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Sustainability in business today: A cross-industry view

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Foreword: Closing the gap between aspiration and action

What is the state of sustainability in business today? The answer, as suggested by Deloitte's multi-industry survey of 48 executives who oversaw sustainability efforts at their companies, may depend on how one interprets the results. Our conversations with respondents left no doubt in our mind that these companies are interested and involved in sustainability, and most of them see a clear alignment between sustainability and their overall business strategy. On the other hand, our survey also suggests that many companies have a clear gap between their leaders' aspirations with regard to sustainability and the way that sustainability is enabled within their organizations.

That such a gap may exist is hardly surprising, considering how quickly sustainability issues have been evolving in the marketplace and the challenges involved in building the infrastructure to address them. We view it as a positive sign that many companies we interviewed saw sustainability as a priority and had devoted thought to the strategic implications of sustainability for their businesses. As we see it, the challenge now is for companies to find ways to close the distance between their stated sustainability principles and the actions and investments they make to pursue their sustainability objectives – particularly in those instances where sustainability objectives may lack a clear financial return on investment (ROI) or drive long-term rather than short-term benefits.

Based on the survey results and our experience working with companies on sustainability strategy and implementation, here are some of the things that we believe many sustainability leaders might tell their executive teams as important lessons learned:

"What we think of as sustainability may not be what you think it is."

Our survey suggests that many companies are still working to define a cohesive and consistent approach to sustainability, subscribing to broad principles when defining sustainability while focusing implementation efforts on a narrower set of activities. For example, despite the fact that many respondents defined sustainability according to the concept of the triple bottom line – pursuing performance in economic, social, and environmental spheres – most also reported that their companies invested primarily in environmental initiatives. We believe that it is becoming an imperative for companies to consider broadening their sustainability efforts in the communities in which they operate as well as to the physical environment. Attention to social sustainability issues should help organizations in their efforts to drive for competitive advantage by helping them establish or maintain a "Social License to Operate" in their target communities and markets: that is, to gain the support of the people who live and work in these communities and/or markets.[1]

"Look beyond the obvious."

Respondents tended to place less emphasis on certain aspects of environmental sustainability, such as land and soil contamination, than on obvious areas of concern such as energy. While industry-specific concerns must drive issue prioritization to some extent, we encourage leaders to also be alert to the possibility of risks and opportunities arising in areas of sustainability that are less directly related to their operations. As well, companies should be aware of sustainability impacts not only within their own enterprises but across the value chain, both among their suppliers and customers – and consider adopting a structured approach to addressing those impacts for the full scope of sustainability rather than focusing on isolated initiatives.

[1] "The social license to operate," http://www.socialicense.com/, accessed May 20, 2010.

"Sustainable products *can* be competitive – with the right marketplace approach."

While some respondents noted the marketplace challenges arising from the difficulty of making sustainable products comparable in cost to traditional alternatives, this has not stopped many companies from pursuing the "green consumer." Many respondents reported that their companies were engaged in efforts to improve their products' energy efficiency and/or to develop new lines of green products altogether. In our view, however, successfully targeting the green consumer depends on more than cost. It also requires understanding particular customer segments' purchase drivers, crafting and communicating a strong brand and value proposition, and integrating sustainability throughout the value chain.[2] We encourage leaders to consider thinking strategically about the role sustainability plays in their product/service and customer strategy with respect to both the B2B and B2C markets, and to carefully assess their marketplace targets in order to determine the size of their own market for sustainable products.

"The green workforce is the general workforce."

While the importance of specialized technical skills should not be minimized, our respondents, for the most part, did not believe that a "green" workforce would emerge as a significant segment of the labor pool. Rather, they believed that sustainability would be integrated into existing roles and job descriptions as a prerequisite for employability: Jobs in the future, respondents thought, will require people to bring a certain basic level of familiarity with sustainability issues and competence in skills related to sustainability to the table.

"Help us help you take advantage of sustainability incentives."

We believe that companies must consider maintaining processes for effective communication and collaboration among tax, sustainability, and operations leaders in order to appropriately address regulatory and legal requirements and capture incentive opportunities such as those offered by the American Recovery and Reinvestment Act (ARRA). Our interviews suggest that many of our respondents were only moderately aware of the ARRA's sustainability-related provisions; in fact, many said that their companies were not seeking out incentives themselves, but expected to reap advantages from customers and/or suppliers who were doing so.

"Sustainability's bottom-line results might be better if you broaden your view of ROI."

According to some respondents, the recent recession has stymied their companies' sustainability investments, which are often seen to drive less financial ROI than many other business initiatives. But to improve its performance, a company needs to do more than reap an immediate financial ROI on its sustainability initiatives. It also needs to consider managing risk, building its brand and reputation, complying with regulatory requirements, and investing in developing future products and services that will be viable in a world where sustainability plays a greater role in driving buying decisions. Isolated initiatives that carry short-term financial ROI are not enough; we believe that a long-term focus, a structured, integrated approach, and a willingness to consider tradeoffs with respect to ROI duration and measurement are all essential to realizing value through sustainability and managing future risks.

