



# Making Sustainable Businesses Work:

## Some Lessons from Massachusetts Leaders

August 16, 2005

By Beth Tener and Martha Kirkpatrick



41 Washington St., #3  
Exeter, NH 03833  
(603) 772-2400  
www.ssne.org

49 Exeter Street  
Portland ME 04104-930  
207-228-8596  
efc.muskie.usm.maine.edu

# Acknowledgements

The authors would like to express their appreciation to the following people and organizations for their encouragement and support, insights and ideas that helped make this dialogue possible:

Richard Barringer, New England Environmental Finance Center

US Environmental Protection Agency Region 1 New England

EPA Headquarters, Office of Policy, Economics & Innovation

Paul Lipke, Sustainable Step New England

Massachusetts Department of Environmental Protection

The Doyle Conservation Center

The participants in the dialogue

# Table of Contents

	<b>Page</b>
<b>Executive Summary</b>	<b>4</b>
<b>Introduction</b>	<b>6</b>
<b>Chapter 1 –High-leverage Areas for Government and Business Action to Promote a Sustainable Future</b>	<b>9</b>
Summarizes the key areas that emerge as providing the most leverage for time/money invested and why.	
Markets	10
Energy	11
Government Procurement	12
Labeling/Recognition/Business Leadership	13
<b>Chapter 2 – Recommendations for Action</b>	<b>14</b>
Provides specific recommendations for action, both ‘low hanging fruit’ simple steps that can be done fairly quickly and the areas requiring more investment and time but with potential of great impact.	
<b>Chapter 3 – What Sustainability Means, How These Businesses are Taking Action, and the Results</b>	<b>18</b>
Definitions of key terms	18
Business cases: Companies taking action and the results	20
<b>Attachments:</b>	
1. List of Dialogue Participants	28
2. Agenda for the Day	31
3. More Ideas	32
4. Sustainability in 10 Minutes	35
5. Summary of Government Programs	37
6. Summary of Evaluations	41
7. Strategic Conversations - process description	46

# Executive Summary

On May 2, 2005, a roundtable dialogue was convened among businesses (mainly from Massachusetts) that are leaders in sustainable business practice, and key government leaders from US EPA and Massachusetts state government. The idea behind this dialogue was to learn from those leaders who are successfully incorporating sustainable practices into their businesses enabling the group together to identify practical and effective ways in which these efforts could be aided and expanded to create a healthy environment, a strong economy, and vibrant communities.

**Business Leader Case Studies.** To this end, the Roundtable began with the business stories: each of the 12 businesses who attended talked about what led them and their companies to move in the direction of sustainability and highlighted the various strategies and practices they have adopted, such as energy conservation, green buildings, green chemistry, new technologies to make products from recycled materials, educating their markets about environmental issues, helping their suppliers implement environmental management systems, and more. The companies highlighted the various challenges and opportunities they face, such as the loss of government grants that help fund recycled product innovation, the challenges of improving energy conservation and renewable generation, and government policies that are not suited to their new business models.

Judging from their evaluations (summarized in Attachment 6), this was a very powerful learning experience for the participants and set the stage for an engaged and open discussion. The discussion was guided by a process of “Strategic Questioning,” which the facilitators introduced to the participants in preparation for the dialogue in the afternoon.

**High-Leverage Ways that Business and Government Can Foster Sustainable Practices.** Drawing on the common themes that emerged from the morning’s dialogue, the participants spent the afternoon in small group conversation to brainstorm how business and government could foster sustainable practices in four principal action areas:

- 1) Promotion of markets for environmentally-preferable products and services;
- 2) Government procurement of environmentally-preferable products and services;
- 3) Energy conservation, efficiency and renewable energy; and
- 4) Promotion, recognition, product labeling, and leveraging business leadership.

**Recommendations.** Sustainable Step New England, the facilitators, synthesized the many good ideas that emerged from the dialogue into some targeted recommendations for “quick hits” and long-term actions as follows:

## “Quick Hits”

Since it is important that some action be taken to continue the momentum generated in this discussion, we recommend a number of actions that are readily undertaken. □

### *Recognition/leadership/labeling*

1. EPA New England synthesize this dialogue’s results and communicate its recommendations into other forums.

2. Expand recognition activities, such as EPA's Environmental Merit awards, to focus on sustainability.
3. Research successful green best practice/product labeling programs for products and services that meet high sustainability standards.

#### *Energy*

4. Develop a business leaders "Ambassador" program where business leaders help politicians, citizens and utilities understand how renewable energy and co-generation can help business and support job creation.

#### *Promote market development*

5. Develop a strategy to restore funding for Massachusetts recycling grants.
6. Expand workplace employee environmental education programs to influence their employees' consumer buying habits and grow markets for environmentally-preferable products and services.

#### *Continue the conversation*

7. Continue the conversation by having each participant commit to calling at least one person from the dialogue to follow up on one sustainability issue and/or idea of interest. Government re-convene this group of businesses in six months to follow up on actions and continue networking.
8. Make preparations to convene a similar round table dialogue in New Hampshire.

### **Longer-Term Actions**

One way that government can focus on activities with the greatest leverage is to incorporate sustainable concepts into initiatives that are underway, thus taking advantage of ongoing momentum and avoiding the time and expense of starting something from scratch.

1. EPA New England and the six New England state environmental commissioners review current initiatives that may be leveraged for sustainability, select the most promising, and develop a strategy for action, engaging leading businesses and other stakeholders.
2. Review current government "stewardship" programs (see Attachment 5) using a vision of sustainability principles. Combine or eliminate the programs that are not contributing very much, and look to synthesize and streamline the ones that are useful.
3. For companies enrolled in Performance Track, explore using Environmental Management Systems (EMSs) as the "one door" criterion to access government stewardship programs.
4. Share best practices from successful environmentally-preferable product procurement programs.
5. Incorporate objectives on environmentally-preferable procurement into government agency environmental management systems.
6. Convene additional dialogues to develop practical action plans to address the priorities that emerged from this discussion, such as how to spend energy efficiency dollars or how to expand the business benefits of extensive research funding for green chemistry.
7. Massachusetts revive the Massachusetts Environmental Stewardship Program, or develop something similar along the lines of EPA's Performance Track Program and/or other initiatives aimed at developing an ongoing network of leadership companies.

# Introduction

It is increasingly clear that our global environment requires that we find new products, services, and ways of production that are sustainable – that is, that provide good jobs and profits while being extremely efficient in resource and energy use, fully recycling waste, and based on renewable clean energy sources. A growing number of companies are recognizing that practices based on principles of sustainability deliver positive economic results, improved environmental performance, and decreased risk. These companies have shifted from seeing the environment as simply a matter of legal compliance, towards viewing **excellent environmental performance as part of their core purpose, reflected in day-to-day management throughout the company**. This shift most often involves new ways of thinking, as well as changes in company mission, management approaches, and business models.

**From a government and societal perspective, there are great benefits to attracting and growing businesses like these in our region...** companies that green their operations, develop the more benign technologies of tomorrow, and invent new business models that provide economic, environmental, and community returns. Often much of government's time and attention focuses on enforcing the environmental laws (and, as such, on the lagging companies). These laws are important; however, a sustainable environment and economy will require many more changes than regulatory programs alone can generate. In tight budget times, governments need to be strategic and targeted in investing their resources to create the most leverage and benefit.

Government agencies at the federal and state level are piloting programs to encourage and support these innovative and proactive efforts of businesses. Examples include the EPA's Performance Track program, Maine's Smart Production Initiative and StepUp program, and Massachusetts' Green Technology initiative. Agencies are also examining current regulatory programs to see what opportunities and obstacles they may present to businesses seeking to move in this direction.

As with any major change initiative, these efforts encounter some resistance, skepticism, and obstacles. Yet these early adopters are discovering what works and what doesn't empower them to grow and thrive. The key question to be answered is: ***How may government support and enhance leading industry practices that are based on sustainable business models?***

Sustainable Step New England, in collaboration with Martha Kirkpatrick, former DEP Commissioner in Maine, and the EPA New England Environmental Finance Center, developed a dialogue process to bring together industry leaders and government agency representatives to explore answers to this question.

What is new about this Roundtable dialogue is that it pulled together a small group of selected leading companies across sectors for a dialogue with government about what is and is not working in the effort to move toward sustainability, using a process of strategic questioning designed to facilitate open discussion and creative thinking.

## **Goals of the Roundtable**

Traditionally, interactions between government and business are focused on a regulation or a specific proposal. Instead, this conversation's aim was to enable participants to think creatively about what is possible, and what more government might be doing to promote the shared vision of a sustainable future.

More specifically, the goals of this one-day Roundtable, held May 3, 2005, were to:

- Provide a forum for senior government leaders to hear from businesses who are successfully adopting sustainable business practices;
- To have dialogue and conversation about how government might help them succeed and promote a sustainable future;
- To help “seed” relationships between government and leading businesses, and among these businesses themselves; and
- To work together to identify practical actions that business and government might take to support a healthy and vibrant economy, environment and quality of life for the future.

## **Approach to Creating the Dialogue**

Sustainable Step New England (SSNE), a regionally-based not-for-profit organization specializing in sustainability training and facilitation, facilitated this one-day dialogue. The project approach is modeled on a successful series of Roundtables held by EPA's New England Environmental Finance Center (NE/EFC) to develop regulatory and other policy approaches to promote Smart Growth concepts and practices. The NE/EFC assisted SSNE in the design of this dialogue.

The event was carefully planned to bring together leaders in environmental practice from Massachusetts business and government. SSNE conducted over two dozen interviews with people in government, non-profits, investors, and businesses in the region to identify those business leaders who have been most effective in adopting forward-thinking environmental strategies and practices.

