



**Winners and Losers in Sustainability:  
Accelerating Green Enterprise Maturity for  
Competitive Advantage**

**2<sup>nd</sup> Sustainable Supply Chain Summit  
October 15-17, 2008**

*Eye For Transport*



**GREEN ENTERPRISE**

# TRG Background

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- Mission: Rapidly transform pivotal operations to increase customer & shareholder value
  - Specialize in cross-functional and multi-company challenges and critical inflection points
- Sample clients since founding in 1994:
  - Intuit, Hyperion, Yahoo, Shutterfly, Palm, Seagate, NetApp, Harland, FoxHollow, Intuitive Surgical, Lam Research, KLA-Tencor
- Over 80% repeat business
- Boutique firm leveraging a unique approach and outstanding consultants for rapid & lasting results

# TRG's Innovation Architecture



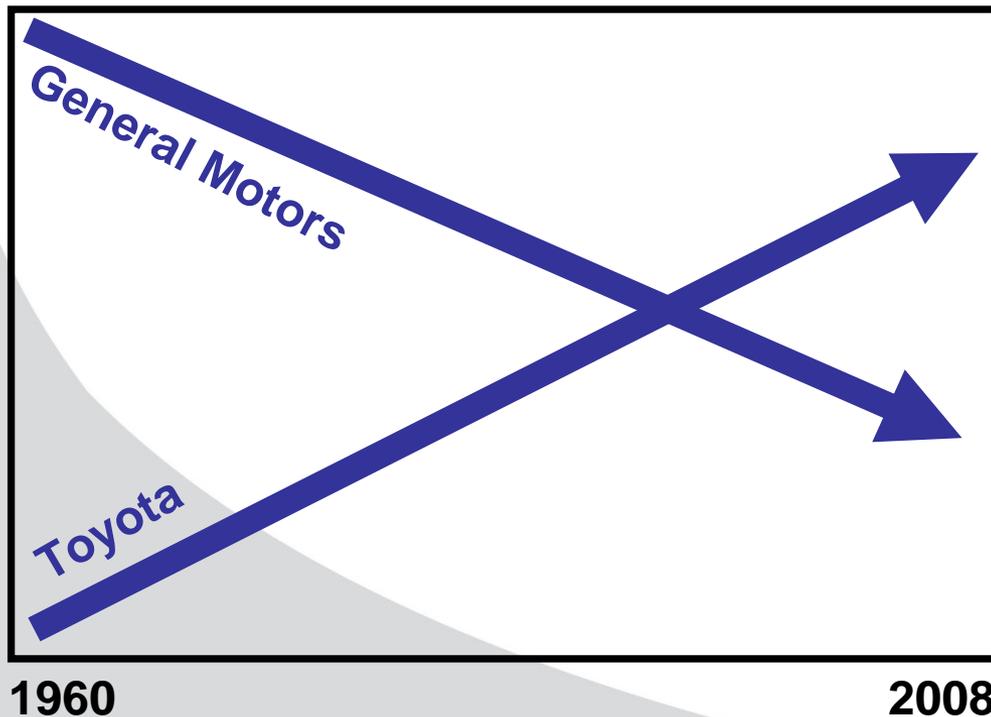
# TRG Client Sustainability Wins

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- Semiconductor equipment firm
  - Restructured world-wide spare parts distribution
  - Reduced carbon footprint 7,000,000 lbs per year while raising service levels 60% and reducing escalations by 75%
- Wireless communication products company
  - Developed local triage and fast repair capabilities, eliminating many returns and cutting lead time 70%
  - Reduced carbon footprint 65,000 lbs per year and restored customer satisfaction with repair service
- Building products market share leader
  - Reduced natural gas consumption per unit production by 6%
  - Reduced carbon footprint 22,000,000 lbs per year and improved plant level profitability by 1%

# New Winners and New Losers

- Sea-changes in demographics, technology, values and resource availability
  - Drive new business winners & losers



## Toyota

- Embraced lower TCO, fuel efficiency, safer cars
- More innovative products
- World Leader in enterprise continuous improvement

## General Motors

- Did none of the above

# Green & Sustainability Sea Change

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- This sea change is not going away
  - Driven by population growth and rising standards of living in the developing world
- Large demand and supply side opportunities
  - That may masquerade as regulation and Corporate Social Responsibility
- New winners and losers being created
- Winners adopt a more mature approach
  - Take realistic business-value-based actions
  - Don't necessarily adopt every green initiative