"Give us the structure we need to get things done."

Most of our respondents believed that their sustainability priorities were aligned with their business priorities – but this did not always translate into a fully fledged support structure for enabling sustainability at their businesses. A substantial minority of respondents felt that their companies did not enable sustainability by means of budget, dedicated staff, or technology. Further, while many respondents said that their company designated a "corporate sustainability officer" or equivalent to be responsible for sustainability, our experience shows that such roles do not typically carry financial or operational accountability or the investment budgets necessary to effect meaningful change. (Some companies, in fact, assign sustainability oversight to a committee, which spreads accountability for sustainability across a number of

[2] "Finding the green in today's shoppers: Sustainability trends and new shopper insights," Grocery Manufacturers Association and Deloitte Development LLC, 2009.

traditional functions.) We feel that, as much progress has been made in recent years toward putting sustainability on the radar, there is still room for improvement in the degree of structure and support companies put around enabling sustainability in practice, especially with respect to giving sustainability officers the necessary dedicated infrastructure – including budget, staff, technology, and clear organizational roles and responsibilities – to drive results.

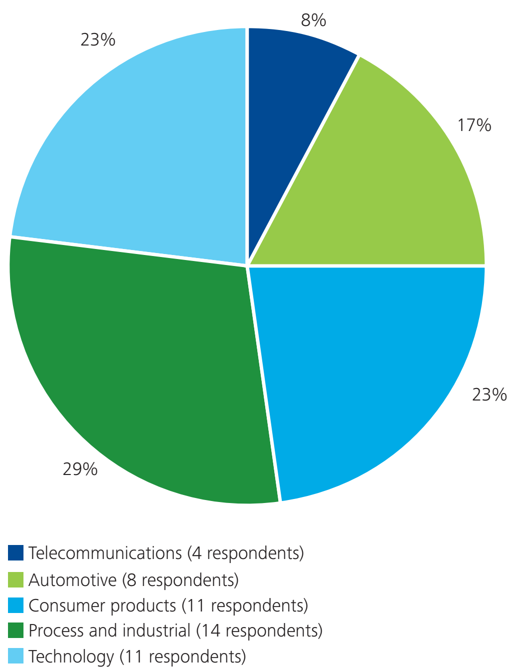
Overall, our survey highlights a clear recognition among respondents of the importance of sustainability to the future of their businesses, as well as some of the challenges that sustainability leaders face in their efforts to align their organizations' sustainability practices with the principles companies often espouse. Our hope is that these findings shed some light on the evolving nature of the relationship between business and sustainability – and help point the way to a future in which business embraces sustainability not only as a guiding principle, but on a fundamental operational, cultural, and strategic level as well.

About this study

Sustainability has received a great deal of attention from the media and the business community for a number of years. Yet there are still those that believe that sustainability is more of a public relations play than an issue with real implications for business performance. Many executives we know want to learn more about sustainability's relevance to their companies before making significant sustainability investments. What does sustainability really mean in a business context? What are companies doing about it? And what is the evidence that the business case for sustainability, in fact, exists?

To explore these and other issues around the view businesses have of sustainability today, Deloitte conducted a qualitative study in which we interviewed sustainability leaders at the U.S. headquarters of 48 large companies from late 2009 to early 2010. Participants represented companies from five major industry sectors: automotive, consumer products, process and industrial, technology, and telecommunications. The objective was to paint a general picture of sustainability activity among our respondents and to gather their views on several sustainability-related issues, including the way they defined sustainability, the impact of the ARRA on sustainability efforts, and their speculations on the future of sustainability in business.

Figure 1. Survey participant demographics



Sustainability and the business

In our experience, a critical success factor in aligning sustainability and business strategies is gaining commitment from the highest levels of leadership. Top executives must understand the drivers, create a "sustainability vision," and set aggressive goals and priorities that meet both sustainability and business objectives.

Out of 48 respondents, all but three reported that their sustainability priorities were at least partially aligned with their organizations' business priorities. However, a number of respondents qualified their responses with the observation that alignment was an ongoing process that occurred at different rates in different areas of the business. "In terms of our operations, [our priorities] are very well integrated in that we are working to embed our sustainability thinking into how we do and what we do," said one consumer products respondent. "Within our product development and procurement team, they are also pretty much [aligned], but within our sales and marketing team, not so much yet. So it is a transformative process."

The few respondents that did not report alignment between sustainability and business priorities cited financial concerns as the stumbling block. "Sustainability is gradually increasing in importance, but the economy has set us back a little," said one technology company respondent. Another respondent from the automotive industry amplified: "Right now, the economy [is] such that we are not allowed to fork out the expenditure for something that would give us long-term benefits but is costly. I think that the message from the global office is that we have to look at sustainability as much as possible, but even though it is something that the parent company would like us to do, they would not be okay with us spending a quarter of a million dollars on it."

In general, respondents from companies for which sustainability has a direct impact on the product they manufacture, such as automotive manufacturers and process and industrial companies, reported greater alignment between sustainability and business priorities. Even at companies in industries where sustainability does not clearly affect their products, most respondents indicated that they continued to pursue sustainability initiatives to attract customers or to realize operational cost savings. For example, one telecommunications respondent noted that the company could not succeed in its strategy to be a low-cost provider "if we do not keep energy costs in check."

