Making the Case for Sustainable ‘Green’ Procurement
Victor Bobis and John Staniszewski

If there is anything history teaches us, it’s that events tend to repeat unless fundamental change occurs. The energy crisis of the 1970’s seems to be manifesting again in the 2000’s. On a global basis, a prevailing consumerist behavior encourages high demands and magnifies an already strong appetite for raw materials.

The antidote favored by some companies is to focus on conservation and use of recycled materials, but these efforts are only cursory. Sustainable ‘green’ procurement, as we see it, should take a holistic approach, one that encompasses organization, people, process, and technology.

Sustainable ‘green’ procurement is not a recent fad. Companies realized a long time ago that efficiency in energy usage, waste generation, and water consumption, along with using recycled materials, resulted in reducing costs. Sustainable procurement is based on the belief that companies can simultaneously benefit from all three elements: economics, environment, and society.

**Best-in-Class Procurement**

An organization wanting to maintain profitability while taking on the responsibility for the environment and looking after its consumers, should search beyond strategies of buying and utilizing recycled materials and reluctantly complying with government regulations.

As Figure 1 above illustrates, Value Chain Integration is an essential element for a best-in-class procurement organization as it embraces sustainable ‘green’ practices. The typical outcomes for a best-in-class procurement...
that has integrated value chain integration with its sustainable ‘green’ procurement practices are:

- Transparent, formalized measurement and metrics of sustainability across the entire supply chain
- Focused product and process innovation emphasizing reduction of the overall total cost of ownership (TCO)
- Sustainability leadership focus on maintaining strong supplier partnerships

Procurement’s integral role in a company’s operations makes it the central touch point for all stakeholders, customers, suppliers, subcontractors and service providers to effectively collaborate and build sustainability across the entire supply chain.

**What does it mean to build sustainability into a supply chain?**

According to the United States Environmental Protection Agency (EPA), “since 1976, requirements for green purchasing have been incorporated into Federal regulations and Executive Order requirements, with a goal of integrating environmental considerations in all stages of the Federal purchasing process.”¹ The United Kingdom Department for Environment, Food and Rural Affairs (Defra) acknowledges that “sustainable procurement is a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment.”²

An excellent example of sustainability’s long term history in the private sector is Herman Miller, a global provider of furniture systems and products, commencing with the company’s founding in the 1920s. Drew Schramm, Herman Miller’s Vice President of Global Supply Chain and Logistics, in an interview with Purchasing Magazine, describes his company’s sustainability in the following manner: “We basically ask what are we doing today that will affect tomorrow… we can’t be good for the earth if we’re not able to stay in business. So the other side of that sustainability coin is that we have to be financially solvent.”³

The Institute of Supply Management (ISM) defines sustainability as “the ability to meet current needs without hindering the ability to meet the needs of future generations in terms of economic, environmental, and social challenges.”⁴ Both ISM and Aberdeen Group, an independent research publisher, reports on a ‘triple bottom-line (TBL)’ approach to sustainability, which focuses on three basic considerations: economic, social, and environmental. Under this approach, the framework of sustainability is based on economic profitability, social responsibilities, and environmental awareness. When comparing the TBL approach with sustainable ‘green’ procurement, the distinguishing factor is that sustainable ‘green’ procurement also emphasizes a holistic approach. Therefore, procurement organizations undertaking the transformation into sustainable ‘green’ procurement must first seek support from their executive leadership before embarking on efforts to directly involve the rest of the company.

**Why do this?**

Best-in-class procurement organizations like Herman Miller and IBM have realized that sustainable ‘green’ procurement is an extension of what these companies have been doing for years. Sustainable ‘green’ procurement is simply another vehicle for value creation.

Using a holistic approach, a sustainable ‘green’ procurement organization addresses the economic, social, and environmental elements of every procurement decision. Careful evaluation of the components within these three elements results in outcomes that positively benefit the rest of the company, and creates the framework for sustainable ‘green’ procurement.

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¹ Integrating Green Purchasing Into Your Environmental Management System (EMS), April 2005 EPA 742-R-05-001
² http://www.defra.gov.uk/sustainable/government/
³ http://www.scmr.com/article/CA6578688.html
⁴ Institute of Supply Management (ISM) Sustainability Impacts Supply Professionals’ Decisions and Supplier Relationships, August 2008

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Numerous studies, including those by independent third party research organizations such as Aberdeen Group, ISM, Forrester, and AMR Research, have been conducted regarding the benefits of establishing a sustainable procurement strategy. Not surprisingly, these studies have all similarly identified common components addressing the economic, social, and environmental elements. The table below lists some of the factors for each of these components.

