Director Notes

Navigating the Sustainability Transformation

by Gilbert S. Hedstrom

Business is changing rapidly. CEOs and directors making key business decisions regarding their company's strategy for the year ahead and beyond would be well advised to change the current boardroom conversations. Driven by factors tied to sustainability, over the next 15 years, every company in every industry sector will need to transform itself to survive and succeed. Board members, CEOs, and the executives advising them need to ask, "How should we plan for this major transformation?" This report describes a four-stage model for companies to progress from engaging initially with sustainability to accelerating, leading, and ultimately, transforming their businesses.*

Senior management and boards of directors give far more than a nod to sustainability today. In a 2014 McKinsey & Co. survey, 43 percent (the largest share) of executives said their companies "seek to align sustainability with their overall business goals, mission, or values." That is up from 30 percent in 2012.[1] In the coming decades, factors tied to sustainability will disrupt virtually every sector, at times reshaping the competitive drivers of an entire industry. Given the right strategic underpinnings, sustainability can provide a significant edge for launching or transforming companies anywhere in the world.

The signals of change can be seen in a range of industries. For example:

- Airbnb, an online service founded in 2008 that enables hosts to rent out their homes or spare bedrooms, appears on track to become one of the world's largest hotel chains without owning a single hotel room, thereby disrupting the entire industry.
- Google has invested a billion dollars in renewable energies; purchased high-altitude, solar-powered drone maker Titan Aerospace; and bought satellite startup Skybox Imaging to bring internet access to millions of people and address environmental damage such as deforestation and social disruption, including disaster relief.

* This *Director Notes* is based on Gilbert Hedstrom, "The Sustainability Scorecard™ Handbook," pre-publication draft (www.thesustainabilityscorecard.com).

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- Alcan Inc.-spinoff Novelis, a world leader in rolled aluminum products, has shifted its business focus from a traditional linear one-way production model to a closed-loop model (in which materials are reused rather than discharged as waste), putting it on track to achieve 80 percent recycled inputs by 2020, up from 33 percent in 2011.
- Tesla, the electric car manufacturer, expects to sell 33,000 vehicles in 2014, compared with 10 million by General Motors, yet Tesla's market capitalization of $30 billion is more than half the value of GM.[2]
- Less than six years after its founding, Uber, the car-hailing "smartphone app" company was valued at over $40 billion in 2014 (more than Hertz). Uber's dispatch model can drive utilization of a typical automobile up to five to eight times more than what is typical.
- Through its Sustainable Living Plan, Unilever aims to double the size of the business while cutting in half the environmental impacts (footprint) of its products.[3]
- Waste Management is managing "the messy transformation" successfully from its old economy business (hauling trash) to its new economy business (providing waste management and reduction services).

In addition to the companies mentioned above, long-time companies like BMW, DSM, DuPont, Marks and Spencer, Desso, and Michelin are cannibalizing their old economy businesses to create tomorrow's growth businesses.

Global Drivers of Transformation

The problem and the opportunity Human society has bumped up against the limits of the economic and natural systems. As industrialism developed in the past, the world had fewer people and more plentiful natural resources. What emerged was a highly productive, take-make-waste system. Take resources out of the earth; make stuff; and throw it away. Though that system seemed to work for a long time, it is no longer sustainable. Consequently, over the next 15 years, the basic laws of supply and demand will wreak havoc for some companies and present significant opportunities for others. As a United Nations Environment Programme report noted, "Corporate executives and board members owe it to their shareholders now to make critical choices that decouple profitable growth from environmental impact and resource use, to prepare for the economic reality of tomorrow, and to enable business to seize the scale of the opportunity."[4]

Board members, CEOs, and advisors should ask, "How could the significant forces disrupting other industries impact us? Are we positioning our company to reap the significant financial benefits of radical transformation? Will we miss the boat by doing business as usual?"

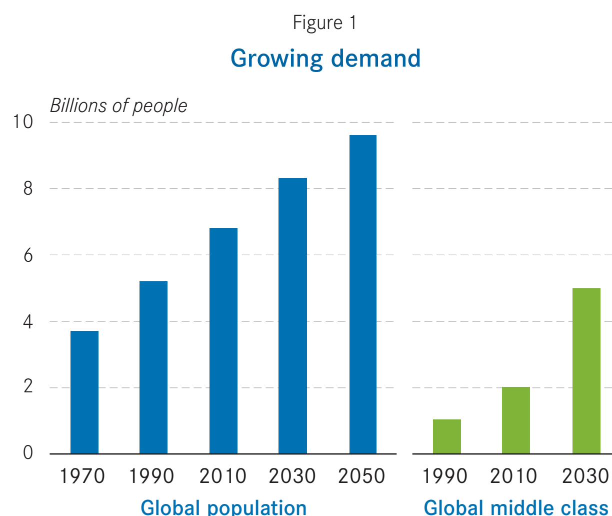
Demand, Supply, and Prices

From 2010 to 2030, the global middle class will more than double from 2 billion to 5 billion people (Figure 1). Accenture projects that between 2014 and 2030 more than two billion additional people will join the global consumer class and the global economy will grow by 60 percent.[5] The demand for constrained natural resources (such as fossil fuels, metals, and minerals) will grow by 10 billion tons over the same period, more than the total resources used in North America in 2014. Yet to support this rapidly growing demand, we have a fixed amount of supply on the planet.

Industry knows well that when demand grows and supply is fixed or declining, prices increase. After a century of consistently falling commodity prices, those prices began to increase at the turn of the century. As current data illustrates, that tide has turned. Historically, for every 1 percent growth in GDP, commodity prices fell 0.4 percent. But around 2000, this relationship reversed, making reliance on resources for growth increasingly unattractive.[6] Financial markets have begun to signal that, with the convergence of supply and demand curves, the world faces a resource revolution. This new industrial revolution will enable strong economic growth at an environmental cost far lower than in the past. Indeed, achieving high-productivity economic growth to support the 2.5 billion new members of the middle class presents the largest wealth-creation opportunity in a century.[7]