When asked how they defined sustainability as it applies to business, respondents gave a wide range of answers. Many reported that their businesses modeled their definition of sustainability after the concept of the triple bottom line – pursuing performance in economic, social, and environmental spheres – or, more generally, after common definitions such as that contained in the 1987 Brundtland Commission report ("Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"). However, nearly every respondent went on to interpret the baseline definition in terms of their own company's sustainability policies and goals, which led to widely disparate areas of emphasis among our respondents as a whole. Where there was agreement, it was mostly within sectors; for instance, as a group, the technology respondents tended to emphasize energy efficiency in their definitions of sustainability. This reinforces the point that sustainability, at bottom, must be highly tailored to each sector and, indeed, to each individual company in order to serve as a springboard for practical action.

Q: How would you define sustainability as it relates to business?

Respondents told us:

"We have used the Brundtland definition at times and a triple-bottom-line type of thing, but we talk about sustainability in terms of resources – financial resources, human resources, and natural resources. Because we are a user of natural resources and wood and fiber, most of our focus is in that area." (Respondent from a process and industrial company)

"We term it as having the minimum impact on the environment. There is a social component to that as well, but we are currently focusing on environmental sustainability." (Respondent from a consumer products company)

"For us, sustainability is just doing business right. We believe that it is a foundation that contributes across the entire value chain. We believe that it gives us a competitive advantage by applying it in acquisition, in branding, and in marketing and development." (Respondent from an automotive company)

"We have been careful to define it as environmental sustainability for the purposes of our team's existence." (Respondent from a consumer products company)

"The long-term health of the business requires that we consider things beyond financial return – such as environmental performance and social responsibility and community relations." (Respondent from a consumer products company)

"We go to the Brundtland Commission report of 1987 to start the conversation, and then take it down a level to make it more operational in nature, and then down one more level [to] land, air, water, and people." (Respondent from a consumer products company)

"Continuous reduction of our environmental footprint throughout our own facilities and our value or supply chain. We also define it from a social perspective as making sure that the community in general, and certainly communities where we sell products, are viable and healthy and that their needs are met." (Respondent from a consumer products company)

One general trend that emerged among our total respondent population was the tendency for many respondents to emphasize the environmental component of sustainability over the social component. Some respondents omitted the social side of sustainability from their definitions altogether. More commonly, respondents would acknowledge the social side of sustainability in their definitions while reporting only environmental initiatives when asked about their companies' sustainability improvement priorities. Those that did report social sustainability initiatives commonly focused on improving working conditions for their own employees; some also mentioned broader community- or region-based efforts.

Respondents continued to focus on environmental sustainability when discussing their companies' priorities for sustainability improvements. In this regard, most respondents emphasized broad-based operational sustainability efforts aimed at reducing their company's environmental footprint. Sixty-five percent also discussed priorities related to improving the environmental sustainability of their products. When asked what they viewed as the greatest areas of opportunity for becoming more sustainable, respondents identified a variety of opportunities. Some of the most frequently mentioned were opportunities related to manufacturing process and operations (46 percent), brand enhancements and perception (31 percent), and supply chain (21 percent).

With regard to governance over sustainability, respondents identified a variety of roles as being the "primary" sustainability owner at their companies (Table 1), which is consistent with our experience that the marketplace has yet to reach a consensus as to who should be responsible for corporate sustainability efforts. In fact, 91 percent of respondents mentioned titles other than the choices we offered. Many of the "other" responses were variations on the theme of "Corporate Sustainability Officer" – that is, a role specifically dedicated to leading sustainability at the company. Other roles respondents mentioned included the CEO, Director of Energy Policy, Manager of HR, and Head of Safety and Security. Many also identified more than one role as the "primary" sustainability owner – a finding which could point to a certain lack of clarity around accountability for sustainability at these companies.

Table 1. Primary owner of sustainability efforts

Chief Financial Officer	2%
Head of Corporate Strategy	0%
Head of Environmental Health & Safety	6%
Board of directors	4%
Chief Operations Officer	6%
Head of Marketing	0%
General Counsel	0%
Other	91%

Note: Percentages do not add up to 100 percent as many respondents indicated more than one answer.

Respondents believed that a wide range of internal constituents were affected by sustainability efforts (Table 2), pointing to a growing recognition of sustainability's enterprise-wide scope and impact. In some cases, sectors varied in the emphasis they placed on certain roles, which may reflect the industry-specific nature of the impact of sustainability or differences in the factors that led the organization to prioritize sustainability (e.g., regulation, business partner requirements, stakeholder scrutiny, or internal priorities such as cost savings).