Senior representatives from three types of businesses were invited, each with an important and somewhat different perspective on what's needed to transition to a sustainable economy:

- Established businesses that are changing their operations to be more sustainable (a mix of large and smaller companies);
- Companies that design and/or manufacture environmentally-sound technologies, such as renewable energy and recycling technologies; and
- Entrepreneur-launched companies designed with a “triple-bottom line” focus in their mission, strategy, and operations.

Further details on the companies that attended and how they are pursuing sustainable business practices is provided in Chapter 3 of this report.

This dialogue was focused on Massachusetts, so most of the attending businesses and agencies were based in-state. Participants from the government included senior leaders from EPA New England and EPA Headquarters; the Massachusetts Department of Environmental Protection; the Massachusetts Small Business Development Center Network, and the Massachusetts Renewable Energy Trust. Since SSNE intends to replicate this dialogue process in other states and New Hampshire stakeholders have taken an early interest, a New Hampshire-based company and a government and business leader also participated. A complete list of dialogue participants is included in Attachment 1.

We are grateful to EPA and a private foundation for the forward-thinking financial support that enabled this groundbreaking project.

## Dialogue Format

**The dialogue had two 1½-hour sessions in the morning, where business leaders took the lead in answering these strategic questions:** What are some specific examples of what has worked well and not worked well in your experience of moving your business to adopt sustainable practices (e.g., pursuing energy efficiency, reducing toxics, adopting innovative environmental technologies)?

2. How might government help you succeed?

Government leaders responded with their reactions and comments.

In the afternoon, the facilitators provided a brief primer on how to ask strategic questions. This skill and “way of thinking” was then used by the participants to explore four key topics, selected from the morning’s discussion:

- Government and business **promotion of markets** for environmentally-preferable products and services;
- **Government procurement** of environmentally-preferable products and services;
- **Energy** issues; and
- **Government promotion, recognition, and initiatives** to support business leaders, and leverage business leadership.

Small groups worked to answer the following question: *How may government and business enable and support sustainable practices in each of these areas?*

The small groups rotated so that everyone in the room was able to contribute their ideas to each topic. Priority actions for each topic were determined by the group initiating discussion on each topic. It is important to note that the ideas contained in this report were the result of a brainstorming exercise. This means that while some ideas could be implemented relatively quickly, others were seeds of ideas that need more discussion and analysis to bring to fruition.

An important element to the success of this day was the facility where the dialogue was held. The conference space at the (LEED registered) Trustees of Reservations new Doyle Conservation Center in Leominster, MA provided excellent AV, ample daylighting, good air quality, and a beautiful setting, all of which served to underscore the value of the green design principles discussed throughout the day.

This report summarizes the ideas and results of this unique dialogue. It is written with an aim to synthesize the key themes, document the good ideas that emerged, and create a simple actionable road map to stimulate action. Opinions or recommendations of the authors are so noted. As facilitators of this dialogue, it is our hope and intent that this report will serve to build on the positive energy and ideas created that day, and translate these into practical action for change.

# Chapter 1

## High-Leverage Areas for Government and Business Action to Promote a Sustainable Future

Governments at all levels face the realities of higher public demands along with decreasing funds and staff. The environmental agencies in particular must implement a host of complex regulatory requirements, ensure that they are based in sound science and technology, and maintain a strong and credible compliance and enforcement presence. At the same time, while it is vital that these activities be maintained, they will not alone solve or avert some of our most pressing environmental problems. Business and government must move in the direction of a sustainable vision and adopt actions accordingly.

EPA and state environmental agencies need to figure out how to implement a parallel-track to their compliance and enforcement activities to support and enable the businesses that are pursuing sustainable business practices. One metaphor might be to view these business leaders as ‘the honors class’ that has different needs from the companies that are working on maintaining compliance, which are the traditional focus of agency time. Particularly in light of budgetary realities, government needs to make strategically smart choices to identify high leverage activities and focus on them, rather than relying solely on a single or broad brush approaches.

*Government can encourage sustainability and leverage its influence by –*

- a) **Leading** (green procurement; providing recognition, changing organizational culture)
- b) **Pushing** (legislation to promote renewable energy/co-generation; is it time for take-back legislation?)
- c) **Facilitating** (sustainability training, convening dialogues on key sustainability topics)

What follows are the results of the participants’ brainstorming and discussion of high-leverage ideas for both government and business in response to two questions:

- *How might government help sustainable businesses succeed? and*
- *What can business and government do together to support and foster sustainable practices?*

The ideas from the morning coalesced into four key topics:

1. Government and business promotion of **markets** for environmentally-preferable products and services, e.g., citizens, business-to-business, government;
2. **Procurement** of environmentally-preferable products and services;
3. Increase **energy conservation, efficiency and renewable energy**; and
4. **Promotion, recognition, product labeling, and leveraging business leadership.**

This chapter summarizes the ideas that were rated as high priority. See Attachment 3 for other good ideas that emerged from these small group brainstorms.

## 1. What Can Business and Government Do to Support and Foster Sustainable Practices in the Market?

This section uses a broad definition of “markets” to include business to business, citizens, and government itself. The ideas that received the strongest support are listed below, in priority order.

- **Outreach and education** efforts around sustainability should be expanded, and concepts translated into understandable terms using business cases like those above. Expand government’s promotion of sustainability as a shared responsibility, with roles for government, business, communities, and citizens. Use radio and television.
- **Publicize good stories** -- promote the stories of successful, more sustainable businesses. Perhaps promoting the good actors should get more focus than punishing the bad ones.
- Agencies and businesses that have adopted sustainable practices should **help make the business case** for adopting these strategies, to get businesses that are not on board to see the benefits and cost savings (for example, for some initiatives there is a 1.5 year or less payback - knowing this will entice businesses to act). Peer learning among businesses may well be the most efficient and expeditious route to more sustainable business practices.
- **Expand grant programs** to provide funding to encourage companies to innovate and develop new sustainable products, and markets. If these leaders are any indication, many companies cannot, even with the best of intentions, entertain such projects wholly on their own; but with a grant they may be in a position to leverage outside funds with significant portions of their own money. Several companies present had made great use of the Massachusetts recycling grants (generating revenues and tax dollars well in excess of the funds received). Unfortunately, recently this money has gone into general revenue due to budget shortfalls. This is shortsighted, for these grants are helping the economy by seeding new products and helping these businesses succeed, which is good for the economy and the environment. A related idea involved looking at how government could create incentives for larger companies (for example, through a tax credit) to direct their financial resources towards innovative projects in smaller companies in their supply chains, customers and/or communities, such as post-consumer product recycling projects.
- **Focus on supply chains:** Identify the top ten to twenty biggest industry purchasers (e.g., government, WalMart, McDonald’s, Microsoft, General Motors) and influence them to change their purchasing specifications to mandate sustainable products and practices, such as non-toxics, recycled content, etc. This would have enormous impact across their huge supply chains. (Note: one participant strongly emphasized that any government initiative in this area should not serve to make these companies more powerful).
- **Develop labels** similar to Energy Star for other environmental issues and products, such as a label relating to green chemistry or toxics reduction. (Energy Star is a premier example of a successful government initiative in educating and creating markets for green products. LEED (Leadership in Environmental and Energy Design) is a successful non-governmental initiative).

- **Companies can lead by example** and promote their sustainable practices. EPA and DEP can help with promotion through multiple channels, including awards, web site promotion, meetings, etc.

## 2. What Can Business and Government Do to Support and Foster Sustainable Practices Relating to Energy?

- **Change the current rate structure** in ways that reduce the barriers and disincentives for co-generation and renewable energy, and add incentives for them.
  - Look at previously successful efforts, for example, in conservation programs, where the utilities benefited from avoided costs, to see what could work here.
  - Seek to understand utilities' interest and how they might benefit from co-generation and commit to longer term contracts for renewable energy.
  - Sustainable businesses should become "ambassadors" to help politicians and utilities understand how renewable energy and co-generation help business and support job creation, as well as the negative impacts on sustainable businesses if these sustainable approaches aren't supported. "It's about jobs."
  - Use NEPA/MEPA as a bully pulpit to help shift policies in favor of renewable energy and co-generation
  - Short and long term: Seek to avoid the addictive effect that some incentives can create (like the current wind energy tax credit) by having a long term sunset in incentive schedules, removing gaps in re-authorization and seeking to minimize governmental inertia and uncertainty from the business planning process.
- **Increase understanding and support** for sustainability that cuts across government and business "silos." For example, brownfields grants could evaluate potential recipients by broader sustainability and especially energy criteria. Build more alignment with sustainability principles, using sustainable business success stories to help people see the connections between business, smart growth, air and water quality, energy efficiency, etc.
- **Transportation** -- Users should pay for roads based on usage, for example, through dynamic tolling and higher fuel and insurance costs for higher road use.
- **Target the substantial dollars spent on energy efficiency** in this region to support sustainability efforts. Note: Utilities largely control who gets this money, and they have a natural interest in promoting new business and more energy intensive companies. A company that uses very little energy BECAUSE of sustainable approach/practices is effectively penalized, and cannot access these funds easily under the current system.
  - Short term: Develop sustainability-oriented evaluative criteria for the funding so that sustainability projects get priority
  - Long term: Change national energy policy toward energy efficiency and greater independence, without simultaneously losing the gains through increases in overall consumption, i.e. all the gains in vehicle engine efficiency have been wiped out by driving around more metal in the form of SUV's.
- Use tax credits or other financing, accounting and/or regulatory mechanisms to **increase green buildings**.
  - Break down the barrier between capital and operational budgets, between what the landlord and the tenant pay for, between what the developer and the building

operator/owner pay for. Right now the developer or landlord often doesn't pay the energy/non-sustainability costs, so they have no impetus to do the right thing.