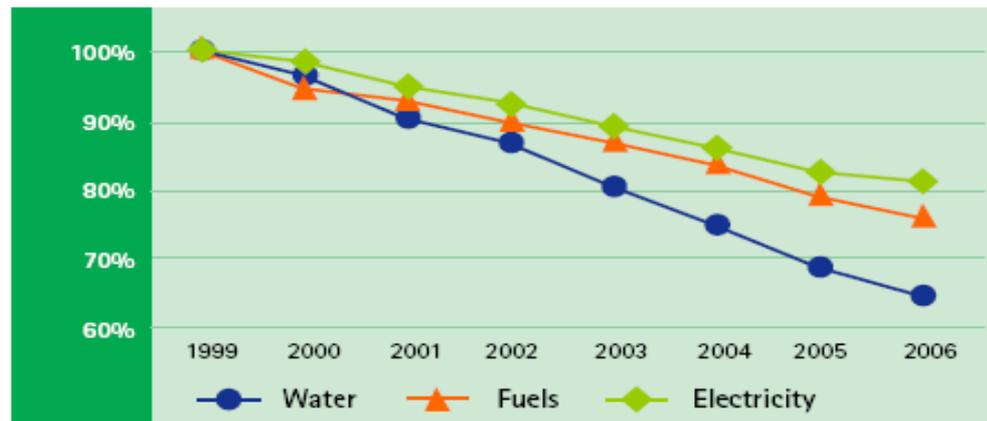
# Early Winner in Green Supply Chain

## Pepsi Co.

- Significantly reduced water, fuel, electricity across Supply Chain
- Reduced packaging across all divisions by 20 million lbs in 2006
- Reduced aluminum in cans 10%, saving 75 million pounds annually
- PET bottle light weight program removed 40,000 metric tons of material
- Member of CDP, EPA and many other U.S. & global organizations

### FRITO-LAY NORTH AMERICA

Water, Fuels and Electricity Use 1999-2006  
1999 Baseline (Per Unit of Production\*)



\*Pounds or Kilograms

# TRG Framework for Winning

<b>Loser Characteristics</b>	<b>Winner Characteristics</b>
Focus only on short term expense	Focus on building business value
Minimal knowledge of customer needs Fail to deliver targeted offerings	Deep knowledge of customer needs Bring superior offerings to market
Image not promoted or green-washing	Compelling corporate green story
Ignore operational opportunities or limit to small incremental changes	Capitalize on operational structure & collaboration opportunities
Minimal or inconsistent effort kept apart from overall business	Apply consistent effort and build robust processes integrated w/ the enterprise
Ignore green innovation catalyst potential	Leverage green as innovation catalyst (product <u>and</u> process development)
Disengage and comply	Engage constituencies and lead
Uninformed business decisions	Informed & realistic business tradeoffs from integrated metrics & analysis

# Four Stages of Maturity Drive Winning

Loser Characteristics		Winner Characteristics	
Focus only on short term expense		Focus on building business value	
			
<b>Complier</b>	<b>Dabblers</b>	<b>Consistent Improver</b>	<b>Enterprise Optimizer</b>
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# Green Enterprise Maturity Model

<b>Maturity Level</b> → <b>Enterprise Dimension</b>	<b>Complier</b>	<b>Dabbler</b>	<b>Consistent Improver</b>	<b>Enterprise Optimizer</b>
Sustainability Focus & Strategic Orientation				
Delivering Targeted & Superior Offerings				
Sustainability Image Marketing				
Supply Chain & Customer Support				
Leveraging Green as Innovation Catalyst				
Leadership & Engagement				
Decision Processes, Tools & Metrics				

# Green Enterprise Maturity Strategy

## Current Maturity Levels

Maturity Level →	Complier	Dabblers	Consistent Improver	Enterprise Optimizer
Enterprise Dimension				
Sustainability Focus & Strategic Orientation		Diagonal Hatching		
Delivering Targeted & Superior Offerings		Diagonal Hatching		
Sustainability Image Marketing		Diagonal Hatching		
Supply Chain & Customer Support	Diagonal Hatching	Diagonal Hatching		
Leveraging Green as Innovation Catalyst		Diagonal Hatching		
Leadership & Engagement		Diagonal Hatching		
Decision Processes, Tools & Metrics		Diagonal Hatching		

## Strategic Target Maturity Levels

Maturity Level →	Complier	Dabblers	Consistent Improver	Enterprise Optimizer
Enterprise Dimension				
Sustainability Focus & Strategic Orientation				Diagonal Hatching
Delivering Targeted & Superior Offerings		Diagonal Hatching		
Sustainability Image Marketing			Diagonal Hatching	
Supply Chain & Customer Support				Diagonal Hatching
Leveraging Green as Innovation Catalyst		Diagonal Hatching		
Leadership & Engagement			Diagonal Hatching	
Decision Processes, Tools & Metrics				Diagonal Hatching