Table 2. Constituents most affected by sustainability efforts

	Overall	Automotive	Consumer products	Process and industrial	Technology	Telecommunications
Chief Financial Officer	32%	25%	27%	36%	27%	50%
Head of Corporate Strategy	30%	38%	45%	29%	9%	25%
Head of Environmental Health & Safety	34%	38%	55%	43%	9%	25%
Board of directors	23%	38%	27%	29%	9%	0%
Chief Operations Officer	43%	38%	64%	43%	36%	50%
Head of Marketing	51%	38%	73%	50%	36%	75%
General Counsel	19%	38%	27%	21%	0%	0%
Other	49%	38%	55%	50%	36%	75%

Note: Percentages do not add up to 100 percent as many respondents indicated more than one answer.

Finally, respondents identified a wide range of ways that sustainability was enabled at their companies (Table 3).

Table 3. Enablers of sustainability within the organization

Budget	68%
Dedicated staff	64%
Ability to focus on strategic instead of financial considerations	62%
Technology	79%
Business model transformation	43%
Access to internal stakeholders	79%
Ability to focus on long-term instead of short-term earnings	57%
Other	21%

Note: Percentages do not add up to 100 percent as many respondents indicated more than one answer.

Commentary: Sustainability and the business

We believe that several points can be drawn from the view of sustainability offered by our respondents' answers to this section of our survey. First, a high-level consensus on the concept of the "triple bottom line" masks considerable variation in how companies define sustainability for practical business purposes, driven by the specific needs of each business and industry. In our view, the definition of sustainability must speak to specific business issues that affect a company's ability to deliver value – which, because they differ among industries and among companies within industries, may drive some of the variation in the definitions of sustainability our respondents gave. However, one key question is whether there needs to be some marketplace consensus in the definition of sustainability to anticipate sustainability trends among stakeholders and to drive the infrastructural requirements and priorities needed to support companies in addressing sustainability beyond their four walls.

Second, we believe that companies can help themselves by broadening their view of sustainability to include the communities and markets in which they do business. Part of the relative lack of emphasis on social sustainability may be due to the lack of a highly visible, well-established set of metrics for social sustainability such as the better-defined, widely known metrics that exist for various aspects of environmental sustainability. However, as the concept of "Social License to Operate" becomes more important, attention to social sustainability issues may increasingly help organizations in their efforts to establish or maintain such a "License" in their target communities and markets as a large part of their efforts to pursue competitive advantage.

Third, our experience suggests that as a company becomes more mature with regard to sustainability, the perceived and actual impact of sustainability will spread to a greater number of roles. The typical progression we have observed is that sustainability first surfaces as a concern for functions such as legal and compliance; then, awareness of its impact spreads to operational functions, such as supply chain; and finally, companies begin to understand how it can affect demand-side functions such as sales and marketing. We believe that, in the future, both leadership and rank-and-file roles in each of these functions will presume a working knowledge of sustainability in the same way that many roles today presume a working knowledge of what used to be called "e-business." The pervasive nature and impact of sustainability on business – analogous to the impact of the Internet – will demand that responsibility for sustainability be built into roles throughout the enterprise sustainability rather than being segregated in a particular function or department.

In fact, we advocate that companies consider creating a "command center" for sustainability in order to create a central point of responsibility for aligning and coordinating sustainability efforts. As part of this command center, enterprises should assign roles and responsibilities to stakeholders from across the organization's functions and disciplines, including but not limited to legal, finance, accounting, engineering, research and development (R&D), operations, marketing, and public relations. Marketing and advertising professionals should coordinate with strategic and operational leads to validate that future performance targets (such as reductions of energy and water usage) are both achievable and aligned with business priorities and operational requirements. Environmental remediation and legal professionals should support the controller in preparing regulatory financial statements to validate that communications in voluntary reports are consistent with those provided in mandatory reporting. And the entire sustainability effort should be supported by appropriate operational infrastructure, including enabling technologies and systems.

Sustainability and innovation

Respondents reported pursuing a variety of innovations in their products, processes, and business models in order to increase the sustainability of their businesses. With respect to product innovation, 25 percent of all respondents mentioned that they were pursuing efforts to make their products more efficient. These innovations were mostly concerned with reducing the products' energy use: For instance, one respondent from a telecommunications company described an effort to improve cell phone display technology that would enhance visibility at the same time as increasing battery life. In addition, 23 percent of respondents mentioned innovations around creating entirely new lines of green products to meet sustainability demands.

The two main challenges that respondents identified in making their products more sustainable were keeping the product cost-neutral to their customers and making the sustainable product's quality and functionality comparable to that of the traditional alternative. Cost, especially, emerged as a major concern with regard to the marketability of sustainable products. As one consumer products respondent put it, "Our customers are not going to pay us any more money for [sustainable] products, so it has to be cost-neutral. That is what we are learning over and over – there is no premium for green products."

Forty-four percent of respondents reported that they had changed their business processes to become more sustainable. These changes focused mainly on reducing operational costs or the cost of production for their products. One automotive respondent's observations are typical: "The only way you stay competitive as your product moves along the maturity line is by reducing the cost of production. Many of the things that we do, such as our greenhouse gas reduction [efforts], have a cost benefit to it." Said another respondent from a process and industrial company: "[We are pursuing sustainable processes] through lean initiatives, which are really transforming parts of our business to eliminate waste and reduce working capital. Also, we are using technology to drive efficiencies and productivity." Of note, 10 percent of respondents indicated that they had changed their R&D processes to incorporate sustainability concepts, which suggests that these respondents are addressing sustainability early in the product development lifecycle as a "front end" concern.

