

MITSloan

Management Review

**Robert G. Eccles, Kathleen Miller Perkins, and
George Serafeim**

How to Become a Sustainable Company

Brought to you by





Novo Nordisk A/S, a global healthcare company, follows a business philosophy based on balancing financial, social and environmental considerations.

How to Become a Sustainable Company

Few companies are born with a broad-based commitment to sustainability. To develop one, companies need leadership commitment, an ability to engage with multiple stakeholders along the value chain, widespread employee engagement and disciplined mechanisms for execution.

BY ROBERT G. ECCLES, KATHLEEN MILLER PERKINS AND GEORGE SERAFEIM

CORPORATE SUSTAINABILITY HAS captured the attention of much of the world over the last few years. Trends including the growth of nongovernmental organizations and movements such as Occupy Wall Street suggest that the public is no longer satisfied with corporations that focus solely on short-term profit maximization. People want corporations to consider broad human needs.

Surveys show that a growing number of companies are taking notice of these shifts and have come to consider sustainability-related strategies necessary to be competitive.¹ One recent study that compared companies that adopted environmental and social policies with companies that didn't, authored by two of the authors of this article and another colleague, provides empirical support for this view. "High sustainability" companies significantly outperformed their counterparts over an 18-year period in terms of both stock market and accounting criteria, such as return on assets and return



THE LEADING QUESTION

What differentiates sustainable companies from traditional ones?

FINDINGS

- ▶ Sustainable organizations are effective at engaging with external stakeholders and employees.
- ▶ They have cultures based on innovation and trust.
- ▶ They have a track record of implementing large-scale change.

on equity.² In terms of stock market returns, the “high sustainability” companies had an abnormal stock market performance that was 4.8% higher than the “low sustainability” companies on a value-weighted basis. They also exhibited lower performance volatility. It is not surprising, then, that more and more companies are exploring how environmental, social and governance performance can contribute to financial performance.

Currently, organizations that exhibit a broad-based commitment to sustainability on the basis of their original corporate DNA are few and far between. An exception is Novo Nordisk A/S, a global healthcare company created in 1989 through a merger of two Danish companies. For decades, it has followed a business philosophy based on balancing financial, social and environmental considerations. Novo Nordisk managers use the values framework to drive their day-to-day decisions and make difficult choices, and the company provides financial and nonfinancial information and data in one report.

For most companies, however, becoming sustainable involves a conscious and continuing effort to build long-term value for shareholders by contributing to a sustainable society. To illuminate how the transformation occurs and how a sustainable strategy can be formulated and executed, we studied the organizational models of companies that we refer to as “sustainable” by comparing them with companies that we call “traditional.” (See “About the Research.”) We focused on two primary questions:

1. How does a sustainable company create the conditions that embed sustainability in the company’s strategy and operations?
2. What are the specific elements of sustainable companies’ cultures that differentiate them from those of traditional companies?

Based on our research, we have developed an identity and cultural model for how to create a sustainable company. While the model is straightforward, implementation is by no means easy, because it is grounded in large-scale change — something that few companies seek out or do well. The first stage involves reframing the company’s identity through leadership commitment and external engagement. The second stage involves codifying the new identity through employee engagement and mechanisms

of execution. Both are ongoing processes.

Once the second stage begins, the two stages reinforce each other. Employee engagement enables even more sophisticated external engagement because a broader range of employees will be able to effectively engage with outside stakeholders. Mechanisms of execution bind leadership commitment, since these organizational-level attributes continue from one generation of leaders to the next. Similarly, leadership commitment provides a strong motivating force for employee engagement because employees know that their leaders care about what they are doing. External engagement strengthens the company’s mechanisms of execution, since stakeholder pressure challenges the company to constantly improve its quality.

