainable business performance metrics and aligning incentives and rewards, management and the board of directors consider ways to avoid imposing undue pressure on the company's actors (see Principle 8 regarding fraud).

Evaluates performance and rewards or disciplines individuals

A board of directors and management, working together, assess how well individuals are performing their responsibilities regarding sustainable business activities. This means that actors are adhering to the organization's established processes to achieve established objectives. In cases of noncompliance, appropriate measures are established and performed to improve performance.

INSIGHTS

Prioritizing organizational commitment: In initiating new systems for gathering and reporting on sustainable business activities, an organization's existing managers and personnel may push back by claiming that requisite sustainable business information is "unavailable" or "unnecessary." It may be important for the organization to educate these employees (Principle 4) on the importance of the data to meeting its sustainable business objectives and other objectives.

CASE IN POINT: ESG-LINKED COMPENSATION

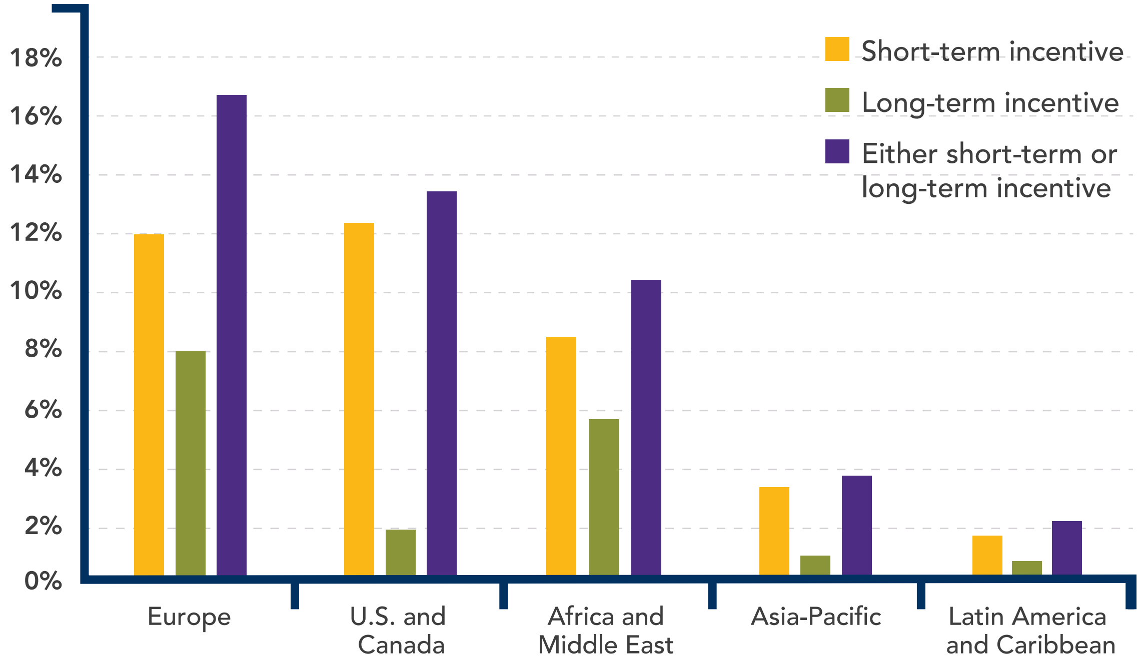
In its proxy statement filed and released under the SEC's rules, a heavy manufacturing company discloses the details of a new incentive compensation program for three key executives. Under the program, 10% of these executives' compensation will be based on a health and safety metric; 10% will be based on a climate action metric; and 10% will be based on a diversity and inclusion measure. That is, executives will receive a substantial portion of their variable compensation (30%) only if the company meets specified objectives during the vesting period.

As an additional challenge, some personnel may be a great distance and time zones away from corporate headquarters and sustainable business objectives are not prioritized. Principle 5 speaks to the importance of emphasizing organizational needs by instituting "accountability through structures, authorities, and responsibilities." Importantly, this means budgeting properly to provide resources for these structures to function effectively and nonwastefully. These control and oversight activities help ensure that the organization meets its sustainable business objectives.

Considering excessive pressures: Management, at every level, can feel pressure from the board of directors, senior executives, employees, investors, competitors, customers, and other stakeholders to establish ambitious sustainable business targets. Achieving targets, however, requires organization, structure, resource commitments, and controls to monitor progress. Undue emphasis on targets can heighten risks to meeting other business objectives (**Principle 6**) by diverting resources. It can also create undue pressure to report incomplete or inaccurate data to meet expectations and therefore create the risk of greenwashing or fraud (**Principle 8**).

> ESG reporting is complex, requiring the ingestion, capture, management, and reporting of financial and non-financial data from many disparate sources. As companies move toward investor-grade ESG reporting, the discipline of establishing sound internal controls over sustainability reporting becomes increasingly important. This supplemental COSO guidance provides organizations a familiar and established framework for delivering assurance-ready disclosures.
>
> *—Marty Vanderploeg, Nonexecutive Chair, Workiva*

FIGURE P5-1: SHORT-TERM AND LONG-TERM ESG-BASED INCENTIVES BY REGION



Source: ***Real ESG Accountability: Tying Your Company's ESG Performance to Leadership Compensation***

Incentive compensation tied to sustainable business objectives: Research reveals that incentive compensation tied to sustainable business performance has remained fairly limited, but attention is growing. Importantly, research is also showing that this incentive compensation remains **largely tied to short-term rather than long-term metrics** (see Figure P5-1: Short-Term and Long-Term ESG-Based Incentives by Region).

PwC's **Maria Castañón Moats**, Governance Insights Center leader, observes, "Targets and metrics in executive compensation plans are premium real estate—and space for new metrics is limited. Compensation committees are wise to avoid overburdening those plans with too many different goals. This keeps the organization's main priorities front and center, and makes expectations clear."

Following Principle 5 can help bring meaningful balance to an organization considering sustainable business incentives. This principle guides an organization to find an appropriate formula by aligning its incentive compensation to its sustainable business and other business objectives (**Principle 6**).

Component: Risk Assessment

6. Specifies suitable objectives

The organization specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives. (ICIF-2013-6)

With clarity, an organization expresses its sustainable business objectives. These objectives are a means to tie the organization's purpose or mission, values, and corporate social responsibility goals to strategy. An organization's sustainable business objectives follow from its commitment to integrity and ethical values and are integrally linked to its operations objectives, external financial reporting objectives, external nonfinancial reporting objectives, internal reporting objectives, and compliance objectives. Explicit expression of these objectives is a predicate to considering risks, that is, the likelihood that events will occur that may be detrimental to the organization's ability to satisfy them.

POINTS OF FOCUS

Operations Objectives

- **Reflects management's choices**
  An organization's management directs its sustainable business activities, which may be driven by sector or industry. In doing so, management considers the risks inherent in the company's business model and operations.

- **Considers tolerances for risk**
  Management determines how much risk from the achievement of its sustainable business objectives it will deem acceptable.

- **Includes operations and financial performance goals**
  Management considers sustainable business risks in terms of the potential effects on the company's operational and financial performance.

- **Forms a basis for committing resources**
  After consideration of its business sector and industry, tolerance for risk, and operational and performance objectives, management allocates resources necessary to meet its sustainable business goals.

External Financial Reporting Objectives

- **Complies with applicable accounting standards**
  The organization applies financial accounting and reporting standards that are suitable to express its activities and transactions. This includes consideration of the connectivity between financial and sustainable business information, that is, how sustainable business activities affect financial performance, condition, and cash flows as defined under generally accepted accounting and reporting standards.

- **Considers materiality**
  "Materiality" has been defined by regulation and legal precedent. Traditionally, it speaks to the decision usefulness of reported information to lenders and equity investors. In setting external financial reporting objectives, the organization considers the materiality of sustainable business items on the financial statements, notes to the financial statements, and disclosures required by regulation.

- **Reflects entity activities**
  A principle of financial reporting is fair presentation, which means that financial reporting reflects the organization's activities and transactions. Certain sustainable business activities affect its financial reporting.

External Nonfinancial Reporting Objectives

- **Complies with externally established standards and frameworks**
  Senior management has an oversight role in determining how an organization will deliver sustainable business information to external users. This includes the standards to apply, the surveys to complete, and the means for publication.

- **Considers the required level of precision**
  Not all reported information can be 100% precise because it is based on assumptions, estimates, and judgment. Management uses judgment and determines the precision with which information is reported to external users.

- **Reflects entity activities**
  For sustainable business information to be useful, it faithfully represents what it purports to represent.

Internal Reporting Objectives

- **Reflects management's choices**
  Management decides what information it needs, internally, for decision making to manage the business. This includes data sourcing, analyses, dashboards, reports, and presentations.

- **Considers the required level of precision**
  Information can be useful to management decision making even if there is imprecision because the information is based on assumptions, estimates, and judgment. Management uses judgment to determine the precision with which information is needed for organizational decision making.

- **Reflects entity activities**
  For sustainable business information to be useful for management's internal decision making, it faithfully represents underlying transactions, events, and expectations.

Compliance Objectives

- **Reflects external laws and regulations**
  An entity's objective is to conduct its activities in a manner that complies with applicable statutes, regulations, and court-determined precedent. This includes not only mandatory disclosures under securities regulations but also compliance in a range of ESG areas around energy, waste, health and safety, equal opportunity, anti-corruption, and anti-slavery.

- **Considers tolerance for risk**
  In establishing internal processes, an organization's management determines the extent to which it will perform oversight of potential deviations from laws and regulations.

INSIGHTS

Interrelationship among ICIF-2013 Principle 6 objectives: ICIF-2013 provides five categories of objectives: operations, external financial reporting, external nonfinancial reporting, internal reporting, and compliance. Although described separately, in practice, these objectives work together so that the organization is accountable for meeting its ultimate purpose (Principle 1), including its sustainable business objectives. That is, in setting sustainable business objectives, an organization looks to ensure consistency among all objectives regardless of category. A siloed approach with a lack of consistency among objectives creates unnecessary, additional risk and contributes to wastefulness of human and other resources that may be working toward inconsistent goals.

With respect to external reporting, the issuance of financial reports and separate sustainability information by different teams with different objectives raises specific risks of inconsistent disclosures. Moreover, unlike financial reporting subject to regulation, the agenda for voluntary reporting often includes subcomponents and points of disclosure from multiple frameworks and guidelines, such as the GHG Protocol, TCFD, GRI, SASB, and the SDGs (see **Background**). ICIF-2013 Principle 6 tells us that an organization's oversight system functions well when the reporting objectives are considered along with the organization's other objectives, including its internal and operating objectives. This promotes the development of an effective system and enterprise-wide engagement.

Materiality and the debate over impact accounting: Principle 6 addresses how "materiality" is considered in setting and carrying out objectives.

In many jurisdictions, the word "materiality" has a legally defined meaning. For example, in the U.S., "materiality" has been defined by the U.S. Supreme Court, and the SEC incorporates this definition throughout its regulatory scheme.[8] Materiality establishes legal responsibilities and potential liability. Generally, ESG information can be considered material, under its legal definition, to traditional capital market investors as well as decision useful for other stakeholders, as the organization aims to report on components that help assess enterprise value.

However, in the world of sustainability, some interpret the term "material" by advocating for a "double materiality" approach, which some refer to as "impact accounting" (see Figure P6-1: Impact Accounting Model). In this line of thinking, an organization delivers not only ESG information that reflects how it is conducting its operations but also how its operations affect external parties. For example, the SDGs and GRI aim for organizations to deliver information on the external effects of their operations and activities on the commons, such as water resources, GHG emissions, waste disposal, human health, and community well-being.

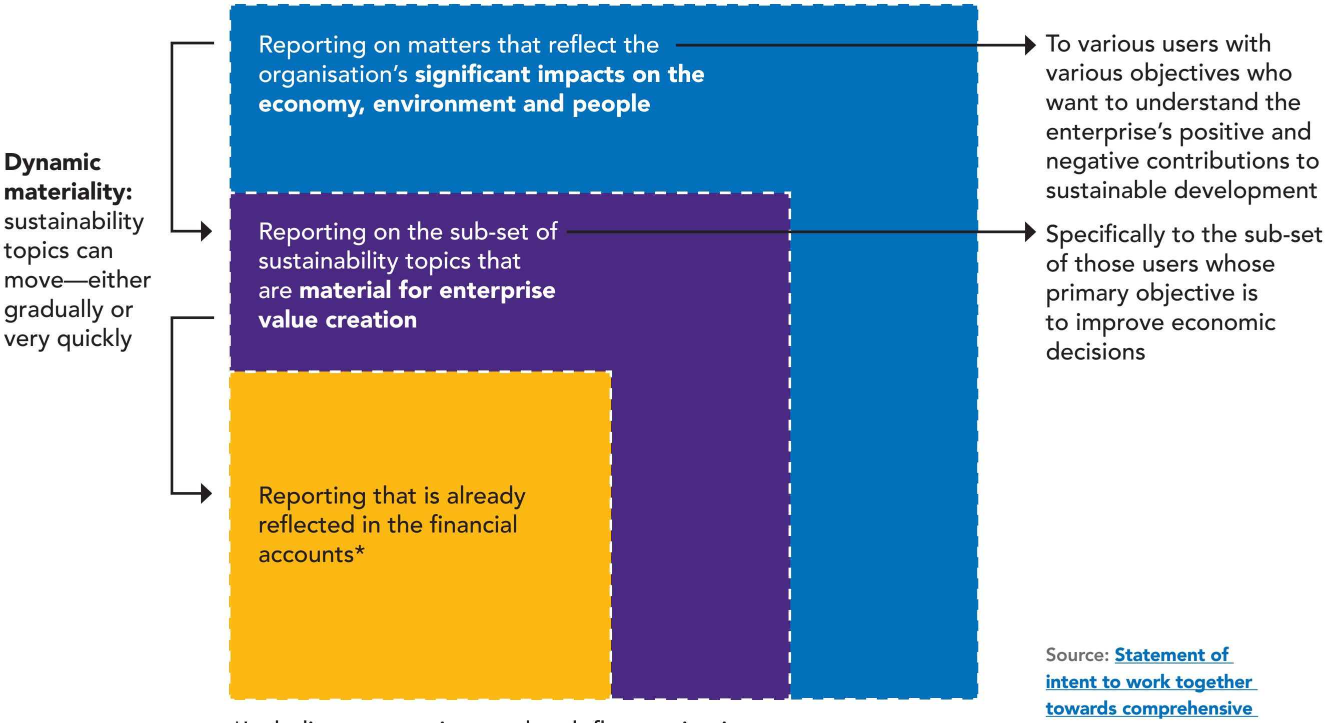
Global efforts to harmonize the various sustainability reporting frameworks resulted in a concept called "dynamic materiality." Figure P6-2: Dynamic Materiality uses a building blocks approach to demonstrate how these different perspectives of materiality may be considered cohesively.

[8] See *Basic, Inc. v. Levinson*, 485 U.S. 224 (1988); *TSC Industries, Inc. v. Northway, Inc.*, 426 U.S. 438 (1976).

FIGURE P6-1: IMPACT ACCOUNTING MODEL

Source: *Guidelines on reporting climate-related information*

FIGURE P6-2: DYNAMIC MATERIALITY



*Including assumptions and cash flow projections

Source: Statement of intent to work together towards comprehensive corporate reporting

Materiality based on industry: The SASB standards (now part of the ISSB portfolio) were developed with the goal of identifying the points of disclosure that are most likely material based on an organization's industry. Importantly, the initial development of these 77 industry-based standards was to enhance existing Form 10-K disclosures for sustainability-related information by applying the legal definition of materiality. Many preparers, when they initiate sustainable business reporting, look to the SASB standards to inform them on the initial areas for potential disclosure. The suggested KPIs and related disclosures can help an organization target and carry out decision-useful sustainable business objectives.

Definition of faithful representation: The ISSB, in its S1 Exposure Draft, *General Requirements for Disclosure of Sustainability-related Financial Information* (see Background), defines "faithful representation" with respect to sustainable business information (¶¶ C9-C10). The ISSB notes that sustainability-related financial information represents actual, real-world phenomena in words and numbers. Therefore, for information to be useful, it must faithfully represent "the substance of the phenomena that it purports to represent." The ISSB further states that for information to be a faithful

DISCLOSURES BASED ON IMPACT ACCOUNTING

Some organizations are issuing a new form of financial statement based on the concepts of impact accounting or multicapital accounting. For example, Natura &Co, a multinational beauty company, has taken steps to measure and report the impacts generated by its business in the "social, environmental and human spheres, by launching its Integrated P&L, called IP&L." The company describes its IP&L as an integrated management tool that allows the accounting for the impact of the company's performance in the environmental, social, and human dimensions, in addition to its financial results. The company concludes, based on this model, that for every U.S. dollar of Natura revenue, the brand generated a net return of $1.50 in benefits for society.