- Develop the data underlying the business case so government, business and educational institutions can help stakeholders see that practices such as green building lead to productivity increases, lower turnover, etc. that provide even greater benefits than the energy savings, while showing that energy savings are a critical key to such gains.

### **3. What Can Business and Government Do to Support and Foster Sustainable Practices in the Areas of Recognition, Leadership, and Branding/Product Labels?**

The notion behind this topic was to develop some kind of recognition that will help the public make sustainable choices in the goods and services they purchase, and provide sustainable businesses with marketable recognition.

➤ **Labeling/branding** (for example, EnergyStar appliances) can be an effective tool that helps the public easily recognize an environmentally friendly product. Some cases where this approach has been effective include EPA's EnergyStar and WasteWise programs, and a regional program that provides stickers for the windows of dentists who do not use mercury in their amalgam. Government should continue to support those that work. A successful labeling program is one that:

- Recognizes labeling is one tool among many, and may not be appropriate for many things.
- Sets priorities, focus on one item/market, and choose high-leverage areas.
- Is voluntary.
- Is credible with the public. Government, a university or an NGO should be the source, rather than a trade association. There may be circumstances where the government is not the best certifier. Government needs to examine its role as a potential certifier, versus its role as a compliance monitor and enforcer.
- Is fact-based. Criteria behind the label need to be transparent, quantified.
- Considers the time factor. Standards, and performance, change.
- Is not cumbersome.
- Is well promoted to the public.

Other programs, such as the European Union's "green dot" program, should be investigated.

- **Recognition programs**, such as EPA's Environmental Merit Award, are good, positive reinforcement. They help internally and externally, motivate staff, and generate energy and ideas.
- Consider doing a region-wide effort
  - Use recognition programs as an opportunity for dialogue and candid discussion about sustainability goals; for example the EPA might meet periodically with award recipients to talk about how to advance sustainability.
- Sustainable businesses should find ways to **leverage their leadership**, for example:
- Suppliers get "preferred" status with a company due to some criteria (e.g., participation in sustainability training)
  - Need voice of sustainable businesses in policy making, for example, restoring the recycling grants that have been so helpful to Massachusetts companies
  - Educate employees on sustainability, which spreads benefits throughout society

#### 4. What Can Business and Government Do to Support and Foster Sustainable Practices in the Area of Government Procurement?

- **Include social and environmental specification in procurement bid process and contract language.** Opportunities for environmentally preferable purchasing (EPP) exist at every level of procurement and can be used by government and private purchasers to improve and track their environmental performance and promote sustainable behavior throughout the supply chain. Purchasing buyers can specify environmental attributes, for example, recycled content products, less toxic ingredients, sustainably harvested natural resources, and low VOC's. In addition, buyers can improve green building efforts, influence their contractors/vendors' sub-contracts and suppliers, call for continual improvement, and focus on "total internal & external" "cradle to cradle" or "life-cycle" costs.
- **Change purchasing considerations.** A key barrier to remove to enable more purchasing of environmentally-preferable products is to allow purchasers to make their decisions based on value as opposed to low cost (i.e., total cost approach). Traditional lowest-cost bidding and selection has prevented purchasers from selecting products that help avoid broader environmental, health and safety, and waste disposal costs.
  - Modify laws that require lowest bid to include total cost/life cycle cost.
- **Use Federal Executive Order 13148** (requires all federal facilities to implement an environmental management system (EMS) by the end of 2005) to promote the connection between EMSs and EPP.
  - Conduct training on the connection between EMS and EPP
  - Include procurement within EMS's, such as including procurement in the environmental aspects, setting objectives and targets to purchase more EPP's, and monitoring progress over time
  - Use purchasing data from EPP to fortify the measurements and goal-setting required by an EMS
- **Work with the purchasers in government,** by providing management support, education and training, and EPP tools, to overcome institutional barriers to sustainable purchasing.
- **Develop sustainable purchasing guidelines,** goals and measures needed to promote sustainable, total-cost purchasing practices.

## Chapter 2

### Recommendations

In the view of the authors (and many if not all of the participants in the Roundtable), successfully tackling the environmental challenges of the future means building a vision of sustainability that can be turned into effective action through leveraging our time and our resources at the right places and focusing our efforts. Our recommendations below fall into two categories of action. First, we identify some “quick hits” – things that can be done quickly and with relatively little investment to advance sustainability and to build on the networking and relationships begun in the roundtable. The second category contains longer term actions that focus on where to leverage efforts for maximum results. What follows are recommendations from the authors, based on our analysis of what came out of the Roundtable and our own experience.

#### A. “Quick Hits”

The ultimate success of an endeavor such as this roundtable is not what happens during the day itself, but what comes out of it. Because of this it is important that the participants take some action early on, while the energy and ideas from the day are fresh. To that end we recommend a number of actions that are readily undertaken. These recommendations are oriented around the four key action areas (denoted as subheadings in italics). In addition, we recommend that the process of dialogue among leaders, used in this Roundtable, be used to further progress in various areas.

#### *Recognition/leadership/labeling*

1. **EPA New England publicize this dialogue’s results.** Issue a press release about this dialogue that features the companies involved and their leadership actions, as well as the key results. Spread results and recommendations from this dialogue into other forums such as ECOS (Environmental Council of the States) and US EPA’s Innovations Action Council.
2. **Expand recognition activities.** Look at expanding EPA’s Environmental Merit awards and other recognition activities to focus on sustainability. Do the same in all six New England states.
3. **Evaluate successful green best practice/product labeling programs.** Research federal, state and international examples of successful labeling programs for products and services that meet high sustainability standards, such as Energy Star and the European Union’s “green dot” program, for possible applicability to other areas. Include an analysis of when labeling is and is not an effective tool. This initial research can then be used to determine where current government programs could include some kind of certificate or label for leading companies or products, for example, for companies that have invested in renewable energy, that are leaders in eliminating toxics or reducing waste.

#### *Energy*

4. **Ambassador program.** Develop a business leaders “Ambassador” program so sustainable business leaders help politicians, citizens and utilities understand how renewable energy and co-generation can help business and support job creation, as well as the negative

impacts on sustainable businesses if these sustainable approaches aren't supported. "It's about jobs, good jobs."

*Promote market development*

**5. Develop a strategy to restore Massachusetts DEP funding for recycling grants.**

Several businesses present at the roundtable gave examples of how grants from the Massachusetts Recycling Investment Reimbursement Program (RIRC) had been enormously helpful to them and expressed dismay at the loss of these funds. To retrieve this funding we recommend that MA DEP set up a meeting of businesses who benefited from the DEP recycling grants and government representatives (including the MA Executive Office of Economic Development) and interested non-profit groups to strategize on the restoration of this grant money for sustainable product development. Key questions to explore might include:

- What are the quantifiable business benefits and environmental benefits associated with the previous grants, as well as business stories of their value?
- How could these grants be structured to create the most value to businesses, expanding economic growth, and reduced environmental impact?
- What would it take to restore this funding?

**6. Expand workplace employee environmental education.** Expand programs within leading businesses and government agencies to influence their employees' consumer buying habits through their workforce education programs. These informed consumers help grow the markets for sustainable businesses' products and services. For example, EPA has a model for an Environmental Expo, which could be expanded and replicated at other agencies. NH Ball Bearings conducted a similar Environmental Fair for their employees to raise environmental awareness and introduce them to greener options, such as buying an Energy Star appliance. Explore business-to-business mentoring, for example, have businesses share their employee education programs with other businesses.

*Continue the conversation*

**7. Continue the conversation and foster networking.** Each participant commit to calling at least one person from the dialogue to follow up on one sustainability issue and/or idea of interest. This will help build a network of ongoing dialogue and will in turn seed further ideas and collaborative efforts.

Government re-convene this group of businesses in six months to follow up on actions, to provide an opportunity for further networking and to check in on progress. Conigliaro Industries offered to host a tour of their facility. Their offer for a meeting could be combined with a follow-up meeting, where EPA/DEP survey the businesses about what type of ongoing dialogues could be of interest. Schedule more dialogues among these companies, as well as other leaders and those who might be inspired to follow their lead. Further value could be found in providing time for these businesses to share best practices and lessons learned with each other.

**8. Make preparations to convene a similar round table dialogue in New Hampshire** within the next year, among EPA New England, the New Hampshire DES, government officials involved in economic development, and leading businesses.

## **B. Longer-Term Actions**

In this day of shrinking budgets and new environmental challenges it is more important than ever that government be smart in selecting activities for maximum leverage. One important means of doing this is to look around for initiatives that are underway to see if sustainable concepts can be incorporated into them, thus taking advantage of ongoing momentum and avoiding the time and expense of starting something from scratch. In this way, a little bit of effort can produce significant results. This will go a long way toward building a common vision. This approach also helps prevent the “layering-on effect” of well-intended government programs that are not integrated into other ongoing activities, which tends to add greatly to the transaction costs, spread government resources too thin, and discourage participation. To avoid these problems and to capitalize on some of the ongoing initiatives and get us closer to a vision of sustainability, the following actions are recommended:

**1. EPA New England and the six New England state environmental commissioners brainstorm current initiatives that may be leveraged for sustainability,** select the most promising, and develop a strategy for action, engaging leading businesses and other stakeholders. Some initiatives currently underway that might lend themselves to including sustainability principles and practices are:

- EPA Administrator Steve Johnston’s “Stewardship Mandate”
- MA Governor Mitt Romney’s initiative to transform the permitting process, being led by the MA Executive Office of Economic Development
- Current proposals in the MA Legislature to amend the Toxics Use Reduction Act

**2. Review current government “stewardship” programs (see Attachment 5).** Use a vision of sustainability principles (e.g., clean, efficient, renewable energy; non-toxic, biodegradable, full recycling of synthetics; protection of ecosystems and sustainable rates of use of renewable resources; and meeting human needs) and compare how effectively the various government programs outside of regulations help businesses move towards this vision. Combine or eliminate the programs that are not contributing very much, and look to synthesize and streamline the ones that are useful.