Companies with an established organizational culture that includes strong capabilities for change, a commitment to innovation and high levels of trust have a significant advantage. When these elements are missing, becoming a sustainable company is more difficult. Nevertheless, by moving through the two stages, the necessary cultural characteristics are likely to coalesce. And, if companies begin with a strong cultural foundation based on trust and innovation — all too rare in most companies — we have found that those characteristics will only strengthen over time. In contrast to the vast majority of traditional companies, sustainable companies are willing and able to engage in the kind of ongoing transformational change that is required as social expectations evolve. They aggressively create new processes, products and business models that improve environmental, social and governance performance — all of which conspire to boost financial performance through cost savings, new revenues, brand enhancement and better risk management. Finally, employees in sustainable companies have a high level of trust in each other, which allows them to take the necessary risks to innovate and change their behaviors to support sustainability.

Stage One: Reframing the Company’s Identity

Reframing the company’s identity is composed of two elements: leadership commitment and external engagement. While these elements are closely linked, one can drive the other or they can occur si-

multaneously. To gain commitment, leaders must engage with groups outside of their organizational boundaries, such as investors and NGOs that represent civil society. Effective external engagement cannot happen without strong commitment from the leadership team. By engaging the two elements, a company can begin to fashion a new identity as a sustainable enterprise.

Leadership Commitment When leadership commitment drives the process, it usually comes from the personal resolution of a CEO to create a more sustainable company. In general, top-level executives have the ability to create an enterprise-wide vision and the clout to see that it is realized. Without this commitment, becoming a sustainable company is a “nonstarter.”

Our data show that the leaders of sustainable companies differ from leaders of traditional companies in several ways. First, the top-level leaders of sustainable companies are perceived as taking a long-term view when making decisions. They have an unmistakable direction in mind and know that their sustainability goals will not be achieved overnight. In pursuing their visions, they are more willing than leaders of traditional companies to tolerate risk. Leaders at 72% of the sustainable companies are willing to take measured risks in pursuit of sustainability, in contrast to 40% at traditional companies. Moreover, sustainable companies are more likely to be knowledgeable of the issues pertaining to sustainability (90% vs. 60% of the traditional companies) and have a clearer business case for pursuing sustainable goals (83% vs. 30% at traditional companies). The strong business case communicated from the top enables the company to incorporate sustainability into the core of its business. As a result, sustainable company leaders integrate sustainability considerations into basic business decisions such as operating budgets and capital investments (95% vs. 30% at traditional companies).

Equally important, leaders of sustainable companies demonstrate personal commitment to sustainability that inspires others throughout the organization (83% vs. 50% at traditional companies). As a result, more employees in sustainable companies view sustainable strategies as essential to the company's success (80% vs. 20% for traditional companies).

Surprisingly, our survey data show that leaders of traditional companies are more likely to be seen as having clear visions for sustainability than are leaders of sustainable companies (5% vs. 20% at traditional companies). One possible explanation for this finding surfaced in our follow-up field interviews: Leaders of sustainable companies often set aspirational goals and seek transformational change where the starting and end points are not necessarily known in full. For example, Interface Inc., the world's largest carpet company, based in Atlanta, Georgia, set a long-term corporate goal of having a net zero environmental impact.³ Dow Chemical, for its part, a global leader in specialty chemicals, has committed itself to achieving at least

ABOUT THE RESEARCH

This study is part of a large research program on “Innovating for Sustainability.” The purpose of this research is to understand how companies can better integrate sustainability into the core of their strategy and operations. This program is equally focused on understanding how institutional investors can integrate sustainability into their investment decisions. In both cases, we are using a broad range of research methodologies, including case studies, in-depth field research, survey research, archival research and empirical analysis.¹ Throughout 2010 and 2011, we conducted more than 200 interviews in more than 60 companies to explore how sustainable companies were innovating for the development and execution of sustainable strategies. We also developed some 20 in-depth teaching case studies and worked with a number of companies to help them develop more sustainable strategies. Based on this work, we began to detect some intriguing patterns related to leadership and organizational elements.