SETTING OBJECTIVES: COMMITMENTS TO GHG REDUCTIONS

Companies are making public commitments to reduce their GHG emissions with target dates (see Science Based Targets). This is an expression of commitment to act sustainably (Principle 1). For example, in its Form 10-K for 2021, Whirlpool describes both its commitment and the risks to failing to meet its expressed targets (Principle 7):

> We have set rigorous science-based targets for greenhouse gas reductions and related sustainability goals, including a "net-zero" emissions target in our plants and operations that was announced in 2021. Any failure to achieve our sustainability goals or reduce our impact on the environment, any changes in the scientific or governmental metrics utilized to objectively measure success, or the perception that we have failed to act responsibly regarding climate change could result in negative publicity and adversely affect our business and reputation.

Financial institutions have additional challenging practicalities regarding climate and other sustainable business risks. They need to set targets not only for their own operations but also within their portfolios. Their borrowers, insureds, and investees carry risks, and these risks can be less than transparent.

representation, it would be "complete, neutral and free from error." This accords with Principle 6. An organization sets objectives that ensure that its information for decision making represents underlying circumstances, transactions, and expectations.

SEC Division of Corporation Finance (CorpFin), consistency of disclosures: In 2021, signaling that the SEC would scrutinize corporate filings regarding compliance with ***Commission Guidance Regarding Disclosure Related to Climate Change***, CorpFin released a **sample comment letter** that it anticipated issuing to companies regarding climate change disclosures. Among the items that CorpFin indicated it would address in its review of SEC filings were disparities between disclosures in a company's corporate social responsibility (or similar) reports via websites and the information provided in their SEC filings (Form 10-K). This supports the concept in ICIF-2013 that setting objectives must be consistent and cohesive throughout an organization and that sustainability matters are integral to a comprehensive oversight system.

Benefits and risks of benchmarking to set goals: Even if an item does not appear material from a financial reporting perspective, it may be useful because of the criteria that analysts use to determine the company's ESG ratings. As a result, many companies look to commercial data and ratings to set sustainable business objectives. Looking to organizations in a similar industry or with a similar business model can be informative.

However, it is valuable to use care when considering benchmarking data to set sustainable business objectives. A company's finance function and investor relations teams find that they benefit from a detailed understanding of how the company is rated to set its sustainable business reporting agenda. With respect to ESG, commercial data and ratings can lack comparability or consistency. In fact, some organizations find it beneficial to use consultants or to reach out directly to data aggregators and rating agencies to understand their scoring methodologies.

Sticking to objectives to set control systems: At the outset of SOX, many companies felt obliged to specify controls for everything, identifying many as "key controls." This caused the level of effort for (internal and external) assurance to skyrocket. Parties subsequently realized that not all controls were necessarily key controls. They learned this lesson the hard way. As Debbie Biddle-Castillo, managing director of KPMG's Advisory Services, Internal Audit practice, observes, as companies embark on formalizing internal controls for ESG reporting, they can apply these lessons to prioritize controls for ESG reporting.

CASE IN POINT: UNDERSTANDING RATINGS

An agriculture company based in the European Union operates plant-based farmland. The company did not monitor or report on animal welfare or deforestation because it was not part of its operations. After receiving low scores from leading ESG analysts, the company pursued discussions to find out why and how to improve them. At least one firm had assigned the company to a sector in their taxonomy that included parameters the company was not reporting. The company had the choice to persuade the analyst to consider the company in a more appropriate sector classification or to provide data on the missing parameters.

7. Identifies and analyzes risks to meeting sustainable business objectives

The organization identifies risks to the achievement of its objectives across the entity and analyzes risks as a basis for determining how the risks should be managed. (ICIF-2013-7)

To meet its sustainable business objectives, an organization needs to establish and implement meaningful ways to support its human resources and, at the same time, monitor performance.

POINTS OF FOCUS

- **Includes entity, subsidiary, division, operating unit, and functional levels**
  Performing a robust and effective risk analysis requires the consideration of all of an organization's subunits, including subsidiaries, divisions, and operating units.

- **Analyzes internal and external factors**
  Performing a robust and effective risk assessment means the analysis of external and internal factors. In assessing sustainable business risks, the organization considers scenarios that may result in impairment or loss of value to both tangible (recognized) assets and intangible (unrecognized) assets that may result from expectations of stakeholders.

- **Involves appropriate levels of management**
  An organization's actors have information and perspective to contribute to identifying and assessing sustainable business risks. Therefore, in identifying and assessing sustainable business risks, the organization relies on multiple levels of management and cross-departmental communication.

- **Estimates significance of risks identified**
  In identifying and assessing risks, the organization estimates the potential effects of various scenarios on its sustainable business objectives. This process includes both qualitative identification and, as appropriate, quantitative assessment that monetizes the potential effects of the risks.

- **Determines how to respond to risks**
  After the identification and assessment of the risks to meeting its sustainable business objectives, management determines the appropriate response including accepting the risk, avoiding the risk, reducing the risk, or sharing the risk.

INSIGHTS

Risks from immature information processes: As noted throughout, particularly in Principle 11, on the road to ICSR, immature processes and systems can increase the risks by providing unreliable or misstated information needed for decision making. Controls can help organizations respond to these informational risks.

"Risks" and "opportunities": In its proposed regulations regarding climate change (see Background), the SEC speaks in terms of mandatory disclosures around "risk," and permissive disclosure of related "opportunities." Other proposed regulations, such as issued by the ISSB, would require disclosure of both "risks and opportunities."

DISCLOSURE OF RISKS AND OPPORTUNITIES

In its TCFD report for 2021, Travelers explains processes that help its insured customers mitigate climate risks. While this is part of the company's product offering, it also sets up a process by which the company can identify, assess, and mitigate climate risks in its portfolio, as described in Principle 7. Further, the company looks to this process as a means to fulfill its overall purpose (Principle 1) and objectives (Principle 6) by identifying opportunities:

> Travelers Risk Control employs a network of safety and loss prevention professionals who provide assessment and consulting services to our customers and our Business Insurance domestic and international operations. Our network of more than 500 Risk Control consultants and our self-service website for Business Insurance customers provide a comprehensive framework and numerous planning resources, including individualized planning, to help businesses of all types plan for natural disasters, with a focus on safety and preserving business operations.
>
> Climate trends, which manifest over long periods of time, provide a long-term opportunity for the Travelers Risk Control department to offer and develop services to help current and potential customers mitigate the risks associated with changing climate conditions. For example, to help mitigate and minimize property losses caused by weather-related events, Travelers Risk Control has developed a comprehensive framework of technical planning resources to assist customers with conducting business impact analyses to prioritize and implement risk management action plans and physical improvements.

COSO ERM Framework: In 2017, COSO issued the most recent version of ***Enterprise Risk Management—Integrating with Strategy and Performance*** (ERM Framework), which promotes a strategic approach to risk management that includes governance, oversight, and processes for identifying, assessing, and managing risks across an organization. One particular challenge is whether to consider a sustainable business risk (such as physical risks related to weather events) as a stand-alone item or as an item integrated with other sustainable business items (such as diversity, equity, and inclusion). This concern also corresponds to **Principle 3** in establishing structures and responsibilities for particular sustainable business items.

Because it is comprehensive, the COSO ERM Framework provides useful guidelines and recommendations for aligning sustainable business strategy, performance, and risks with an organization's overarching strategy. It can help direct the best structures for identifying and responding to risks. Like ICIF-2013, the ERM Framework is readily applicable to sustainable business matters (see **Background**).

Risks related to estimates, expectations, and predicting the future: One of the key challenges regarding sustainable business information is that it is often based on estimations and expectations. Sustainability metrics are set by considering the connection between the item measured and its ability to effectuate decision making that considers the use of valuable resources over the short, medium, and long term. Consider:

- Estimation may be used because primary activity data based on direct measurement of an activity is unavailable or prohibitively costly to accumulate. The organization instead uses secondary data based on assumptions and estimations. For example, energy usage for a particular division may be based on assumptions of proportional usage of a shared facility. As technology improves, new means of measurement are likely to develop. For example, with respect to environmental information, new techniques will generate data related to the usage and condition of specific assets (such as plants and refineries) based on both ground-level data and geospatial (satellite) data.

OBJECTIVES AND RISK: COMPLEMENTARY BENEFITS OF ICIF AND THE ERM FRAMEWORK

The COSO ICIF and the COSO ERM Framework address objectives and risk. However, the two frameworks address different but harmonized aspects of both (see ICIF-2013, Appendix G, Comparison with COSO Enterprise Risk Management—Integrated Framework).

As a general concept, the ERM Framework helps an organization take a deeper dive into assessing various risks and setting objectives. In the sustainability arena, this may be expanded to consider new areas, such as a commitment to ethics and purpose. As stated, the ERM Framework helps an entity "develop and apply their enterprise risk management activities," such as assessing risk appetite and tolerance. Enterprise risk management is broader than internal controls and focuses more directly on risk. The ICIF is the means for carrying out objectives throughout an organization. It is an integral yet narrower part of enterprise risk management.

- Estimation may be used to develop expectations about the future. Developing information for sustainable business inherently requires assumptions about the future, such as the useful life of existing facilities and equipment based on both physical and transitional (economic) risks related to climate change.

The techniques and processes required to deliver information in accordance with an organization's sustainable business objectives do not differ from those used to meet its other objectives (**Principle 6**). Professionals in the finance function, particularly those in the area of financial planning and analysis (FP&A), are skilled in financial **estimation based on assumptions about the future** to assess risks with an eye toward performance optimization over the short, medium, and long term. This is an instrumental component of **management accountants' competencies**.

Identifying risks, by looking to Principle 7 as part of the full ICIF, can facilitate an organization's response in managing these risks and promoting the integrity of the process of producing estimations and forward-looking expectations. One of the most important and helpful means of control and oversight is documentation of data sources and rationales. This documentation not only serves as a means of tracking information and assumptions but also serves as a means of confirming the reasonableness of the estimation process to improve the quality of the estimates so that at some point, it can be subject to assurance examinations (**Principle 16**).

Due diligence, risks related to third-party information: A key difference between sustainability reporting and financial reporting is boundaries (**Principle 3**). As a general proposition, sustainability reporting uses boundaries based on the concepts of "control" or "influence." It also includes gathering information from a full value chain that includes an organization, its suppliers (inputs), and its customers. For example, GHG Protocol accounting for Scope 2 necessitates data from energy companies, and Scope 3 accounting, depending on an organization's business model, requires data from suppliers and customers. Sustainable business management and reporting, therefore, depend on the availability and quality of third-party information.

This reliance on third-party data is a key concern among business professionals because accessing and relying on data from these external parties raises risks. Following ICIF-2013 can facilitate the critical mindset toward resolving an organization's concerns. Oversight and control activities to respond to these risks (**Principle 10**) requires the attention of competent professionals (**Principle 4**). They call for due diligence processes to assess and validate the accuracy and completeness of the information and whether it is representationally faithful (**Principle 6**).

Similar concerns were raised when the U.S. enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010, and the SEC followed with regulations regarding the use of **conflict minerals**.[9] In the final rule, the SEC indicated that downstream companies could adopt nationally or internationally recognized standards and identified the ***OECD Due Diligence Guidance for Responsible Supply Chain of Minerals from Conflict-Affected and High-Risk Areas*** as a widely accepted standard.

> "One problem, organizationally, is that risk is in one place, and ESG is in another. There is an interrelationship between risk management and strategy, and you can't separate them."
>
> *—Edward Olson, Partner, National Leader, Environmental, Social, and Governance, MNP LLP*

Similarly, the SASB standards for certain industries include human rights-related disclosure topics. One such accounting metric is the "percentage of Tier 1 supplier facilities audited in the RBA [Responsible Business Alliance] Validated Audit Process (VAP) or equivalent, by (a) all facilities and (b) high-risk facilities."[10] The prevalence of new laws and regulations over human rights, such as the **U.S. Uyghur Forced Labor Prevention Act** and the **United Kingdom Modern Slavery Act**, calls on reporting organizations to address risks regarding human rights concerns throughout their supply chains.

In sum, a widely accepted, existing standard for due diligence around sourcing can become a control activity (**Principle 10**) to respond to the risks. In addition, reporting on these activities to external stakeholders can provide useful information that engenders trust (**Principle 1**).

Risks related to providing information to customers: Mirroring the risks of sourcing sustainability data from suppliers, issuing sustainability information to customers poses risks. As more organizations follow the GHG Protocol (or regulations with similar frameworks) and begin to report on Scope 3 emissions, they may demand information from suppliers or reward suppliers that provide it. Beyond GHG accounting, similar risks apply to other types of sustainable business information. Without an effective oversight system, an organization may provide unreliable information to its customers. Further, given the pressure to close transactions, actors may respond by knowingly providing information that is incomplete or inaccurate (**Principle 8**). Principle 7, along with the full Framework, directs an organization to develop and implement oversight activities to respond to these risks (**Principle 10**).

[9] "**Conflict minerals**" refers to the sourcing of certain elements from specified geographic regions that have suffered from dangerous conflicts. Essentially, the underlying purpose is to bring transparency to the possible funding of warlords.
[10] See, for example, **SASB Standards for the Technology & Communications sector, Hardware industry**.

DISCLOSURE OF SUPPLY CHAIN SOURCING

Applying Principle 7 can raise risks regarding the accuracy and validity of claims regarding sustainably sourced inputs. To respond to these risks, companies can develop policies and procedures that address interaction with suppliers and the reliability of their information. For example, the GUESS 2020-2021 sustainability report details operational risks around sourcing sustainable materials for the production of its products, as follows:

> Our products feature various natural and manmade materials. The three materials used most for GUESS apparel and accessories are: 1. Cotton, which is in denim and our logo tees 60.2% 2. Synthetics, such as polyester, nylon and spandex 28.3% 3. Manmade cellulosics, such as viscose/rayon, modal, and lyocell 9.8% The ability to consistently and reliably source these materials could be affected by certain external factors. Cotton production relies on water, which can be adversely affected by climate change impacts. Human rights concerns at the farm level could also affect cotton availability. Since polyester is oil-based, we could face challenges meeting our Scope 3 science-based emission targets or negative public perception associated with plastics and microfibers. Our increased use of recycled polyester could help to mitigate these risks. To address potential risks associated with manmade cellulosics, we have been working with mills in the GUESS supply chain to determine the source of the tree pulp, increasing our sourcing from verified companies like Lenzing and Birla, and partnering with Canopy to avoid materials sourced from Ancient and Endangered Forests and in any manner that could be harmful to local indigenous communities. Risks are further detailed in the GUESS Form 10-K.

This disclosure and the additional details provided in the remainder of the sustainability report disclosures demonstrate the process of identifying risks that could prevent the company from meeting its sustainable business objectives. The act of specifying these risks, as Principle 7 directs, is a significant means of establishing oversight to facilitate progress toward the company's objectives.

8. Assesses fraud risk

The organization considers the potential for fraud in assessing risks to the achievement of objectives. (ICIF-2013-8)

In identifying and assessing the risks to achieving its sustainable business objectives and developing an effective response, an organization considers the risk that actors will engage in fraudulent activities such as intentional misstatements or misappropriation of valuable resources.

POINTS OF FOCUS

▶ **Considers various types of fraud**

As part of its risk assessment activities, the organization identifies the means by which actors may intentionally harm the organization in satisfying its sustainable business objectives. This includes the risks of using technology to knowingly misstate information or misappropriate resources. As part of the risk assessment process, the organization conducts brainstorming sessions to consider scenarios that could result in fraudulent activities.

▶ **Assesses incentives and pressures**

As part of its sustainable business management, an organization assesses its risks as a target of illegal activity, fraud, and other malfeasance. The organization considers pressures on management, employees, and other actors to meet certain sustainability-related targets or achieve certain outcomes.

▶ **Assesses opportunities**

In its risk assessment, an organization considers the means by which illegal activity, fraud, and other malfeasance related to its sustainable business management might occur. Examples include the modification of records, making misstatements or omissions to the market and other stakeholders, and misappropriating resources meant for the organization's use.

▶ **Assesses attitudes and rationalizations**

An organization's risk assessment process includes obtaining an understanding of attitudes and reasons actors might rationalize illegal, fraudulent, or wrongful behavior regarding the organization's sustainable business activities.

INSIGHTS

Pressures and opportunity for fraud: Employees often face ambitious deadlines for sustainable business performance and ESG reporting. There may also be lofty expectations for "good news" on meeting targets and delivering encouraging messages to the community. Unidentified risks and limited resources to satisfy stated objectives contribute to these pressures. The desire to meet expectations can encourage malfeasance, including incomplete or inaccurate reporting to capital markets, particularly investors with ESG-related criteria such as screened funds and ESG lending instruments. These risks can be reduced with improved governance, risk assessment, and control and monitoring activities.

Employee attitude: Employees may view sustainability as trivial rather than integral to an organization achieving its objectives (Principle 6). This creates risks that the organization's policies and system of oversight are less than effective because actors lack incentives to carry out assigned responsibilities with respect to sustainability. Worse, these circumstances can incentivize intentional activities that are counter to the organization's commitment to integrity and objectives. Considering the 17 principles in ICIF-2013, including tone at the top (**Principle 1**) and accountability (**Principle 5**), can initiate control activities to respond, manage, and mitigate these risks.