**3. For companies enrolled in Performance Track, explore using Environmental Management Systems (EMSs) as the “one door”** criterion to have access to government stewardship programs. Each of the many programs listed in Attachment 5 has its own criteria and process for membership. These can be significant individually, and collectively make the transaction costs too high to be worth it for many companies. For these programs to be the incentive they are intended to be, a streamlined way to participate is needed, and EMS, with its measuring and monitoring provisions, offers a promising way to do this.

**4. Share best practices from environmentally-preferable product (EPP) procurement programs.** Expand government and business procurement of EPP’s by learning from existing EPP programs and sharing their best practices. It is fortunate that Massachusetts Operational Services Division has one of the nation’s oldest and most respected green purchasing programs. Since 1994, this program has increased its purchase of recycled content products from \$2.8 million to nearly \$70 million and purchases of other EPP’s to more than \$23 million. The MA EPP program also hosts an annual Environmentally Preferable Purchasing Vendor Fair and Conference that features approximately 100 vendors

and educates 800 representatives of municipalities and institutions about green purchasing. The program models and practices from Massachusetts or other leading programs could be replicated in federal government agencies and other states to expand the markets for sustainable products and services.

**5. Incorporate objectives on environmentally-preferable procurement into government agency EMS's.** Federal agencies are all implementing environmental management systems (EMS's), which require that they set new measurable improvement objectives each year. Increasing their agency's purchasing of environmentally-preferable products should be made a priority in their EMS.

**6. Convene additional dialogues.** Create similar Roundtables with a mix of key stakeholders to develop practical action plans to address some of the priorities and challenges that emerged from this discussion.

Examples of topics for a similar dialogue with business leaders, key government agency leaders, and other stakeholders:

- What would it take to increase co-generation and renewable energy?
- How can energy efficiency dollars be most effectively spent?
- How can our region's businesses and economy benefit from the significant amount of grant research funds focused on green chemistry that are at New England's land grant colleges?
- How can we overcome barriers to building green buildings, e.g., between capital and operational budgets?
- What is the business case for adopting sustainable practices?
- What would be an effective region-wide government recognition program for leadership in sustainable business?

**7. Massachusetts Stewardship Program.** The authors recommend that Massachusetts consider reviving the Massachusetts Environmental Stewardship Program, or develop something similar along the lines of EPA's Performance Track Program, Maine's StepUp Program, and/or other initiatives aimed at developing an ongoing network of leadership companies. It is vital that environmental agencies have some program and staff that focus on the environmental leaders, so that sustainability becomes part of the agency's vision and operating plan. Efforts that go on wholly outside the agencies have a way of being invisible to agency staff, making the job of incorporating these ideas into agency programs difficult if not impossible.

In implementing these recommendations or additional ones, it is recommended that the insights and ideas summarized in Chapter 1 of this report be reviewed as a resource.

# Chapter 3

## What Sustainability Means, How These Businesses are Taking Action, and the Results

### Sustainability Defined

Businesses, governments, and citizens all have an interest in acting in ways that ensure our current and future health and prosperity. The challenge is to make smarter decisions today that create multiple benefits, avoid problems, and lead to the future we want to create. The key is to have a clear definition and principles of what is ‘sustainable.’ The Natural Step framework provides a simple definition of sustainability principles, based on the science of how the earth works (see Attachment 4 for a fuller description).

Traditionally, companies focus on the question of ‘what do I have to do to comply?’ With a focus on meeting principles of what is sustainable, companies ask quite different questions, such as:

1. How might we make our operations more efficient in how we use energy and materials? How might we begin to make the transition to clean and renewable energy sources, and the effective reuse of energy and materials?
2. How might we reduce the volume of synthetic chemicals (particularly toxic and persistent ones) that we use and/or are released into the environment? How might we ensure reuse and recycling in tightly closed cycles, or better still, re-design to eliminate their use by moving to non-toxic and biodegradable alternatives?
3. How might we be far more efficient with the natural resources we use and/or protect and restore key habitats and their functions?
4. How might we help meet basic human needs in ways that deliver first to those most in need? How can we as individuals, departments and businesses be ever more mindful of our purchasing and consumption, and their impacts?

Asking these questions leads to more strategic questions, such as:

- ✓ *How can we take what we now consider “waste” from our process and turn it into something of value?*
- ✓ *What would happen if we thought of ourselves as providing a service rather than selling a product?*
- ✓ *How can I work with my suppliers/employees/trade association/community to educate them on the need for and value of solutions that are sustainable?*
- ✓ *How can we return multiple benefits to our employees, the local community, and the environment while making a reasonable profit?*

Leading companies ask these questions at strategic times, such as in product design, when making procurement choices, when building or renovating a building. When the questions are

asked at these critical times, environmental and social issues are factored into design choices, which often costs less, such as eliminating a toxic material from a product design compared to the cost of retrofitting an existing factory with emissions controls.

One example of how a company has used sustainability principles to define an overall strategy is Interface Inc., a carpet and fabric manufacturer (and participant in this dialogue), which has seven strategic objectives to become sustainable:

1. **Zero Waste** – aim towards a goal of generating zero waste
2. **Benign Emissions** – eliminate all harmful releases into the ecosphere
3. **Renewable Energy** – consume less energy and pursue renewable energy supplies
4. **Close the Loop** – redesign products so that their synthetic components are kept in a ‘closed loop’ and at end of life these materials are used again while the organic components can be incorporated back into the earth
5. **Resource-Efficient Transportation** – Increase efficiency of moving people, products, and information to reduce energy use and land impacts
6. **Sensitivity Hookup** – help employees, customers, suppliers, and business partners understand the environment and challenges ahead
7. **Redesign of Commerce** – create new methods to deliver value to customers and support initiatives to bring about market-based incentives for sustainable commerce.<sup>1</sup>

### **Sustainability Applied: Companies moving toward sustainability in their business model and practice**

It is probably safe to say that no company in the world is fully “sustainable.” However, a number of business enterprises have made the commitment to move their business in the direction of sustainability and are exploring answers to these innovative questions.

Innovation at several key levels will be necessary to eventually create an economy that is full of businesses that align with the sustainable principles:

- Established businesses will need to rethink their product designs, their supplier specifications, how their products are transported, what happens to them at end of life, how they use energy and its source, and more.
- Many technologies and new business products and services will be needed to help address these challenges, such as to how to generate, store and distribute renewable energy; how to take products back at end of life; how to recycle what now goes to landfill and more.
- New business models aligned around these principles can find ways to profit in the new context, such as businesses that can profitably turn waste into valuable products.

The businesses that attended the Roundtable are putting into practice a wide range of strategies, technologies, policies, and innovations that are part of the transition to a more sustainable economy. Some of these companies have adopted a commitment to sustainability

---

<sup>1</sup> Interface Sustainability Report

and a comprehensive strategy, while others are inventing new business models and technologies or approaches that move in that direction.

The following examples provide a brief overview of what these Massachusetts companies are doing, and help show how the principles of sustainability are applied in practice. In adopting sustainable practices, all of these companies have experienced challenges of some sort as well as successes. The larger systems that they operate within (such as the regulations, accounting rules, and market expectations) were designed without consciousness of the principles of what is sustainable. Therefore, the lessons learned from these early adopters are valuable to be able to identify the systemic barriers and obstacles that may need to change to enable more companies to follow their lead.

Each of the companies talked about some of the things they are doing to adopt sustainable practices, in response to the following question:

***What has worked well and not worked well in your experience of moving your business to adopt sustainable practices?***



**Advanced Marine Technologies**

Lew Spencer, Co-Founder and Chairman  
*Company makes products from fish waste*

Advanced Marine Technologies was started as a “zero waste” company as its founding philosophy. It manufactures organic plant foods, “nutriceuticals,” pharmaceuticals and other products from fish waste. The company uses an enzymatically-driven digestion system to break down the fish “waste” or vegetable matter into products available for future uses. It decouples the protein quickly, economically, and selectively so elements

can be reused and made into superior products. The company works to educate manufacturing companies in New Bedford that generate fish “waste” to see it and treat it as a product of value, including educating them on the cost of sending their waste to a landfill versus treating it as a product with a market value. For one plant, their technology saved \$600,000 in landfill fees and generated \$1.8 million in nutraceuticals from the same waste stream.

<p><b><i>In Brief --</i></b></p> <ul style="list-style-type: none"><li>➤ Waste = “food”</li><li>➤ Educating suppliers</li><li>➤ Importance of government grants for product development</li><li>➤ Harnessing technology for sustainability</li></ul>
--

Advanced Marine Technologies has found that the state recycling grants to be very helpful in product development and bringing products to the market. An \$80,000 state grant was matched with their own funds and labor that enabled them to double their manufacturing capacity. What would be of further help would be independent tests of products, such as by a university or other credible source, that demonstrates their product’s benefits. Also, government support for research and development would accelerate how much and what the company could do.



