

It's not that
easy being
green....





EASIER THAN YOU THINK

The Green Suppliers Network

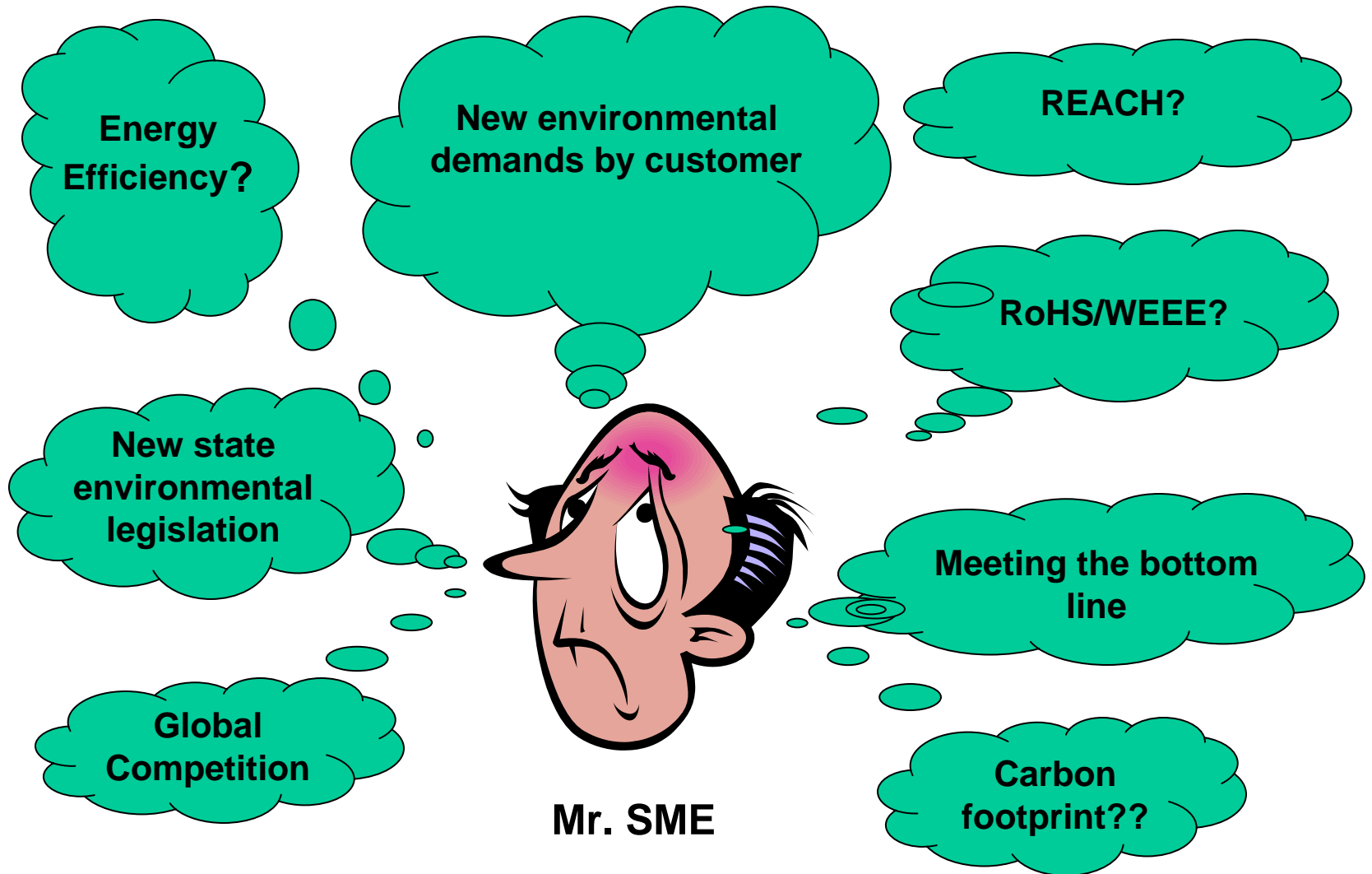
A Public Private Partnership, Delivering Impact