Similarly, in some cases, members of corporate responsibility or sustainable business functions, along with colleagues in other departments involved in the process, may be unfamiliar with controls and oversight systems. This could make them less aware of the potential for fraudulent activities and reporting.

> Companies are entering the green bond market. Many of these offerings have been oversubscribed, indicating the demand. The issuers of these bonds are increasingly requiring some form of assurance or attestation over ESG-related data and disclosures as a condition of issuing and maintaining green bonds.
>
> *—Kristen Sullivan, Partner, Global Audit and Assurance Sustainability & Climate Services Leader, Deloitte*

Anti-fraud rule and potential litigation: In the U.S., all publicly held entities subject to the SEC's jurisdiction are subject to the anti-fraud provisions of the Securities Exchange Act of 1934 and related regulations (Section 10(b); **SEC Rule 10b-5**). Many states have similar anti-fraud provisions related to securities and other commercial transactions. Under these laws, a company or its directors and officers can be held legally liable for intentional material misstatements (or the omission of material information) regardless of whether the information is part of a regulatory filing or otherwise disseminated to the market. Therefore, even if sustainable business information is not part of a regulatory filing but appears voluntarily on a company's website, press releases, product information, or other materials, if it is fraudulent, it can result in liability.

CASE IN POINT: SECURITIES FRAUD ALLEGATIONS BASED ON PRODUCT INFORMATION

In 2021, a class-action lawsuit was filed against Rayna Scientific (fictional), a company that specializes in bio-based substitutes for plastic products such as drinking straws, packaging, and shopping bags. The company's product information, used to secure contracts with large retailers, convenience stores, and cafés, touted its products as biodegradable, renewable, and sustainable. An investigative report published by a major financial news service asserted that Rayna's products were not biodegradable as claimed. Following this report, the market price of Rayna's stock dropped 35%. As a result, a lawsuit claiming securities fraud was filed against the company and three of its senior officers.

Green lending, incentives for misstatements: Financial institutions are offering various types of lending arrangements based on ESG metrics. These arrangements, which are generally referred to as "green bonds," "ESG-linked bonds," or "GHG-reduction bonds," are becoming prevalent, particularly outside the U.S. Although they may be called different titles or terms, they require that a borrower confirm or deliver ESG information to the lender to secure benefits. For example, an arrangement may specify that the borrowed funds are used for specific sustainable business projects, or the arrangement may have interest rate terms that adjust downward if the borrower hits specified ESG or emissions-reduction targets. These arrangements can create incentives for misstating either the use of borrowed funds or the achievement of specified metrics in the lending agreement. These are risks that a company's control and oversight system aim to mitigate. Internal or external audits are a means for confirming compliance (**Principle 16** and **Principle 17**).

Responding to fraud risks related to sustainable business activities: All actors, both within and outside an organization, may engage in fraudulent activities. This includes management, full-time and part-time employees, freelancers, and consultants. It also includes suppliers, contractors, and similar third parties. In the arena of sustainable business, it is particularly important to consider the representations and reliability of these third parties. Today, for example, companies are taking a number of steps, including:

- Looking to outside solutions to assist in the data collection, analysis, and reporting of sustainable business information.
- Relying on external certifications, such as product compliance.
- Hiring consultants or specialists to perform or lead in certain sustainable business activities.

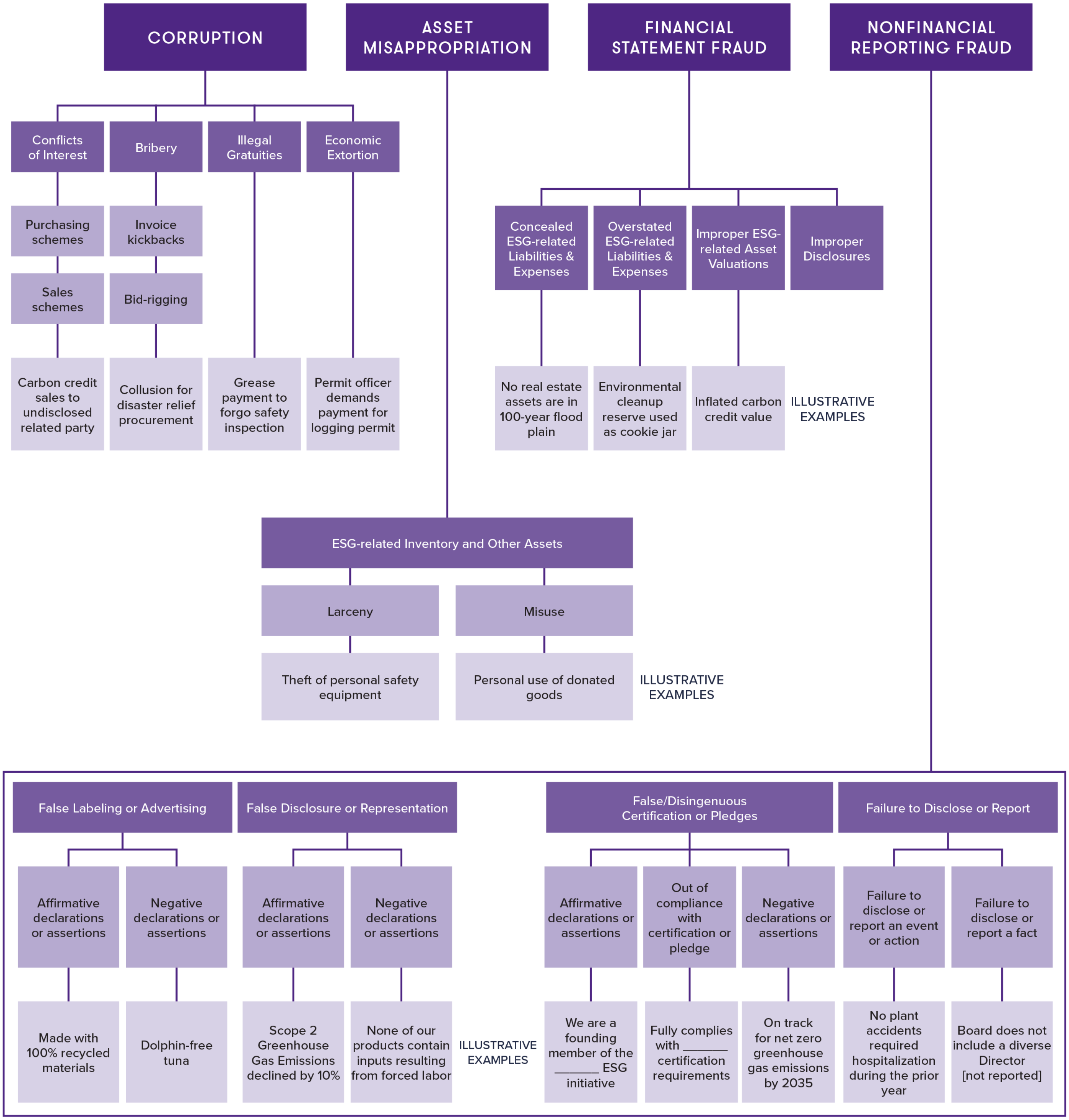
Engaging other professionals and organizations in the process of integrating sustainable business activities can be valuable. However, it also may raise concerns around fraud risk. Quality oversight systems, as explained in ICIF-2013 (see **Component: Control Activities**), can help the organization achieve its sustainable business objectives and mitigate fraud risks.

Internal audit procedures for fraud: Internal audit authoritative guidance states that an internal auditor must consider the probability of significant errors and fraud in developing engagement objectives (see the **IIA's International Professional Practices Framework, Section 2210.A2**). This work incorporates procedures for considering, preventing, and detecting fraud not only relating to financial reporting but also to satisfying sustainable business objectives.

External auditors, responsibilities regarding fraud and sustainable business reporting: As a general matter, auditors of financial statements must consider the risk of fraud and respond with appropriate audit procedures for detection. Some externally reported ESG information is reflected in the financial statements, including the notes specifically covered by an audit, and, in such cases, the auditors' work would extend to this sustainable business information. However, many ESG disclosures are delivered outside of the basic financial statements and notes, and, therefore, auditors' responsibility with respect to the information follows other rules (see **Principle 15** for discussion).

Association of Certified Fraud Examiners (ACFE)/Grant Thornton materials on ESG and fraud risk: A publication by the ACFE and Grant Thornton, ***Managing Fraud Risks in an Evolving ESG Environment***, leverages the ACFE's materials into an ESG Fraud Taxonomy. This report illustrates how existing concepts and models apply to sustainable business activities and provides examples of sustainable business risks related to fraud, including corruption, misappropriation of assets, and misleading disclosures (see Figure P8-1: Grant Thornton's ESG Fraud Taxonomy).

FIGURE P8-1: GRANT THORNTON'S ESG FRAUD TAXONOMY



Source: [*Managing Fraud Risks in an Evolving ESG Environment*]

9. Identifies and analyzes significant changes and emerging trends

The organization identifies and assesses changes that could significantly impact the system of internal control. (ICIF-2013-9)

As part of identifying and assessing risks to the achievement of its sustainable business objectives, an organization considers emerging trends. Sustainability-related risks are evaluated in an ongoing manner or periodically to respond to regulatory trends and economic drivers.

POINTS OF FOCUS

- **Assesses changes in the external environment**
  As it conducts its risk assessment process, the organization considers external factors that can affect its sustainable business activities. These include regulatory proposals, economic trends, and physical risks.

- **Assesses changes in the business model**
  An organization's assessment of trends in sustainable business management and reporting is ongoing so that it can respond to changes and trends that may affect its business model, strategy, and, in turn, oversight processes.

- **Assesses changes in leadership**
  To respond to changes and trends in sustainability, the organization reconsiders the structures, authorities, and responsibilities of its actors to ensure that it can respond to new risks.

INSIGHTS

Operational assessments uncover sustainable business opportunities: A key tenet of effective management, including the management of control and oversight systems, is continuous improvement (Principle 16 and Principle 17). It is effective practice for an organization to perform operational reviews of its sustainable business efforts and evaluate them against best or leading practices, as these evolve and mature. Some management accounting professionals view this as akin to the adage "the best defense is a good offense." It involves looking at opportunities and evaluating the risk of missing out on them (Principle 7).

Reassessing materiality and decision usefulness: As conditions change, the metrics or assessments of what information is material (under regulatory definitions) or decision useful for management and other stakeholders will change. It is critical for an organization to consider all factors—both internal and external—in setting guideposts.

Keeping up with regulatory movement and mandates: Regulatory mandates for sustainable business information are accelerating. Many organizations rely on their legal and policy professionals to deliver timely information about these changing requirements. Ensuring that legal counsel and policy teams identify and communicate new and pending mandates is a control activity (Principle 3). However, it is also helpful for other actors to keep up with the accelerating pace of change in jurisdictions around the world. Some of these may be accessible through specialized legal databases and commercial platforms. In addition, publicly available websites that monitor regulatory instruments may be helpful.

Keeping ahead of new reporting regulations: Actors throughout the sustainable business ecosystem, such as preparers, assurance providers, and consultants, are anticipating new regulations and standards from the SEC, ISSB, European Commission/EFRAG, and other authorities such as stock exchanges. Even before these regulations and standards become mandatory, companies are considering their governance and risk management structures, information systems, and talent capabilities to meet these expected demands. Responding to these new regulatory demands before they are enacted or finalized may demonstrate an effective internal control function. Further, competitors' decisions to provide disclosures to the market is often a strong driver for action, even before regulatory adoption.

In sum, waiting until final regulations are adopted can be less than an effective means of meeting an organization's interrelated categories of objectives (Principle 6).

DISCLOSURES REGARDING FORWARD-LOOKING INFORMATION

As noted in Principle 6, sustainable business information is, to a substantial extent, forward-looking and based on expectations, assumptions, and estimates. Inherently, the underlying data upon which such forward-looking assessments are based change. In the U.S., securities regulations provide a safe harbor for forward-looking statements, and some companies have begun to provide disclosures regarding the applicability of this safe harbor to ESG disclosures. These safe harbor-related disclosures can be extensive. As an example, the Salesforce Form 10-K for year ending January 2021 explains risks to meeting its ESG objectives:

> ***Our aspirations and disclosures related to environmental, social and governance ("ESG") matters expose us to risks that could adversely affect our reputation and performance.***
>
> We have established and publicly announced ESG goals, including our commitment to advancing racial equality and justice and reducing greenhouse gas emissions. These statements reflect our current plans and aspirations and are not guarantees that we will be able to achieve them. Our failure to accomplish or accurately track and report on these goals on a timely basis, or at all, could adversely affect our reputation, financial performance and growth, and expose us to increased scrutiny from the investment community as well as enforcement authorities.
>
> Our ability to achieve any ESG objective is subject to numerous risks, many of which are outside of our control. Examples of such risks include:
>
> - the availability and cost of low- or non-carbon-based energy sources;
> - the evolving regulatory requirements affecting ESG standards or disclosures;
> - the availability of suppliers that can meet our sustainability, diversity and other ESG standards;
> - our ability to recruit, develop and retain diverse talent in our labor markets; and
> - the success of our organic growth and acquisitions or dispositions of businesses or operations.
>
> … If our ESG practices do not meet evolving investor or other stakeholder expectations and standards, then our reputation, our ability to attract or retain employees, and our attractiveness as an investment, business partner, acquiror or service provider could be negatively impacted. Further, our failure or perceived failure to pursue or fulfill our goals and objectives or to satisfy various reporting standards on a timely basis, or at all, could have similar negative impacts or expose us to government enforcement actions and private litigation.

Monitoring the maturation of sustainability issues: Over time, matters that now fall under the category of sustainability received growing recognition. At one time, these matters were considered niche or localized issues, but circumstances brought the issues to the agendas of NGOs or other stakeholder groups. Awareness spread. Examples of these issues include GHG emissions, climate-related risks, conflict minerals, and workplace safety. As these issues mature, new demands for transparency may arise that result in voluntary reporting or mandatory disclosure rules. Not all sustainability matters fully mature along this continuum. However, organizations can benefit from identifying mid- to longer-term issues by tracking public filings, academic studies and reports, NGO activities, and social media trends. By following the maturation of these issues, organizations can prepare for the risks these changes may bring about, or they may innovate their own strategies to seize the opportunities from emerging issues.

> “It's imperative to understand your customers and their ESG goals. Even smaller and/or private companies may face increased risk by virtue of a more concentrated customer base. When customers send a questionnaire, they expect a timely and accurate response. Even if you are not responsible for climate reporting to the SEC next year, you may still need to collect and report data to your customers to protect your revenue and reputation.”
>
> *—Christopher McClure, Partner, ESG Services Leader, Crowe LLP*

Competitor business models and products: Competitors serve as an important external driver for change. Competitors' actions can prompt an organization to act, not only with respect to reporting but also, more broadly, with respect to its business model. For example, consider companies that produce flooring for offices and commercial properties, equipment components for fuel pumps, or furniture for retailers. As the changing marketplace drives more competitors to manufacture products that meet sustainability criteria, an organization that fails to innovate may be subject to significant risks. Following the ICIF-2013 principles, competition can drive an organization to reconsider its purpose (Principle 1) and its objectives (Principle 6) and embrace changes that can create valuable opportunities and competitive advantages.

Changing internal dynamics: Often, drivers for movement toward sustainable business activities come from within an organization.

Today, employees serve as a key stakeholder voice for innovation and change. This is not only about environmental issues but also, as importantly, about human resources (or human capital) issues, the "S" in ESG, such as diversity, pay equity, hiring and promotion criteria, recognition for well-done accomplishments, and satisfaction for contributing to the organization and the global community (Principle 4).

Organizational events can also trigger change. Sales or business development teams may execute a major contract. Product lines or entire divisions may wind down. The organization may be approached about a merger, divestiture, or spin-off. These changes can affect how the talent resources feel about their commitment and engagement. As Principle 9 instructs, all these events alter risks and the planned means for response and management. They may bring about the development or modification of controls to ensure that the organization continues to achieve its sustainable business objectives.

“The role of the CFO has evolved as 21st Century companies now operate in a world where working in silos is unproductive and, instead, business issues are managed cross-functionally. Today, CFOs are in a unique position to see across the enterprise and connect those dots, to build trusted relationships, achieve business goals, drive connectivity, and meet stakeholder demands. That’s why having a bird’s-eye view is essential to maintain agility, whether embracing new trends or pivoting to meet new regulations, such as developments around SEC climate disclosures.

When I speak to other CFOs, many are accepting this new normal and implementing an ESG strategy. In 2020, ESG became an intentional part of our organizational culture and business objectives. It’s cross-functional, and it touches supply chain, social aspects, governance, and more. So, a holistic view is critical to the success of the business.