Figure 1

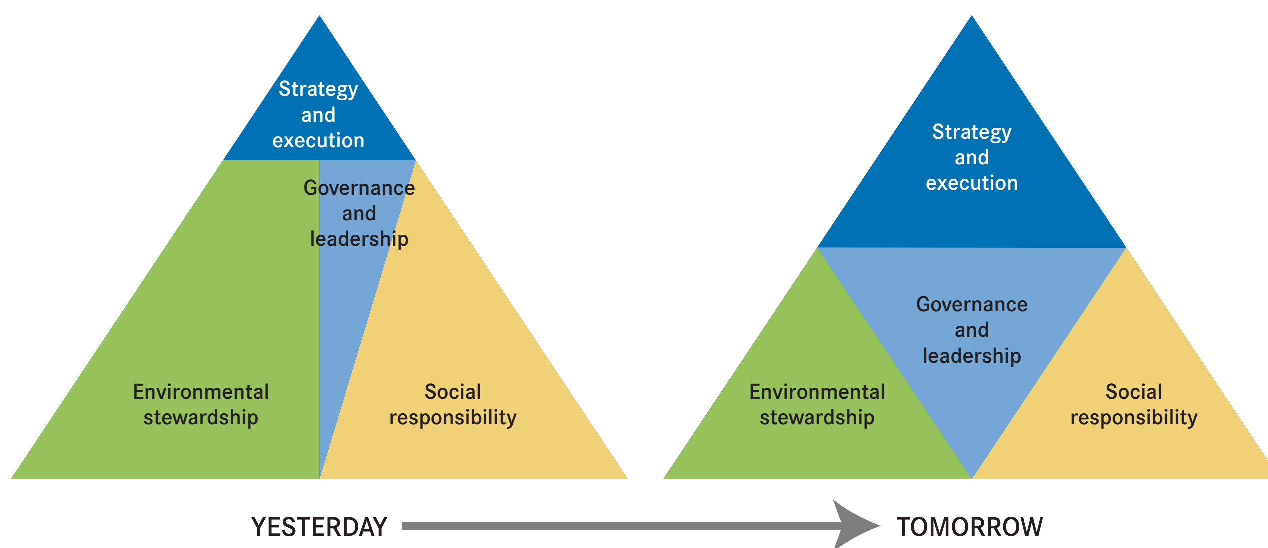
Growing demand



Source: Created from data produced by United Nations, Population Division

Figure 2

The changing sustainability conversation



Source: Hedstrom Associates

Moving to a New Conversation about Sustainability

Clearly, the conversation that board members and C-suite executives have had about sustainability for the past three decades is not the conversation they should be having today. Initially, the focus on the Triple Bottom Line (People, Planet, Profits) lacked a strong focus on governance and leadership. More recently, thinking about sustainability as ESG (environmental, social, and governance) has fallen short on business strategy and execution and remains weak on governance (Figure 2).

Many of the books and articles written about sustainability over the past 30 years have focused largely on the environment: degradation, resource limits, externalities, climate change, pesticides, toxics, and waste. They describe the global environmental challenges; yet much of what has been written paints a picture that sustainability is all about win-win and “green is gold.” This thrust is too simplistic. Fundamentally, this is yesterday’s—not tomorrow’s—conversation. (Some excellent business books on sustainability are the exception, such as those authored by Stuart Hart,[8] Peter Senge,[9] and Bob Willard,[10] among others.)

An Opportunity for Growth

Sustainability is about transformation, and transformation is hard work. Many board members, CEOs, and executives today view sustainability as posing a host of risks. Relatively few see sustainability as representing significant growth. Yet that is precisely the opportunity that sustainability represents.

Here’s the rub: they only have until about 2020 to get this right. That is the year by which the foundations for achieving Vision 2050, a project of The World Business Council for Sustainable Development (WBCSD), must be in place.[11] Those foundations consist of robust sustainability governance and leadership, and the integration of sustainability principles into business strategy, business processes, and key business decisions.

The WBCSD report “lays out a pathway leading to a global population of some nine billion people living well within the resource limits of the planet by 2050.”[12] It reflects the combined efforts of CEOs and experts, and benefits from dialogues with over 200 companies and external stakeholders in some 20 countries.

The report's "Action 2020" initiative calls for corporate leaders by 2020 to have the foundations in place to reinvent their companies around basic sustainability principles. This means decoupling growth from resource intensity, and finding new and innovative ways to deliver customer value while consuming a fraction of the hydrocarbon-based energy and materials used today.

The following discussion refers to a Sustainability Scorecard™ that board members can use to assess their company's current corporate sustainability position in terms of four stages, depicted in Figure 3. This requires that they rate their company's progress in four fundamental areas: governance and leadership, strategy and execution, environment stewardship, and social responsibility. Within those four areas, directors should assess what stage their company is at for each of 17 "C-suite sustainability levers" (Figure 4, page 7).

Corporate Sustainability Position: Four Stages

Sustainability is about creating profitable, growing companies that approach zero / negative and even net-positive environmental and social footprints, and helping their suppliers and customers do the same. Figure 3 illustrates the four stages of corporate sustainability as defined in the Sustainability Scorecard™: engaging, accelerating, leading, and transforming.[13]

CEOs and board members must start by asking:

1. How do we stack up today vis-à-vis sustainability compared with competitors, best practices, and where do we think leaders are heading?
2. Where do we want to be tomorrow — given the competitive landscape, our own ambitions, and the speed needed to succeed in the marketplace?
3. How do we get from here to there?

As executives map their company's current and desired position across the four stages of transformation toward sustainability, they can build tomorrow's highly fit and resilient company that successfully navigates the transformation to sustainability. And, while it is convenient to express a company as being "in Stage 1" or "a Stage 2 company," in reality, most companies exhibit a range of attributes that fall across several stages of maturity on this scorecard.

Stage 1: "Engaging"

The author estimates that nearly half of all companies in the developed world are predominantly in Stage 1. These companies view sustainability in conventional ways. Sustainability efforts frequently are driven by the chief environment, health, and safety (EHS) officer, and often in collaboration with the officer leading the philanthropy and corporate citizenship initiatives.

Figure 3

Corporate sustainability position

Most companies are currently in Stage 1.

Stage 1 ENGAGING	Stage 2 ACCELERATING	Stage 3 LEADING	Stage 4 TRANSFORMING
Fold sustainability into traditional environment, health & safety and philanthropy efforts Take "no regrets" actions (e.g., reducing energy use) Sustainability not truly integrated into business strategy	Sustainability efforts are CEO driven Lead role on key industry issue(s) No sustainability-driven changes to business model	Sustainability represents a core platform for growth Environmental/social drivers at core of business strategy Weave sustainability into fabric of critical business processes	Explicit responsibility to future generations Sustainability fully integrated into business processes Fully aligned with circular economy principles (closed-loop, 100% renewables, etc.)