<table>
<thead>
<tr>
<th>Cost-cutting</th>
<th>Innovation</th>
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<tr>
<td>• Process Optimization/LEAN Manufacturing</td>
<td>• Integrating sustainability in product design</td>
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<tr>
<td>• Total Cost of Ownership (TCO)</td>
<td>• Close-looped Product Lifecycle Management (PLM)</td>
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<tr>
<td>• Decrease Energy, Waste, and Water costs in Product's Material, Packaging, and Logistics</td>
<td>• Design for Environment</td>
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<tr>
<td>• Improved collaboration, visibility, and agility</td>
<td>• Holistic manufacturing</td>
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Cost-cutting: Best-in-class procurement organizations have realized up to an incremental savings of 12% of cost. These procurement organizations have achieved these savings through various sustainable ‘green’ initiatives, including energy, supply, operations and logistics. Sustainable procurement should be treated as a vehicle for cost cutting, and must be seen as an essential dimension of strategic sourcing that provides value, achieves better economics for the company, benefits the environment, and enhances the brand image to the customer.

Innovation: Ongoing efforts to increase service levels, cost reductions, and asset utilization must now also incorporate the environmental impact of each decision across all phases of the product life cycle. The concept of waste and the use Design for the Environment (DIE) methodologies have resulted in sustainable ‘green’ procurement organizations delivering more environmentally harmonious manufacturing outcomes while increasing project delivery acceleration, thus reducing the time it takes to get eco-friendly products from the drawing board to market.

Design for the Environment (DIE) Components:
- Design for compliance: ensuring products meet new regulatory requirements for energy usage, material safety, etc.
- Design for end-of-life management: designing a product so that it is easy to refurbish and reuse or disassemble and recycle
- Lifecycle assessment and carbon footprint reduction: reducing the environmental impact of producing the product, shipping it, use by the consumer, and reclamation and recycling, by evaluating carbon trade-offs through the manufacturing, distribution and transportation processes
- Material selection: choosing materials that are renewable, recyclable and non-toxic
- Packaging design: designing packaging to minimize waste and to make it lighter and easier to recycle

Regulation/Governance: Sustainable ‘green’ procurement extends beyond compliance with current regulations. Establishing a governance structure is essential for an organization seeking sustainability. A properly designed and implemented governance structure plays a pivotal role by driving performance and providing a structure of transparency for the collection, measurement, management, and public disclosure of key economic, environmental,

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and social performance indicators. A governance structure should be in place to identify, understand, and manage future environmental risks and opportunities.

**Consumer Perception:** Sustainable ‘green’ procurement credentials must be founded on hard facts and verifiable evidence. To develop these credentials, collaboration and communication between companies and all stakeholders is critical. This means educating customers and stakeholders alike as well as engaging and partnering with these groups. The goal is to develop common standards for emerging issues and gather support for progressive regulation designed to drive environmentally sound practices. However, in accordance with the TBL approach, sustainable procurement activities must align with the core business or company values and wider community expectations in order to exploit new market opportunities.

Once a company has established a vision, and understands the main drivers for sustainable ‘green’ procurement, the next phase is to define a detailed roadmap for implementing within the company.

**What are the components?**
The main components of this roadmap consist of organization, people, process, and technology.

**Organization:** In order to create a sustainable ‘green’ procurement organization, the following steps need to be undertaken:

- Centralize responsibility
- Implement internal training and education
- Communicate often and clearly to both internal and external stakeholders
- Establish clear metrics and track green performance

**Process:** Examples of companies viewed by others as having best-in-class procurement organizations are IBM and Herman Miller. According to John Gabriel, procurement manager for supply chain social responsibility at IBM, green activities are not to be placed in a separate silo, cordoned off from the rest of the company and called upon when it's convenient. In this regard, IBM has integrated a green ethos of global environmental stewardship into all aspects of its business. “We don’t have a task force or specialized Green procurement brigade,” he says. “We’ve integrated many variables into our sourcing approach, one of which is environmentalism; because we know in most cases we're going to get a cost reduction.”

**People:** In the case of Herman Miller, its commitment to sustainability starts from its CEO, Brian Walker. In a Forrester article entitled 'Herman Miller Shows That Sustainability and Profits Go Hand-In-Hand,' senior executive leadership support and responsibility has resulted in the creation of an Environmental Quality Action Team (EQAT). Herman-Miller approaches sustainability by:

- Making the CEO personally accountable for the success of Herman-Miller’s sustainability efforts
- Engaging employees for the success of green initiatives, through the use of the EQAT, enables the participation by all employees throughout the organization, and aligns its green strategy across all functional groups
- Earning the trust of its customers through the use of third-party certifications to enable ‘green’ credibility
- Utilizing technology to achieve green initiatives

**Technology:** In the Aberdeen Group study entitled ‘Building a Green Supply Chain,’ March 2008, the authors surveyed 330 companies in five key categories, including technology. The study listed four areas of technology enablement: (a) Role based green dashboards, (b) Sustainable/efficient assets, (c) Waste disposal/tracking/analytics, and sustainable transport/logistics. The survey results found that companies classified

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7 http://www.purchasing.com/article/CA6554607.html, IBM and Herman Miller lead Green Purchasing charge
8 Same as #7
9 Case Study: Herman Miller Shows That Sustainability And Profits Go Hand-In-Hand by Cindy Commander and Brian Haven with Jaap Favier and Evadne Cokeh July 31, 2008.
as best-in-class used technology enablers extensively. In all instances, the best-in-class companies used technology at least 10% more than laggards.