Good governance and data collection play key roles in balancing purpose and profit. As they say, you can’t manage what you don’t measure. We know firsthand that having data from integrated systems in one place enables tracking and reporting. Cross-functionality is more important than ever to be auditable and traceable, and with new regulations emerging, staying ahead of change is nonnegotiable.”

—Gina Mastantuono, CFO, ServiceNow

Component: Control Activities

10. Selects and develops control activities

The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels. (ICIF-2013-10)

Once an organization has identified and assessed risks to achieving its sustainable business objectives, it designs, develops, and implements means to counter these risks, partly or completely. This helps ensure that oversight activities are responsive to sustainable business objectives, including reporting, and related risks.

POINTS OF FOCUS

▶ **Integrates with risk assessment**
The selection and development of oversight activities regarding an organization's sustainable business activities flow from its risk assessment processes.

▶ **Considers entity-specific factors**
There are no one-size-fits-all means to develop and implement oversight activities that respond to identified and assessed risks regarding an organization's sustainable business activities, which may reflect its specialized or unique business model and strategy.

▶ **Determines relevant business processes**
An organization considers the structures, policies, procedures, and assigned authorities and responsibilities over its sustainable business activities to respond to identified and assessed risks to meeting its sustainable business objectives.

▶ **Evaluates a mix of control activity types**
To respond to the risks of meeting sustainable business objectives, an organization carefully considers the nature of the risk and the types of individual actions or combination of actions that will be effective in responding to these risks.

▶ **Considers at what level activities are applied**
Effective responses to risks on meeting an organization's sustainable business objectives require the assignment of activities at different levels within the organization.

▶ **Addresses segregation of duties**
The concept of "segregation of duties" means processes are designed for internal checks and balances that help ensure the veracity, accuracy, and completeness of sustainable business information. This means evaluating how transactions that affect the organization's ability to meet its sustainable business objectives are initiated, approved, processed, reported, and reconciled to other financial and sustainable business information.

INSIGHTS

Performing a readiness assessment: Internal audit and external professional service firms, acting as consultants, have significant expertise in considering risks and assessing system effectiveness, sometimes called "readiness assessments." These assessments can bring forward the steps that an organization may take to improve its systems in a way that parallels the techniques used for mainstream financial reporting. The Center for Audit Quality observes that a readiness assessment of sustainable business activities may give an organization an independent view of various interrelated activities, such as selecting a reporting framework, evaluating reporting processes, designing and implementing internal controls, identifying available information, and recommending governance structures. Further, a readiness assessment may provide a basis for an attestation engagement at the desired level of assurance (Principle 16).

> "For ESG, a rigorous control environment has often not yet been established. In many instances, the organization may not have engaged compliance and internal audit in ESG reporting. There are many ESG-related activities, but they are not harnessed within the same type of control environment as financial reporting. The existing (often informal) procedures will need to be reviewed and potentially redesigned. Companies often already utilize platforms for financial reporting, vendor and supplier management, and other activities that have embedded controls. It is possible these can be leveraged for ESG."
>
> *—Christopher McClure, Partner, ESG Services Leader, Crowe LLP*

Third-party certifications as a control activity: A key risk relating to sustainable business information is the reliance on third parties (Principle 7). As a control activity, organizations may look to certifications (other than the reports of independent auditors on the financial statements). This includes third-party verification of supplier operations and representations. In doing so, however, it is important for the organization to consider and ensure that the confirmation mechanisms of the information provider are reliable. An organization will benefit from understanding the underlying methodologies and criteria for certification and whether they align with its own policies and objectives.

Balancing centralized vs. decentralized data flow: Today, meaningful sustainable business information comes from both centralized and decentralized data flows. For example, human resources may have centralized data regarding full-time and part-time personnel and independent contractors by using a commercial platform. On the other hand, if the organization operates at multiple locations, its facilities management may be decentralized. Decentralization, however, has benefits to how an organization operates, and it is not necessarily an indicator of poor management. For sustainable business activities and reporting, it is beneficial to understand, document, and communicate how existing systems will be leveraged and the new systems that have become necessary to meeting sustainable business goals. This data also needs to be reviewed for accuracy, relevance, and reliability.

In designing control and oversight activities, looking at the balance of centralized vs. decentralized information streams, as Principle 10 suggests, provides necessary observations toward building an effective, integrated oversight plan that reduces risks (Principle 7) in meeting organizational goals (Principle 6).

The need to design and implement control activities around prioritized sustainable business activities: The design and implementation of oversight systems and controls around sustainable business activities and information need to be prioritized. Invariably, a new area, such as sustainable business, can accelerate and raise practical challenges for organizations in responding to emerging and changing risks (Principle 7 and Principle 9). Nevertheless, as sustainability grows in importance, organizations are responding by stating a purpose (Principle 1) and objectives (Principle 6), and following up with structures (Principle 3) and procedures. The overarching goal is decision-useful information that facilitates setting strategy to achieve performance goals and preserve and create value.

For example, professionals have observed that today's organizational controls around sustainable business activities and information flow may be improved and respond to identified risks by:

- Assigning responsibilities with specificity (Principle 3).
- Communicating duties to employees (and outside actors) with clarity and adequate background information (Principle 4 and Principle 14).
- Providing informal knowledge-sharing opportunities or formal training to familiarize employees (and other actors) with sustainable business concepts (Principle 4).
- Establishing roles and internal organizational structures that are aimed at meeting specified objectives (Principle 6).
- Evaluating information sources for reliability with internal control techniques such as inquiry, walk-through, document inspection, recalculation, and reconciliation (Principle 10).
- Managing data from outside parties, such as vendors (Principle 7 and Principle 12).
- Leveraging existing technology (Principle 11).
- Modernizing and investing in innovative technology solutions (Principle 11).
- Formalizing existing ad hoc processes (Principle 12).
- Documenting and simplifying a myriad of processes (Principle 12 and Principle 13).
- Enhancing cross-disciplinary communications among departments (Principle 3 and Principle 14).
- Working with internal audit to reevaluate and respond to risks (Principle 7 and Principle 14).
- Utilizing insights raised by external auditors (Principle 15).
- Considering insights raised by external stakeholders regarding the organization's effectiveness in achieving its purpose in a responsible manner (Principle 15).

> There are internal controls relating to governance, competence, policies, data, communications, and fraud, among other areas. Companies need sustainability-related internal controls in all of these areas, notably as it pertains to sustainability information disclosed to capital markets. Processes and data are, in many cases, currently accepted at face value. Processes should be designed, implemented, and tested to the same extent as for financial reporting. In addition, members of senior leadership increasingly are being asked to certify sustainability data, whether for inclusion in public filings or for financial institutions, insurance carriers, or other business partners. Leaders are asking those responsible for the data if they can sign these certifications, and the answers they get often are not reassuring, since in many cases, the accuracy of the data has not been assessed.
>
> *—Michael Littenberg, Partner and Global Head of ESG, CSR, and Business and Human Rights, Ropes & Gray LLP*

11. Selects and develops general controls over technology

The organization selects and develops general control activities over technology to support the achievement of objectives. (ICIF-2013-11)

An organization designs its control activities to respond to risks to achieving its sustainable business objectives. In doing so, it considers the extent to which it will rely on technology. This includes leveraging existing IT systems to the collection, processing, reporting, and security of sustainable business information, such as GHG emissions, energy usage, water usage, waste management, supply chain management, and diversity.

POINTS OF FOCUS

- **Determines dependency between the use of technology in business processes and technology general controls**
  In designing an oversight system to assess and manage identified sustainable business risks, an organization determines the extent to which it will rely on technology-based solutions.

- **Establishes relevant technology infrastructure control activities**
  Management oversees the design and development of technology to effectuate control activities. These control activities over technology infrastructure help ensure that requisite sustainable business information is complete and accurate.

- **Establishes relevant security management process control activities**
  In its use of technology as part of its responses to managing risks, an organization determines the nature of necessary controls to ensure the reliability and integrity of sustainable business information as it is processed from source to ultimate user.

- **Establishes relevant technology acquisition, development, and maintenance processes control activities**
  To effectuate its use of technology as a means of oversight of sustainable business information, an organization sets up and maintains oversight activities that include acquisitions, retirements, and maintenance activities.

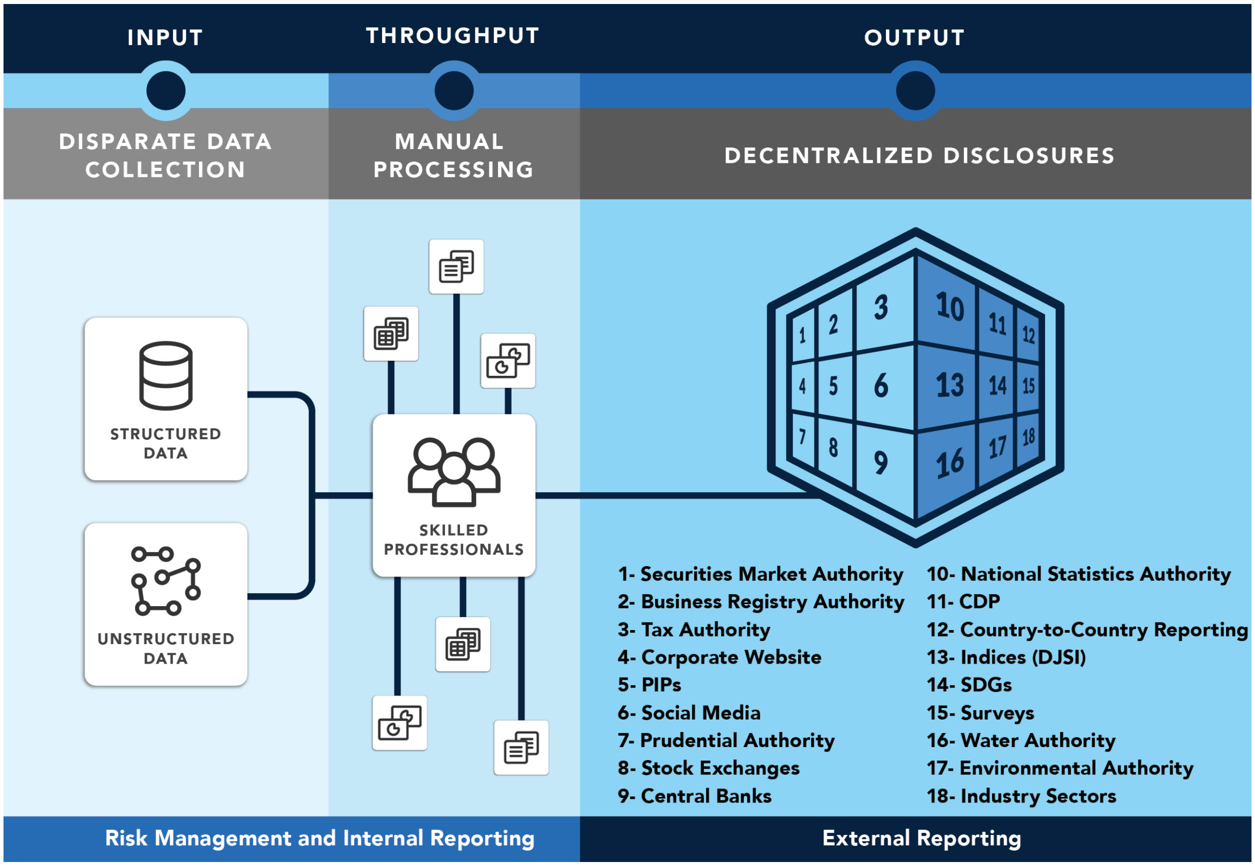
INSIGHTS

Defining information technology general controls (ITGC): ICIF-2013 provides additional insight into control activities over IT. It describes ITGC to include controls over infrastructure, security management, acquisition, development, and maintenance. It states that these guidelines apply to all of an organization's technology, including mainframe, desktop, portable, and mobile, as well as to both manual and automated activities. Further, depending on a range of factors such as complexity and risk of underlying processes, ITGC will vary among organizations.

Structured/unstructured data; excessive reliance on spreadsheets, outside systems of control and oversight: In typical data processing, output from one system becomes the input into another system. Mature financial reporting systems align the flows and interfaces between input, throughput, and output across various systems. This system-to-system data flow calls for structured data, that is, formatting that permits the systems to communicate (see Figure P11-1: Regulatory Reporting and Compliance—A Fragmented Ecosystem).

If the systems are unaligned, manual intervention by skilled professionals is required to ensure that the output of one system is reprocessed in the necessary format for submission to the next system. For example, in order to meet documentary and data formats for regulatory filings, the data from ERP software is compiled and repackaged.

FIGURE P11-1: REGULATORY REPORTING AND COMPLIANCE—A FRAGMENTED ECOSYSTEM



Source: *A Digital Transformation Brief: Business Reporting in the Fourth Industrial Revolution*

One of the most significant concerns regarding oversight processes of sustainable business information is the lack of sophisticated technology systems compared to the infrastructure available for mainstream financial reporting. At many companies, teams have relied upon spreadsheets and email to gather information in a way that fails to capture the data sourcing and the information trail. Control activities, such as described in Principle 11, include the appropriate use of technology to preserve and ensure the integrity of information as it flows from the original source, through categorizing, sorting, and analyzing, until it reaches the ultimate user.

Commercial platforms dedicated to producing and delivering sustainable business information: Sustainable business reporting, for both internal and external users, typically relies on information that comes from multiple internal systems, including, for example, human resources systems, facilities, operations, and procurement (**Principle 10**). As an organization matures in its sustainable business activities, it can **standardize more of its processes for gathering information** through its ERP and financial reporting systems. This facilitates not only the processing of information, but also allows for the organization to apply automatic checks and preserve it to enhance integrity.

Consultants and commercial software providers are offering platform solutions for gathering, categorizing, sorting, analyzing, and reporting sustainable business information via dashboards for internal decision making and into reports for external users. These systems, which structure information that comes from various sources within an organization, can be an efficient and instrumental part of an organization's design of control activities over its sustainable business information processes because they contain built-in audit trails that capture the steps in processing the information. This trail helps ensure information completeness, accuracy, and integrity. In addition, this information can serve as a basis for improving the system itself (**Principle 16**). In short, the technology turns unstructured data into structured data so that it can be integrated and tracked, eventually for reporting on management dashboards, annual reports, and regulatory filings.

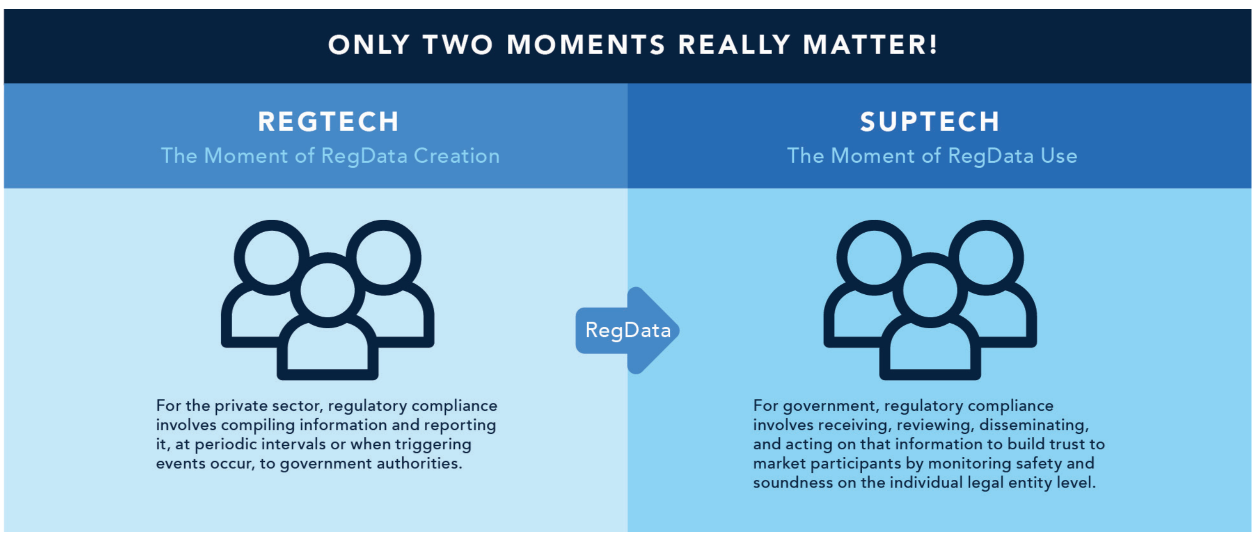
At the same time, however, some organizations are finding existing platforms for ESG reporting too inflexible for their companies' individual needs. They have developed, over a few years, an individualized reporting agenda and selected KPIs, and the spreadsheets are suited to their needs. In addition, some preparers report that they have tried accounting solutions in the past that failed to meet their needs. For example, commercial solutions became available when U.S. GAAP and IFRS changed the accounting for leases, but preparers found many inadequate. As a result, they may be reluctant to consider commercialized IT for new sustainable business information and reporting demands.