Dave Jacobson, Sales Manager  
*Company makes products from recycled materials*

Conigliaro Industries grinds, consolidates and combines materials from recycled materials and from other manufacturer's processes to find outside markets for the materials and creating their own products. Their slogan is "Re-made in Massachusetts." The company helps keep wastes and recycled materials out of landfills by finding markets and new product applications for these materials.

***In Brief --***

- Turning waste into product
- Importance of state grants for product development
- Need energy solutions for their building

In the past, Conigliaro received four grants from the Massachusetts recycling grant program (Recycling Investment Reimbursement Program (RIRC)) of about \$50,000 each. The company matched each of these grants and was able to develop new products:

- Developed a blacktop patch that uses 3 million lbs/year of ground waste plastic (matched state grant \$25,000)
- Cement blocks – takes 7.8 million lbs/year of plastic (matched state grant \$200,000)
- Mattress recycling – take apart mattress and resell components (matched \$500,000)
- Glass recycling plant – able to process 31 million lb/year of glass (matched \$50,000)

These grants, which came from a designated fund from unclaimed bottle deposits, have dried up as the money has been diverted to the general fund due to budget shortfalls. Another particular challenge for Conigliaro is conserving energy in their 110-year-old building.



John Tessicini, Controller  
*Commercial construction company that is a leader in minimizing construction waste*

Consigli determined that strong environmental stewardship would be a way to differentiate their company from competitors and saw this supporting their key values. In 2001, Consigli started to expand its effort to minimize construction waste, working with its staff, subcontractors, customers, and the state. Consigli developed a green team internally, involving at least one person from each internal department. This helped educate the staff on environmental concerns and gave them a stake in the outcome. The company focuses its efforts in three areas:

***In Brief --***

- Continual focus on waste minimization and reuse, green building, and EMS
- Emphasis on staff education and green team involvement
- Leveraging leadership by educating its competitors
- Encourage environmental conditions in government procurement specifications

- Waste reduction/recycling – recognizing the value of materials that come off their job sites. It involves looking at the value of its waste as a product, finding ways to re-use it on its own sites, doing source separation, and eliminating packaging as much as possible. Internal groups compete for who can reduce/reuse the most waste. Tracking waste statistics to support this works well and shows this activity is a cost savings.
- Environmental Management System (EMS) – helps ensure compliance and workplace safety. Also helped gather good data on their progress.
- Green building – five people work on this. They’ve recently completed two LEED-registered buildings. They have kept detailed records on materials and costs to use later. Consigli is renovating an abandoned building for its headquarters to be a LEED building.

Consigli also focuses externally, through its membership in an Association of General Contractors. It educates its competitors on what it is doing and why and what the cost-savings are, to leverage its leadership to enhance sustainable practices more broadly. Through this networking and with its WasteWise membership, the company also learns from other companies about waste minimization and reuse.

One of the challenges for Consigli is the accounting and payback calculations used in the bidding process. Long term cost savings through energy efficiency and waste reduction are often not factored in, making for an uneven playing field when cost is the main selection criteria. Consigli recommended that environmental standards should be part of the bidding calculations, along with a standard method for payback/low cost accounting calculations. For example, the City of Cambridge now mandates that bidders have a 50% waste reduction program and submit a waste reduction plan with the bid.



Rich Mattila, Director of Environmental Affairs  
*Biotechnology corporation, recently built LEED-certified corporate headquarters*

Genzyme is a company of 7,500 employees that develop medical treatments for genetically inherited diseases. Its ethic stresses the importance of building relationships, with its patients, its employees, local and state government, and other stakeholders. Genzyme recently built a LEED-certified building in Cambridge. This diversity of standards, culture and regulations creates challenges, but the company believes that the right approach is to focus on relationship-building and a common understanding of what they are trying to achieve. Another challenge is to work as an environmental department “as a regulator” within an organizational culture that is non-hierarchical and encourages independent thinking. Again their focus is on translating the personal desire to act in an environmentally responsible way to the business. Another challenge is in energy: Genzyme may lose the steam energy source it has been using in its manufacturing process and is looking at co-generation. There are tariff issues and financial constraints.

<b><i>In Brief --</i></b>
<ul style="list-style-type: none"> <li>➤ Recently built green building</li> <li>➤ Work on sustainability concepts with employees</li> <li>➤ Build relationships with customers, patients, community</li> <li>➤ Moving to co-gen/renewable energy is a desired goal and a big challenge</li> </ul>

Wendy Porter, Director of Environmental Management  
*Fortune 500 office flooring and upholstery manufacturer with commitment to sustainability*

Interface's former CEO Ray Anderson made a commitment in 1995 to transform his company into a sustainable enterprise. There was pressure for an environmental vision both internally and from customers. Interface has developed a good working definition of sustainability and approaches it on what they call "7 Fronts" as defined above. Interface has developed a process it calls "eco-metrics" to measure its progress against all seven of these fronts.

Making progress on these sustainability fronts is viewed as equal with production, marketing and other more common business concerns. Employees' merit raises are tied to progress in sustainability. Interface does a lot to educate its employees and the marketplace, so they can see the environmental value they are getting for their dollar.

Interface's strategy is to promote sustainability by influencing the broader market, rather than serving niche market, thus they aim to be price competitive and do not demand a premium for their products and services. A key effort underway at Interface is the redesign of its product to make it as sustainable as possible, for example by reducing and ultimately eliminating the use of toxics and fossil fuels and producing the first 100% renewable fabric. Interface's thought process in moving into rapidly renewable raw materials (rather than fossil fuels) was illustrated in this example. Interface is developing a fabric made with PLA, a polymer developed by Cargill Dow that is made by processing natural corn sugars. PLA is not GMO-free because Interface can't track the corn used in the process, but they do have an agreement with Cargill Dow whereby the chemical company plants an equivalent poundage/acreage of GMO-free corn. Thus Interface uses its leverage in the marketplace to accomplish the goal of getting more GMO-free corn in production.

***In Brief --***

- Leadership, and pressure from employees and customers
- Having a clear vision and working definition of sustainability
- Educating customers, employees and public
- Good metrics of env. progress
- Energy efficiency a big challenge; need to support co-generation
- Creative use of market leverage to foster sustainability
- Shifting from "product" to "service"

One area that continues to be a challenge for Interface is energy. The company has pursued efficiency wherever they can and pursued renewable energy. More renewable energy and support for co-generation are needed.



Patti Carrier, Facilities Manager, HiTech Division and Chris Rawnsley,  
*Company manufactures aerospace ball bearings*

New Hampshire Ball Bearings is a company of about 500 employees that manufactures precision ball bearings. In the early 1990's the company had a leadership change and a large enforcement action; these two events combined set them on the course of environmental leadership practices. They focus efforts on influencing their suppliers to provide materials that meet sustainability goals, and are striving to reduce waste and toxicity in their production. Their hazardous waste generation has been reduced from over 300 tons in the early 1990's to less than 10 tons today. They are now influencing their suppliers to help them do the same. Also, they created an EMS users group for their key suppliers as well as a local utility, laundry service, and local municipality (although the utility and municipality declined to participate). One particular area of emphasis is in educating employees. Last year the company partnered with the state of New Hampshire to hold an "energy fair," with hybrid vehicles, pellet stoves, etc. There was a lot of positive feedback from employees, and the government partnership brought added credibility. This kind of education changes behaviors among individuals and communities. Energy continues to be a challenge as the company grows. They are a Performance Track company and have joined the energy challenge.

- In Brief --*
- Regulatory pressure (such as enforcement action) can bring a paradigm shift
  - Focus on employees
  - Greening the supply chain
  - Waste reduction and reducing toxicity
  - Need sustainable energy options



Eric Hudson, President  
 Company that makes items from recycled plastic

Recycline was founded with an aim of taking recycled materials and turning them into environmentally-friendly products that the consumers who were recycling could buy. The company makes all of its products – from toothbrushes to table service – to be recyclable and is continuously working to find areas to improve its environmental performance. Environmental considerations are at the core of the company's mission. The company's consulting division often works through partnerships, for example with UMass-Lowell, and companies such as Dannon and Stonyfield. It helps larger businesses do what it does on a large scale: for example, in waste reduction, dairy processors dealing with a bad batch who have a lot of waste packaging, or helping Staples take waste and turn it into products, and finding sources of recycled materials as alternatives to virgin plastics.

- In brief --*
- Turning a waste into a product of value
  - Working in partnership with universities, companies, government
  - Recycling grants important
  - Metrics on solid waste diverted and reused would be helpful

Recycline also derived a lot of benefit in its early years from state recycling grants. Also helpful were Merrimack Valley Manufacturers' Partnership and the Chelsea Center, which provided several internships and a stamp of approval that gave the company confidence. Support groups on the environmental side have been helpful, such as the Responsible Business Association and the Social Venture Network.

Several things were identified by Recycline as challenges and/or future opportunities. It would be helpful to have university or another credible source help with measurements, even on a state-wide scale (for example, tonnage of plastics recycled and reused) including trends. For example, funding small grants for local university students to do environmental life cycle analyses would help the company quantify its environmental achievements. Many companies are doing business-to-business transfers of materials that are diverted from landfills; however, these materials are not being tracked, e.g., most recycling tracks municipal recycling program collections.