Source: Hedstrom Associates estimates

Stage 1 companies tend to continue to make the same products and services that they traditionally have made. They drive conventional EHS excellence, manage risks, and set goals to reduce impact. They manage compliance, not just with laws, regulations, and internal company standards, but also with de facto requirements, including the Global Reporting Initiative (GRI) and other nongovernmental organization (NGO) expectations. Social responsibility is about worker safety and health, diversity, community responsibility, and philanthropy.

Stage 1 companies:

- implement strong internal policies, processes, and systems to reduce energy use, greenhouse gas (GHG) emissions, and waste in their own operations—responding to environmental and social pressures throughout their supply chain;
- conduct limited stakeholder engagement, often relying on industry associations for external input; and
- many, but not all, publish external EHS and/or sustainability reports (or the equivalent) on their websites.

In summary, Stage 1 companies do many good things, but their sustainability efforts tend to be ad hoc and are not truly integrated into their business strategy. The main focus of Stage 1 companies is on “being less bad”—working to stay out of the spotlight by taking action on the “no regrets” sustainability areas that are simply good business: reducing energy and water use, replacing more hazardous raw materials with less hazardous ones, and generally reducing the environmental footprint of their operations and products. They also work to eliminate human rights abuses in the supply chain, and to enhance diversity and implement similar social responsibility efforts that many see as simply the right thing to do.

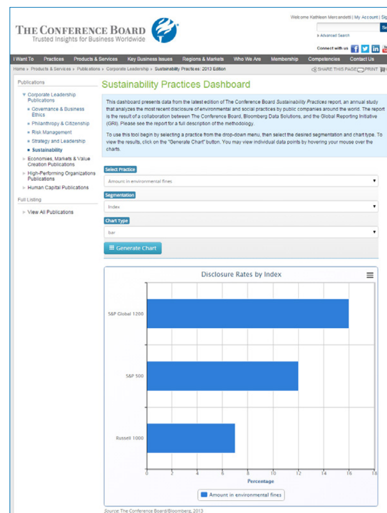
Stage 2: “Accelerating”

Characteristically, in companies with many Stage 2 attributes, the CEO explicitly recognizes the potential significance of sustainability, and launches a few key initiatives to position the company as a leader on a business-critical aspect of sustainability. The CEO of Stage 2 companies personally stakes out a bold position that addresses a key environmental or social issue faced by the company and industry.

The Current State of Corporate Sustainability Disclosure

Nearly two-thirds of S&P Global 1200 companies have an energy efficiency policy, 43 percent disclose their total GHG emissions, and 37 percent disclose total waste generated, according to data published by The Conference Board in collaboration with Bloomberg and the Global Reporting Initiative (GRI).

For additional benchmarking data on the disclosure of environmental and social practices by public companies around the world, visit the *Sustainability Practices Dashboard*, which presents benchmarking data in an interactive online format on 76 environmental and social practices for a sample of companies in the S&P Global 1200 index. The findings are compared with the S&P 500 and Russell 1000 indexes and analyzed by sector, revenue group, and geography.



Source: www.conference-board.org/sustainabilitypractices

In some cases, Stage 2 companies set forth CEO-driven, bold sustainability positioning and goals—often presented through the CEO's public statements and speeches. In other cases, the company achieves a breakthrough position on a key issue facing its industry. For example, HP took a lead role in addressing the key industry challenge of electronic waste.

As Stage 2 companies advance, they may:

- begin to build an open, transparent culture that values sustainability-related innovation, and
- focus on stakeholder partnerships on a major social or ecosystem issue, breaking ranks with the party line of industry association(s) and peer companies.

Stage 2 companies have well-defined sustainability management systems, though those processes tend to be bolted onto rather than woven into core business processes and decisions. These companies do not change their business models fundamentally.

Stage 3: "Leading"

Stage 3 companies begin to transform their business portfolios to leverage sustainability issues and opportunities. These companies tend to embody economist Joseph Schumpeter's concept of "creative destruction." They make strategic choices to divest old economy businesses and to invest in cleaner, greener, more society-friendly enterprises, and they consider sustainability key to long-term viability and value creation for the organization. Moreover, recognizing that the clean technology sector is growing at double-digit rates, these companies want to be part of the "clean-tech revolution." They see massive growth opportunities in access to fresh water, clean-transport smart cities, and stabilizing atmospheric carbon concentrations.

Companies that are significantly moving into Stage 3 have a clear, focused strategy that places global environmental and social drivers at the core:

- Sustainability represents one or more platforms for top-line growth, notably for Akzo Nobel (Eco-Premium Solutions), GE (Ecomagination), IBM (Smarter Planet), Philips (Green Products), and Siemens (Environmental Portfolio).
- Stage 3 companies not only respond to customer needs, they also anticipate future differentiators, as Toyota did with the Prius, and NextEra is doing with its investments in renewable energy.
- The Stage 3 company is viewed as open, transparent, innovative, and critically aware of risks (e.g., SC Johnson and Nike systematically removing toxic materials from their products) and opportunities driven by global environmental and social issues (e.g., Unilever's Sustainable Living Young Entrepreneurs Awards that invite young people to come up with practical and innovative solutions to some of the world's biggest sustainability challenges).

Companies with many Stage 3 attributes have begun the hard work of weaving sustainability into the fabric of every critical business process, key business decision, and investment. Driven by a strong set of sustainability goals and incentives that are hard-wired to business processes, each member of the CEO's executive team is driving this integration. Often a Chief Sustainability Officer who has the ear of the CEO has a strong voice in key business decisions, such as major research and development investments, acquisitions, divestitures, business expansions, and the like.

Stage 4: "Transforming"

Leading companies with at least some Stage 4 attributes are evolving rapidly as models of 21st century corporations. While there is no perfect example of a Stage 4 company today, a collective picture of companies with Stage 4 attributes emerges. Sustainability is incorporated fully into their values, mission, vision, culture, business model, and goals. Each company has a clearly defined roadmap for sustainability, which explicitly details the firm's responsibility to future generations. This commitment extends far beyond the CEO. In Stage 4 companies, sustainability is integrated fully with all aspects of the business as they move toward 100 percent renewable energy, closed-loop manufacturing, a shift from product to service, and enhancing employee and community health—while also addressing societal challenges, such as climate change.

Few companies today are solidly in Stage 4, but a growing number of leaders have one or more Stage 4 attributes, including young, innovative, "sharing economy" companies like Airbnb, Google, and Uber, as well as long-established companies, like DuPont, Novelis, Unilever, and Waste Management. In the 1990s, DuPont began to divest key parts of its heavy petrochemical base, including Conoco and its nylon business, and began to invest in biology-based businesses to help address global challenges related to energy, food, and security.