Capital costs were a key concern for many respondents in making their processes more sustainable. "If it is a situation that requires a capital investment, especially in a challenging economy," said a technology company respondent, "that is when you are going to see challenges, because capital resources are not available." Another respondent noted that U.S. organizations faced challenges in developing the business case for investments to improve energy efficiency: "The cost of energy and water in general is still very cheap – we do not pay the full cost in the U.S., so justifying changes for this purpose [can be] very difficult."

In addition, a number of respondents spoke of challenges in educating the workforce on sustainability efforts and goals, changing employee behavior, and "selling it internally," as one respondent put it. "A lot of it will be changes in procedures and mindsets for employees to segregate scrap materials, turn off valves, close valve shut-off lights, and those types of things," said a respondent from a process and industrial company. "There is a challenge in changing people's behavior, just as it is in getting people to change their behavior at home." Another respondent from the automotive industry concurred: "We have to educate a lot of people to take the time to do what we are asking them to do."

Sixty-six percent of respondents reported that sustainability had had or would probably have some kind of impact on their overall business model. A consumer products company, for instance, mentioned that it had shifted to greater use of local sourcing; a technology company cited its move to online downloads rather than physically packaged software products; and an automotive company anticipated the potential need to develop creative leasing strategies to make sustainable vehicles more affordable to consumers. A variety of challenges also surfaced with respect to business model innovation around sustainability, including the potential need to make tradeoffs in other areas of the business, securing employee buy-in to business model changes, and finding the new skills needed in order to reach sustainability goals.

Commentary: Sustainability and innovation

Unsurprisingly to us, most respondents indicated that their companies focused their sustainability innovations on a variety of opportunities related to reducing operational costs, especially with regard to business processes. This suggests that these companies are still measuring sustainability investments based on traditional ROI metrics related to cost, asset utilization, and similar measures. The concern with cost control through reducing the company's operational footprint may also partially account for respondents' overall lesser emphasis on social sustainability initiatives. In our experience, the difficulty of measuring and reaping a quantitative ROI in areas related to social sustainability has encouraged companies to preferentially pursue environmental sustainability efforts, for which there is more consensus regarding measurement and a greater possibility of delivering an immediate monetary benefit.

That some respondents have incorporated sustainability concepts into R&D processes is a welcome finding to us and a trend that we believe will spread in the future. Recognition of the need to address sustainability early in the product lifecycle is one of the crucial shifts in mindset that we believe will be necessary before sustainable business practices become truly embedded in the global economy. That said, the fact that only 10 percent of respondents had built sustainability into their R&D processes, as compared to the 25 percent of respondents who were pursuing efforts to make their products more efficient and the 23 percent of respondents whose companies were exploring new lines of green products, suggests that a disconnect still exists between some companies' goals around sustainable product development and their strategies for executing those goals.

We also found that respondents reported sustainability efforts that focused almost solely on their own companies' operations. We believe that the next logical step would be for these companies to attempt to persuade their value-chain partners to shoulder some of the burden of sustainability, such as the cost of reducing carbon emissions and improving energy efficiency, while sharing the benefits. As companies start to realize that the impact of sustainability extends outside their own four walls, we expect that measuring and managing sustainability activities and impacts on a value-chain basis – that is, among suppliers and customers as well as for one's own organization – will become more common.

Is sustainability a catalyst for innovation itself? Our view is that sustainability drives the need but not the ability to innovate. In a world shaped by sustainability, product innovation and design will need to consider a much broader lifecycle, from the use of alternative inputs to designing for post-consumption. Companies that understand this will likely be more effective in creating new sustainable products, processes, and business models to the extent that they already possess the culture and infrastructure for effective innovation that addresses such a broad lifecycle. In addition, successful innovation will require non-traditional collaboration efforts such as forming alliances with the scientific community and other non-traditional business partners to push technological advances, engaging with the government to promote adequate infrastructure, and collaborating with consumers to build awareness and education as they take on a much more significant role in overall product stewardship strategy.

Innovation will also not be limited to products or services, as we believe that today's business models are not adequate to effectively address sustainability. Transformational business model innovation will be required to take full advantage of sustainability in the marketplace. Sustainability-savvy companies realize that truly sustainable business models are fundamentally different from today's and have far-reaching implications, rather than being merely incremental to today's business operations. Preparing for the business model of tomorrow will require companies to balance economic benefits with environmental benefits, while thinking beyond existing value chains, incremental product and service changes, and limited collaborations with external parties. Breakthrough thinking will be needed to adapt existing operational strategies and develop new supply chains that achieve sustainability goals while optimizing cost and service levels.