Rose Perkins, Manager, Sustainable Development  
Specialty chemical company

Rohm and Haas' CEO has made a strong commitment to green chemistry, seeing it as critical to ensuring that this 100-year-old company is around for another 100 years. The company has focused on providing strong consistent messages and communications on the importance of this. They have integrated green chemistry and eco-metrics into their business and given it a value equal to profitability, and performance on these areas is incorporated into manager's personal objectives. Translating these concepts into business terms is important. Rohm and Haas created a sustainability team that includes multiple functions, and has found that this has enhanced communication among departments that may not be aware of each others work. Some of their particular challenges are in the area of energy and water efficiency. It is a struggle to reduce energy while adding capacity. They are challenged to influence their market place. Their clients in the semiconductor industry do not seem to care about environmental benefits of products and do not want a reworked product. Customers are demanding additional cleaning cycles, which increase chemical use and waste and make it hard to achieve solvent reduction goals. The industry is facing challenges of clients and production moving offshore to Asia.

***In Brief –***

- Integrating sustainability into core business purpose
- Educating employees
- Need to educate clients; marketplace



Susan Giordano, Operations Manager  
Company makes components for wind towers

Second Wind manufactures electronics and software that make wind farms cost-effective by providing accurate performance data on the turbines back to the owners. The company has a commitment to keeping its manufacturing of electronics in Massachusetts. The wind industry in the US is largely driven by tax credits enacted every one to two years by Congress. These credits end up driving the market such that during the tax credit gaps the market is immobilized and its reauthorization process creates a

***In Brief –***

- Company seeking to grow a renewable energy company & keep manufacturing in Mass.
- Tax credits are limited and create uncertainty

good deal of uncertainty. In addition, a tax credit isn't the best incentive because it only attracts those companies looking for a credit. This dynamic makes it difficult to run a business: it creates ups and downs and discourages investors.



Roy Russell, Chief Technology Officer  
*Company that offers car rentals by the hour*

Zipcar offers an alternative to personal car ownership in cities, to enhance the quality of life in urban areas by reducing the number of cars. To date, 500 Zipcars have displaced 10,000 personal cars among 25,000 customers in Boston, New York City and Washington DC. It seeks to appeal to the 90% of city dwellers that do not drive to work, and for whom car ownership is a nuisance and an added expense for the occasional convenience. Using technology, they have been able to create a value proposition that appeals to customers and create a viable business. Zipcar's principal challenge has been getting people to understand who they are and what they do, as they are creating a business based on a new paradigm. For example, the MA Department of Revenue initially wanted to apply the same charges as a car rental company, which would have been \$10 per transaction. This would be cost-prohibitive as Zipcar typically rents its cars for \$8/hour. In another example, it was challenging to raise money from investors with this new business model, since investors doubted that Americans would give up car ownership.

***In Brief –***

- Enabling a more sustainable lifestyle for city dwellers
- Challenges of a paradigm shift to regulators, investors, and public



Todd Krasnow, Chairman of the Board  
*Dry-cleaning chain using environmentally-preferable chemicals*

Zoots is a dry-cleaning chain that differentiates itself by using environmentally-preferable chemicals. 85% of the industry uses perchloroethylene (PERC) in its solvents, which is a probable carcinogen and is heavier than groundwater and hard to clean up when it leaks. Being PERC-free appeals to landlords, banks, and communities. The company uses primarily citrus based laundry detergents, and has moved away (although not 100% yet) from phosphates. Zoots does not use chlorine and promotes recycling of hangers. There has been success with the segment of consumers that cares about these issues.

***In Brief –***

- Reducing society's use of and exposure to toxic chemicals
- Regulatory programs often don't recognize difference
- A brownfields-type approach is needed for transferring ownership of businesses to cleaner use

One of the particular challenges for Zoots is that it is treated by regulators as though it uses PERC. One reason for this is the PERC residue ends up in Zoots' facilities' water effluent from clothing that was previously cleaned by other dry cleaners. They only dry clean at central locations so they can verify they have no PERC on site. Sometimes Zoots has had to decontaminate its facilities from this residue. Another problem is when Zoots has tried to purchase a site that was previously occupied by a dry cleaner that used PERC. As an "identical user" of the property, Zoots inherits the problem and finds itself on the hook for the problems the prior cleaner created, even though it does not use PERC and does no cleaning or pressing at its retail locations. They suggest a "brownfield-type approach" that facilitates sustainable businesses (not just drycleaners) in purchasing existing businesses' markets and sites when they will be operated more environmentally-responsibly. Another challenge is that others in the dry cleaning business may identify themselves as "environmentally friendly"; there is no common standard and it can be confusing to the public.

# Attachment 1

## Dialogue Participants

### Business Participants

Name, Title	Organization	Highlights
Patti Carrier Facilities Manager for the HiTech Division	New Hampshire Ball Bearings	Manufacturer; EPA Performance Track member, proactive on energy efficiency & greening the supply chain
Michael Giaimo Energy & Environment	NH Business & Industry Association	Business membership organization in New Hampshire
Susan Giordano Operations Manager	Second Wind	Renewable energy company; make components for wind towers
Eric Hudson President	Recycline	Entrepreneur, company sells toothbrushes from recycled plastic
Dave Jacobsen Sales Manager	Conigliaro Industries	Offers recycling services, including finding end markets for recycled materials and inventing their own products
Todd Krasnow Chairman of the Board	Zoots	Dry cleaning chain using environmentally-friendly chemicals
Rick Mattila Director of Environmental Affairs	Genzyme Corporation	Biotech company; recently built LEED-certified green building in Cambridge
Rose Perkins Manager of Sustainable Development	Rohm and Haas Electronic Materials, LLC	Chemical company; EPA Performance Track member
Wendy Porter Director Environmental Management	Interface Inc.	Carpet/fabrics company; integrated sustainability strategy, Perf. Track and ME Step Up member
Chris Rawnsley Manager of Environmental Affairs	NMB, Inc.	Corporate parent of NH Ball Bearings
Roy Russell Chief Technology Officer	ZipCar	Entrepreneur, company offers car rentals by the hour
Lew Spencer Co-Founder & Chairman	Advanced Marine Technologies	Entrepreneur, company makes fertilizers from fish waste
John Tessicini Controller	Consigli Construction	Leader in minimizing construction waste

## Government Participants

Name, Title	Organization
Derry Allen Counselor	Office of Policy, Economics, & Innovation US EPA Headquarters
Valerie Conti Assistant State Director	Massachusetts Small Business Development Center Network
Thomas D'Avanzo Manager	Assistance and Pollution Prevention Office, U.S. EPA, Region I
Robert W. Golledge, Jr., Commissioner	Massachusetts Dept. of Environmental Protection
Robert Guilleman Environmental Protection Specialist	U.S. EPA, Region I
Chuck Kent Director	Office of Policy, Economics, & Innovation US EPA Headquarters
Ira Leighton Deputy Regional Administrator	U.S. EPA, Region I
Warren Leon Deputy Director	Massachusetts Renewable Energy Trust
David O'Conner Commissioner	Massachusetts Division of Energy Resources
Arleen O'Donnell Deputy Commissioner	Massachusetts Dept. of Environmental Protection
Stephen Perkins Director	Office of Environmental Stewardship, U.S. EPA, Region I
Donna Perla Senior Advisor	Office of Research & Development, U.S. EPA Headquarters
Robert W. Varney Regional Administrator	U.S. EPA, Region I
Michael Walls Assistant Commissioner	New Hampshire Dept. of Environmental Services

**Facilitators**

<b>Name</b>	<b>Organization</b>
Martha Kirkpatrick	Sustainable Step New England (Former Commissioner of Maine DEP)
Beth Tener Executive Director	Sustainable Step New England
Paul Lipke Director of Programs and Training	Sustainable Step New England
Richard Barringer (in absentia) Principal Investigator	New England Environmental Finance Center University of Southern Maine

# Attachment 2

## Agenda: Sustainable Business/Government Dialogue May 3, 2005

Time	Content
8:30 – 9:00	<b>Coffee/Continental Breakfast</b>
9:00 – 9:15	<b>Introductions/Context Setting</b> <ul style="list-style-type: none"><li>• Welcome and Objectives: Robert Varney, Regional Administrator, EPA New England</li><li>• Agenda, Ground Rules, &amp; Sustainability Context: Beth Tener, SSNE</li><li>• Introductions</li></ul>
9:15 – 10:45	<b>First Dialogue Question</b> <p><i>What has worked well and not worked well in your experience of moving your business to adopt sustainable practices? (Specific examples are particularly helpful).</i></p> <ul style="list-style-type: none"><li>• Business leaders each take up to 5 minutes to respond; government leaders listen and ask questions</li><li>• In last 10 minutes – responses from government leaders to what they've heard</li></ul>
10:45 – 11:00	<b>Break</b>
11:00 – 12:30	<b>Second Dialogue Question</b> <p><i>How might government help you succeed?</i></p> <ul style="list-style-type: none"><li>• Business leaders each take 5 minutes to respond; government leaders listen and ask questions</li><li>• In last 10 minutes – responses from government leaders to what they've heard</li></ul>
12:30 – 1:30 1:15 – 1:30	<b>Lunch</b> - Optional Green building tour
<b>Note:</b> The agenda for the afternoon may be adjusted based on the key issues and outcomes that emerge from the morning dialogue. The following is a tentative plan:	
1:30 – 1:35	<b>Preview Afternoon Agenda and Confirm Plan</b>
1:35 – 1:45	<b>Introduction to Strategic Questioning</b>
1:45 – 2:10	<b>Strategic Questioning Brainstorm on a Key Challenge</b>
2:10 – 3:30 (with 15 min. break around 3pm)	<b>Small Group Dialogues with Mix of Business and Government Leaders</b> <p><i>What are the essential characteristics/elements of a successful public/private/NGO initiative to accelerate the growth of companies with sustainable business models?</i></p> <p><i>How could Massachusetts engage various parts of state government in supporting the growth of sustainable companies (e.g., economic development, energy investment funds, etc.)?</i></p>
3:30 – 4:00	<b>Feedback of Small Group Results</b> <b>Evaluation of Meeting and Discussion of Next Steps</b>
4:00 – 5:00	<b>Social Reception</b>

# Attachment 3

## More Good Ideas

When you tap over 400 combined years of work and life experience in a room, there are often more ideas than can be featured in a concise report. While our report has focused on the key themes and actions steps that emerged from the day's discussion, we also would like to share and record these other ideas and insights.

