Forging New Links:
Enhancing Supply Chain Value through Environmental Excellence

Global Environmental Management Initiative (GEMI)
What is GEMI?

- 39 Member Companies
- Representing 15 Business Sectors
- Non-profit 501(c)(3) Organization
- Not an Advocacy Organization
Current GEMI Members

- 3M
- Abbott Laboratories
- Altria Group Inc.
- Anheuser-Busch Inc.
- Ashland Inc.
- Aventis Pharmaceuticals Inc.
- Bristol-Myers Squibb Company
- BNSF Railway Company
- The Coca-Cola Company
- ConAgra Foods, Inc.
- Dell Inc.
- The Dow Chemical Company
- Duke Energy
- DuPont
- Eastman Kodak Company
- Eli Lilly and Company
- FedEx
- Georgia-Pacific Corporation
- HP
- Intel Corporation
- Johnson Controls, Inc.
- Johnson & Johnson
- JohnsonDiversey, Inc.
- Koch Industries
- Lockheed Martin Corporation
- Merck & Company
- Mirant Corporation
- Motorola, Inc.
- Novartis Corporation
- Occidental Petroleum Corporation
- Pfizer Inc
- The Procter & Gamble Company
- Roche
- Schering-Plough Corporation
- Smithfield Foods, Inc.
- Southern Company
- Temple-Inland, Inc.
- Texas Instruments
- Wyeth
Vision & Mission of GEMI

Vision:

“To be globally recognized as a leader in providing strategies for businesses to achieve EHS excellence, economic success, and corporate citizenship.”

Mission:

“Business helping business improve EHS performance, shareholder value, and corporate citizenship.”
Recent GEMI Reports

- **Clear Advantage: Building Shareholder Value, Environment: Value to the Investor**

- **Connecting the Drops Towards Creative Water Strategies: A Water Sustainability Tool** and supplemental web site, [www.gemi.org/water](http://www.gemi.org/water)

- **Exploring Pathways to a Sustainable Enterprise: SD Planner™ – A Sustainable Development Tool** ([www.gemi.org/sdplanner](http://www.gemi.org/sdplanner))

- **Environment: Value to the Top Line (EVTL)**

- **New Paths to Business Value: Strategic Sourcing – Environment, Health & Safety**

- **Environment: Value to the Bottom Line (EVTB)**

- Business & Climate Change web site ([www.businessandclimate.org](http://www.businessandclimate.org))

- HSE Web Depot web site ([www.hsewebdepot.org](http://www.hsewebdepot.org))
Current GEMI Activities

- AgSustainability
- Governance
- Information Management Systems (IMS)
- Investor Relations
- Metrics
- Supply Chain
- Sustainable Development
- Tools Evaluation and Implementation Strategies
- Transparency
- Water Sustainability
Heritage of the New Report

New Paths to Business Value: Strategic Sourcing 2002

Clear Advantage: Building Shareholder Value 2004

Forging New Links

Enhancing Supply Chain Value Through Environmental Excellence
GEMI’s Supply Chain Work Group


- **Current Objective:** To develop a comprehensive and practical approach for identifying EHS value contribution opportunities in all aspects of supply chain management.

- **GEMI Co-Chairs:** Bert Share, Anheuser-Busch Inc.  
John Harris, Eli Lilly

- **Consultant:** Joseph Fiksel, Eco-Nomics LLC

- **Collaborators:** Prof. Doug Lambert, Ohio State Univ.  
Director, Global Supply Chain Forum  
Les Artman, Partner, Accenture (retired)
Forging New Links: Overview

- Regulatory changes, stakeholder pressures, and market forces are heightening the importance of environmental and social responsibility.
- Supply chain management is evolving from a focus on logistics to a broader view of value creation.
- Companies are extending their environmental, health and safety (EHS) efforts beyond compliance and risk management, and are finding ways to contribute to profitability and competitiveness.

This new GEMI report, *Forging New Links*, provides tools for identifying, prioritizing and implementing opportunities to create business value in the supply chain through EHS excellence.
Examples of Emerging Supply Chain Issues Relevant to EHS

- Globalization of enterprises
- Outsourcing of key functions
- Collaboration and partnering
- Corporate social responsibility
- Life cycle design of products
- Reverse logistics & take-back
- Time-sensitive order fulfillment
- Advanced information technology
- Supply chain security and continuity
Estimated Growth in Strategic Partnerships with Key Suppliers

Source: Ohio State University Career Patterns Survey 2002

% of key suppliers, current & forecast

64 companies responded
Contemporary Definition of Supply Chain Management

“Supply chain management is the integration of key business processes from end user through original suppliers, providing products, services, and information that add value for customers and other stakeholders.”

- Prof. Douglas M. Lambert,
  Fisher College of Business
  The Ohio State University
There are three main pathways to shareholder value, including indirect value creation through stakeholder satisfaction.
Eight Key EHS Contributions

Emerging Roles: Value Creation

- Raise supply chain productivity
- Support supply chain innovation
- Enhance external relationships
- Enable enterprise growth

Traditional Roles: Cost Avoidance

- Assure compliance with laws, regs & standards
- Minimize supply chain risks
- Maintain human health and well being
- Protect the environment
GEMI Company Case Studies

Supply Chain Process Improvement
- Motorola – Inbound Logistics
- Anheuser-Busch – Re-engineering
- Texas Instruments – Materials Control

Supply Chain Risk Management
- Pfizer – Contract Manufacturing
- Dow Chemical – Behavior-Based Safety
- Abbott Laboratories – Contractor Safety

Enhanced Product Development
- 3M – Life Cycle Management
- Kodak – Digital Camera Design

Enhanced Packaging Technology
- Duke Power – Reel-Less Cable
- FedEx Express – Recycled Envelope
- Intel – Micro-Chip Packaging

Collaboration among Companies, Governments, and NGOs
- Clean Cargo Group
- Automotive Suppliers Partnership

Each case study combines several types of EHS value contributions
Motorola expanded a worker safety project into a Six Sigma initiative that is reducing costs, injuries, and pallet wastes by eliminating supplier discrepancies.