Our experience also supports respondents' contention that educating the workforce on sustainability efforts can be one of the most difficult aspects of process change. We encourage companies to approach change management around sustainability processes in the same way as they would any other significant strategic change. To effectively implement new processes, a company must not only teach its employees how to execute the new processes, but also communicate with its people in advance to explain the business case as well as support them before and during the change itself. One challenge here can be the heterogeneity of the workforce in their attitudes toward sustainability: Different workforce segments, such as employees belonging to different generations, may hold markedly different views and values about sustainability, making it necessary to deliver the same message in different ways to address the needs of each particular audience. On the other hand, sustainability's status as a "hot" issue of the day may make it an easier subject for communication and change – or at least a more familiar one – than topics that are less well known.

Sustainability and the ARRA

Overall, our respondents were only moderately familiar with the sustainability incentives offered by the ARRA. Respondents rated their own familiarity with these incentives at an average of 5.29 on a 10-point scale (Table 4). For the most part, industry segments did not differ widely from each other, with the exception of the automotive industry average of 6.38 and the technology industry average of 3.91.

Many respondents believed that the ARRA's business and tax incentives related to sustainability would benefit them only indirectly. Thirty-eight percent of respondents were either unsure about or did not plan on pursuing any sustainability-related stimulus bill incentives; fully 69 percent of respondents reported that they had not sought tax credits or incentives from the stimulus plan. On the other hand, 31 percent of respondents believed that they would benefit indirectly from the ARRA's sustainability incentives in the form of higher sales from customers who are directly applying for incentives.

Many respondents that had already sought incentives had done so via energy incentives and tax credits, mainly in the form of renewable and alternative energy. Thirty-eight percent of respondents, for example, had pursued or planned to pursue the ARRA's energy R&D grants. This is consistent with the importance respondents placed on energy efficiency as a primary environmental issue affecting their businesses (Table 5).

Respondents' views of the ARRA itself ranged from neutral to positive, with 71 percent of respondents reporting that they saw no downside to ARRA participation and use of the stimulus bill. Those who did foresee a downside mostly cited public perception and/or the challenges of dealing with government bureaucracy. Many respondents did note that the bill did not address, or lacked components that would address, specific issues related to their own industry. A respondent from a telecommunications company observed, "I think the dollars are … more directed toward the housing and automotive industry overall than toward ours." A consumer products company respondent reported, "We were disappointed that there was not more money for green projects as they apply to us." And a respondent from a process and industrial company said, "There was no direct benefit for energy efficiency programs in the process industries – I would have given much more direct incentives to those [industries], whether you are manufacturing food, beverages, or whatever."

Table 4. Respondents' familiarity with ARRA's sustainability incentives

Overall	5.20
Automotive	6.38
Consumer products	4.95
Process and industrial	5.57
Technology	3.91
Telecommunications	4.75

Average familiarity on a 10-point scale, 1 = not at all familiar, 10 = very familiar

Table 5. Importance of primary environmental issues on the business

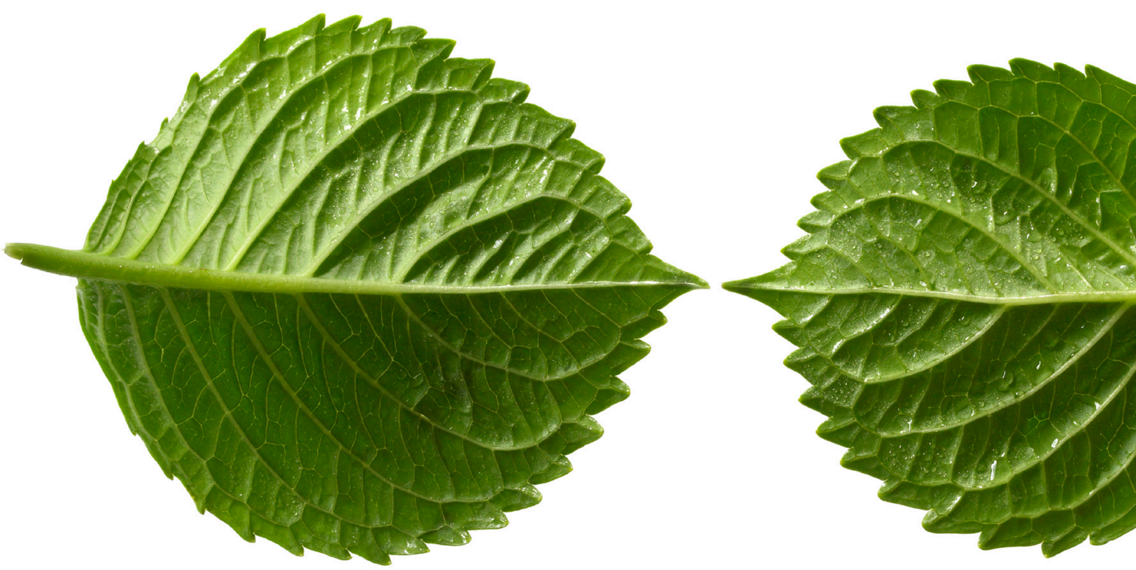
	Overall	Automotive	Consumer products	Process and industrial	Technology	Telecommunications
Alternative energy	6.91	6.50	6.82	7.08	6.64	7.75
Energy efficiency	8.93	9.13	8.64	8.92	9.00	9.25
Water	5.91	4.13	7.27	6.92	5.36	4.25
Land and soil	4.35	3.00	4.82	5.46	3.36	4.00
Green building	6.35	7.00	5.55	5.62	6.82	7.75
Transportation	7.00	7.63	7.45	6.46	6.91	6.75