> Companies that recognize the strategic importance of ESG embed these issues into their long-term performance goals. This is especially true with technology. Although technology is always advancing, organizations should take stock of existing systems to understand how they can be leveraged to collect relevant information for analysis. Likewise, if a company is already undergoing digital transformation, ESG should be part of that conversation to ensure that new technology systems are ready to incorporate ESG. A lasting ESG approach should draw the same levels of investment as other core business workflows, including automation, blockchain, AI, and data analytics.
>
> *—Maura Hodge, IMPACT Audit Leader, KPMG*
>
> Source: "**The ESG Reporting Journey Take the first steps … before it's too late**"

Use of tagging technology toward interoperable reporting: ***A Digital Transformation Brief: Business Reporting in the Fourth Industrial Revolution***, which looked at studies on the cost of compliance, showed that the expenses of producing multiple reports for multiple users, both internal and external, and for multiple jurisdictions is staggering and wasteful. The current cut-and-paste approach from report to report, even at some of the largest global companies, has been a financial reporting challenge even without the additional demands of sustainable business information and reporting. Technology can serve as a critical means to improve corporate reporting along the information ecosystem from data source to ultimate user. Looking closely at the flow of information, two moments really matter: the moment of data creation and the moment a piece of data (or a summary of data) is used.

Government agencies and regulatory authorities often seek to reduce the costs of business compliance. The technological processes around these two moments are referred to as "RegTech" for regulatory technology and "SupTech" for supervisory technology (see Figure P11-2: Regulatory Data—from Source to User). More specifically, RegTech means the enhanced management of regulatory reporting and compliance processes through technology. Following this definition, the term "RegData" refers to the individual data points that an entity submits to a regulatory agency to comply with disclosure requirements. Many regulated entities must retain unique capabilities to satisfy obligations for a multitude of regulatory formats and bodies. SupTech means tech-enabled supervision, review of inspections, and data analysis by regulatory agencies. Regulatory authorities incur costs for publishing, administering, monitoring, and enforcing regulations. Meanwhile, regulated entities incur costs to comply with regulatory and information obligations or to have information readily available for inspection upon request by a regulatory examiner. This fragmented and divergent regulatory ecosystem is a core issue associated with existing compliance and statutory reporting costs and risks.

FIGURE P11-2: REGULATORY DATA—FROM SOURCE TO USER



Source: ***A Digital Transformation Brief: Business Reporting in the Fourth Industrial Revolution***

This digital transformation process is changing the means of reporting from a periodic document to the delivery of data sets. Nevertheless, although taxonomies exist for financial reports, they are the beginning stage for sustainable business information. Regulators in most of the world's capital markets are mandating the use of XBRL (eXtensible Business Reporting Language) or similar tagging technology, and standard setters such as the FASB, IASB, and SASB (now part of the ISSB) are working to deliver well-designed taxonomies so that reports issued in compliance with the respective standards are readily deliverable in machine-readable form. In addition, with the collective support of regulatory-level authorities, such as through the International Organization of Securities Commissioners (IOSCO), standard-setting organizations are working toward a common taxonomy and interoperable standards.

Using tagging technology can certainly enhance reporting efficiency. Further, it can be an effective means of control over the information produced, as indicated in Principle 11, as these systems rely on metadata and can capture the flow of information through processing and into a report.

> In our work, we do look to the COSO world. For example, when we are considering Scope 2 emissions arising from purchased electricity, we need to consider how we monitor subservice providers. Certain service providers, such as ADP, can provide a SOC 1 report for payroll. If it's a third-party provider that cannot provide this, we want to look at monitoring procedures in greater detail.
>
> *—Kevin O'Connell, ESG Trust Solutions Practice and Global Asset & Wealth Management ESG Leader, PwC*

Ensuring oversight of outsourced, third-party service providers: Because sustainable business activities and information processes are new, many organizations look to outside consultants and service providers. In some cases, these service providers only deliver technology, and implementation and ongoing usage of the system remain in the hands of the organization. In other cases, the organization looks to the external provider as a consultant or to serve as the primary means of gathering and processing information.

Outsourcing does not remove accountability from the organization, regardless of the size, sophistication, innovativeness, or reputation of the vendor. The organization is still responsible for the controls and for the completeness, accuracy, and reliability of the data. Depending on information from external parties can raise risks that could undermine the organization's objectives (Principle 6 and Principle 7). However, when designed and implemented with care, including the crafting and communication of policies and procedures (Principle 12), outsourcing can help further the organization's control and oversight over sustainable business information.

The AICPA has established a suite of services, System and Organization Controls (SOC), for CPAs to provide information on the system-level controls of a service organization or entity-level controls of other organizations. These engagements yield reports on a subject organization's control systems with the goal of communicating on system management, effectiveness, and risks. The suite is comprised of three categories of engagements: SOC for Service Organizations, SOC for Cybersecurity, and SOC for Supply Chain. SOC for Service Organizations is further subdivided into "SOC 1," "SOC 2," and "SOC 3" based on the purpose of the engagement and the auditing guidelines that are applied (see Table P11-1: AICPA Trust Services Principles—Summary).[11]

Following from the concepts that underlie the SOC system, an organization can help ensure that sustainable business information and processes of third-party providers are adequately controlled to counter identified risks (Principle 7). Regarding its sustainable business information processes, these

[11] In addition, auditors of public companies in the U.S. must comply with PCAOB Auditing Standard (AS) 2601, ***Consideration of an Entity's Use of a Service Organization***, which generally aligns with the AICPA guidelines.

steps can include:
- Selecting service providers with competencies in internal control.
- Evaluating service providers against control policies and procedures and following up on deviations (Principle 16).
- Monitoring the sourcing of data within the organization.
- Testing information, on a selected basis, such as through recalculation or reconciliation.
- Obtaining and assessing a SOC or similar report.
- Taking any appropriate follow-up actions for noted deficiencies (Principle 17).

TABLE P11-1: AICPA TRUST SERVICES PRINCIPLES—SUMMARY

	SOC 1 Reports	SOC 2 Reports	SOC 3 Reports
Professional standards and interpretive publications	AT-C Section 320, *Reporting on an Examination of Controls at a Service Organization Relevant to User Entities' Internal Control Over Financial Reporting* AICPA Guide *Reporting on an Examination of Controls at a Service Organization Relevant to User Entities' Internal Control Over Financial Reporting (SOC 1®)*	AT-C Section 205, *Assertion-Based Examination Engagements* AICPA Guide *SOC 2® Reporting on an Examination at a Service Organization Relevant to Security, Availability, Processing Integrity, Confidentiality, or Privacy*	AT-C Section 205, *Assertion-Based Examination Engagements*
What is the subject matter of the engagement?	Controls at a service organization relevant to user entities' internal control over financial reporting	Controls at a service organization relevant to security, availability, processing integrity, confidentiality, or privacy	Controls at a service organization relevant to security, availability, processing integrity, confidentiality, or privacy
What is the purpose of the report?	To provide management of the service organization, user entities, and the independent auditors of user entities' financial statements with information and a service auditor's opinion about controls at a service organization that are likely to be relevant to user entities' ICFR. A SOC 1 report enables the user/auditor to perform risk assessment procedures and, if a type 2 report is provided, to use the report as audit evidence that controls at the service organization are operating effectively.	To provide management of a service organization, user entities, and other specified parties with information and a service auditor's opinion about controls at the service organization relevant to security, availability, processing integrity, confidentiality, or privacy.	To provide interested parties with a service auditor's opinion about controls at the service organization relevant to security, availability, processing integrity, confidentiality, or privacy.

Source: AICPA Trust Services Principles and Criteria

12. Deploys oversight through policies and procedures

The organization deploys control activities through policies that establish what is expected and procedures that put policies into action. (ICIF-2013-12)

An organization uses various means of oversight to direct its sustainable business objectives. Primary among these means is established policies and procedures. These policies and procedures promote clarity in how the organization will meet its sustainable business objectives.

POINTS OF FOCUS

- **Establishes policies and procedures to support deployment of management's directives**
  To fulfill its sustainable business objectives, an organization creates policies that facilitate management's decision making on how it utilizes the control environment to respond to risks. This includes not only creating new policies and procedures regarding sustainable business activities but also modifying and adapting existing policies to meet these objectives.

- **Establishes responsibility and accountability for executing policies and procedures**
  An organization establishes structures and establishes policies and procedures so that actors can respond to identified and assessed risks and satisfy its sustainable business objectives.

- **Performs in a timely manner**
  Carrying out control processes supports an organization's meeting its objectives provided that they are performed in a timely manner. The organization can benefit from considering the goals and needs of its sustainable business team members before their concerns become problematic.

- **Takes corrective action**
  Engaging in sustainable business activities can raise risks around ineffective planning, miscalculation, and error. However, in a functioning and effective oversight system, this is expected, and the processes are designed so that an organization's actors, under management's leadership, can respond to reset course. This also means that the organization may revisit its existing policies for enhanced effectiveness.

- **Performs using competent personnel**
  For an effective control and oversight system, an organization puts into place people who are competent and knowledgeable about sustainable business and how processes can best function. This includes reassessment for additional training.

- **Reassesses policies and procedures**
  The oversight of the sustainable business activities that an organization implements through policies and procedures is revisited to respond to changing circumstances, objectives, and risks.

INSIGHTS

Consideration of oversight and reporting boundaries in setting policies and procedures: As addressed in Principle 3, the boundaries used for sustainability management and ESG reporting may differ from those used for financial reporting. As a result, it is important for an organization to consider affiliates, investees, and other organizations for which it has control or influence in setting policies and procedures regarding sustainable business activities.

Importantly, there are standards that organizations leverage for voluntary reporting, such as the GHG Protocol and similar standards, that call for boundaries and measurements that are not specified with clarity, which results in variation in practical application. Over time, standards likely will be enhanced with clarification and implementation guidance, but, today, interpretations can result in inconsistencies absent formal internal documentation and clarity around external requirements. Today, at many organizations, this remains a challenge.

Further, under voluntary reporting, processes of continuous improvement regarding the availability or transparency of data have been deemed acceptable, and strict adherence to ESG reporting standards may not have been exercised. As we move to a regulated reporting environment that includes assurance, internal policies and procedures will need to be enhanced, formalized, followed, and documented.

Timeline for reporting: A key part of policies and procedures for financial reporting and sustainable business reporting is timing. Many companies have an established timeline for the preparation, review, audit, and release of their financial reports. The sustainable business reporting team may have its own timeline that is driven by other needs, such as personnel availability, data availability, and requests from rating agencies, and, typically, these sustainability reports are released well after the filing of Form 10-K or Form 20-F (in the U.S.) or similar statutory reports in non-U.S. jurisdictions. Bringing these timelines into alignment presents a practical challenge for many companies. However, as an organization's objectives begin to overlap and disclosure represents connectivity of sustainable business and financial information (**Principle 6**), establishing and communicating meaningful and collaborative timelines serves as an important oversight and control mechanism.

ORGANIZATIONAL SUSTAINABILITY POLICIES

Principle 1, **Principle 6**, and Principle 12 direct an organization to establish policies and procedures to express and operationalize its goals and oversight systems regarding business sustainability. Many organizations have begun to disclose these policies in their sustainability reports or similar materials (**Principle 15**). For example, the ***Bank of America Corporation Environmental and Social Risk Policy (ESRP) Framework*** provides detailed communication for both internal and external parties that aligns with ICIF-2013, as follows:

> As a financial institution, risk is inherent in all of our business activities. At Bank of America, the principles of sound risk management are embodied in our values, operating principles and Code of Conduct, which all employees are expected to follow. Our Risk Framework describes our risk management approach and provides for the clear ownership of and accountability for managing risk well across the company. Key to this philosophy is that all employees are accountable for identifying, escalating and debating risks facing the company.
>
> We have established this Environmental and Social Risk Policy (ESRP) Framework to provide additional clarity and transparency about how we approach environmental and social risks, which touch almost every aspect of our business. Like all risks, environmental and social risks require coordinated governance, clearly defined roles and responsibilities, and well-developed processes to ensure they are identified, measured, monitored and controlled appropriately and in a timely manner.

CONTROL AND OVERSIGHT OF SUPPLY CHAIN SOURCING

Applying Principle 7 can raise risks regarding the accuracy and validity of claims regarding sustainably sourced inputs. To respond to these risks, companies can develop policies and procedures that address interaction with suppliers and the reliability of their information. For example, as described in its *2021 Sustainability Report*, Whirlpool Corporation has developed a detailed, three-category approach to ethical compliance that includes a supplier code of conduct, third-party due diligence, and compliance with U.S. conflict mineral rules. The company describes its Responsible Sourcing programs as follows:

> Our Responsible Sourcing programs help us look at what we purchase beyond the more traditional aspects of cost, quality and delivery. This means we consider ethics, labor rights and social and environmental issues when sourcing products and services across all purchasing categories and regions. Our goal is to minimize negative impacts and make a positive contribution to the businesses, people and communities we support through ethical purchasing practices.
>
> This program is managed by a team of global procurement professionals working in collaboration with our ESG Task Force, legal, ethics and compliance, sustainability, global product organization and inclusion and diversity teams.

Whirlpool provides further description of its policy, including 12 tenets of its supplier code of conduct that includes child labor, forced labor, health and safety, women's rights, and nondiscrimination. It also details its approach to supplier audits and remedial action. These activities, following from Principle 12, demonstrate how organizations can apply oversight to control sustainability risks from suppliers.

Management-sponsored audits, consortia approach: As a management control, an organization may initiate audits of entities along the value chain. These audits can serve as mechanisms to build confidence, for example, that suppliers are meeting specific requirements, including criteria that align with the organization's code of conduct or procurement policies. At the same time, suppliers may become inundated with multiple customers' demands for audits that are only slightly differentiated. As a response, organizations in the same industry may form consortia to establish consistent audit approaches and oversight. This approach, which also relates to obtaining and using relevant data (**Principle 13**), has been applied in the areas of hazardous waste treatment and disposal sites and for the sourcing of conflict minerals. These steps represent valuable control activities.

Internal audit's role in supplier audits: In some cases, a full supplier assessment, in accordance with an organization's set policies and led by an internal audit team, is not possible because criteria have not been clearly articulated or the data is inadequate. However, as Aaron Gagnon, partner and chief audit officer at McKinsey & Company, relays, there is value in internal audit addressing the situation with an advisory or consulting engagement. In this way, he says, "The functional areas involved in supplier responsibility activities could learn about controls and can take steps to formalize and mature their programs."

DIVERSITY, EQUITY, AND INCLUSION POLICIES

Embracing the value of diversity, equity, and inclusion, organizations are revisiting existing policies and setting new internal guidelines. These initiatives are within the umbrella of sustainable business activities, as they are often categorized under the "S" for "social" in ESG. **Fifth Third's 2021 ESG report**, for example, addresses the company's various policies around this aspect of human capital, including enhanced paid leave for military service, a detailed disability accommodations policy, multicultural recruitment policies, and a supplier diversity program. These programs, along with other relevant metrics of progress, are detailed in the company's report. Specifying expectations and targets, along with instituting procedures to accomplish them, are indeed part of an effective internal control system.

Component: Information and Communication

13. Uses relevant information

The organization obtains or generates and uses relevant, quality information to support the functioning of internal control. (ICIF-2013-13)

An organization needs quality data that informs whether its processes are facilitating its ability to meet its sustainable business objectives.

POINTS OF FOCUS

▶ **Identifies information requirements**
A critical purpose of an internal control system is the delivery of reliable, decision-useful sustainable business information. This means not only substantive data but, as importantly, information on how the systems themselves are functioning.

▶ **Captures internal and external sources of data**
An effective oversight system of an organization's sustainable business activities depends upon the capture of requisite data from internal and external sources.

▶ **Processes relevant data into information**
An effective control and oversight system gathers important sustainable business information and, as a next step, employs tools for summarizing and analyzing the data into decision-useful information.

▶ **Maintains quality throughout processing**
An effective system of controls preserves the reliability and integrity of information as it flows through various processes from source to decision maker.

▶ **Considers costs and benefits**
In designing oversight and control systems, an organization considers the risks of decision making on imperfect or potentially unreliable information along with the resources that would need to be expended to reduce the risk to an acceptable level.

INSIGHTS

Leveraging existing finance, IT, and internal audit competencies: The governance of sustainable business information and ESG reporting relies on the competencies of corporate professionals in the finance, IT, and internal audit functions (Principle 4). The professionals in these functions have a trained mindset and specific skills that, when employed, can help ensure that organizational decisions are based on information that is valid, reliable, and relevant. From the perspective of compliance with external reporting standards, the role of the CFO is sometimes referred to as the steward of the "one version of the truth." This can apply meaningfully not only to financial data but also to sustainable business data.