- This project has already yielded over $1 million in cost reduction, and is expected to save over $5 million in 2004.
The Motorola Success Story

- Cross-functional team comprised of EHS, Logistics, Quality, Finance, Packaging and Sourcing representatives
- Developed Inbound Discrepancy Reporting system with real-time access to vendor, shipment, order & inventory data.
- Enables a focus on the vital few suppliers or defects with the greatest impact upon distribution center operations, and influences supplier cost and performance evaluations.
- Comprehensive approach standardizes packaging and pallets; reduces the pallets handled, stored and disposed; maximizes packaging density to reduce transportation costs; and reduces associated injury costs and occurrences.
  - 58% reduction in pallet-related injuries, saving $400,000 in avoided Workmen’s Compensation cost
  - 12% reduction in discarded pallets, saving $120,000 in pallet costs
  - $400,000 savings in reduced transportation expenses
  - $100,000 savings in reduced handling and storage of pallets
  - 16% improvement in recycling rate of non-hazardous wastes
- Earned a Motorola CEO Award in 2004
Anheuser-Busch re-engineered its supply chain systems to cope with the increasing complexity of its products, improving both operating efficiency and environmental performance.
Texas Instruments responded to customer needs by developing a systematic process for assuring compliance with requirements regarding banned and restricted substances.
Pfizer uses an internal standard for contract manufacturing and research to monitor its outsourcing providers, thus helping to assure its revenue stream, guard against liabilities, and protect its brands.
Dow Chemical and other companies have adopted a behavior-based approach to transportation safety that has been shown to reduce accident rates while decreasing fuel consumption and overall costs.
Abbott reduced contractor safety incidents to well below the industry average by integrating safety protocols into its automated contractor performance management system.
3M used its “Product Life Cycle Management” approach to design Novec™ 1230 Fire Protection Fluid – a next-generation firefighting foam with superior performance in terms of extinguishing efficiency, safety, and global warming impact.
Kodak's efforts to “Design for Health, Safety, and Environment” have helped its digital cameras grow lighter and more energy-efficient, while their performance has dramatically improved.

- The 2003 models are less than half the size and mass of the 1998 models, yet have as much as four times the resolution and 8 times the image capacity.
Duke Power worked with its cable supplier to devise an innovative "reel-less" cable technology that eliminates the use and disposal of wooden reels, and reduces supply chain costs by $500,000 per year.
FedEx Express redesigned its overnight letter packaging to utilize 100% recycled fiber, thus strengthening its environmental leadership without compromising on product performance or long-term costs.
Intel has saved millions of dollars annually by developing lighter-weight plastic trays that are used to move microprocessor units through the fabrication process and deliver them to customers.

- Intel is continuing to work on the closed-loop processes that will enable the empty trays to be collected from customers, de-contaminated, and re-used.
A number of global companies are collaborating with ocean freight carriers to work toward sustainable product transportation by ocean.

- Working with Business for Social Responsibility, they developed the Environmental Performance Survey, a tool for environmental information exchange.
The Suppliers Partnership for the Environment (SP), is a group of automotive manufacturers and their suppliers in partnership with EPA and NIST that are working together to improve the environment while providing value to the supply chain. GEMI members that are also members of SP include Ashland, Johnson Controls, and Motorola.
Overcoming Barriers

Examples of barriers to EHS value realization

- Higher priorities elsewhere
- Resource limitations
- Doubts about business case
- Institutional inertia & conservatism
- Lack of internal coordination
- Lack of awareness or understanding
- Lack of internal champion

Implications: Specific opportunities for EHS value creation need to be articulated clearly, and EHS staff need become integrated into cross-functional teams
Overview of Methodology

Consider company characteristics and business priorities

Deploy cross-functional team to assess costs, risks, & benefits

Assess feasibility, attractiveness, and competency

Use indicators to track continuous improvement

Step 1
Identify supply chain opportunities

Step 2
Prioritize EHS value contributions

Step 3
Develop business justification

Step 4
Implement, measure, & iterate
“Waste reduction, business continuity, resource efficiency, and stakeholder satisfaction are intrinsic elements of modern supply chain management. Thus, environmental and social benefits such as pollution prevention can be natural outcomes of supply chain business process improvements.”

Forging New Links
GEMI, 2004
Value Wizard

Welcome to the Value Wizard! This tool will help you quickly identify opportunities relevant to your company. There are four possible approaches that you can try, in any order.

**Company Characteristics**
Identify opportunities that are relevant to the basic characteristics your industry, your market, your processes, and your stakeholders.

**Emerging EHS issues**
Identify opportunities that are relevant to emerging business, regulatory or technological issues that may affect your industry.

**Business Processes**
Identify opportunities relevant to supply chain management business processes that your company has designated as priorities for improvement.

**Value Drivers**
Identify opportunities relevant to the key business value drivers that are the focus of your supply chain management efforts.

Each approach will add specific recommendations to your Opportunity Bin, which you can examine at any time.

Clear all My Previous Responses
How to Contact GEMI

GEMI
1155 15th Street, NW, Suite 500
Washington, DC 20005
Phone: 202-296-7449
Fax: 202-296-7442
website: www.gemi.org
email: info@gemi.org