Average rated importance on a 10-point scale, 1 = not at all important, 10 = very important

Commentary: Sustainability and the ARRA

We believe that two factors may underlie respondents' perception that they derived little direct benefit from the ARRA's sustainability incentives. First, most ARRA incentives around sustainability were targeted at smaller businesses rather than the larger companies that were interviewed for this survey. Many were offered in the form of grants, which, because of the typically labor-intensive application process that grants entail, may have been less appealing to larger companies than a credit applied to income tax might have been.

The second factor driving participants' perception of the ARRA's lack of relevance, however, may be simply a lack of communication. Our experience suggests that sustainability directors and tax departments often do not collaborate effectively; executives in charge of sustainability may remain unaware of sustainability-related tax breaks, and tax leaders may not be informed of sustainability-related plans until after it is too late to optimize incentives. It is our view that, to capture tax-saving opportunities and appropriately address regulatory and legal requirements, companies must maintain processes for effective communication and collaboration among tax, sustainability, and operations as they plan and implement their sustainability programs.



Sustainability and talent

What skills will companies need to help make their businesses more sustainable? Our respondents were much more likely to emphasize general business skills over technological skills as those most important for driving sustainability at their companies. Seventy-three percent mentioned business-related skills such as increased knowledge and awareness of sustainability efforts, the ability to think systemically, the ability to understand complex legislation around sustainability, and financial analytic skills, among others. In contrast, only 19 percent mentioned new technological skills to help with sustainable technologies and energy conservation.

The majority of respondents (73 percent) did not believe that sustainability would lead to the creation of a new "green collar" workforce. Rather, most respondents thought that the same jobs as exist today would be performed with the same or somewhat expanded skill sets, albeit with more awareness of sustainability goals. "I do not think there will a green workforce in our industry," said one respondent from a process and industrial company. "It will be the same people doing their jobs in a different way, being mindful of their impact on energy and environment. I think we are splitting hairs by calling it a green-collar workforce."

Respondents who did believe that a new "green collar" workforce would emerge envisioned a smaller segment of the economy consisting of green analysts, consultants, and energy efficiency technicians, among others – but even they believed that sustainability's main impact on the workforce would be to broaden the scope of existing jobs rather than to create new ones. "We have hired a number of engineers in [the green building] area," said one automotive respondent. "We sent them through the Leadership in Energy and Environmental Design (LEED) program, and now we have 65 certified LEED engineers that we never had years ago. But the bulk of what we are doing is taking the people we have and creating a different type of employee – not necessarily creating a new job classification."

Commentary: Sustainability and talent

In our view, respondents' emphasis on general business skills in enabling sustainability reflects the emerging nature of their sustainability efforts. Setting a vision and holding a company to it are crucial first steps in the journey to sustainability, and the impetus for this needs to come from someone who has credibility as a businessperson – not a technician. That said, we caution executives not to underestimate the importance of technical skills when it comes to actually executing the initiatives that make sustainability possible. In fact, we view general business skills and technical skills as complementary talent needs in driving sustainability. To use an analogy: The Internet revolution needed both business visionaries and computer scientists; sustainability will require the same interplay between leadership and technical skills as well. We encourage companies to invest appropriately in workforce planning, including workforce analytics and modeling, to understand their likely talent needs for both technical and leadership skills under different scenarios.

The concept of the "green-collar workforce" appears to encompass two types of workers: a relatively small population of specialists in sustainable technologies and other sustainability-specific skills, and a much larger population of people in "ordinary" jobs who will need to bring new sustainable perspectives and skills to the work they already do. In fact, just as sustainability will likely become integrated into leadership roles, we expect that it will also become embedded into roles all the way along the corporate hierarchy, so that people will be expected to bring awareness and skills related to sustainability to virtually any position in much the same way as they now must have at least rudimentary "e-business" skills (e.g., knowledge of how to use the Internet). This implies a need for continuous employee training and retraining with respect to sustainability in order to keep the workforce current with the changing business environment and shifting talent needs.

Sustainability and the future

As a group, respondents' top concerns and challenges for the immediate future were related to the current state of the economy (40 percent) and pending environmental legislation (27 percent). Many respondents noted that the recent economic crisis has greatly affected the ability of their companies to spend on sustainability efforts. On the regulatory front, a number of respondents expressed concerns that potential new governmental regulations, both international and U.S., could have an impact on existing products as well as products in the pipeline.

When asked how they expected the sustainability landscape to change in five to 10 years, respondents generally gave broad statements of anticipating greater awareness of and action regarding sustainability among employees, customers, suppliers, and distributors. Respondents were not easily able to predict what technology would look like from a sustainability standpoint; most highlighted generalities such as technology improvements or greater energy efficiency as a result of renewable energy or product innovation.