We then tested for these patterns with a survey. First, we examined the sustainability performance on both environmental and social factors for 3,000+ companies worldwide for 2009, with data provided by Thomson Reuters' ASSET4. We isolated the top 20% and the bottom 20% of companies in terms of environmental and social performance. Then we imposed an additional filter, isolating companies from the top group based on whether they integrate social and environmental metrics and narrative with their financial reporting, and isolating companies from the bottom group based on those that do not integrate social and environmental metrics and narrative with their financial reporting. We identified 58 companies with very good sustainability performance and communication (which we refer to as the sustainable companies) and 108 with poor sustainability and communication (which we refer to as the traditional companies). We invited both sets of companies to participate in an online survey examining organizational and cultural factors related to sustainable strategy; 28 companies, or 17%, responded. Of these, 18 companies met our criteria as sustainable and 10 companies were classified as traditional.

We used a 68-item assessment instrument developed by Miller Consultants, of Louisville, Kentucky, to look at organizational leadership, organizational systems and climate, change readiness, internal and external stakeholders, and disclosure issues. The results were validated through interviews with experts in the relevant domains. The instrument was developed based on our preliminary research and tested through a pilot that compared the responses of representatives from leading sustainable companies with responses from a control group of companies.

three breakthroughs by year 2015 that will significantly help solve world problems.⁴ Sustainable companies also recognize that transformational change requires taking on a large number of smaller-scale change initiatives.

Leaders of traditional companies, by contrast, are more likely to be committed only to smaller-scale change (sometimes referred to as transitional change), where the beginning and end states are clearly known. Examples of a transitional change could include moving from an energy system based on fossil fuel to a system based on a renewable source of energy or implementing a redesigned process that will reduce waste. These goals are more precise and clearly defined than some of the more expansive ones.

External Engagement Companies that thrive with a sustainable strategy realize the importance of reaching beyond their own internal boundaries to a variety of external stakeholders. In their book *Green to Gold*, Daniel C. Esty and Andrew S. Winston identified at least 20 stakeholder groups that are likely to wield a degree of power over companies with regard to their sustainability performance.⁵ When external engagement drives the initiation of the process in this stage, it is usually catalyzed by a dramatic event or series of events. The experience of a crisis often pushes leaders to do some serious soul-searching. Although some companies stonewall and dig into their traditional models, others see a crisis as an opportunity for self-examination. They begin to realize the benefits of learning about the concerns and expectations of key stakeholders. In turn, this affects the company's license to operate and thereby creates value for both stakeholders and shareholders. Once this realization hits home, the company begins to reach out beyond its own institutional boundaries to learn, collaborate and communicate.

Sustainable companies learn from the outside. In doing so, they are far more likely to encourage their employees to assimilate knowledge from sources external to their company than are traditional companies (72% vs. 20% at traditional companies). According to Bruce Bremer, former manager of facility engineering for Toyota Engineering & Manufacturing North America, Toyota encourages employees to work with external peer

groups. "To build a culture of innovation, we have to drive out narrow thinking and learn continuously. When I worked with a group of my peers from other global companies, I started to see things from a much different light."⁶

Sustainable companies collaborate with other companies and organizations to advance their goals. For example, in 2011, Dow Chemical formed an alliance with The Nature Conservancy. TNC's collaborative work is focused on assisting companies, including Dow, to recognize, value and incorporate nature into global business goals, decisions and strategies.⁷ At times, sustainable companies have gone so far as to partner with competitors to seek solutions to their challenges, and they actively support their supply chains. Some of the most critical stakeholder relationships occur within a company's supply chain, reflecting the reality that companies cannot achieve their sustainability objectives without widespread support and cooperation. One of the strongest differences between the sustainable and traditional companies in our data is that sustainable companies encourage their supply chains to adopt sustainable strategies (83% vs. 20% for traditional companies). Many of them work closely with their suppliers to support these efforts. PepsiCo, for example, invites its suppliers to an annual gathering where they share best practices and discuss progress on sustainability. These gatherings reduce the natural tension between suppliers and customers. According to David Walker, senior director of beverage productivity at PepsiCo, an improved working relationship unlocks the potential to maximize sustainability in the supply chain. For example, PepsiCo and its suppliers share best practices on energy reduction, create common metrics to track progress and engage in joint planning sessions to ensure that ideas are executed.⁸

The actions of sustainable companies are accompanied by clear and consistent messages to stakeholders (90% of sustainable vs. 30% of traditional companies say that their messaging to external stakeholders is consistent and clear). Transparency is a critical asset, and sustainable companies achieve it by communicating their targets broadly and by reporting honestly and widely on their progress toward meeting those targets.