Shortly after being named CEO of Waste Management, Inc., in 2004, David Steiner and his management team faced a significant challenge. The company's customers were increasingly embracing the concept of "zero waste." That was good news for the environment, but not for the business model of the biggest trash hauler in the United States. Consequently, Steiner looked for ways to extract value from the waste stream. The company introduced a new service: counseling large customers on how to reduce their waste—even if that meant cannibalizing Waste Management's core business of sending waste to landfills. Since that time, the company has specifically embraced the zero waste challenge and characterizes its business as serving customers in the transformation of waste into usable resources. Waste Management has been included in the Dow Jones family of sustainability indices 10 times in the past 11 years.

As companies move to capture value from being a truly "transforming" (Stage 4) company, they logically ask the question, "How will we know when we get there?" One source that may be useful is the Future-Fit Business Benchmark project co-authored by Geoff Kendall and Bob Willard.[14] This public draft defines 28 science-based performance goals for a future-fit ("Transforming") company and is consistent with the Stage 4 metrics ("key sustainability indicators") in the Sustainability Scorecard™.

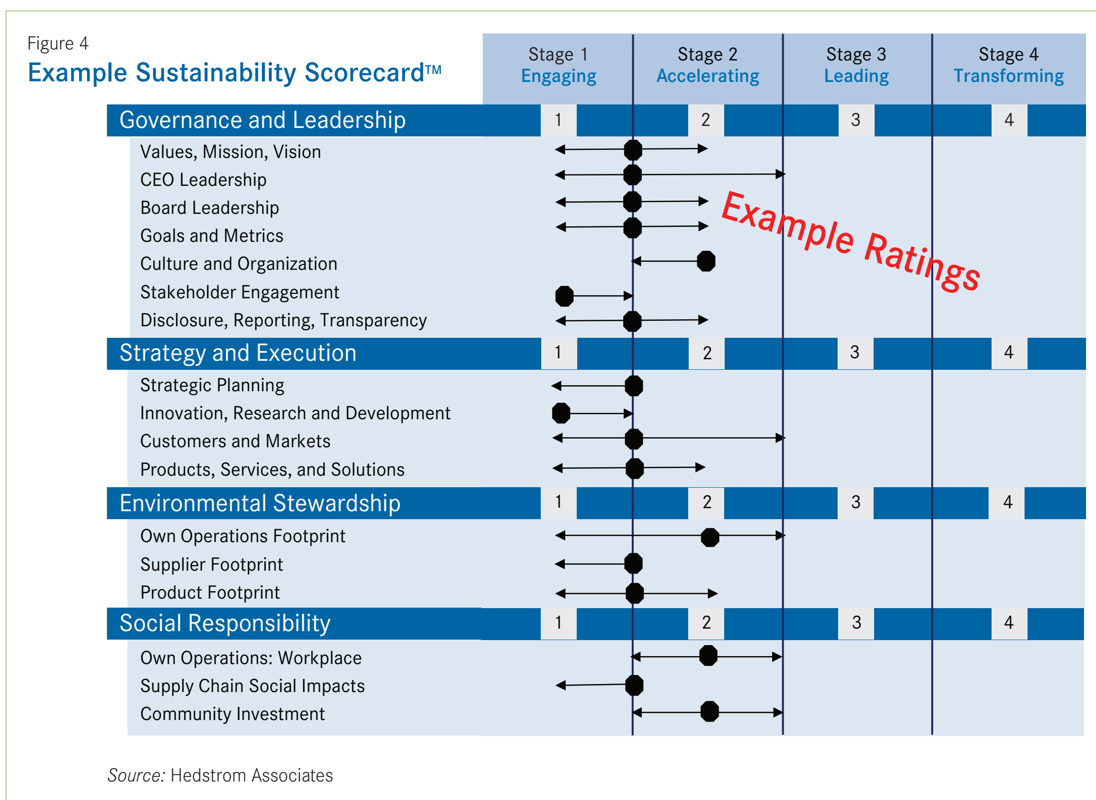
Moving Beyond Stages 1 and 2

Moving from Stage 1 to Stage 2 is typically a response to external pressures from customers, suppliers, and sustainability ratings organizations. The transition involves conducting a robust, full value chain materiality assessment; recognition (by the C-suite) that sustainability is a critical business issue (with the requisite financial and organizational support); and building a track record of sustainability reporting. These are often incremental changes.

It is relatively easy for even the best companies at Stage 2 to "bolt on sustainability initiatives" and to do that extraordinarily well, while running their businesses as they have in the past. However, moving beyond Stage 2 requires a step-change in thinking and effort.

The chief sustainability officer (or the person who oversees and reports on internal sustainability efforts to the CEO and board) should assess the company's position on a one-to-four maturity scale. The Sustainability Scorecard™ can be used to assess a company's current stage; benchmark versus competitors, peers, and best practices; set goals; and identify gaps to be addressed. Directors can assess their company's progress in four areas (governance and leadership, strategy and execution, environmental stewardship, and social responsibility) by rating it on each of the 17 "C-suite sustainability levers" shown in Figure 4.

Figure 4
Example Sustainability Scorecard™



Source: Hedstrom Associates

Each element (row) of the scorecard represents a key attribute of sustainability as discussed in the boardroom. The range of ratings on an individual element of the scorecard is depicted by the line and the average of those ratings is depicted by the solid dot. The example ratings in Figure 4 illustrate several points. First, it is unlikely that a company will fit neatly into any one stage of maturity; companies will most likely have individual sustainability attributes that fall into various stages. Second, executives within a given company are likely to rate the company differently.

The following are some examples of companies that demonstrate Stage 3 attributes in each of the four areas.

Governance and Leadership

Without getting governance "right," it is difficult for a company to get anything else right. This is true in creating successful products and services, creating robust brands, delivering consistent and strong financial results, and earning a reputation as a good company to work for. It is also true of sustainability.

The King Report on Governance (King III),[15] widely considered a bellwether of corporate governance, emphasizes two key points:

1. Good governance at its essence is about effective leadership (and leaders should rise to the challenges of modern governance); and
2. Sustainability is the primary moral and economic imperative of the twenty-first century—and also one of the most important sources of both opportunity and risk for businesses.

King III guidance urges that the disclosure of sustainability performance be done through integrated financial and sustainability (environment, social, and governance) reports, which are overseen and evaluated by the audit committee of the board.