Finally, most respondents expected their companies' value propositions to remain unchanged in five to 10 years from a sustainability standpoint, mainly because they believed that sustainability was already integrated into their value propositions. This suggests that respondents see sustainability as a tool to be used in the pursuit of their existing strategy, not as a paradigm shift that would require wholesale re-invention of their businesses.

Commentary: Sustainability and the future

We believe that the evolution of technology around sustainability measurement, management, and reporting will follow a path of greater integration into mainstream business applications. Our experience shows that many companies' use of sustainability applications, at present, has moved from a collection of point solutions to a more integrated approach in which sustainability technology is "layered on top" of other enterprise applications. Going forward, we expect that sustainability as a discrete technology investment will gradually disappear, to be replaced by mainstream enterprise applications – finance, HR, supply chain, etc. – that integrate sustainability into their basic functionality as a matter of course. For example, most supply-chain modules today lack the built-in ability to record and track much of the data and metrics used to support sustainability in the supply chain; to gather that data, companies must use work-arounds that add functionality related to sustainability to the basic module. In contrast, we believe that some 10 years from now, the capability to record and track such metrics will come standard with the supply-chain module itself.

With respect to regulation, we expect regulation to be a major driver of sustainability initiatives as well as of new technologies to enable more sustainable business practices. Examples include the proposed American Clean Energy and Security Act, which would establish a cap-and-trade system for greenhouse gases as a response to the climate change debate; the anticipated Kerry-Graham-Lieberman bill, a similar measure that is expected to be proposed in the near future; and the U.S. Environmental Protection Agency's passage of a mandatory greenhouse gas reporting rule that requires companies emitting greenhouse gases over a certain threshold to report those emissions annually from January 2010 onward. With more governmental regulation likely in the areas of carbon management and reporting, voluntary and financial reporting requirements will be inextricably linked, meaning that reports on performance must be consistent across communications channels – whether disseminated through public financial reports, voluntary reports, press releases, or Web sites.

Afterword: Competitive advantage through sustainability

We believe sustainability is a strategic business issue and, to be successful, companies need to consider integrating it into their core business models. Our experience indicates that companies approaching sustainability through ad hoc programs or isolated initiatives do not achieve their desired outcomes and goals as effectively as companies that take an integrated approach. In our view, four key success factors play into the ability to leverage sustainability to increase business value:

- **Aligning sustainability strategy with business strategy.** Leaders must scope and define sustainability in a way that is relevant to their business and that supports their overarching strategic goals. Our research and experience suggest that setting specific goals with set timelines, associated metrics, and leadership accountability is an effective way of driving alignment between sustainability and business strategies. Once set, these goals may be pursued by allocating economic resources, hiring key skill sets, creating new collaborations, and helping sustainability teams navigate internal organizational boundaries.
- **Integrating sustainability into operations and processes across the value chain**. We suggest building an operational model that takes into account the potential costs and benefits associated sustainability in four key areas: the supply chain, the demand chain, emerging technology, and new regulatory requirements. Companies should identify key metrics for understanding current and desired sustainability outcomes and evaluate the impact of their operations on the entire value chain. Target goals may be set for each of these metrics, and performance should be measured against the goals year over year.
- **Structuring non-traditional collaborations and extending existing collaborations.** Collaboration with upstream and downstream value-chain partners, as well as with external parties such as academics and non-governmental organizations, can help companies create innovative solutions to sustainability issues that span multiple steps along the value chain. Upstream collaboration with suppliers can involve formal collaborative practices, such as formal supplier requirements and audits, and informal practices, such as sponsoring conventions and working groups to share best practices. Downstream collaboration with customers, consumers, and waste management organizations may entail activities such as involving customers in the product design process, educating users on appropriate disposal practices, and working with waste management companies or the government to bolster the recycling and waste management infrastructure. And working with non-governmental organizations as well as the academic, scientific, and regulatory communities can spur the development of sustainable solutions that are advantageous to both the business and the broader society.
- **Setting up a governance structure that is supported by the right infrastructure.** Investing in dedicated full-time resources and employee training is key, as is creating a centralized governance infrastructure to manage program execution. In large or global companies, a centrally managed infrastructure is especially important to avoid repeated efforts, to coordinate resources, and to control communications, both internally and externally. We have seen some companies also develop incentive systems and metrics to encourage sustainable behavior, and share best practices in sustainability to facilitate continual improvement.

As an organization becomes more adept in these four areas, we believe that it will progress to higher levels of maturity in its approach to sustainability (Figure 2). In our view, the goal should be to embed sustainability considerations into a company's strategy and operations in such a way as to enhance business value and derive a competitive advantage.

Figure 2. Maturity model for sustainability efforts

Companies are focusing on sustainability in very different ways. However, we find that sustainability-savvy companies take a top-down, sequential approach when implementing sustainability at their organizations and recognize that shareholders, federal and state agencies, and consumers are driving the evolution of sustainability – and will continue to do so into the future. We believe the time is now to undertake initiatives and integrate sustainability into your organization.

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