They do not change their core messages on a whim, nor do they engage in spin or “green-washing.” Instead, they talk about “the warts” as well as their successes. Natura Cosméticos S.A., a Brazilian cosmetics and fragrances company, exemplifies this approach. In its annual integrated report, Natura does not try to hide the commitments that it failed to achieve in footnotes, as many companies do with negative information. On the contrary, it discusses the commitments that were not achieved in the prior year and the renewed commitments in the beginning of the annual report.⁹ Rodolfo Gutilla, Natura’s director of corporate affairs, maintains that transparency in reporting facilitates a better dialogue between the company and its stakeholders: “Through the reports, stakeholders are able to see what others are doing; they can see how their interests are being integrated into the management of the company, and they can begin to understand the interconnections that exist between actions and impacts all along the value chain.”¹⁰

Stage Two: Codifying the New Identity

The first stage — reframing the company’s overall identity based on leadership commitment and external engagement — is a necessary, but not a sufficient condition for becoming a sustainable company. The second stage involves building internal support for the new identity through employee engagement and mechanisms for execution, two elements that are closely intertwined. Of course, leadership commitment and external engagement don’t end: They are embedded in and drive the codification of the company’s new identity. In essence, the first stage continues into the second stage, and once both stages are in process, they reinforce each other. Together, they then create a culture supportive of sustainability, as described below.

As with Stage One, individual elements can drive the other elements or they can occur simultaneously. Execution mechanisms serve as a platform for engaging employees. At the same time, execution mechanisms require strong support from employees. Regardless of which element drives the other, Stage Two is about making the company’s newly framed identity a reality. While grassroots actions can impact Stage Two, unless these activi-



ties are supported by leadership commitment and external engagement, they will remain local initiatives that fall short of creating a new identity.

Anheuser-Busch InBev has incorporated sustainability-related goals into individual employee goals.

Employee Engagement Because sustainable strategy execution requires behavioral change by individuals, the personal engagement of employees is crucial. For people to change their behavior, they have to believe it is worth it. They have to understand and believe in the reasons for the change and recognize what they need to do to contribute to it. We define employee engagement as actions a company takes to secure the interest and attention of employees in their sustainability efforts. Engaged employees are emotionally connected to their work and to their workplace. As a result, they tend to be more productive and more willing to engage in discretionary efforts to achieve company goals.

Sustainable companies are much more likely than traditional ones to have a clear strategy for engaging employees (72% vs. 30% of traditional companies). They shift the engagement from local, disconnected initiatives to company-wide efforts. In order for the engagement strategy to be clear and effective, the business case developed during the first stage must be firmly in place, and leaders must understand and appreciate the role of the employees. Sustainable companies implement their engagement strategy by (1) communicating the impact that the employees’ contributions will have on the company, (2) articulating the connection between each employee’s work and the sustainability goals and (3) enabling cross-functional communication and idea exchange. Anheuser-

Busch InBev, the world's largest brewer, has incorporated sustainability-related goals into individual employee goals from senior leadership on down to line management for several years. The company believes that its employees think more creatively and work more collaboratively because they feel personally invested in the company's sustainability efforts and share important goals. Such actions not only extend the impact of the leaders' messages but also spread lessons learned from local initiatives to the company as a whole.