Additionally, and importantly, financial reporting can be more retrospective than the data from operational or engineering systems. Although financial reporting considers data based on estimates and expectations, it is generally a high-level summary of what has already happened over a period of time. Conversely, engineering and operating system data supports real-time intervention to correct problems. For this reason, operational data is a critical source of decision-useful data that supports sustainable

BLOCKCHAIN AND SIMILAR TECHNOLOGIES FOR SUSTAINABILITY DATA

A key risk in connection with sustainable business information is the reliance on third parties, particularly as it relates to components from suppliers (Principle 7). Today, the use of powerful digital technology, such as blockchain, may help a company track inventory from the source throughout its movement around the globe. At the same time, it preserves data as the goods physically move. This creates a traceable audit trail. For example, SAP is using its GreenToken blockchain technology to provide Unilever a system to trace the source of palm oil. This technology is an effective way to implement controls that support an organization's sustainable business activities.

business activities and progress toward initiatives.

Moreover, an effective internal audit function can provide internal assurance independent of management over sustainable business information and ESG reports. Working inside an organization but reporting directly to an independent audit committee of the board of directors (Principle 2), an effective internal audit function can ensure the integrity of information.

> Do due diligence with the data that's available (including your accountability system) before setting goals.
>
> *—Tim Mohin, Partner and Director, Boston Consulting Group; former CEO, Global Reporting Initiative*

Balancing financial and operational information to business decision making around sustainability: It is generally contended by some professionals that sustainable business data is less reliable than financial data for decision making. However, it is important to remember that as an organization considers and builds processes over sustainable business information, the systems and processes regarding financial information may also benefit from improvement, particularly around decision-usefulness (Principle 16 and Principle 17). In fact, the building of information systems around sustainable business data can rekindle attention to existing systems and whether the output is decision useful.

Creating a traceable audit trail: One of the fundamentals of good oversight and control is maintaining information and documentation about the process itself. This means that an organization retains data so that it can trace the review and approval process over sustainable business activities and information. This demonstrates that professionals with adequate knowledge and training participate in the process (Principle 4). It documents the steps that they take, which may include full, partial, or selective validation of the information or sample recalculations. It also helps ensure that the information is presented in a way that is meaningful and represents the organization's actual underlying activities. To some extent, planning and implementing appropriate technology can facilitate the documentation and review process (Principle 11). Software solutions can preserve the traceability of information and the processes used to move data from source to user.

Modernizing internal audit programs to cover sustainable business processes: After determining areas of risk (Principle 7), it can be valuable for an organization to look to its existing internal auditing plans in a way that considers its sustainable business objectives (Principle 6). This can lead to revisiting and modernizing processes and procedures over specific areas, such as technology, safety, procurement,

INTERNAL CONTROL ASSESSMENTS OVER CYBERSECURITY

Cybersecurity and privacy of customer information is an important aspect of good sustainable business management. It speaks to an organization's responsibility for its clients' data. Assessing whether an organization's security and privacy policies are functioning and effective provides insight on whether the organization is meeting its system objectives. For example, in its 2022 ESG report, FedEx describes its oversight process regarding its cybersecurity and customer information policy, including the role of internal audit:

> We recognize the importance of protecting the privacy of our customers, vendors, and team members, and we deliver on this commitment by proactively ensuring a safe and secure online environment. With the increasing presence and sophistication of online threats, we must ensure continuous improvement to protect our business and our customers.
>
> The Cyber and Technology Oversight Committee of the FedEx Board is responsible for reviewing the management and mitigation of our cyber and technology-related risks and discussing these initiatives with leadership. Our Global Privacy Office regularly reviews our practices and policies to ensure we maintain compliance with all relevant regulations across our operating companies. Our Internal Audit team also conducts periodic audits of our Privacy Compliance Program to ensure our controls are working effectively.

The FedEx description exemplifies multiple aspects of ICIF-2013, including board oversight (Principle 2), risks, including technology risks (Principle 7 and Principle 9), established policies and procedures (Principle 12), and the gathering of information, led by internal audit, to determine the effectiveness of the system itself.

privacy, talent, and the environment. In sum, looking to existing audit programs can accelerate the organization's meeting its objectives. These audit programs can reflect existing enterprise-wide knowledge: staff who know the organization, its business, operations, and policies and processes. Internal audit may then evaluate competencies and gaps to redirect resources to address sustainable business activities and information.

> "Visualization tools enable highlighting of the most important combinations of data through KPIs and metrics. This approach to telling the story behind the data makes sustainable business information accessible and ready for analysis in a user-friendly way."
>
> *—Loreal Jiles, Vice President, Research and Thought Leadership and Global Head of DE&I, Institute of Management Accountants*

Data visualization and sustainable business information: Sustainable business information often must be collected from multiple sources, aggregated into a single repository, analyzed, and reported to internal and external users in a meaningful way to inform business decisions. Based on the largely unstructured nature of sustainable business information today, the use of digital technology is critical to organizations' successful implementation of viable solutions that address initial challenges around information.

Specifically, data visualization tools such as Tableau or Power BI can be leveraged in sustainable business management efforts by facilitating the tracking and presentation of KPIs as well as monitoring ESG-related performance metrics that inform progress toward sustainable business objectives. Through automatic data feeds and use of dashboards for digestible presentation, these tools can aid in the aggregation and analysis of sustainable business information, and, ultimately, support strategic decision making and reporting.

The output of data visualization tools, by nature, is typically highly customizable. That is, end users are often able to modify configuration, calculations, and visuals in dashboards, offering less control than traditional finance applications that customarily include robust built-in access restrictions. However, as FP&A teams around the globe have begun utilizing these tools to monitor and present financial performance to key stakeholders, teams inheriting sustainable business management responsibilities could also reap the benefits of data visualizers. In adoption and use of these tools, it is advised that teams take caution with respect to controls and end-user computing to confirm data transformation is appropriate and is aligned with established data integrity, measurement, and reporting principles.

Considering data availability when setting objectives: The setting of sustainable business objectives (**Principle 6**) typically leads to the establishment of new activities and information streams. Conversely, however, considering the availability of data from existing systems can inform how an organization sets its initial sustainable business objectives. That is, the organization establishes goals that it can meet readily with existing information and systems. This begins a learning curve on how to set targets and improve. As an organization matures, it can then use the information that it collects for more sophisticated data modeling and analytics. A lack of sophistication does not mean that an organization avoids getting started on its sustainable business journey (**Principle 1**).

14. Communicates internally

The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control. (ICIF-2013-14)

Once an organization establishes oversight structures and expresses policies and procedures, it communicates these structures and policies throughout the organization. This communication facilitates the understanding of all actors regarding their responsibilities for meeting the organization's sustainable business objectives.

POINTS OF FOCUS

- **Communicates internal control information**
  An effective system of control informs those with responsibilities for carrying out an organization's sustainable business activities about expectations regarding the process. That is, the organization not only communicates substantive information regarding transactions, events, and expectations but also information about the functioning of the system itself.

- **Communicates with the board of directors**
  An organization's systems bring decision-useful information to its board of directors so that the board can carry out oversight responsibilities of the organization's sustainable business activities.

- **Provides separate communication lines**
  Alternative communication channels (that is, outside regular reporting lines) allow for the delivery of information about system functionality directly to decision makers and those with responsibility without dilution or interference.

> "Informal communication with senior leaders was often more effective than formal audits. It built trust and changed behavior—and it emphasized the importance of controls."
>
> *—Aaron Gagnon, Partner and Chief Audit Officer, McKinsey & Company*

- **Selects relevant methods of communication**
  An organization has various means of communicating the effectiveness of its oversight systems regarding its sustainable business activities. Different means of communication are effective in facilitating a responsible and meaningful response. For example, some companies use an intranet platform, and others may announce objectives and progress via town halls.

INSIGHTS

Value of internal communications around sustainability performance: It is valuable for an organization to have means to communicate sustainability objectives, targets, and performance. This can be particularly impactful with respect to factors that the organization can control through the actions of management and employees in the areas of operations, facilities, procurement, and customer information.

Employee perspectives as a resource: People in different areas of an organization may have unique and important perspectives on drivers, direction, and pace of change in areas that relate to the organization's sustainable business objectives. Open channels for inbound communications provide one mechanism for organizations to see what is out there and what may be on the horizon. It is beneficial for the team to be open and prepared to act with agility on new information (**Principle 4** and **Principle 5**).

Ethics and integrity programs: Many organizations have company-wide ethics and integrity programs that promote employees and other key stakeholders (contractors) to embrace a speak-up culture. These have evolved from the days of the suggestion box in the company cafeteria. Today, mechanisms can include one-on-one meetings with management, dedicated email addresses, and dedicated hotlines. A grievance process may be required by regulations or collective bargaining agreements. These internal communication controls can be effective and efficient in achieving sustainable business objectives including assessing workplace harassment, diversity and inclusion, and full payment of wages.

CASE IN POINT: COMMUNICATING EMPLOYEE EXPECTATIONS

The CEO of an international transportation and shipping company realizes the importance of communicating the company's commitment to sustainable business to all of its employees. Looking to Principle 14, she determines that all employees are part of the achievement of these objectives in a way that promotes positive engagement. She directs the company's internal communications team to develop a company-wide promotional campaign that ultimately includes:

- In-person and virtual learning sessions sponsored by the sustainability team that work as a book club with a particular theme;
- Monitors around the main corporate office that rotationally display sustainability facts, the company's purpose, and values;
- Invitations for employees to submit ideas on how to improve the company's sustainability efforts;
- New facts and material routinely displayed on the company's intranet;
- Stylized content for posting on LinkedIn delivered to leaders to share sustainability news;
- Alerts at town halls or through email blasts when the company publishes sustainability reports;
- Posters hung in shared areas that explain ways that employees can act to achieve objectives;
- Periodic messaging on the company's purpose and values on the company's messaging system;
- Encouragement for employees to submit ideas on how to improve the company's functionality to deliver on sustainability; and
- A game application as an incentive for knowledge sharing on the company's corporate intranet and publicizing in lunchrooms and via company-wide computer systems, such as screensavers.
- Although these actions are not punitive but positive, they are important control features as they emphasize the importance of the company's sustainable business objectives and the responsibility of all employees for achieving them.

15. Communicates externally

The organization communicates with external parties regarding matters affecting the functioning of internal control. (ICIF-2013-15)

Once an organization establishes oversight structures and expresses policies and procedures, it communicates these structures and processes to external parties, such as debt and equity investors and other stakeholders, that are relying on these processes for the delivery of reliable sustainable business information.

POINTS OF FOCUS

- **Communicates to external parties**
  An organization informs its external regulators, investors, and other stakeholders about its oversight systems regarding sustainable business activities and the effectiveness of these systems.

- **Enables inbound communications**
  An effective oversight system includes means for communications from external parties that are interested in the organization's sustainable business management and ESG reporting.

- **Communicates with the board of directors**
  An organization delivers information to its board of directors so that the board can effectively perform responsibilities over the delivery of sustainable business information to external parties.

- **Provides separate communication lines**
  An organization establishes means of communication so that frank feedback may be acted upon. It also requires consideration of information from outside actors that interact with the organization and develop viewpoints that build (or diminish) reputation and value.

- **Selects relevant methods of communication**
  An organization has various means to communicate its trustworthiness and its oversight systems that support representations about its trustworthiness. Board members, senior management, and certain functions, such as investor relations and public relations, have specific roles and responsibilities in delivering information externally and, in some instances, delivering information to external users pursuant to law.

INSIGHTS

Reporting on control effectiveness: In the U.S., under SOX and related SEC regulations, a CEO and CFO of a publicly held company must issue a report on the effectiveness of an organization's control systems over financial reporting. This includes the financial information reported both within the financial statements and notes in periodic reports to the SEC (see Background regarding SOX Section 404). In addition, a registered, independent accounting firm must issue an opinion on management's report. Therefore, any ESG disclosure processes that overlap with financial reporting requirements, such as annual reports, are subject to SOX Section 404.

Jurisdictions outside of the U.S., generally, do not have similar requirements to SOX Section 404 that require the disclosure of internal control assessments. However, other reporting mechanisms support the disclosure of sustainable business control and oversight systems. One prominent means for insight into these control systems is the TCFD recommendations, which several jurisdictions around the world appear to be in the process of adopting in some form. The TCFD recommendations, as issued, raised 11 points of disclosure that cover governance, risk, strategy, and measurements. In designing and implementing systems to support making these disclosures, particularly around governance and risk, an organization benefits from applying ICIF-2013. The Framework allows for consideration, insight, and assessment of whether an organization's system itself is capable of providing financial-related disclosures around climate and other ESG risks.

These requirements reflect the heart of Principle 15, external reporting on an organization's system of internal control. To satisfy these requirements, almost all filers look to ICIF-2013.

Responsibilities of external audit or assurance providers: Determining auditors' responsibilities for ESG disclosures can be complex. The nature of responsibilities depends on:

- What rules are applicable in a jurisdiction.
- Whether the auditor has been engaged to provide assurance on specific ESG-related disclosures.
- How the ESG information is delivered to users (that is, via regulatory filing, annual report, or elsewhere, such as a website).

In the U.S., auditors of the financial statements of public companies follow the rules and guidelines of the PCAOB. Auditors of private entities follow the generally accepted auditing guidance of the AICPA. In many jurisdictions outside the U.S., auditors follow the standards issued by the International Auditing and Assurance Standards Board (IAASB).

If the information is outside of the basic financial statements, auditors' responsibilities depend on whether the company has provided specific assurance on particular items of disclosure. To provide this assurance, specific standards are followed. The IAASB has issued a number of interpretive releases on conducting **assurance engagements** for sustainable business information. In addition, the IAASB is looking to revise International Standard on Assurance Engagements (ISAE) 3000 (Revised), ***Assurance Engagements Other than Audits or Reviews of Historical Financial Information*** and related standards to address the increased demand for clarity on how to conduct engagements for assurance of sustainable business information. One step further, the IAASB standard-setting agenda includes contemplation of a **separate, stand-alone assurance standard for sustainability**. Other commonly used standards, internationally, for assuring sustainability information include the **AA1000 Assurance Standard (issued by AccountAbility)** and ISO 14064-3:2019, ***Greenhouse gases—Part 3: Specification with guidance for the verification and validation of greenhouse gas statements***.

In the U.S., the PCAOB is revisiting its existing **attestation standards**, which have been labeled as "interim" and have remained generally unamended since 2003 when the PCAOB took over oversight from the AICPA. The PCAOB observes that capital market developments and changes in auditing are driving reassessment of this standard, and it is surmised that this may include how a registered accounting firm performs attestation engagements on ESG disclosures and control assessments. Some contend, however, that the PCAOB does not have the authority to set rules regarding the attestation of information that is outside of financial statement audits.

The area that requires careful consideration and interpretation of existing rules are ESG disclosures that are not subject to specific attestation procedures and are outside of the basic financial statements. Sometimes, these disclosures accompany an annual report, such as a management commentary section or in the management discussion and analysis section of a Form 10-K. In such cases, auditors are looking to existing rules regarding information that accompanies a set of financial statements (see Table P15-1: Standards Related to Information that Accompanies Audited Financial Statements) to consider the extent of responsibilities for ESG information.

TABLE P15-1: STANDARDS RELATED TO INFORMATION THAT ACCOMPANIES AUDITED FINANCIAL STATEMENTS

PCAOB, AS 2710, *Other Information in Documents Containing Audited Financial Statements*	AICPA AU-C Section 720, *The Auditor's Responsibilities Relating to Other Information Included in Annual Reports*	IAASB, ISA 720 (Revised), *The Auditor's Responsibilities Relating to Other Information*

Anti-fraud rules: Regardless of how ESG information is delivered to the market, an issuer must comply with the law that prohibits misrepresentation or fraudulent disclosures, such as SEC Rule 10b-5 (**Principle 8**). This includes information provided in the financial statements, other parts of an annual report, websites, and press releases.

State of Play—assurance over ESG information: Regardless of jurisdiction, a certified or chartered accountant issues reports on underlying information that either provides "reasonable assurance" or "limited assurance." A reasonable assurance engagement is described as providing "audit-level" assurance. This means that the practitioner can express a conclusion about whether the subject report or information is in compliance with specific regulations or standards. On the other hand, limited assurance is often described as "review-level" assurance. This means that the practitioner has collected less evidence than what would be gathered and examined for a reasonable assurance engagement and can express a conclusion about whether any matter has come to the practitioner's attention that the subject information is materially misstated.

Following from this demand, a 2022 report titled ***The State of Play in Reporting and Assurance of Sustainability Information: Update 2019-2020 Data & Analysis*** provides a global study on the prevalence of assurance on external sustainability disclosures. In summary, the study found:

- About 58% of companies evaluated in the study were publishing sustainability information with at least some assurance;
- Among the companies that did obtain assurance, a little under two-thirds (61%) used audit or audit-affiliated firms; and
- The prevalence of obtaining assurance differed among jurisdictions.

The *State of Play* report also determined that 82% of all assurance engagements regarding sustainable business reporting result in limited assurance reports rather than reasonable assurance. In sum, the research shows that reasonable assurance over sustainable business information may be a stakeholder goal, but it has not yet been implemented.