### 1. Markets/Society

- Expanding EPA's annual Green Expo to include more procurement staff and small business. Export the concept to other organizations to hold their own Expos.
- Integrate discussion of sustainability and these strategic questions into various government programs, for example:
  - Small Business Development Centers
  - Integrate sustainability training into the programs and services of Manufacturing Extension Partnership activities (government funded outreach and assistance to small businesses with offices in each state).
- Expand environmental education efforts, including:
  - Education efforts geared to children to educate them on what is sustainable.
  - Increase level of awareness on sustainability in colleges and universities.
  - Get highest-level of government people and elected officials conversant in sustainability and how these issues relate to jobs, health care, etc.
- Identify practical sustainability projects citizens can do.
- Look at what we could learn from other topics that have been emphasized, like safety in the workplace
- Create a business-to-business green buyers guide, e.g., carpets, cleaners.
- Set standards to drive technologies and markets, for example, in construction project bidding requirements.
- Make renewable products competitive through tax relief and other measures.
- Government could use its convening power to sponsor more programs like this roundtable to bring people together to discuss common issues.
- Create an information network to find by-product synergy, test product performance.
- Help develop measures to assess progress on sustainability by looking at markets, trends, costs, and environmental progress (similar to what Commerce and Census used to do), for example, volume of plastics recycled, where it's going. Other credible entities, such as a university, might be good partners in this effort.
- Create/expand Green Suppliers Network.
- Internalize costs, e.g., government can look at its own fees and taxes to see if they are aligned with true cost and environmental impact. (DEP has annual compliance fees that are based on staff time versus cost per pound of pollution or NPDES fees based on toxicity.)

- Remove regulatory barriers for business innovators.
- Create exit strategies for regulatory programs. How do you get out of a program once you're in it? Make a de minimus threshold under which you don't have to have a permit or report that will provide an incentive to reduce emissions (and an advantage to companies who do). For example, in industries where time to market is important – not having to have a Title V permit and/or getting quick permit modifications can be a real advantage.

## 2. **Government Procurement**

- Find ways to credit vendors for their overall environmental performance (e.g., a company's participation in Performance Track, implementation of an EMS, improvements in reducing greenhouse gases, etc.) Companies that demonstrate certain improvements could be placed on a preferred vendors list, or given additional credit or points in a bid ranking.
- Develop criteria to evaluate life cycle costs
- Explore ways to get insurance companies to reduce a company's premiums if it implements an EMS
- Federal, state and municipal pension funds could be invested in sustainable companies
- Look at existing successful EPP programs such as the Massachusetts Operational Services Division and share their best practices
- Change the way costs for public buildings are reimbursed. Due to the vagaries of the public budgeting process, agencies that invest in cost saving programs and technologies do not reap the financial benefits of these efforts. This is a build-in disincentive to conserve resources and is an obvious barrier to promoting sustainable practices (including EPP) in government agencies.
- Look at government's indirect dollars – capital programs, school loan programs, transportation money – to see how they can support sustainability

## 3. **Energy**

- “Brightfields” – take the Brownfields idea (and funding) and energy funding and use to leverage sustainable energy in site redevelopment.

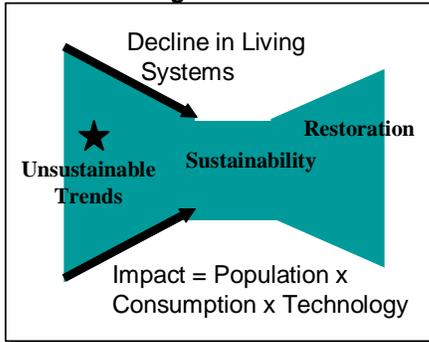
## 4. **Green Chemistry**

- Government team up with New England land grant colleges (UNH, UMass) to support green chemistry
- This is a high leverage area and needs more focus

## 5. **Regulatory Issues**

- Think about a brownfields type program for business redevelopment. (look at liability and standards issues when one business moves into another business's space. A brownfields approach could take some of the burden off the subsequent user)

- Find a good example of a positive and effective working relationship between agency and a company (example – United Technologies), identify what worked well and why, to help us define a good engagement, know it when we see it.
- Look at Massachusetts Environmental Results Program as a model for looking sector-wide, dealing across media
- EPA should take a systemic look at list of Current Programs prepared for this Roundtable, and see which ones are high-leverage. Consider eliminating, combining, others.

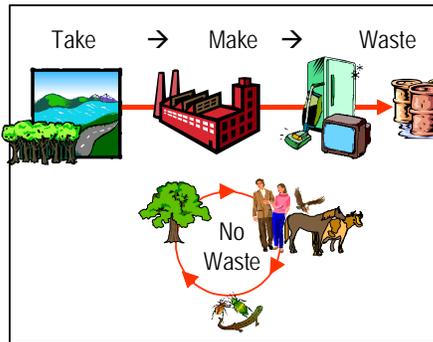


★ **The Big Picture**

We face two global, converging trends that cannot be sustained. Human impact on the planet is increasing steeply, which is causing a sharp rate of decline in the health and capacity of people and other living things. These trends have costly repercussions: wars, cancer, asthma, market volatility, energy costs, regulation, pollution, sick buildings, species extinctions, etc.

How can organizations respond strategically to the scope and rate of the unpredictable changes now under way? Opportunities for a preventive, strategic response become possible by exploring these challenges at a systemic level rather than reacting to each new issue.

*Here's the core of the problem when we look at the systemic level:*



**Industrial vs. Natural Systems**

Our industrial systems are linear: we take raw materials, make products and services, and turn over 90% (by weight) of the original mined raw material and energy into unusable waste. By contrast, nature works in cycles so “waste” from one part of the system becomes nutrient for another. Nature has functioned cyclically for 3.5 billion years, leading to ever increasing resiliency, productivity, and diversity. For our quality of life to improve long term, humans have to learn to mimic cyclic natural systems. The most basic Laws of Physics illustrate why a linear approach is problematic.

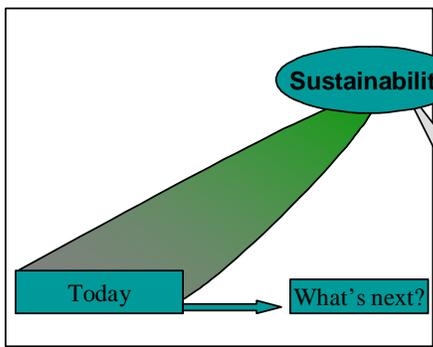
*Here's the scientific basis for many solutions:*

Nothing disappears: there's no “away.”  
Everything spreads  
We consume energy & material quality: its purity and structure.  
Sun-driven processes restore quality

**Nature Works in Cycles Because of the Laws of Physics**

- Since nothing disappears (matter and energy are conserved) waste we throw “away” stays in the system. Earth’s capacity is finite.
- Everything spreads. Contaminants will always disperse, and can build up in our bodies.
- Consumption degrades the usefulness of energy & materials.
- Only sun-driven processes restore usefulness (e.g., purity and structure of food, forests, soil, oceans, metals, minerals, fuels, etc.). So if we diminish the green space, we reduce the system’s capacity to recover.

*Therefore, to make businesses, communities, and individual practices more sustainable, what should we do?*



**Guiding Actions for a Better World**

Based on these scientific laws, four categories of actions become most important. Strategic questions based on these categories (see over) can help us move towards creating new, profitable business models and healthy communities.

- To create a sustainable society, address impacts on nature’s functions and diversity by systematically reducing:**
- 1) Use of mined materials, including fossil fuels, metals, and minerals
  - 2) Use of persistent, and/or toxic synthetics (e.g., chemicals, carcinogens)
  - 3) Consumption of resources (i.e. forests, fisheries, groundwater) and degradation of natural systems (e.g., wetlands, oceans, atmosphere)
  - 4) and meet basic human needs worldwide (i.e. inequity)

**Next Steps**

There are many steps and a major societal transition between where we are today and an equitable, restorative society. These tools can help you map the journey.

Based on the Natural Step framework

## Strategic Questions to Ask to Move Towards Sustainable Practices:

What is the basic need that our company helps people and organizations meet? For example:

Mobility	Health, hygiene
Clean, air, water, food	Communication
Housing/shelter, light, heat	Knowledge, understanding

---

## How can we provide this service using as little material and energy as possible while protecting living systems?

Here are some examples of answers to this question, focusing on some of the most important actions in the four key categories:

### Mined Materials including fossil fuels, metals and minerals:

- Reduce transportation required: locate operations near suppliers and customers; buy from local suppliers
- Use transportation choices that reduce fossil fuel use, e.g., telecommuting, public transportation, rail; e-mail and regular mail rather than overnight services; buy the smallest, most fuel-efficient vehicle in the class of vehicle needed for the most miles, and only rent extra capacity when needed; use alternative fuel vehicles
- Practice 'green' building & renovation
- Conserve energy & use energy efficient products
- Design for product take-back and re-manufacture
- Purchase electricity from green (renewable) power providers
- Minimize use of metals & minerals, & reuse & recycle them at end of life

---

### Persistent and/or toxic synthetics, chemicals:

- Use non-toxic materials, including in custodial services
- Purchase biodegradable and organic materials and products
- Avoid disposable, synthetic products
- Reduce use of pesticides
- Reduce, reuse, remanufacture and recycle synthetic materials in closed loops
- Ask yourself, "How can I get the same value and service while minimizing use of this material?"