Mechanisms for Execution The CEO often initiates the codification of the new behavior by driving the change through organization-wide mechanisms and by promoting employee engagement. Our study found that some of the most pronounced differences between sustainable and traditional companies are the presence of mechanisms for execution and how they are used. Sustainable companies are far more likely to have enterprise-wide management systems for executing sustainable strategies (83% vs. 20% for traditional companies). These systems consist of structured frameworks of practices and procedures that enable the organization to execute in a consistent and lasting manner. Since specific sustainability objectives often involve trade-offs, an enterprise-wide approach allows for a portfolio perspective to achieve the desired balance among actions and outcomes.

Among the enterprise-wide management systems companies use are processes that connect sustainability to corporate strategy, with direct ties to performance evaluation and compensation (66% vs. 10% for traditional companies). Sustainable companies also incorporate sustainability metrics into the capital budgeting process, develop solid valuation processes that take externalities into account, set clear targets for sustainability objectives and establish targeted programs linking the objectives to business results (90% vs. 10% for traditional companies). IBM, for example, embeds sustainability strategies and practices into its global environmental management systems, and recently it has begun requiring its suppliers to adopt these systems. Sustainable companies are far more likely than traditional ones to have established accountability processes that measure re-

sults and ensure that the objectives are met. Even so, finding appropriate metrics and tools for measurement continues to challenge sustainable and traditional companies alike.

Many of the current methods used to track the impacts of sustainability-related efforts are inadequate for measuring consistent, complete and precise data. For example, although some companies attempt to use standard tools such as Six Sigma and performance scorecards to assess the impact of initiatives connected to sustainable strategies, even these tools fall short in providing the robust valuation methodologies needed to clearly measure and link sustainable strategies to business results.¹¹ Many traditional metrics do not measure the aspects of sustainability that are material to the specific company or measure sustainability across the entire value chain. Since traditional measures are subject to a variety of caveats, Dow developed its own innovation metrics for its 2015 Sustainability Goals. The company developed a proprietary Sustainable Chemistry Index to comprehensively measure critical aspects of sustainability for its products and business units across the value chain; it also developed a specific set of criteria and metrics to measure its achievement of Breakthroughs to World Challenges.¹²

Despite the challenges, the sustainable companies we looked at indicated that they are pressing forward and trying out new metrics. Rather than letting the metrics challenges stall their progress, sustainable companies are actively addressing the issues creatively.

A Supportive Organizational Culture

Over time, the codification of a sustainable company's new identity will reinforce, or even establish, a culture based on change capabilities, trust and innovation. Leadership commitment and external engagement are necessary for transformational change. Employee engagement fosters trust and innovation, and mechanisms for execution ensure that change happens as innovations diffuse throughout the organization. In turn, a culture supportive of sustainability will increase the effectiveness of leadership commitment, external engagement, employee engagement and mechanisms for execution. (See "The Role of Corporate Culture in Sustainability.")

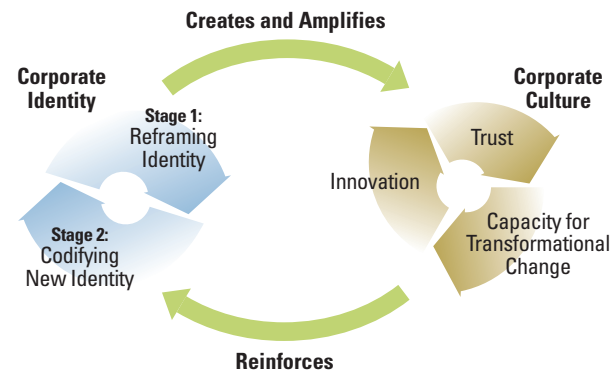
Change Capabilities A common cultural element that enables the process is the change readiness of the culture.¹³ Our data show strong differences between the sustainable and the traditional companies on this variable: Some 90% of the sustainable companies report having a strong track record of implementing large-scale change successfully, compared to 50% for the traditional companies. This difference is critical. As we have noted, unlike more transitional change, where the beginning and end points are clearly defined from the outset, transformational change may start with a clear direction but lack exact beginning and end points.