Companies must maintain key performance indicators (KPIs) to prove their sustainable ‘green’ procurement credentials to regulators, shareholders and customers. In order to meet these requirements, sustainability has to be embedded in procurement practices.

**How to measure success?**
Measurement is integral in creating a sustainable ‘green’ procurement organization. Results of these measurements need to be compared to stated goals, since this comparison is the most logical method of establishing a procurement organization’s success.

Independent research has shown that ‘greening’ the supply chain can reduce costs and offset price increases in key categories.\(^{10}\) Best-in-class procurement organizations have two main components in their metrics, an environmental element and an economic element.

There are many ways a company can measure the environmental component of sustainability. Regardless how a company creates its measurement system, a common theme appears in this category. Essentially, companies find creative and ultimately sustainable ways to reduce, redesign, recycle, and reuse. For example, Hilton Hotels aspires to be a best-in-class organization. They call their sustainability measurement ‘Global Sustainability Goals,’ whereas best-in-class organizations like Herman Miller measure their sustainability against their ‘2020 Perfect Vision.’ Below is a comparison of the various company programs.

<table>
<thead>
<tr>
<th>Company</th>
<th>Unilever by 2012(^{11})</th>
<th>Hilton by 2014(^{12})</th>
<th>Herman Miller by 2020(^{13})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>Reduce by 20.8%</td>
<td>Reduce by 20% from direct operations</td>
<td>100% from Green Energy</td>
</tr>
<tr>
<td>Emissions</td>
<td>Reduce by 31.6%</td>
<td>Reduce Co2 emissions by 20%</td>
<td>Zero emissions from manufacturing</td>
</tr>
<tr>
<td>Waste</td>
<td>Reduce by 39.5%</td>
<td>Reduce output by 20%</td>
<td>Zero waste generation and landfill</td>
</tr>
<tr>
<td>Water</td>
<td>Reduce by 21.8%</td>
<td>Reduce consumption by 10%</td>
<td>Zero emissions from manufacturing</td>
</tr>
<tr>
<td>Innovation in Design Process</td>
<td></td>
<td>100% of products meet DfE protocol</td>
<td></td>
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</tbody>
</table>

The economic element can be further categorized into four workstreams:
- Procurement sustainability savings
- Energy savings: emissions
- Operational savings: waste and disposal management
- Logistics/transportation: emissions

Typically, best-in-class supply chain organizations usually see the following results:

<table>
<thead>
<tr>
<th>Average Cost Advantage between Best-in-Class and Laggards(^{14})</th>
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<tbody>
<tr>
<td>Procurement sustainability savings: 8%</td>
</tr>
<tr>
<td>Energy savings: 13%</td>
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<tr>
<td>Operational savings: waste and disposal management 6%</td>
</tr>
<tr>
<td>Logistics and transportation 6%</td>
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\(^{10}\) Same as #5  
\(^{12}\) http://www.earthtimes.org/articles/show/hilton-hotels-corporation-announces-global-sustainability-goals,420037.shtml  
\(^{13}\) Same as footnote #3  
\(^{14}\) Same as Footnote #5
Best-in-Class procurement organizations will realize that the process to measure their sustainability efforts are similar to their cost savings efforts. Careful collection and measurement, as well as transparency are paramount. Procurement organizations have to remember that claims regarding economic, social and environment factors need to be transparent to minimize any skepticism, create valuable credibility from their stakeholders, and ultimately guarantee recognition from all constituents. Basically, if a procurement organization’s sustainability procurement efforts cannot be measured, then it cannot be sustained!

Path Forward
In this current environment of erratic and dramatic escalation of costs for goods and services, added government regulation, and greater globalization, procurement organizations should quickly realize the strategic value that sustainable procurement addresses. Best-in-class procurement organizations have accepted the reality that sustainable ‘green’ procurement is an initiative that cannot be ignored and is here to stay. Individually or in combination, government regulations, economic realities, and social concerns will force companies to consider sustainability as an initiative. The main difference between sustainability in the past and what is presently touted, is that making every action sustainable, or green, in a holistic fashion covers Organization, People, Process, and Technology.

The best-in-class companies referenced above have realized the importance of transforming into a sustainable enterprise, and recognizing that it is another step in the evolutionary process to improve cost savings.