This predominance of limited assurance, however, may change in the future (**Principle 9**). The exposure drafts for new sustainability reporting regulations and standards speak to reasonable assurance—on par with financial reporting—as a goal (see **Background**). For example, the proposed climate disclosure regulations by the SEC expressly call for a phased-in approach; if adopted as exposed, it initially would require limited assurance with a stated plan to move toward reasonable assurance within two years as systems of oversight mature. At the same time, the ISSB's proposed S1 and S2 proposals seek feedback on how to address assurance, and EFRAG is charged with developing standards to implement the CSRD, which requires assurance. Stakeholders in the preparer and audit communities generally are expressing that regulators and standard setters indeed consider the state of internal systems and use a phased-in approach (rather than an all-at-once approach) regarding new ESG disclosures.

Selective disclosure of ESG information: In responding to requests for sustainability information, publicly held companies subject to the SEC's jurisdiction in the U.S. need to consider **Regulation Fair Disclosure**, referred to as "Reg FD." These rules aim to ensure that investors have equitable access to company information. This means that a publicly held company cannot prefer certain financial institutions and individual investors over others with information that could be used for trading advantages. As more sustainable business information becomes integrated or connected with financial reporting, organizations must use care to ensure compliance. Applying ICIF-2013, with particular consideration of Principle 15 and how an organization communicates externally about the effectiveness of its systems, can further this objective.

> Phasing in these requirements is sound policy—but it is important for stakeholders to understand the type of assurance provided, including the relative level of reliance they can place on each type.
>
> *—Marie-Laure Delarue, EY Global Vice Chair, Assurance*
>
> Source: ***The emerging sustainability information ecosystem***

Whistleblowers on ESG: The SEC maintains a whistleblower program that allows for the confidential reporting of a public company's activities that indicate fraud (**Principle 8**). As the SEC and other regulators mandate external reporting of sustainable business information as part of securities filings, it will likely expand its program to include whistleblowers for this type of information. In 2021, the SEC announced an **enforcement task force on climate and ESG issues**, and it is conducting enforcement actions in connection with **ESG disclosures**. As a result, it is particularly important for an organization to be transparent with its actors and engage them to help build the organization's sustainability agenda.

Considering the influence of impact investors: The term "**impact investing**" means different things to different people, but it generally can be defined as "directing capital to enterprises that generate social or environmental benefits" such as affordable housing, sustainable forests, and internet access in developing countries. That is, impact investors aim to direct capital toward organizations that demonstrate commitment and performance associated with specific sustainability topics. Impact investors often go beyond scraping publicly available information and engage on an ongoing basis with investees. Appropriate controls can help organizations prioritize these requests and evaluate whether they have accurate, reliable data that is truthful and responsive.

Component: Monitoring Activities

16. Conducts ongoing and/or separate evaluations

The organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning. (ICIF-2013-16)

Once implemented, an organization revisits its oversight structures and processes to ensure that they are effective in facilitating its ability to meet its objectives around sustainable business. These reassessments may be scheduled and ongoing, or they may be performed as specific needs arise.

POINTS OF FOCUS

- **Considers a mix of ongoing and separate evaluations**
  An organization conducts reviews of how well its oversight systems regarding its sustainable business activities are functioning. These assessments may be regularly scheduled and ongoing, or they may occur as circumstances change.

- **Considers rate of change**
  In monitoring an oversight system of its sustainable business activities, an organization considers how quickly demands and drivers for additional change will emerge that may require a reassessment of the effectiveness of existing processes.

- **Establishes baseline understanding**
  An understanding of an organization's existing means for monitoring its systems regarding sustainable business activities is necessary before it can drive improvements and respond to new risks and opportunities.

- **Uses knowledgeable personnel**
  For either ongoing or ad hoc assessments of an organization's systems of oversight regarding sustainable business to be effective and useful, persons who conduct them need to have the requisite knowledge to understand the objectives, processes, and control features.

- **Integrates with business processes**
  For either ongoing or ad hoc assessments of an organization's sustainable business activities to be effective and useful, they must consider the organization's actual business, transactions, operations, processes, and expectations.

- **Adjusts scope and frequency**
  As time goes on and circumstances change, an organization reassesses the timing of its assessments and review of its processes regarding its sustainable business activities.

- **Objectively evaluates**
  To promote the effectiveness of an organization's system of oversight of its sustainable business activities, periodic or ad hoc oversight assessments are conducted objectively and without undue bias. This also demonstrates a commitment to transparency and accountability.

INSIGHTS

> We need to have controls in place to support an audit.
>
> *—Mark LaMonte, Partner, WilliamsMarston LLC*

Decision usefulness of an effective evaluation process: An organization benefits from engaging competent professionals to assess its sustainability performance processes and outcomes. This helps ensure that its activities and processes deliver information that reflects its operations accurately and how the organization is using its available resources. This allows for improved processes and improved outcomes. Moreover, this evaluation process is highly beneficial regardless of whether the organization uses its internal audit function or submits any of its disclosures to external audit or assurance examinations or reviews. In the end, management has an ultimate role to play in understanding sustainable business objectives and designing and implementing processes and procedures to see them carried out.

Internal audit's evaluation role: An important responsibility of the internal audit function is to assess and monitor the performance of an organization's controls. This monitoring function applies to ICSR as well as ICFR. It extends to any risks that could affect the organization achieving sustainable business objectives.

In planning and conducting an audit of financial statements, external auditors obtain an understanding of the internal audit function (see, for example, PCAOB AS 2605: ***Consideration of the Internal Audit Function***). An effective internal audit function provides assurance independent of management, and, with the right competencies, it can provide assurance related to controls over sustainable business information. Internal audit can also facilitate the work of external assurance providers, when engaged. Advisory (or consulting) efforts to help management design, implement, and improve a broader range of controls related to sustainable business objectives are also within the purview of an effective internal audit function.

Second-line audits of high-risk areas: Management may sponsor supplemental audits that serve effectively as monitoring controls over high-risk areas, such as workers' health and safety, product safety, or cybersecurity. Many of these specific audits evolved with a targeted purpose, such as mitigation of regulatory enforcement risk. As sustainability issues become more prominent, the risks relating to these issues have intensified or changed (**Principle 9**), but, in many cases, the audit programs may not have followed. Nonetheless, internal audit professionals have the experience and skill sets that can be redirected to improve controls by collaborating with operational teams (in the second line) to consider these evolving risks.

Material weaknesses identified by independent auditors: In the context of financial reporting, auditors issue a report on the effectiveness of internal control systems (**Principle 15**), and their work can provide valuable means for identifying material weaknesses in oversight systems. As part of the process, the auditor communicates, in writing, to management and the audit committee material weaknesses identified during the audit. Their observations of identified weaknesses can provide a road map for improvement, which can be enormously insightful in identifying and responding to new risks regarding sustainable business activities and information. Although the application of auditor responsibilities with respect to ESG reporting in accordance with attestation standards is unsettled, the concepts and processes around identifying control deficiencies could be applied by management to improve its oversight systems around sustainable business information.

Material weaknesses identified by internal auditors: The value of identifying and explaining material weaknesses applies not only to external auditors but also, as importantly, to internal auditors. Their work can lead to a reassessment of structures (Principle 3), risks (Principle 7, Principle 8, and Principle 9), and the development of new processes and policies (Principle 12) in a way that supports the development of talent resources (Principle 4). In fact, the work done internally to build functioning and efficient control systems over sustainable business activities and information is a predicate to the execution of efficient audits.

Verification by nonaccounting firms: Financial reporting professionals and internal audit are familiar with the standards of assessing and reporting on internal controls.

However, due to the specialized nature of some aspects of sustainable business, organizations may look to other external providers for an external assessment of controls over sustainable business activities and information. These nonaccountant providers may have significant expertise in relevant areas such as GHG emissions, energy usage, water usage, human resources policies and metrics, and IT. Their work can provide valuable insights into an organization's sustainability practices and information that set a road map for progress.

Yet the use of providers other than certified or chartered accountants for external assessments has its critics. Detractors raise, for example, a lack of clarity around independence and general concerns around quality control. They also cite the clarity in generally accepted auditing standards between limited assurance and reasonable assurance that nonaccountants may not follow and raise a lack of understanding and disruption throughout the data and information chain.

> "The COSO Framework is ideal and completely applicable for wide use by companies in Europe as the basis for controlling sustainability information. One notable aspect that needs to be continually reinforced is the importance of culture and integrated thinking. It underscores that a control framework is only as good as the understanding people have of the importance of reliable information for decision making. And assurance will only work and be affordable if we have a system of control and digitized data; otherwise, it will degenerate fast into a box-ticking exercise based on price point."
>
> *—Charles Mario Abela, Senior Strategic Advisor, Value Balancing Alliance*

The board and management evaluate the degree of needed assurance, relative competencies, and market and regulatory expectations in deciding how to best achieve Principle 15 and Principle 16 for an organization.

17. Evaluates and communicates deficiencies

The organization evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate. (ICIF-2013-17)

As an organization reassesses its structures, policies, and procedures regarding its sustainable business activities, it communicates its findings so that actors better align their activities in accordance with the organization's sustainable business objectives.

POINTS OF FOCUS

▶ **Assesses results**
To promote the effectiveness of an organization's system of oversight of its sustainable business activities, the results of its periodic or ad hoc evaluations are assessed to identify means for improvement and progress.

▶ **Communicates deficiencies**
To promote the effectiveness of an organization's system of oversight of its sustainable business activities, the results of its periodic or ad hoc evaluations are communicated by management to appropriate actors to facilitate improvement and progress.

▶ **Monitors corrective actions**
Once an organization develops and implements means to improve its oversight systems regarding its sustainable business activities, it follows up to ascertain whether the upgrades and improvements are working as expected and enhancing its ability to meet its sustainable business objectives.

INSIGHTS

The value of reassessment: A meaningful monitoring system may lead to strategic reassessment and an organizational reflection on its commitment to carrying out its purpose (Principle 1) and objectives (Principle 6). From establishing vision and goals, the organization can develop meaningful risk assessments (Principle 7 and Principle 8) that are future-ready (Principle 9).

While all ICIF-2013 components are interrelated, the one ICIF-2013 area that is likely going to mature is control activities, as set out in the third component. Here, documentation is key, as the focus is not limited to the substance of sustainable

> “Sustainability is a process and not an outcome. We're looking at new technology, new processes, and new solutions to continue to reduce our greenhouse gas emissions. And it's our CFO team that serves as the connectivity across all functions. The accounting team brings the insights, the analysis, and expertise in reporting—all grounded in a set of ethics. We look to building processes that are reliable and give high-quality data subject to internal controls and a rigorous review process. It's necessary to set roles and responsibilities and then identify the gaps. It's an exciting time in that we're going from concept to action.”
>
> *—Patti Humble, Chief Accounting Officer, UPS*

business activities and reporting, but, as importantly, on the processes that help the organization accomplish its goals. Reassessment, therefore, is more than a means of oversight. It facilitates an organization's ability to evaluate, change, and continue to thrive.

In many ways, sustainable business reporting is still subject to evolution and innovation. As a result, it will be a process of continuous improvement.

ESG DISCLOSURES AND CONTROL PROCESSES

Heineken N.V.'s annual report, which includes extensive sustainability-related information, provides an assurance report by Deloitte Accountants B.V. This assurance report, addressed to its annual general meeting and other stakeholders of Heineken, concludes:

> We have reviewed a selection of sustainability data as stated on page 125-165 of the accompanying Annual Report for the year 2021 ("the sustainability data") of Heineken N.V ("the Company"), Amsterdam. A review is aimed at obtaining a limited level of assurance.
>
> Based on our procedures performed nothing has come to our attention that causes us to believe that the sustainability data in scope for our review is not prepared in all material respects, in accordance with the reporting criteria as included in the section 'Reporting Basis and Governance for non-financial indicators'.
>
> The scope of Deloitte Accountants' review was to provide limited assurance on specific metrics and commitments that Heineken provided in the section of its report titled "Our Brew a Better World 2030 commitments and progress in 2021." These metrics include reduction of GHG emissions, increases in the use of energy from renewable sources, the use of sustainable barley and hops, the use of landfills, the representation of women and regional nationals in its leadership team, fair wages, and workplace safety.
>
> These reflect the company's stated purpose of brewing "togetherness" to inspire a better world and its stated values: passion for consumers and customers; courage to dream and pioneer; care for people and planet; and enjoyment of life.

Heineken's reporting also reflects the ICIF-2013 principles. Starting with its purposes and values, it sets objectives and targets (Principle 6). It speaks to setting company policies (Principle 12) and controls at the operating entity level and process level (Principle 10). Specifically, regarding Principle 17, the report states, "Compliance with company policies is periodically assessed. Deviations from the defined standards are included in the global monitoring and follow-up processes, supporting management in addressing these deviations. Management is responsible for definition and timely implementation of action plans to remediate any deficiency identified as part of these assessments. The results are reported to the Executive Board." These disclosures (Principle 15) describe internal structures and communications (Principle 3 and Principle 14) and ultimate oversight by the company's board of directors (Principle 2).

PRINCIPLES IN ACTION: ILLUSTRATIVE CASES

This section provides three illustrative examples. Although fictional, each is a composite that draws on the real-world practices in the types of companies presented.

As with ICFR, it is critical that the application of ICSR is scalable to organizations of diverse sizes, industries, and equity ownership. Moreover, the usefulness of ICIF-2013 to sustainability is not a one-size-fits-all perspective. The principles and points of focus help an organization to build effective controls based on its own business model and operations.

Illustration: A publicly held organization subject to disclosure regulations considers its reporting agenda

Sorrolti Industries (fictional) is an industrial company with an 80-year history of organic growth and acquisition to become one of the top 10 brands in a competitive sector. The company operates in many regions and countries worldwide that have varying requirements and expectations for sustainability performance, reporting, and risk. Sorrolti has significant operations and opportunities in the EU. Sorrolti's shares are publicly listed around the world, including equities markets in North America, Europe, South Africa, and Asia.

Sorrolti's sustainability programs have been ranked in the top quartile by various NGOs for more than a decade. This has enhanced its reputation, and executives believe it has facilitated customer engagement, employee engagement, and growth (**Principle 1**). Nonetheless, Sorrolti needs to comply with new and proposed disclosure mandates in multiple jurisdictions. To do so, company management must monitor changes in external requirements and expectations, and, importantly, it must continue to improve its system of oversight and controls.

First, the company considers its reporting agenda. The company has already looked to several global standards and frameworks as inputs to its sustainability programs and objectives, as well as the overall objectives of the company (**Principle 6**). The UNGC is a significant strategic driver for all the standards and frameworks. The company has used this to inform its high-level strategy, responsible attitude, and tone at the top (**Principle 1**). The company has reported information in accordance with GRI. It has monitored sector standards issued by SASB and initiated reporting on applicable parameters. The strong internal controls have served as an excellent foundation to meet additional changes in the last five years (**Principle 9**). The company has used and augmented its system of controls to prepare for disclosures according to TCFD. The company has already performed a readiness assessment that identified gaps, and it is modifying its system controls to prepare for the broader regulation, specifically, the CSRD and the standards proposed by EFRAG.

Sorrolti developed an IT system to manage sustainability data, with initial scope targeted for externally reported information (**Principle 11**). Over the last decade, the company has continued to refine the system by linking it effectively to other systems that house data. This enables internal management and reporting on sustainability topics, including health and safety, environmental, and human resources. The company has also linked its systems to those used for financial management and reporting. The internal system has controls to avoid duplication of input and reduce risk of errors (**Principle 11**). Sorrolti's management and IT leadership have considered new offerings from commercial software providers. The internal team has concluded that all would require considerable adaptation and duplicate efforts the company has already invested into its in-house system.

Sorrolti's core internal team gathered data and information that was readily available (**Principle 4**). As employees and business partners recognized the intent and outcome of sustainability reporting, more expressed willingness to contribute, and the company established formal structures and processes (**Principle 10**). The compliance function assumed initial responsibility for verifying data. The company engaged an external auditor to perform verification in accordance with criteria indicated in the **guidance issued by the IAASB**.

Sorrolti continued to improve controls to ensure complete, accurate, and reliable data and information (**Principle 13**), as well as to restrict access to appropriate parties (**Principle 8**). The network of controls is now substantially equivalent to those followed for financial reporting. The final validation of ESG data included in external reports is under the responsibility of the CEO. The company implemented a robust set of internal controls, similar to those for financial reporting, that provides the CEO with confidence in the data.

There are dedicated operating procedures—close to the shop floor and management—that outline roles, responsibilities, definitions, and procedures to be used by these subunits to ensure adequate management and reporting of nonfinancial data and information (**Principle 12**). With the primary focus on business objectives and publicly stated sustainability targets, Sorrolti developed internal controls to provide layers of assurance for nonfinancial information as it is gathered and summarized. The company has a third-party verification process that it refers to as a "circling activity." This reflects the concept of segregation of duties (**Principle 10**). Under this process, parties that are uninvolved in preparing topical information review it. Participants include employees from different functional groups and external consultants. Verification procedures can be a process walk-through, testing of data, or both. Functional and operational leaders responsible for the nonfinancial information must sign an internal certification statement, similar to that required for financial reporting. These are presented to the CEO and CFO for review. She can review or ask questions about any of the documents in this upward flow of information before it is submitted to the audit committee and board of directors (**Principle 2**) to ensure that it is fit for purpose (**Principle 1**).