In a word, getting governance "right" is about leadership. Yet, this is where most companies fall short vis-à-vis sustainability. Companies that are in Stage 3 with respect to sustainability governance and leadership have made initial, significant steps toward transformation. Many have one or more of the following characteristics:

Strong, often bold, leadership from the CEO The CEOs of DuPont, GE, IBM, Kingfisher, Marks & Spencer, Nike, Novelis, NRG, Unilever, and Walmart, as examples, have singlehandedly staked out a transformative position on sustainability. Novelis CEO Phil Martens is embracing "Disruptive Innovation" requiring a whole new way of thinking and operating. The sustainability targets set by Novelis have caused the company to challenge their previous views of their product, operations, and business model. Specifically, Martens wants to shift the raw material inputs to the company from mostly virgin stock (created from mining bauxite) to predominantly recycled stock. NRG CEO David Crane declared in a public letter to Cornell University students, "we at NRG are concerned that the predominant fuels we and the other companies in our industry are using . . . are ultimately exhaustible and, of even greater and more immediate concern, are having a damaging and potentially irrevocable impact on the world that you are in the process of inheriting from us and ultimately will bequeath to your own children."[16]

A strong sustainability voice on the board of directors Notable examples over the past two decades include DuPont (William K. Reilly), Nike (Jill Ker Conway), Ashland (Patrick F. Noonan, followed by John F. Turner), and International Paper (Patrick Noonan). Bill Reilly served as Administrator of the Environmental Protection Agency under President George H. W. Bush. Australian-American author Jill Ker Conway was Smith College's first woman president, from 1975-1985. Patrick Noonan was president of The Nature Conservancy from 1973 to 1980 and founded The Conservation Fund in 1985. John Turner was US Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs from 2001 to 2005.

Establishment of an external sustainability advisory board A number of companies have created one, including Dow Chemical, Kimberly Clark, Unilever, and Novelis. The role of these external sustainability experts is to provide advice and counsel to the CEO and executive team. They challenge assumptions, offer insights, and serve as a sounding board for setting long-term sustainability goals, establishing incentives, and transforming parts of the business to be more aligned with sustainability principles.

Partnership with a leading environmental non-governmental organization (NGO) Walmart, SC Johnson, McDonalds, and Starbucks have at various times all worked closely with the Environmental Defense Fund. JPMorgan Chase partnered with The Nature Conservancy in 2014 to establish NatureVest, a conservation-related impact investment platform for the private sector. The Conservation Fund has a long history of partnering with companies to protect valuable habitats. The World Resources Institute has a track record of working with companies to reduce greenhouse gas emissions.

Bold, long-term sustainability goals Companies such as BT, Coca-Cola, Kingfisher, IKEA, Interface, Sony, and Tesco all have goals of net neutral or net positive impact for at least some material issues, such as carbon or forests. In 2008 BT was one of the first companies in the world to add a science-based target (its Climate Stabilisation Intensity Target) keying required carbon reduction to the scientific consensus on climate change and the global development agenda on GDP growth. This approach established a roadmap for avoiding catastrophic climate change without inhibiting economic growth. BT's new net positive goal (called Net Good) takes this a step further and uses action on carbon reduction as a growth strategy for the business and as a driver of economic prosperity.

Culture of innovation and sustainability 3M launched "15 percent time" in 1948 to give all employees the opportunity to pursue creative ideas in the workplace. Today, that time is devoted increasingly to tomorrow's sustainability solutions.

Incentives linked to sustainability This is a niche but growing practice. Research from The Conference Board shows that executive compensation is linked to ESG performance in 3 percent of S&P Global 1200 companies and 3 percent of S&P 500 companies.[17] Akzo Nobel links 30 percent of the conditional grant of shares for board members and executives to its relative sustainability performance, which is measured as the company's average position in the RobecoSAM ranking during the three-year performance period.[18] Intel links a portion of each employee's annual bonus to environmental sustainability metrics and goals.[19] Xcel Energy ties a third of its CEO's annual bonus to energy and greenhouse gas emission goals and discloses its targets and compensation in its proxy statements.[20] Alcoa includes sustainability performance in its executive bonus plan, linking a portion of the plan to nonfinancial metrics that include carbon dioxide reduction goals.[21] Newmont Mining revised its corporate performance bonus in 2013 to introduce safety metrics, which now account for 10 percent of the bonus structure. In addition, two of the six goals that comprise the personal objectives bonus for Newmont's chief executive officer relate directly to sustainability issues.[22]

Peer Networks for Sustainability Officers

The Conference Board Councils are peer learning networks in which executives share best practices and problem-solve in a highly confidential and collaborative environment. Our Councils of sustainability officers include:

- Sustainability Council I – Implementation and Execution
- Sustainability Council II – Products, Technologies, and Solutions for Sustainability
- Chief EH&S Officers' Council
- Product Stewardship and Regulatory Affairs Counci
- European Council on Corporate Responsibility and Sustainability
- South Asia Council on Corporate Citizenship and Sustainability

To learn more about our councils visit www.conferenceboard.org/sustainability or contact katie.plotkin@conference-board.org

Strategy and Execution

Stage 3 companies clearly articulate the value of sustainability for their company. For example, they:

- *Reduce cost*: For decades, 3M, Dow Chemical, and DuPont have cut waste. Herman Miller committed to achieving goals that include zero waste and 50 percent of its power from renewable energy sources by 2023. Dell achieved a 95 percent recycle and reuse rate in 2014.
- *Reduce risk:* Companies including Swiss Re and Munich Re focus on reducing risk, even if it means dropping profitable product lines, as 3M did with perfluorooctanoic acid (PFOA) in 2000.
- *Grow sales*: Siemens grew its environmental portfolio to 43 percent of revenue in 2013, up from 35 percent in 2009.[23] GE achieved $25 billion in Ecomagination revenue in 2012; and eco-products accounted for 20 percent of European home improvement retailer Kingfisher's sales in 2012/2013 against a target of 50 percent by 2020.[24]
- *Create options for future growth*: Avis purchased Zipcar to position itself for growth in the sharing economy; Cisco considers smart grid a $15-20 billion market by 2017; and Croda (UK) sees sustainability as a differentiating growth driver.
- *Embed sustainability squarely into their core business strategies.* Carefully assessing the "high-impact; high-uncertainty" drivers of business is essential at a time of transformation. Shell has used scenario planning for more than 45 years to employ a rigorous process for understanding the uncertainty of the future and creating alternative scenarios against which to test the company's business strategies. Many other companies have followed Shell's lead, seeing scenario planning as being well-suited to sustainability-related uncertainties in the future.
- *Consider innovation as core to their future and see sustainability as the main driver of innovation.* Tesla was created to accelerate the advent of sustainable transport. Akzo Nobel has been working with SINTEF, a Norwegian research institute to produce new products and production processes that use carbon dioxide as a source material. The company says the collaboration assessed 240 unique catalytic systems and identified 40 that merit further investigation.[25] Dow Chemical Co. began offering solar shingles (photovoltaic cells that capture sunlight and transform it into electricity) in 2010. The company said it expects revenue from the product of $5 billion by 2015 and $10 billion by 2020.[26] DuPont doubled its investment in research and development in 2012 with direct and quantifiable environmental benefits.
- *Work in new and different ways with customers.* Unilever holds "Big Moments" events to make sustainable living commonplace. Waste Management's goal is to help every customer understand its closed loop and find its sustainability chain. That is a stark change from a more traditional customer relationship of delivering high-value waste services at competitive prices. Today's leaders sell sustainable products, services, and solutions to existing markets (e.g., Campbell Soup, Siemens, Philips, GE), to new markets (e.g., Cisco with smart grid; Schneider Electric and IBM with smart cities), and to emerging markets.