Green Suppliers Network



Mr. SME's Needs are Evolving



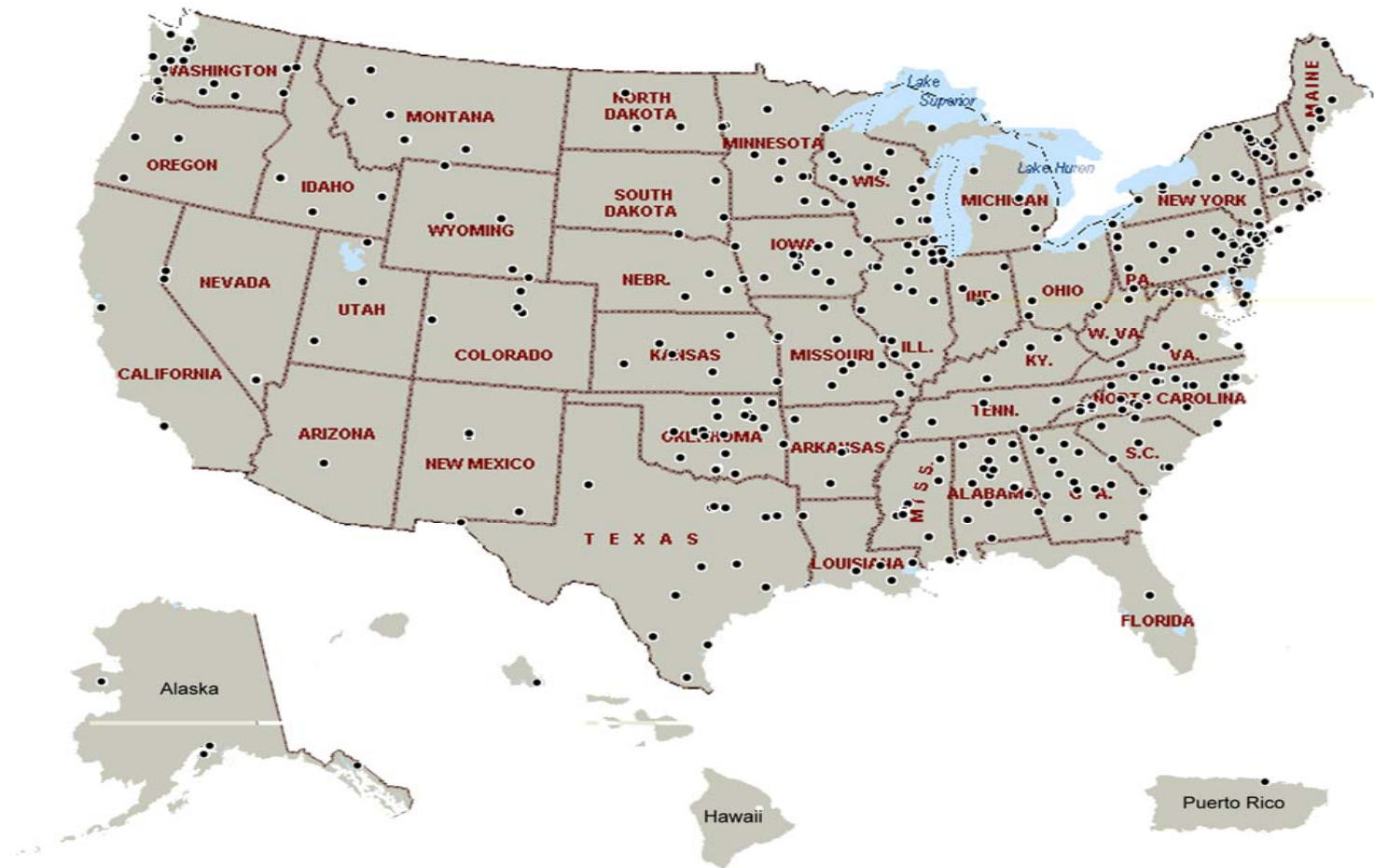
What is the Green Suppliers Network?

A partnership between the U.S. EPA and the U.S. DoC
NIST Manufacturing Extension Partnership

- Focus: Small & mid-sized manufacturing suppliers
- Approach: Lean & Clean on-site reviews
- Value Add: Expands lean definition of waste to include environmental considerations
- Deliverable: Measurable business and environmental impacts



Where is the Green Suppliers Network?