Transformational change can take years or even decades to accomplish. Particularly when it is directed toward a concept that is still being developed, it is not possible to have a clear blueprint to follow. Not surprisingly, the pattern for sustainable companies has been not to start with a precise plan but to head in a direction, tolerate risk and make adjustments en route. Of course, transformational change also depends on a large number of smaller, incremental changes, which must be effectively executed in order for the transformational change to be successful. In fact, 90% of the sustainable companies report having a strong track record of implementing incremental changes successfully, compared to 70% of the traditional companies. Companies with developed capabilities for transformational and incremental change may be able to move more quickly; those lacking the cultural capabilities will inevitably proceed in a more halting fashion and are more likely to need help.

Innovation For sustainable companies, innovation is a core cultural capability. To improve financial performance along relevant environmental, social and governance dimensions, sustainable companies tend to focus on innovations in processes, products and business models. A commitment to sustainability becomes a “forcing function” for innovation. Both employee engagement and external engagement are important sources of new ideas that become the basis for value-creating innovations. The innovations build on and contribute to the organization’s existing capabilities for innovation — a process sustainable companies encourage by rewarding innovation. Moreover, they vigor-

THE ROLE OF CORPORATE CULTURE IN SUSTAINABILITY

Employee engagement fosters trust and innovation, and mechanisms for execution ensure that change happens as innovations diffuse throughout the organization. A culture supportive of sustainability will increase the effectiveness of leadership commitment, external engagement, employee engagement and mechanisms for execution.



ously promote and facilitate learning, broad thinking and creativity.

Sustainable companies use a variety of approaches to incorporate continuous learning into their cultures. For example, they employ processes that help people across the enterprise to learn from each other. Innovation is most likely to occur in organizations where lateral communication is enabled and people with different frames of reference can come together to share ideas. Rather than suppressing conflict, sustainable companies tend to encourage the airing of diverse points of view. They appreciate that, when handled well, enterprise-wide conversations tend to create understanding across the organization. In addition to leading to synergy and innovation, these conversations also build trust.

Trust Having the conviction that people can be taken at their word and that they will do their best to deliver on commitments and promises is the bedrock of success. Creating a sustainable company requires trust on the part of every employee. Without trust, employees are reluctant to take the risks that innovation requires, and they are reluctant to engage. Trust is the difference between listening and believing. It permits people to act in new ways that truly contribute to the development of a sustainable company.

Sustainable companies foster trust by (1) demonstrating that they value the contributions of

employees, (2) consciously aligning their actions with their values, (3) honoring their commitments and (4) basing decisions on what is good for shareholders and for the broader concerns of the organization and society. Leaders of sustainable companies understand the value that results when people within the company know that they can count on the integrity, competency, intentions and reliability of their leaders and coworkers. Trust grows when people perceive that they are part of a collective effort to deliver value to stakeholders in a way that contributes to the betterment of their world. Work becomes more meaningful, and people become more engaged and productive.

Fostering trust effectively allows a team production approach, where the efforts of multiple stakeholders are crucial for the company's success, to everyday operations in which employees are willing to make company-specific investments without fear that their efforts will not be recognized and rewarded. By enabling and encouraging these investments, the company cultivates the foundation for a competitive advantage in the marketplace: engaged employees who are able to cooperate in order to drive corporate performance.

Starting the Journey to Sustainability

Today companies must choose whether to start the journey to become sustainable or to adhere to the more traditional model. Although each company must make that choice for itself, we believe that changing social and investor expectations will only increase the pressure on companies to adopt the sustainable model. Doing so requires unswerving leadership commitment, without which the journey cannot begin. In reframing its identity, the company must learn to engage openly with external stakeholders. Maintaining transparency without recourse to defensive strategies is integral to a sustainable strategy. As this strategy is implemented through broad-based employee engagement and disciplined mechanisms for execution, a new identity can emerge: that of a sustainable company.

Robert G. Eccles is a professor of management practice at Harvard Business School. Kathleen Miller Perkins is president of Miller Consultants Inc., an organizational consulting firm in Louisville, Kentucky.