Illustration: A privately held supplier begins its sustainable business journey[12]

Fran Fabricators, Inc. (fictional) is a privately held company that engineers and manufactures multi-material foam, rubber, and plastic components used in noise, vibration, acoustical management, water and air sealing, and similar functional applications. The company's 730 employees are spread among its principal executive offices in Charlotte, N.C., and the engineering and production facilities in Concord, Shelby, and Kannapolis, all in North Carolina.

The quality of the products has never been an issue, and the company's adoption of Industry 4.0 concepts related to interconnectedness provides it with excellent operational and logistical capabilities.[13] Adopting strong internal control fundamentals that align with ICIF has enabled the company to meet internal, operational, and financial objectives (**Principle 6**). The company has a long history of organic growth and last year reported revenues of just under $100 million, with margins in line with industry sector averages. The company is committed to organic growth and relies on the lending markets for financing that growth (**Principle 6**).

Fran Fabricators' customers are not limited to the U.S., as its products are used in the construction and remodeling of commercial and governmental buildings and facilities around the world by serving the markets for appliance, water heater and heating, ventilation, and air conditioning (HVAC) equipment. Sales are conducted directly to original equipment manufacturers (OEMs) of appliance, water heater, and HVAC companies. Recognizing that many current and potential customers are generally not dependent upon any one source for raw materials or purchased components essential to their business, Fran Fabricators' management sees continued organic growth as a path forward. It is imperative, however, that the company constantly respond to changing customer needs (**Principle 9**).

In this regard, several customers indicated a growing interest in having suppliers provide carbon footprint information because they access capital from the public financial markets and are showing a growing attention to proposed regulations regarding Scope 1, 2, and 3 emissions reporting. Because Scope 3 includes all other indirect emissions occurring in a company's value chain, management sees an opportunity to set itself apart from its competitors (**Principle 1** and **Principle 6**). Fran Fabricators seeks to preserve and enhance its relationships with current and targeted OEMs, particularly those responding to an emerging culture of corporate responsibility and that are looking to their supply chains for sustainable inputs and reliable data.

As a private company, Fran Fabricators was not subject to the delivery of mandatory financial disclosures directly to the public capital markets, and management did not approach sustainability as a compliance exercise. Instead, management turned its attention to the growing practice of supplier code of conduct enforcement (**Principle 7** and **Principle 12**). This gave the company an opportunity to engage directly with customers and understand their risks and concerns. The interaction uncovered direct opportunities with customers by providing information regarding emissions that were based on reliable and transparent processes. This made Fran Fabricators accountable to its customers, and it then engaged its internal teams to deliver (**Principle 3** and **Principle 4**).

Through its efforts to deliver emissions information to its large commercial customers, Fran Fabricators' management discovered additional opportunities to track and deliver information about its sustainable business practices, including its use of water, handling of waste, and employment and safety practices. Management also discovered the potential benefits of borrowing through new ESG-related debt arrangements with covenants that reduce interest rates for meeting ESG metrics.

[12] Coauthored by Paul Juras, Babson College.

[13] In a nutshell, Industry 4.0 means connecting automation and data exchange applications to manufacturing technologies.

There was the challenge, however, of management determining which sustainability factors were most important to its business model and unique operating circumstances (**Principle 6** and **Principle 7**). While it had a wide latitude for selecting, management wanted to adopt a structured approach that would not be viewed as completely subjective. Management and the board looked to potential B Corporation status to demonstrate high social and environmental performance, and they began working on a range of factors that could improve the metrics used in determining an initial **B Impact Assessment score**. As part of this process, the team began to assess the most relevant factors for its business by engaging with various stakeholders, including employees and customers.

However, management understood that unlocking value through this process required stakeholder trust as to the reliability of ESG information provided. It was readily apparent that the types of internal controls relating to governance, competence, policies, data, and communications that Fran Fabricators already employed to meet its financial objectives was applicable to build processes and oversight of its sustainable business activities, including setting targets and building capabilities for delivering value. Leveraging its existing systems, management looked to ICIF to achieve the company's sustainable business objectives in a cost-effective manner.

Illustration: A publicly held organization continues its evolution toward reasonable assurance

Palimpia Inc.'s (fictional) approach to ESG reporting has evolved since embracing many of these topics nearly 50 years ago and since its first report in 2008. Most recently, the company engaged its external auditor to perform limited assurance on some parameters of GHG emissions, diversity and inclusion, health and safety practices for its workforce, and product safety metrics.

Palimpia assigned primary responsibility to the director of global finance strategy and ESG. She leads an internal cross-functional ESG task force to support and guide the company's choices and investments made in the safety and well-being of employees, the environmental efficiency of its products and operations, the support of the communities the company calls home, and reporting and disclosure processes (**Principle 3**).

Palimpia publishes an ESG report containing more than 120 pages of content, intended for a broad audience. While the company was already committed to data being believable and trustworthy, reporting to investors called for a more rigorous approach. The company recognized additional complexities arising from both the number of ESG standards and frameworks, as well as the complexity and variety of the topics to be reported (**Principle 15**).

Palimpia uses several processes to focus on what matters. The company conducts outreach to its investors annually on ESG matters to gather input on important and emerging topics. This is a piece of a materiality assessment that guides how the company will steer priorities and resources, and establish metrics and gather data and information for reporting (**Principle 6**).

"The most recent evolution of our journey started with our investors," said the director. Investors initially focused on understanding the "alphabet soup" of ESG-related terminology, frameworks, and standards with which they were interacting. They also sought to understand "how the company was getting its information, where it was getting the information, and the level of confidence in its ESG information" (**Principle 7** and **Principle 9**).

The internal audit function provides strategic advice to the ESG team to help it understand how ICIF can be applied to topics including occupational safety and GHG emissions. ICIF also formed a basis for gap assessments for other ESG measures. The gap assessment revealed the need to focus on ESG data integrity to help the company achieve comfort from the completeness and reliability of ESG measures. The assessment also found that sometimes ESG data was sourced from internal teams that did not have a controls mindset. The exercise identified areas where ESG information involved estimates and how ICIF can be used to define and document reasonable estimates suitable for reporting and assurance readiness (**Principle 10**).

Similarly, the effort uncovered an inconsistent understanding of how to consider completeness for purposes of ESG management and reporting. Some of the challenges are inherent in the reporting standards and frameworks, notably existing and proposed climate disclosure standards. While this might have resulted in confusion within the company and among stakeholders interested in disclosures, ICIF and similar experience as the company formalized financial reporting offered a template for documentation and improvements (**Principle 10**).

Palimpia saw value in pursuing assurance on content in ESG reporting and disclosures. Given the sheer number of topics, the company started with a few parameters. The effort began by focusing on GHG emissions for which it achieved limited assurance on four metrics in 2020. The experience enabled the company to expand the scope of limited assurance to 105 data points, drawn from Scope 1, 2, and 3, in 2021. The company leveraged internal audit to review internal controls, identify gaps, and monitor improvements in anticipation of the external assurance. This effort also included a series of communications between process owners, internal audit, the director of global finance strategy and ESG, the executive committee, the senior leadership team, and the board (**Principle 16**).

The company has recognized that the application of ICIF can deliver value in several ways. The original intent was to improve confidence in reporting and disclosures to investors. It has also improved the quality and consistency of reporting to a broader audience. Furthermore, the stronger internal controls have enabled functional leaders to manage their responsibilities more effectively and efficiently. Palimpia is currently improving internal controls using the Three Lines Model and continuing a journey toward reasonable assurance. This will involve closing gaps discovered in prior assessments, building more robust data systems, testing of transactional data, confirming support for narrative statements, and incorporating internal audit in roles similar to the support for ICFR (**Principle 16** and **Principle 17**). •

TOP 10 TAKEAWAYS

1 Be committed to ensuring your organization has effective internal control over sustainability-related matters, including operations, compliance, and various types of reporting (external, internal, nonfinancial, and compliance). Get involved. Apply your expertise to the efforts and to create the right control environment.

2 The end game is effective internal control over key sustainability activities and reporting, however defined in terms of boundaries. Effective internal control is achieved when the 17 principles are present and functioning. This will differ to some degree at each organization based on maturity, industry, resources, and requirements. Customization and adaptation are key.

- Start using the COSO ICIF-2013 now. There is no need to wait for new regulations.
- Most, if not all, of the 17 principles apply to sustainability in a way that is comparable to traditional financial accounting and reporting.
- You may be able to leverage control activities and documentation from financial transactions and reporting areas.
- Risk assessment and determining materiality are key activities to staying focused on what matters.
- Internal control over sustainability needs to be on par with financial reporting and financial transactions.
- Do not forget to address ITGC. And do not forget operations and compliance objectives, the resulting risks created, and the activities required to achieve effective internal control in these areas.
- ICIF-2013 is designed to be used in essentially any area, function, location, or activity such as payroll, safety, and sourcing. Use it for more than just financial reporting and sustainability.

3 Work with others to determine the best organizational structures, roles, and responsibilities to create the desired results, achieve appropriate internal and external efficiencies, and achieve effective internal control. This includes the board and board committees, management, operations, compliance, and internal audit. The Three Lines Model can be especially helpful in delineating these responsibilities.

4 Educating yourself on new topics like sustainability is critical. Take advantage of seminars, new publications, and certificate programs. Collaborate and learn from sustainability professionals, both those inside your organization and outside consultants.

5 Take advantage of other relevant COSO materials on subjects such as ERM and ESG, cloud computing, and others (available at www.coso.org).

6 Internal assurance and confidence in sustainability reporting need to exist before external assurance. Take advantage of your internal audit function in this regard to provide objective assurance and other advice.

7 ESG reporting, both internal and external, is not an “annual and manual” activity. Help make it automated, efficient, and continuous.

8 This is a fast-moving area, and there is bound to be lots of change over the next several years. So, monitoring activities are key in terms of evaluating progress and knowing when to make corrections and enhancements.

9 COSO is not just for large, private-sector publicly listed companies. All organizations, including privately owned, not-for-profit, and public-sector entities need effective internal controls to meet their objectives, manage risk, evolve, and succeed in all areas of their business and activities.

10 Form a cross-functional team consisting of experts in sustainable business (such as corporate social responsibility, integrated reporting, legal, public relations, and human resources) and in internal controls and reporting (finance and accounting). Remember, good internal controls are good for business and apply well beyond compliance and mandatory external disclosures. •

BIOGRAPHIES

Robert H. Herz

Robert H. Herz, CPA, FCA, was chairman of the FASB from 2002 to 2010 and one of the original members of the IASB. Prior to that, he was a partner at PricewaterhouseCoopers (PwC), including serving as audit partner on various major clients, heading the Corporate Finance Advisory Services practice, leading the company's technical accounting, auditing, SEC, practice quality, and professional matters, and serving on its U.S. and global boards. Currently he serves on the boards of directors and chairs the audit committees of Fannie Mae and Morgan Stanley and serves on the board and audit committee of Workiva. He served for many years as a member of the SASB and VRF boards of directors and currently serves on the Transition Advisory Group that is advising the IFRS Foundation Trustees and ISSB on the integration of the VRF and the CDSB into the IFRS organization, on the board of the International Foundation for Valuing Impacts, and was an expert adviser and member of the 2021 G7 Impact Taskforce that made recommendations to the G7 leaders on ways to accelerate the mobilization of capital to address climate change and other global challenges. He was the first chairman of the Transnational Auditors Committee of the International Federation of Accountants and chaired the AICPA's SEC Regulations Committee. For many years, he was an executive in residence at Columbia Business School.

Robert B. Hirth Jr.

Robert B. Hirth Jr. is a senior managing director of Protiviti, a global business consulting firm that operates in more than 25 countries. Prior to that, he was executive vice president, global internal audit, and a member of the company's six-person executive management team for the first 10 years of Protiviti's development.

Bob was appointed to the standard-setting board of SASB upon its formation in 2017 and served as co-vice chair of the board until August 2022 when SASB was acquired by the IFRS Foundation. He is a 2021 NACD Directorship 100 Governance Professional honoree, a current member of the PCAOB's Standards and Emerging Issues Advisory Group as well as the AICPA's ASEC Sustainability Assurance and Advisory Task Force.

Serving as COSO chair from June 2013 to February 2018, Bob's activities included leading COSO's project on revising its *Enterprise Risk Management—Integrated Framework*, which was released in September 2017, issuing COSO's *Fraud Risk Management Guide*, and actively promoting COSO's 2013 *Internal Control—Integrated Framework* around the world and through the media. Bob initiated COSO's guidance on ERM/ESG integration, which was issued in 2018.

Douglas Hileman

Douglas Hileman, FSA, CRMA, CPEA, PE, is president of Douglas Hileman Consulting, LLC and is recognized as a leader in sustainability/ESG, providing practical contributions to clients in many sectors and functional areas. He brings more than four decades of experience in operations and corporate compliance, environmental and sustainability auditing, internal audit, and external assurance—four "lines of defense." He is an effective translator for various ESG topical and business functions to improve controls, effectiveness, and reliability of ESG compliance and risk management. He has provided ESG workshops tailored to professional groups, industry sectors, and specific topics. Doug has developed a model of seven distinct channels for ESG reporting to help companies achieve appropriate risk assessment, controls, and results. He served on the Volkswagen Monitor Team as the senior specialist in environmental management and auditing. He has reviewed and commented on numerous proposed rules and standards, advocating for clarity, reasonableness, and ease of implementation for preparers and users. His comments on SEC disclosures have been cited and published, including in the SEC proposed climate disclosure rule. Doug has consistently given back to the profession in board and volunteer roles. He has been program chair, keynote speaker, presenter, panelist, emcee, and contributor to professional guidance.

Shari Helaine Littan

Shari Helaine Littan, J.D., CPA, is director of corporate reporting research and thought leadership at IMA. She also serves as staff liaison to the IMA Financial Reporting Committee and to the IMA Sustainable Business Management Committee. Her primary focus is thought leadership in the areas of financial reporting and sustainable business information and management with a focus on the role of the finance and accounting function. She has led the authorship of several IMA reports, articles, and webinars on sustainable business, corporate reporting, and diversifying talent in accountancy.

In 2015, she completed the Postgraduate Certificate in Sustainable Business, with commendation, from the University of Cambridge Institute for Sustainability Leadership. Shari holds a J.D. from Boston University School of Law and a B.S., magna cum laude, from the School of Management at Binghamton University. Earlier in her career, she was a practicing litigator with a focus on matters that addressed corporate governance and financial reporting. She began this professional journey on the staff of two international accounting firms.

Jeffrey C. Thomson

Jeffrey C. Thomson, CMA, CSCA, CAE, is president and CEO of IMA, one of the largest and most influential accounting associations in the world, with strong growth in its CMA® (Certified Management Accountant) program. IMA has a global network of about 140,000 members in 150 countries and 350 professional and student chapters.

Jeff has been named to *Accounting Today*'s Top 100 Most Influential People in Accounting list for the past 14 years and was honored with the Lifetime Achievement Award by Trust Across America. He serves as the lead director on COSO (a leader in advancing risk management and internal controls), supporting COSO's mission of providing thought leadership through the development of comprehensive frameworks and guidance to improve organizational performance and governance and deter fraud in organizations. Jeff also serves as IMA's voting member on the International Federation of Accountants.

Jeff worked at AT&T for more than two decades, starting as a data scientist and rising to the level of CFO of an $18 billion business unit. He holds a B.A. and M.A. in mathematical statistics from Montclair State University.

Brad Joseph Monterio

Brad Joseph Monterio is global executive vice president, member competency and learning, for The Institute of Internal Auditors (IIA). Prior to this role, he was chief learning officer for the California Society of CPAs (CalCPA and the CalCPA Education Foundation) where he led similar efforts for the largest state CPA society in the U.S. (with more than 45,000 members). Brad was previously managing director of Colcomgroup, Inc., a strategy, marketing, and advisory services firm serving the accounting, auditing, and finance sectors based in New York. He is also a former commercial, investment, and private banker.

Brad has been working in the global sustainability movement for more than 14 years. He is the IIA voting representative to the Integrated Reporting and Connectivity Council (IRCC), now part of the IFRS Foundation. Previously, he was the IMA voting representative to the IRCC predecessor, the IIRC.

Brad served on the IMA Global Board of Directors for 12 years as well as the Casualty Actuarial Society Board of Directors for six years. He is currently a member of the IMA Sustainable Business Management Global Task Force, a member of the ACCA Technology Global Forum, and a member of the Thomson Reuters Foundation Equity, Diversity and Inclusion Advisory Board. He is a former organizational stakeholder of GRI and a previous member of the Carbon Disclosure Project's XBRL Taxonomy Working Group. Brad also sits on the UCLA Extension Internal Audit Advisory Board. He received his bachelor's degree from Dartmouth College in 1988. •

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