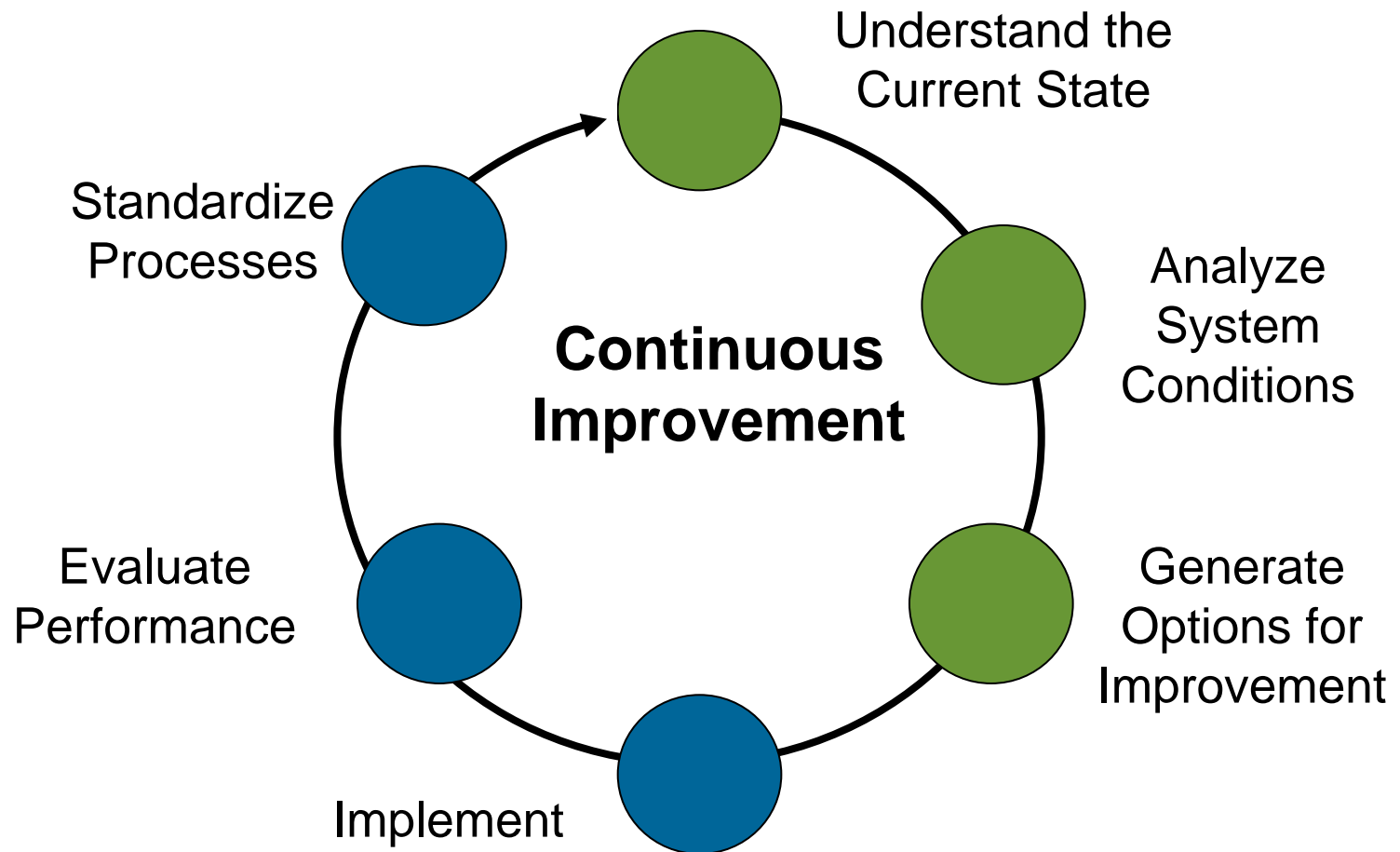


Opportunities Identified – 54 Projects

Cost Savings from Environmental Impact Opportunities	\$9,301,286/yr
Energy Conservation (MM Btu)	258,368
Water Conservation (gallons)	11,850,672
Water Pollution Reduction (lbs)	132,288
Air Emissions Reduction (lbs)	89,215
Solid Waste Reduction (lbs)	1,389,901
Cost Savings from Lean Opportunities	\$20,661,872/yr
Cost Savings from Other Opportunities	\$199,193/yr
Total Potential Cost Savings	\$30,162,351/yr
One-Time Lean Impact Opportunities	\$19,829,477

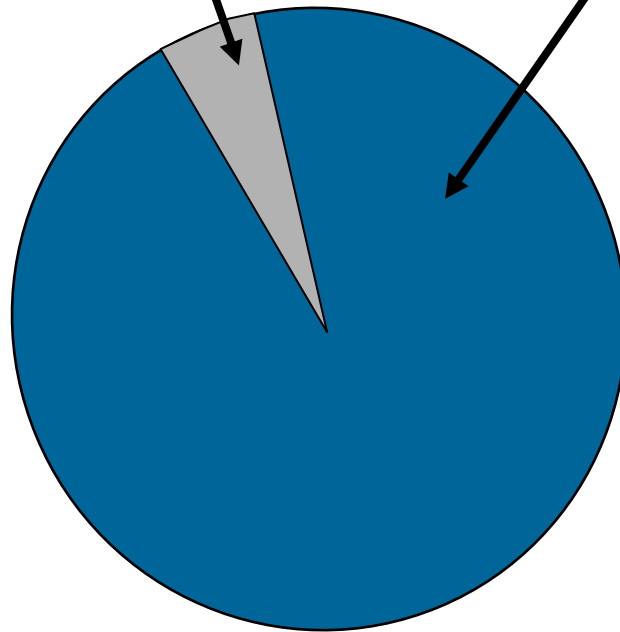


Lean: Continuous Improvement



Lean: Eliminating Wastes

Value Added



Non-Value Added

- » Defects
- » Overproduction
- » Waiting
- » Non-Value Added Processing
- » Transportation
- » Inventory
- » Motion
- » Employees Underutilized

Typically 95% of all lead time is non-value added



Lean & Clean Manufacturing

“Lean” eliminates...