Environmental Stewardship

Stage 3 companies excel in the environmental dimension of sustainability across three major segments of the value chain: their own operations, their suppliers, and their products. They:

- *Drive relentlessly toward zero waste in managing their own operations.* For example, they achieve or work toward zero waste to landfills (Caterpillar, P&G, and Subaru) and strive to become carbon neutral (Adobe Systems, Google, IKEA — and small companies like Curtis Packaging). Companies as diverse as General Mills and Novelis are committed to sourcing their raw materials sustainably. Kering (France) and Nike have committed to phasing out hazardous chemicals. IKEA and Kingfisher (UK) are following a roadmap to become "forest positive" (creating more forest than they use). Stage 3 companies manage their buildings for zero impact, as Johnson Controls and Telus (Canada) do.
- *Take bold steps to green their supply chains.* Walmart requires suppliers to reduce their packaging, hazardous materials and water use. Kaiser Permanente requires suppliers to disclose toxic chemicals, and their programs for reducing GHG emissions and waste. Kaiser Permanente launched its sustainability scorecard for medical products in 2010, requiring suppliers to provide environmental data for $1 billion worth of medical equipment and products used in its hospitals, medical offices and other facilities. Natura Cosmeticos (Brazil), Compass Group (UK), Hershey, and Rio Tinto (UK) demand that suppliers protect biodiversity. HP founded its Supply Chain Responsibility Program in 2001 and introduced a supply chain responsibility dashboard in 2013. Adidas, Anvil Knitwear, and Nike (among others) have processes in place to verify the performance of their suppliers.

- *Systematically reduce the environmental footprints of their products.* Through its Greenlist program, SC Johnson evaluates all material components of its products and systematically phases out more hazardous materials in favor of more inert ones. GE initially launched Ecomagination in 2005 as a line of products that offered customers superior environmental performance (especially lower energy use) than its competitors. Desso (Netherlands) adopted a cradle-to-cradle approach in 2007. Many companies are clearly Stage 3 in at least one sustainable product attribute, such as energy efficiency (EMC and HP); traceability (Hershey and Patagonia); material use (Adidas and Herman Miller); durability (Autodesk and DuPont), and recyclability (Electrolux and Shaw Industries). Moreover, leaders across industry sectors have taken on end-of-life product responsibility — such as BMW for vehicles and Sprint for cell phones.

Social Responsibility

Increasingly, companies are striking a balance between commerce and social responsibility. Companies that are authentic about it show promise to make more money. The majority of today's companies considered "leading companies" tend to have Stage 3-4 practice(s) in one or a few dimensions of social responsibility. One company may be a leader on diversity; another on supply chain monitoring and verification; and another on community volunteerism. In some cases, the leading initiative is tied directly to a particular passion of the CEO. In other cases (such as Johnson & Johnson), leadership is anchored in the company's core values. Stage 3 companies tend to:

- *Have a workplace environment and supporting core programs that make the company a "great place" to work.* They set an inclusive and supportive culture at the top, and have great benefits, outstanding safety culture and performance, or leading health and wellness programs. Leaders invest in training and staff development related to sustainability—and then they personalize it, as Johnson & Johnson has done communicating the company's core values as established in "Our Credo," written by its CEO in 1943.
- *Actively drive social responsibility culture and initiatives throughout their supply chain.* They set high standards and work closely with suppliers to create open and trusted collaboration and to incorporate this philosophy into their procurement practices. Leaders have established a robust supplier sustainability performance measurement system and provide strong independent oversight, assurance, and verification of performance. Importantly, Stage 3 companies are out in front of peers on the most material social impact issue in their value chain, as seen with Nike (human rights), Unilever and REI (labor relations), and Patagonia and Cisco (child and forced labor).

Institute for Sustainable Value Creation

The Conference Board is forming an Institute for Sustainable Value Creation to support CEOs in achieving sustainable financial success through long-term thinking, increasing the value of intangible assets, and fostering trust in business. We call this approach to financial success "sustainable value creation." We believe that financial success is being constrained by short-term thinking, a lack of trust in business and an insufficient focus on intangible assets such as human capital and organizational capital. CEOs are aware of these constraints, but face significant challenges that keep these constraints in place. The Institute for Sustainable Value Creation will provide research to support CEOs and their boards of directors in achieving sustainable value creation.

For more information, contact Marcel Bucsescu at marcel.bucsescu@conferenceboard.org.

- *Take philanthropy to a new level.* They rethink their company's relationship to the global community and the local communities where they operate. Smart companies focus squarely on initiatives that will help attract tomorrow's best and brightest —and from them produce outstanding competitive advantage. Intel's annual Science Talent Search has a global and inspiring reach. Danske Bank (Denmark) helps the growing population of elderly citizens bridge the digital divide.

How do you know when your company is ready to "take the leap" from Stage 2 to Stage 3? It may be as simple as the board asking the question, "Why are we not integrating sustainability into our core businesses faster?"

Companies looking to advance past Stage 2 should look for a few leverage points to drive change. For example, directors can choose just a few of the 17 elements ("C-suite sustainability levers") depicted in Figure 4 (p. 7) and launch major initiatives, coupled with strong goals and incentives (such as a portion of variable compensation tied to meeting those goals) to drive their progress. For example, when GE launched Ecomagination in 2005, the company focused sharply on three elements: Products, Services, Solutions (under Strategy & Execution); Product Footprint (under Environmental Stewardship); and CEO Leadership (under Governance & Leadership). When Wal-Mart launched its major sustainability initiatives the same year, the company also exerted CEO Leadership to focus solely on a single other element, Supplier Footprint. That allowed the CEO to change the conversation with non-governmental groups (NGOs), as characterized under Stakeholder Engagement in Figure 4.

