



The Balancing Act

Innovation, Sustainability and the Bottom Line

Sustainable industrial practice continues to gain momentum as a global moral imperative. Questions about environmental responsibility, energy efficiency and the sustainable use of raw materials are being put to companies around the world from regulators, employees and prospects, and even from customers. The level of global attention placed on sustainability is causing more companies than ever to look seriously at their business practices for opportunities to conserve, preserve and re-use.

Still, despite the rhetoric around sustainable business practices, the market – consumers, end-users and customers – remains unwilling to pay more for “green” products in numbers large enough to have a significant impact. There are other obstacles, but if the market ultimately won’t pay the price of sustainability, what keeps us headed in that direction? And what are R&D, technology development and innovation management practices doing to help move global industry forward along the path?

Assessing the Challenge

In September 2008, the Industrial Research Institute (IRI) convened a forum of Chief Technology Officers at ten of the nation’s leading companies to consider these questions, examine the challenges of global climate change and sustainability and to better understand the role of research & development and innovation in addressing these challenges. Participating companies included 3M, Alcoa, The Boeing Company, ConocoPhillips, Delphi Corporation, General Electric Company, Kraft Foods Inc., Praxair Inc., Procter & Gamble, and Weyerhaeuser.

The group identified four key challenges to developing effective corporate and innovation strategies to address climate change and sustainability:

1. A lack of clarity in government policies affecting these global challenges.
2. An unwillingness of consumers to pay more for green, sustainable products and solutions in sufficient numbers to have a real impact.
3. A number of competing issues that are perceived as both more urgent and more immediate – for example, access to affordable health care in developed nations, and scarcity of water in other parts of the globes.
4. A lack of transportation and distribution infrastructure needed to support alternative and renewable sources of energy.

To address these challenges, forum participants also identified several key factors and best practices their companies are using to help move corporate sustainability initiatives forward, even in extremely challenging economic times.

- CEO commitment and focus on sustainability is required for a company to make progress in this area.
- Efficiency improvements in energy utilization and waste reduction represent sustainability low-hanging fruit for companies to go after.
- Set metrics and measure progress against them.
- Create a culture of transparency both internally and externally around sustainability progress.
- Engage and educate all stakeholders on the company's sustainability goals and progress, and the challenges faced, both technically and economically, to meet these goals.
- Leverage partnerships with competitors, non-competitors, NGO's, suppliers, customers, government agencies and universities, and take a proactive approach to shape national and international sustainability policies, regulations and initiatives.
- Work toward a common international system to measure and assess sustainability progress.
- Investigate alternative business models to explore feasibility of various approaches to improve company sustainability.

A common theme emerging from the forum is that focusing on sustainability is the right thing to do even if the public is not yet at the point of accepting trade-offs to achieve a sustainable future. Despite the challenges, a 2008 survey of Industrial Research Institute (IRI) member companies identified global climate change and sustainability as one of the principal challenges companies face today.

The Role of R&D Organizations

Although each of these innovators is pursuing sustainability goals in their own way, there are definite patterns in the actions they are taking to increase efficiency, reduce waste, and slow climate change. The top three include product and process improvements, increased organizational engagement, and increased efficiency.

Developing green products and processes

Every one of the forum participants is pursuing more sustainable products and practices, particularly in their research and development organizations. Specific actions include incorporating sustainability goals into the stage-gate process to manage innovation efforts, improving process efficiency, and establishing green criteria used to prioritize and direct R&D resources.

Increasing Awareness

There is also widespread agreement that awareness and participation – across the organization, suppliers, and customers – is needed for R&D sustainability initiatives to have significant impact. Companies are engaging employees and stakeholders in ways that will help maximize organizational engagement. Thousands of decisions are made

every day in these large, innovative organizations. It is only when the people making those decisions – at all levels, both inside and outside the enterprise – are aware and engaged, that sustainability impacts can be fully considered.

Increasing Efficiency

When the entire enterprise and supply chain are engaged in corporate sustainability issues, opportunities to trim waste and reduce energy use can be identified and acted upon. Many forum participants identified increased energy and materials efficiency as major elements of their sustainability programs.

The Bottom Lines

The world's most innovative companies continue to pursue and promote clean, efficient and sustainable practices across their organizations. They are committing like never before to reducing negative impacts on the environment and on global climate change. They are searching their organizations, suppliers and communities for still more ways to go green.

Still, the challenges they identified are real. The changes taking place are real, as well, but they are incremental and, so far, insufficient to slow or reduce climate change. The economics – even more important today – along with regulatory clarity, competing socio-political priorities, and access to clean and affordable energy place definite limits on what even the most forward-thinking organizations can reasonably achieve.

Our innovation leaders are engaged in a real balancing act. The triple bottom line – economic, social and environmental – is the fundamental measure and determinant of success. While economics will always carry the day for commercial businesses, the fact that social and environmental impacts continue to gain in weight and importance are strong indications that the balance may, one day, tip in all of our favor.

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