---

### Consumption of resources and degradation of natural systems:

- Maintain open space & wetlands: redevelop brownfields and in-fill rather than build on open space; invest in sustainable reforestation
- Promote transportation and building policies that limit sprawl
- Tele-commute &/or use building space effectively rather than expanding
- Promote habitat protection, biodiversity, reforestation; use less meat & more local organic, seasonal produce in food services; compost waste; replace chemical lawns with native landscaping
- Maintain water & soil quality with living systems for human waste and storm water control and remediation
- Reuse materials, improve product durability and reparability, and recycle (with small down-cycles) so less virgin material is required
- Buy recycled materials & independently certified, sustainable forest products

---

### Meeting human needs worldwide

- Ensure changes/solutions meet human needs of all involved and affected
- Assess whether less advantaged populations bear an undue burden of impacts associated with an activity, e.g., environmental justice concerns related to power plant siting
- Invest in/support efforts that address the roots of social, ecological and/or economic problems *in the communities from which your labor, materials, energy and/or products are drawn*; i.e. support education, community building, regenerative technologies, public services, affordable housing, etc.
- Design solutions that minimize environmental impacts while also meeting unmet human needs, e.g., creating jobs in recycling near large unemployed and under-employed populations.
- Shift to flows of service: lease & remanufacture equipment rather than sell & dispose; sell services that help communities reduce crime instead of (or in addition to) selling locks and alarms.

# Attachment 6

## Summary of Participant Evaluations

17 evaluations received

### 1. Were your expectations met?

Not met	Met	More than Met
	8	9

### 2. Was this worth your time?

Not worthwhile		Worthwhile		Very worthwhile
		3	8	6

### 3. What were 1-3 things you liked about the Roundtable? Numbers denote how many people mentioned the same point with their comments below:

- Open dialogue and exchange of ideas (8)
  - Chance to interact one-on-one with business and agencies
  - Exchange of ideas
  - Information sharing
  - Opportunity to speak, discuss
  - Government and business brainstorming
  - Had a very open and genuine ‘feel’
  - Exchange of information and views
  - Honest exchange
  
- Opportunity to learn about business actions and challenges (8)
  - Reports by companies in opening session were impressive and inspiring
  - Learned a lot about challenges of business in sustainability
  - Learning what other companies and businesses are doing
  - Interest from companies for more government leadership, even more regulation, was a surprise
  - Learning from industry
  - Candor of business folks
  - Hearing efforts of industry
  - Opportunity to hear specific concrete comments and issues expressed by businesses
  
- Mix of business and government perspectives and opportunities for feedback (8)
  - Great mix of business and government perspectives
  - Business feedback to government agency
  - Good collaboration
  - Good group – talented and varied
  - Great sharing of knowledge and information
  - Great variety of group and thoughts

- Have EPA and MA DEP senior level folks share their perspectives
- Government willingness to listen and influence change
- Generated good ideas (4)
  - Good ideas
  - Generated ideas that could be acted on
  - Branding, government buying, R&D effort at universities in New England
  - The subjects
- Focus (2)
  - Proactive focus (versus negative or reactive focus)
  - Focused
- Facilitation (2)
  - Facilitation well done
  - Well organized, well planned facilitation
- Other
  - Meeting setting and Trustees of Reservation facility
  - Strategic questioning
- 4. **What were 1-3 things you did not like about the Roundtable? What would have made the day more useful to you?**
  - Desire for follow up (6)
    - Lack of specific follow up
    - Need to keep the dialogue going
    - Better sense of or commitment to next steps beyond a report
    - Better understanding of the government process: how do/can these suggestions move through the system?
    - Clearer next steps
    - A follow up report
  - Lack of differing perspectives, could have benefited from some challenges and diverse mindsets, more debate, include businesses not as far along on sustainability (5)
  - More depth than breadth (4)
    - Cycling through stations put too much emphasis on quantity of ideas rather than clarity and value of a few ideas
    - More time at each station
    - More focus on key issues – next meeting?
    - More discussion of the four questions
  - Felt rushed at certain parts throughout the day; overly compressed (2)
  - Seating arrangement with segregation of ‘two’ groups/tables (2)
  - Didn’t see value of the ‘strategic questioning’ section to this agenda (2)
  - More strategic questioning needed, more time to absorb this information (2)
  - More details on company successes and struggles (white papers?)
  - Key EPA leaders left early
  - Would have preferred even government/industry ratio of people
  - Hoped it would lead to specific opportunities/advantages for our company
  - Driving one hour to the location

**5. What were the 1-3 ‘take-away’ points, insights or lessons learned from today’s conversations?**

- Appreciation of what leading businesses are doing and their needs (6)
  - Hearing from leading sustainable companies is inspiring to me and others
  - Commitment of business to sustainability
  - Creativity of business
  - Many businesses have various interests in environmental stewardship. Their approaches may be different but they all have the ultimate goal of sustainable practices in mind.
  - What else is happening in the sustainable world
  - Companies doing great work but still struggle with sustainable concepts and integration
  
- Particular ideas to make progress (10)
  - Several ideas/strategies to advance sustainability in Massachusetts
  - Many opportunities, not all barriers
  - Many different steps are needed
  - Recognition is worth a lot to leading businesses
  - The need for additional information and resources to support these businesses
  - Need to focus on high-performers more, not just scofflaws
  - Need recognition programs; existing programs do not do enough
  - Can leverage some current efforts and EPA to help move some of these ideas: by-product synergy network needed; energy is a challenge; federal procurement to push sustainability
  - More information on grants
  - EPP is relevant, or at least popular issue, on the minds of business
  
- Strategic questioning approach (3)
  
- Others
  - Impressed with progress EPA has made internally on sustainability
  - Awareness of gap between government’s understanding of sustainability versus business leaders
  - Working together we can solve some of these very important issues
  - Drive to increase sustainability in my own company
  - Nice to see strong focus on sustainability

**6. What are 1-3 things you would like to see happen as a result of this Roundtable?**

- Tangible action on the ideas generated (10)
  - Real follow-up and progress – action or change in approach to environment and sustainability in MA business, government, and communities
  - Actionable next steps
  - Good report with insights and next steps
  - Next steps
  - Action on one idea
  - Results! If one project/program ‘hatches’ and takes/grows roots it will have been an extremely worthwhile endeavor

- Actionable results for EPA, DEP, etc.
- Identify three things that MA and EPA and industry commit to work on from the end of the day votes
- Look forward to report and hope to obtain updates on results from actions taken
- Progress towards sustainability metrics
- More dialogues like this one (7)
  - Task groups to advance policy options
  - More dialogue
  - More discussions like this
  - Like to see this happen in another state, maybe with NGO involvement
  - Additional forums for business to share information on progress and struggles
  - Willing to attend a follow up meeting
  - More opportunities for sustainable businesses to connect
- Share information on key topics (4)
  - More information on state and government purchasing
  - More information on grants and finance
  - Collection and dissemination of information on sustainable purchasing
  - Educate government and public sector about sustainability
- Other follow up on particular ideas generated
  - Follow up with EPA on its 31 flavors and what is really working and what we should toss
  - Constructive well-marketed education and highlighting sustainable business efforts to consumers/citizens
  - More emphasis in energy efficiency programs in advancing sustainability goals
  - Incentives developed by government for sustainability
  - Measurement of and definition for sustainability; what is the impact
  - Inspection on process redesign at EPA

# Attachment 7

## Strategic Conversation Process used in this Roundtable Dialogue

### Strategic Conversations

Strategic Conversations set up a ‘creative field’ where completely new ideas and options can emerge to solve challenging problems and create positive futures. Instead of typical conversations that involve gathering input on a proposed solution or advocating and debating from fixed positions, Strategic Conversations involve a joint exploration of what could be. They have several key elements: strategic questions, strategic choice of participants, and facilitation that creates high-value results.



#### Strategic Questions

Strategic Conversations begin with open ended, provocative strategic questions. These questions often stimulate or change our thinking just by being asked. Strategic questions help us recognize the implications of a changing context. Our mindsets are often based on yesterday’s reality yet the context we live and work within is constantly changing. Under these conditions, many good answers lose their relevance. Strategic questions endure, helping us recognize change, assess its implications, and then adapt to create a more desirable future. When strategic questions are combined with principles for advancing ecological and social sustainability, tremendous power and innovation are released.

#### Strategic Choice of Participants

As the challenges facing society and our organizations are increasingly complex and interrelated, it become critical to take a systematic perspective. For example, in Southern Connecticut the challenge of traffic congestion on I-95 could not be solved unless a multi-stakeholder group was convened to discuss the complexities and potential solutions. Strategic Conversations involve bringing together various participants in a complex system to explore strategic questions together. They bring new combinations of people to the table to co-create options and solutions.

#### High-Quality Facilitation

Strategic Conversations build on the power of good questions like this and involve a unique combination of people with diverse perspectives to explore answers. In a room of 15-30 people, imagine the wisdom contained within their hundreds of years of combined experience. With skilled facilitation, the collective power inherent in a group can be accessed to create completely new and workable responses to a strategic question.



41 Washington St., #3  
Exeter, NH 03833  
(603) 772-2400

[btener@ssne.org](mailto:btener@ssne.org) [www.ssne.org](http://www.ssne.org)