George Serafeim is an assistant professor of business administration at Harvard Business School. Comment on this article at <http://sloanreview.mit.edu/x/53415>, or contact the authors at smrfeedback@mit.edu.

REFERENCES

1. For more information, see D. Kiron, N. Kruschwitz, K. Haanaes and I. von Streng Velken, "Sustainability Nears a Tipping Point," MIT Sloan Management Review 53, no.2 (winter 2012): 69-74.
 2. R.G. Eccles, I. Ioannou and G. Serafeim, "The Impact of a Corporate Culture of Sustainability on Corporate Behavior and Performance," working paper 17950, National Bureau of Economic Research Working Paper Series, Cambridge, Massachusetts, March 2012, www.nber.org/papers/w17950.
 3. M.W. Toffel, R.G. Eccles and C. Taylor, "Interface-RAISE: Sustainability Consulting," Harvard Business School case no. 611-069 (Boston: Harvard Business School Publishing, 2011).
 4. R.G. Eccles, G. Serafeim and S.X. Li, "Dow Chemical: Innovating for Sustainability," Harvard Business School case no. 112-064 (Boston: Harvard Business School Publishing, 2012).
 5. D.C. Esty and A.S. Winston, "Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage" (New Haven: Yale University Press, 2006).
 6. Interview with Bruce Bremer, Dec. 10, 2011.
 7. For more information, see: www.nature.org/aboutus/workingwithcompanies/companies-we-work-with/dow/index.htm and <http://my.nature.org/gifts/?src=CPC.AWG.CE2.AG2.CC2.CL2.MT3.KW754&gclid=CMOZ5f3h9a8CFQr4Aod1nqREg>.
 8. Interview with David Walker, senior director of beverage productivity, PepsiCo, May 9, 2012.
 9. For more information, see "Natura Report 2010," Natura Brasil, http://natura.infoinvest.com.br/enu/3766/GRI_INGLES_COMPLETO_impressao.pdf.
 10. R.G. Eccles, G. Serafeim and J. Heffernan, "Natura Cosméticos, S.A." Harvard Business School case no. 9-412-052 (Boston: Harvard Business School Publishing, 2011).
 11. D.A. Lubin and D.C. Esty, "The Sustainability Imperative," Harvard Business Review (May 2010): 1-9.
 12. Interview with Mark Weick, director of sustainability programs and enterprise risk management, Dow Chemical Co., May 8, 2012.
 13. D. Anderson and L.A. Anderson "Beyond Change Management: Advanced Strategies for Today's Transformational Leaders" (San Francisco: Jossey-Bass Pfeiffer, 2001): 98-102.
- i. For more information, see: www.facebook.com/innovatingforsustainability.

Reprint 53415.

Copyright © Massachusetts Institute of Technology, 2012.
All rights reserved.

MIT Sloan

Management Review

PDFs ■ Permission to Copy ■ Back Issues ■ Reprints

Articles published in MIT Sloan Management Review are copyrighted by the Massachusetts Institute of Technology unless otherwise specified at the end of an article.

MIT Sloan Management Review articles, permissions, and back issues can be purchased on our Web site: www.pubservice.com/msstore or you may order through our Business Service Center (9 a.m.-7 p.m. ET) at the phone numbers listed below. Paper reprints are available in quantities of 250 or more.

To reproduce or transmit one or more MIT Sloan Management Review articles by electronic or mechanical means (including photocopying or archiving in any information storage or retrieval system) **requires written permission.** To request permission, use our Web site (www.pubservice.com/msstore), call or e-mail:

Toll-free: 800-876-5764 (US and Canada)

International: 818-487-2064

Fax: 818-487-4550

E-mail: MITSMR@pubservice.com

Posting of full-text SMR articles on publicly accessible Internet sites is prohibited. To obtain permission to post articles on secure and/or password-protected intranet sites, e-mail your request to MITSMR@pubservice.com

Customer Service

MIT Sloan Management Review
PO Box 15955
North Hollywood, CA 91615