- **D**efects
- **O**verproduction
- **W**aiting
- **N**on-utilized resources
- **T**ransportation
- **I**nventory
- **M**otion
- **E**xtra processing

“Clean” adds...

- **F**ull use of Raw Material
- **E**nergy Efficiency
- **W**ater conservation
- **E**limination of Toxics
- **R**eduction of:
 - Packaging Wastes
 - Emissions to Air & Water
 - Solid & Hazardous Wastes
 - Regulatory obligations and risks



Environmental “Blind Spots”

- **Hidden environmental waste** buried in overhead & facility support costs
- **Environmental and human health risks** not considered in lean initiatives
- **Environmental impacts throughout the product lifecycle** affecting customers & stakeholders



The Lean & Clean Advantage

- Efficient use of labor, time, capital, energy & raw materials
- Maximum quantity of products from least number of inputs
- Frees up resources to focus on opportunities



GSN Specifics

- Assessment and Business Case 2-3 days

\$6,500 Cost of review

\$2,000 GSN buy down*

\$4,500 Total cost to supplier

- Implementation

Green Suppliers Network provides access to implementation support \$1,000 additional credit

- Measurement

NIST MEP administers an independent follow-up survey to assess impacts

*Suppliers Must Qualify Under SBA Definitions – 500 or Fewer Employees per Facility





Green Suppliers Network

CASE STUDIES MAKING IT REAL



Green Suppliers Network



Supplier Behavior Change

Metalworks - Ludington, MI

Manufacturer of metal filing cabinets

- Reduced water use by 16 million gallons from new parts washing practices
 - saving \$30,000 annually
- Reduced chemical use in parts washing by 20%
 - Saving \$20,000
- Saved \$50,000 in natural gas costs from redesigning curing oven orifices
- Saved \$50,000 in natural gas costs to improved controls on air make up



H & L Advantage

Grandville, Michigan

Injection molding manufacturer to the office furniture industry

- Lowered overall operating costs by 20%
- Increased inventory turns by 30%
- Moved from three day to one day lead-time on parts
- Reduction of travel distance for product flow (180 feet)
- 41% reduction in inventory for the targeted product
- Additional events have lead to reduced equipment run times, equipment upgrades and increases in production square footage area in the plant (30,000 square feet)



Sermatech Connecticut Manchester, Ct.

Development and applications of high performance protective coatings for aerospace applications

- A \$4500 investment in the Green Suppliers Network review has yielded \$1000 per month due to waste minimization, and an operating profit increase of \$25,000 a month, representing a 45% productivity improvement, for a total of \$26,000 per month in savings.
- Reduced re-work by 75%
- Reduced hazardous waste by 30%
- Reduced VOC emissions by 66%



Green Suppliers Network – Evolving to meet those needs

- Pollution Prevention Best Practices
- Chemical evaluative tools for risk assessment and informed decision making
- Green Buildings
- Coordinated Energy Issues
- Environmentally Preferable Purchasing
- Climate Change Strategies



Summary of Program Benefits

- Reduced environmental impacts
- Increased efficiency and quality
- Improved supply chain relationships
- Stronger supply base
- Comprehensive approach



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Green Suppliers Network

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Welcome to the Green Suppliers Network

As a manufacturer, you work hard to keep costs down, profits up, and your customers happy. But can you stay competitive and reduce your environmental footprint at the same time? The answer is yes.

By partnering with the Green Suppliers Network, you will learn lean manufacturing techniques coupled with sound environmental strategies, which we call the *Lean and Clean Advantage*.

[Learn More](#) | [Join Now](#) | [Success Stories](#) | [Results](#)

Green Suppliers Network Highlights

Attending or exhibiting at a conference or trade show? Consider using the Green Suppliers Network booth.

Thank you for visiting the Green Suppliers Network booth at the National Environmental Partnership Summit in New Orleans, LA, on May 7–11, 2007. For more information about the Lean and Clean trainings, please see [Green Suppliers Network Training Sessions—Bringing Added Value to You](#).

The Green Suppliers Network would like to congratulate Dick Krause, of High Technology/Rochester MEP, for being named Innovator of the Year at the 2007 MEP National Conference Awards.

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Green Suppliers Network is a joint effort of the U.S. Environmental Protection Agency, and the U.S. Department of Commerce, National Institute of Standards and Technology, Manufacturing Extension Partnership Program.

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