Tomorrow's Elite Corporation

"Being your best is not so much about overcoming the barriers other people place in front of you as it is about overcoming the barriers we place in front of ourselves. It has nothing to do with how many times you win or lose. It has no relation to where you finish in a race or whether you break world records. But it does have everything to do with having the vision to dream, the courage to recover from adversity and the determination never to be shifted from your goals."

– **Kieren Perkins,** Olympic gold medalist

Lessons from Elite Athletes

Tomorrow's elite corporations can gain insight from the attributes and habits of elite athletes—defined as those with the potential to compete in the Olympics or as professional athletes. Elite athletes are born with a basic skill-set, but they also have attributes that set them apart. Those attributes in an executive team can contribute to an elite corporation that is trim, fit, and disciplined, where all the executive team members and employees will pull in the same direction. Those attributes include:

"Off the charts" level of dedication Elite athletes reach for much more than "baseline performance" and will dedicate their time and energy to shaping their talents and perfecting their crafts. They drive to practice a task rigorously and relentlessly, even in the midst of failure, until they succeed.

Short memory and a craving to learn Elite athletes don't complain when problems arise. They possess an exceptional entrepreneurial spirit and the desire to get back up after a hard hit. They try to learn from their mistakes, yet forget them quickly so they don't linger. They achieve their goals. They have coaches who help them develop new skills, stay focused, and keep progressing.

A focus on team Elite athletes care more about the team than individual fame (unless they compete solely in an individual event).

Fire in the belly Elite athletes are always passionate about their work. "One more" is a favorite term of elite athletes. They are excited by the prospect of having even just one more opportunity to make their mark on the world and improve the lives of others in the process.

Perhaps most importantly, elite athletes visualize their success before it happens. That same trait, more than any other, characterizes tomorrow's elite corporations. At its core, sustainability is about adopting and embracing what can be an uncomfortable set of assumptions about the world. It involves setting a bold vision for what is possible, "unlearning" the way industrial society has operated for 150 years, and learning a new route to reach the same goal of delivering shareholder value while also delivering societal value.

Decoupling Growth and Profitability from Resource Intensity

"Business as usual" is changing dramatically—and fast. Regardless of industry sector, every traditional company must engage in fundamental business transformation to survive and thrive.

The ultimate goal for any company that wants to win in the marketplace (2015–2030) is to decouple growth and profitability from resource intensity. This means finding innovative and exciting ways to do this better, smarter, faster, and cheaper than your competitors. (For example, doubling sales while cutting in half the full life-cycle footprint). Tomorrow's leading companies will shed their old ways of thinking and their old ways of doing business in the "take-make-waste" world. They will embrace, drive, and reap the benefits from the circular economy, where every business activity is reconsidered as a closed loop instead of a chain. In contrast, the terminology often used to describe the competitive landscape today (supply chain… value chain) conjures up a linear image.

Gaining Circular Competitive Advantage

Tomorrow's winning companies will embrace sustainability in five core ways: closed-loop supply, zero waste, product to service, durability, and waste recovery. Success across those five areas is fundamental to delivering competitive advantage in tomorrow's "circular economy." Accenture calls this achieving circular advantage and offers many case studies, including some of those mentioned below.[27]

Companies across a wide range of industry sectors already show leadership in these areas.

1 **Closed-loop supply** A major component of a company's full life-cycle footprint (environmental and social impacts) may be from raw material extraction to arrival at your factory door. How can you reinvent this historically linear flow of materials to a circular one? Inventory every material coming into your factory gate; put each material in one of two buckets: those produced through natural systems and those that are human-made. Where possible, move from human-made materials to natural ones. Move from nonrenewable sources of energy and materials to 100 percent renewable ones.

NextEra Energy, the Florida-based power company, leads the US in renewable energy power production, having invested significantly in wind and solar for many years. Recycle all the human-made materials forever: today's soda cans become tomorrow's soda cans. Novelis aims to increase the recycled sourcing of its raw material for rolled aluminum products to 80 percent by 2020, up from 33 percent in 2011. Companies across all sectors are doing this. DSM, the chemical company, is a leader in developing bio-based chemicals, such as cellulosic bio-ethanol. Novozymes, a world biotechnology leader, is investing in biorefining to move hydrocarbon to renewable fuels. Puma, one of the world's leading sports and lifestyle companies, launched its InCycle line of products, using biodegradable polymers, recycled polyester, and organic cotton.

2 **Zero waste** Once inside the factory gate, place a "wall" around your company's own operations—those things you control fully or do for the most part. Determine how to drive toward zero waste. This should be the easy part because almost every company has 20-30 years of experience doing this under the "quality" banner. Though on a broader scale, moving toward zero waste employs the same thinking as does lean or Six Sigma.

3M has been driving relentlessly toward capturing value from waste reduction for over 40 years. The company's 3P (Pollution Prevention Pays) program has delivered consistent, multi-million dollar savings, year after year. More recently, companies have set goals of achieving zero waste, in at least one of their factories or in a part of the business. Deere, P&G, and Subaru are among the leaders. Deere is committed to recycling 75 percent of its total waste by 2018 and is working with customers to support their waste reduction goals. The large Subaru plant in Indiana celebrated 10 years of being a "zero landfill" factory, meaning that nothing used in the process of building nearly 1.7 million vehicles since 2004 has gone to the dump. Subaru did this without a single layoff at the plant; over that period, the US auto industry as a whole lost around 415,000 jobs.[28]

3 **Product to service** While younger companies like Airbnb are being created explicitly to offer a service (global rental of private homes for travelers to utilize unused space), many of their more established peers offer products (a hotel room). However, a growing number of long-established companies are making the shift to offering a service. Avis Budget Group bought Zipcar in 2013, supplementing its offerings to include Zipcar's membership-based car-sharing service. In the flooring and carpet sector, Interface, Shaw Industries, and Desso have exhibited strong leadership in closing the loop on carpets that traditionally ended up in landfills. Philips is offering "light as a service" to cities and municipal governments.

4 **Durability** Extending the durability of products is completely counter to the value drivers of the past 50 years. Embracing sustainability by extending product durability requires strong leadership at the top to force executives to shed their old ways of thinking and embrace new ones as they seek future business opportunities.