- Identify and prioritize most effective Business-focused Green initiatives



- Develop Green Enterprise road map to competitive advantage

# Maturity Example: Supply Chain & Operations

Maturity Level →	Complier	Dabbler	Consistent Improver	Enterprise Optimizer																																				
<b>Business Dimension</b> Supply Chain & Customer Support	Results are accidental by-products of business as usual efforts	Isolated attempts to improve supply chain & customer support operations	Consistent efforts across supply chain and customer support with demonstrated trends in results Environmental performance is a factor for supplier selection	Supply chain and customer support function as integrated entities in optimizing resource usage; "Green" becoming key component of operational strategy for long term structural advantage; Collaboration with suppliers/partners to develop innovative ideas to benefiting both companies																																				
<div style="border: 1px solid black; padding: 10px; background-color: #ffff00;"> <p style="text-align: center;"><b>Pepsi Co.</b></p> <ul style="list-style-type: none"> <li>▪ Significantly reduced water, fuel, electricity across Supply Chain</li> <li>▪ Reduced packaging across all divisions by 20 million lbs in 2006</li> <li>▪ Reduced aluminum in cans 10%, saving 75 million pounds annually</li> <li>▪ PET bottle light weight program removed 40,000 metric tons of material</li> <li>▪ Member of CDP, EPA and many other U.S. &amp; global organizations</li> </ul> </div>																																								
<p style="text-align: center;"><b>FRITO-LAY NORTH AMERICA</b>            Water, Fuels and Electricity Use 1999-2006            1999 Baseline (Per Unit of Production*)</p> <table border="1" style="margin-top: 10px;"> <caption>FRITO-LAY NORTH AMERICA: Water, Fuels and Electricity Use (1999-2006)</caption> <thead> <tr> <th>Year</th> <th>Water (%)</th> <th>Fuels (%)</th> <th>Electricity (%)</th> </tr> </thead> <tbody> <tr><td>1999</td><td>100</td><td>100</td><td>100</td></tr> <tr><td>2000</td><td>95</td><td>95</td><td>98</td></tr> <tr><td>2001</td><td>90</td><td>92</td><td>95</td></tr> <tr><td>2002</td><td>85</td><td>90</td><td>92</td></tr> <tr><td>2003</td><td>80</td><td>88</td><td>90</td></tr> <tr><td>2004</td><td>75</td><td>85</td><td>88</td></tr> <tr><td>2005</td><td>70</td><td>82</td><td>85</td></tr> <tr><td>2006</td><td>65</td><td>78</td><td>82</td></tr> </tbody> </table> <p style="font-size: small; text-align: center;">*Pounds or Kilograms</p>					Year	Water (%)	Fuels (%)	Electricity (%)	1999	100	100	100	2000	95	95	98	2001	90	92	95	2002	85	90	92	2003	80	88	90	2004	75	85	88	2005	70	82	85	2006	65	78	82
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# Maturity Example - Metrics

Maturity Level →	Complier	Dabbler	Consistent Improver	Enterprise Optimizer
Enterprise Dimension				
Metrics & Tools	None	Point measurement of green is present in metrics, but not full spectrum	Green coverage good but not integrated with business metrics	Green integrated with business metrics (such as carbon released per dollar of revenue); Zero-based or TCO orientation

Toshiba has developed metrics for product and process eco-efficiency which measure ratio of value to environmental impact

**TOSHIBA GROUP FOURTH VOLUNTARY ACTION PLAN**

	INDICATOR	TARGET
<p><b>Enhancement of product eco-efficiency</b></p> <p>We aim to enhance product eco-efficiency, taking the product life cycle into account.</p> <p>Product eco-efficiency = <math>\frac{\text{Value of a product}}{\text{Environmental impact of a product}}</math></p> <p><b>Factor T</b></p> <p>Product eco-efficiency in fiscal 2010 to be <b>2.2</b> times that in fiscal 2000</p>	<p><b>Provision of environmentally conscious products</b></p> <p>Abolition of use of certain chemical substances</p>	<p>Ratio of ECPs (based on new criteria) to net sales</p> <p><b>60%</b></p> <p>15 certain substances group contained in products (+1)</p> <p><b>Complete Abolition</b></p>

# Maturity in Dealing With Big Trends

<b>Maturity Level</b>  <b>Enterprise Dimension</b>	Complier	Dabbler	Consistent Improver	Enterprise Optimizer
Sustainability Focus & Strategic Orientation	<ul style="list-style-type: none"> <li>• <b>How do various levels of Green Enterprise Maturity better address dealing with major recent trends?</b></li> <li>• <b>Barrel of oil up to \$150 then down to \$90</b></li> <li>• <b>Worldwide financial markets crisis and economic downturn</b></li> </ul>			
Delivering Targeted & Superior Offerings				
Sustainability Image Marketing				
Supply Chain & Customer Support				
Leveraging Green as Innovation Catalyst				
Leadership & Engagement				
Decision Processes, Tools & Metrics				

# Driving Your Company's Maturity

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- Integrate with core business processes
- Supply Chain functions can lead
- It's a process – not an event!
- Proactive and end-to-end thinking
- Consistent action
- Collaboration across the enterprise, with customers, and the supply chain
- Think profitability and competitive position
  - Not just Corporate Social Responsibility

# Contact Information

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