Some "heavier footprint" companies are finding ways to make today's products last longer. BMW is extending the life of its products through refurbishing and offering remanufactured parts to its customers. Cisco has established nine different reverse-logistics programs to remanufacture products for sale. DuPont's weathering systems are certified for product durability.

Many lighter-footprint companies are also offering enhanced durability. Autodesk teaches sustainability workshops on improving product durability.

5 **Waste recovery** Waste Management was forced to reinvent itself when it realized its customers wanted to create less waste (not more). So the company flipped its business on its head and figured out how to grow revenue by helping customers generate less waste and teaching them to become smarter about the waste they do generate. This was a 180-degree shift from the company's history of growing sales by growing the volume of waste coming into its treatment, storage, and disposal system. Sims Metal Management, a lesser known recycling firm, has earned recognition from the Global 100 Most Sustainable Companies in the World (four years in a row), Dow Jones Sustainability Index, and CDP. TerraCycle founded in 2001, creates domestic collection and recycling systems for previously non-recyclable and hard-to-recycle waste.

Leading companies outside the waste services sector are addressing the obsolescence and end of product life challenge in various ways. Caterpillar has been remanufacturing products for over 40 years. The company's CatReman service remanufactures components for resale. Google's Project Ara initiative aims to reinvent the smartphone by segregating it into replaceable modules that can be disassembled and assembled to suit a customer's needs. H&M collects garments in its stores to help close the loop in textiles. Kroger views the massive amount of food waste (estimated at 40 percent in the US) as a potential revenue stream; the company takes 150 tons of food waste it produces daily (previously viewed as a cost and lost revenue) and converts it into renewable energy. Retailer Marks & Spencer teamed with Oxfam to collect used clothing from customers who receive a M&S voucher to be used on a future purchase. Verizon and Vodafone help customers understand the buy-back value of a used phone — and then access a nearby store for reimbursement.

These five core attributes of gaining circular competitive advantage are aligned with the global shift toward the "Sharing Economy." Sometimes referred to as the peer-to-peer or collaborative economy, the sharing economy is a socio-economic system built around the sharing of human and physical resources.

Conclusion

Increasingly, board members have come to understand that environmental and social issues are business matters of growing importance. They read the *Harvard Business Review*, *Sloan Management Review*, *Accenture Outlook,* and the *McKinsey Quarterly*. They talk to other board members. They think about stranded assets and see that sustainability risks and opportunities are several orders of magnitude higher than in the past.

Sometimes we make things too complicated. We fail to "keep it simple." It is true that sustainability can be complex, challenging, perplexing, and amorphous. It includes everything from solving climate change to tackling world hunger and dramatically reducing impacts. Because of this, the vast majority of companies over the past decade have more or less continued business as usual. Few have taken bold measures; most fall into Stage 1 or Stage 2. They go about their day-to-day business in designing, making, and selling the same stuff as in the past. They know sustainability is important. They assign a senior executive to look after it. They set goals and reduce their footprint. They report progress and try to be more transparent. However, many fall short of truly integrating sustainability principles into their business strategy, processes, and key business decisions.

Sustainability is about transformation. The sense of urgency to address sustainability forces is real. As authors Michael E. Porter and Mark R. Kramer noted in "Creating Shared Value," capitalism in its present form is not working.[29] Business as usual is not an option. Incrementalism—lingering in Stage 1 or Stage 2 until customers demand action—is yesterday's solution. Moving briskly through the four stages described in this report is the road to value creation for tomorrow's leaner, fitter, more resilient and transparent company.

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About the Author

Gilbert (Gib) Hedstrom is president of Hedstrom Associates, an advisory firm specializing in business consulting and executive counsel on sustainability strategy. He has built The Sustainability Scorecard™ over the past 18 years, with input from over 50 companies, and used the Scorecard in presentations to Fortune 500 boards of directors. Schooled in finance at GE, Hedstrom spent 20 years at Arthur D. Little where he was vice president and managing director. He has over 25 years of experience advising CEOs and board members about how to handle difficult environmental and business challenges, and has reported directly to boards of directors of Fortune 500 companies on over 50 occasions. Hedstrom has had a long association with The Conference Board. Currently, he is program director of three member-only councils addressing issues of sustainability: Chief Environment, Health and Safety Officers' Council; Sustainability Council I: Implementation and Execution; and Sustainability Council II: Products, Technologies and Solutions. Hedstrom has authored several books and written dozens of articles related to environment, governance, strategy, and sustainability. He is frequently called upon to speak on business risks and opportunities created by environmental and social trends. He earned his MBA (Corporate Strategy) and MS (Natural Resource Management) from the University of Michigan and a BA in Economics and Geology from Hamilton College.

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About the Series Director

Matteo Tonello is managing director of corporate leadership at The Conference Board in New York. In his role, Tonello advises members of The Conference Board on issues of corporate governance, regulatory compliance, and risk management. He regularly participates as a speaker and moderator in educational programs on governance best practices and conducts analyses and research in collaboration with leading corporations, institutional investors and professional firms. He is the author of several publications, including *Corporate Governance Handbook: Legal Standards and Board Practices,* the annual *U.S. Directors' Compensation and Board Practices* and *Institutional Investment reports,* and *Sustainability in the Boardrooom*. Recently, he served as the co-chair of The Conference Board Expert Committee on Shareholder Activism and on the Technical Advisory Board to The Conference Board Task Force on Executive Compensation. He is a member of the Network for Sustainable Financial Markets. Prior to joining The Conference Board, he practiced corporate law at Davis Polk & Wardwell. Tonello is a graduate of Harvard Law School and the University of Bologna.

About the Executive Editor

Melissa Aguilar is a researcher in the corporate leadership department at The Conference Board in New York. Her research focuses on corporate governance and risk issues, including succession planning, enterprise risk management, and shareholder activism. Aguilar serves as executive editor of *Director Notes,* an online publication published by The Conference Board for corporate board members and business executives that covers issues such as governance, risk, and sustainability. She is also the author of The Conference Board *Proxy Voting Fact Sheet* and co-author of *CEO Succession Practices*. Prior to joining The Conference Board, she reported on compliance and corporate governance issues as a contributor to *Compliance Week* and *Bloomberg Brief Financial Regulation*. Aguilar previously held a number of editorial positions at SourceMedia Inc.

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For more information on this report, please contact:
Melissa Aguilar, researcher, corporate leadership at 212 339 0303 or melissa.aguilar@conferenceboard.org

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