

## Building the Green Supply Chain

3/12/2013

By Lora Cecere Founder and CEO

**Supply Chain Insights LLC** 

## **Contents**

Research	2
Disclosure	2
Quantitative Methodology Overview	2
Executive Overview	3
Moving Forward: Goal and Program Alignment	5
Making It Happen	6
Metric Alignment	8
Why it Matters	11
Who Does It Well?	12
Recommendations	13
Conclusion	14
Appendix	15
Additional Interesting Supply Chain Insights Reports:	19
About GreenBiz Group	19
About Supply Chain Insights LLC	19
About Lora Cecere	19

#### Research

This report is based on research conducted by Supply Chain Insights in concert with <u>GreenBiz Group</u> during the period of January-February 2013. The goal of the study was to gain an understanding of the current state of corporate sustainability and drive greater insights on the alignment of supply chain and corporate sustainability organizations. To validate the findings, the results from the study were reviewed with ten manufacturing business leaders in qualitative interviews. This report shares these findings.

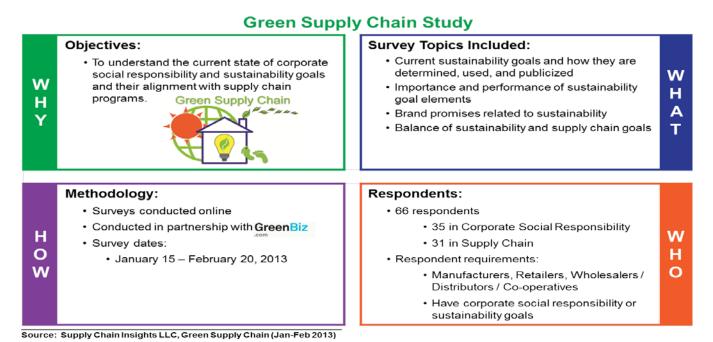
#### **Disclosure**

As an independent analyst firm, your trust is important to us. This independent research is 100% funded by <u>Supply Chain Insights</u>. In conducting research, we are open and transparent about our financial relationships and our research processes.

These reports are intended for you to read, share and use to improve your supply chain decisions. Please share this data freely within your company and across your industry. As you do this, all we ask for in return is attribution. We publish under the Creative Commons License <u>Attribution-Noncommercial-Share Alike 3.0</u> United States and you will find our citation policy here.

### **Quantitative Methodology Overview**

The goal of the study was to contrast the views of the supply chain leader and the corporate sustainability officer. The study overview is shown below and the detailed demographics are shared in the Appendix section of this report in figures A-H.



#### **Executive Overview**

"Supply chain sustainability" is the management of environmental, social and economic impacts and the encouragement of good governance practices, throughout the lifecycles of goods and services.

Supply Chain Sustainability (definition) - United Nations Global Compact

Within an organization, supply chain sustainability can be known by many names: the green supply chain, the good citizenship report, Corporate Social Responsibility (CSR) policy, or fair trade. The programs may have different names, but the goals are focused on creating a better balance between the corporation's efforts to manage profit, people and planet. For many, this can be a stark contrast to the traditional supply chain goals of the right product at the right place at the right time.

To meet the stated corporate goals for sustainability programs, it is critical for supply chain and corporate sustainability teams to work well together. The success of one is dependent on the success of the other. Over the last ten years, corporate sustainability goals have transformed supply chain objectives causing companies to rethink their definitions of supply chain excellence. Much is in flux.

The State of the Green Supply Chain

92%
publicly share their sustainability brand promises

BUT ONLY 20%
apply sustainability goals to their entire value network

Figure 1. Overview of Scope of Sustainability Work

www.supplychaininsights.com

While the importance of these programs has grown over the last decade, in this research we find two disconnects. The first is the ability for the company to meet its stated goals based on the scope of activities. As shown in figure 1, 92% of respondents surveyed have a public statement or declaration of goals and policies for corporate sustainability, and it has grown in importance to the definition of the brand promise. In fact, today, 74% of respondents surveyed connect their success in sustainability to their brand statements. For many, the goal is to use sustainability as a brand advantage.

Many companies are vulnerable. The greatest impact on corporate sustainability (often more than 70% of resources consumed by manufacturers, retailers, and distributors) is outside the company's four walls; yet, as shown in figure 1, only 20% of respondents are focused on the entire value network (from the customer's customer to the supplier's supplier.) While the most common focus is on the enterprise, the greatest corporate risk lies outside the four walls of the enterprise, and companies are staking both their corporate and brand reputations on their abilities to deliver.

Figure 2. How Companies Balance Sustainability and Supply Chain Goals

#### **Focus**

When push comes to shove, companies will bend and make supply chain decisions over corporate social responsibility goals.



How Balance Sustainability and Supply Chain Goals

Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals – Total (n=66)

Q17. How does your company typically balance its sustainability goals with its supply chain goals?

The second disconnect is decision making. The two sets of goals lack common processes and definitions for governance. Many of the decisions are ad hoc. As a result, when given a policy choice between supply chain and corporate sustainability, as shown in figure 2, more than 50% of respondents will choose the supply chain priorities. The primary drivers of the decisions are profitability and customer service.

At first, progress is easy. The traditional supply chain and the sustainability objectives align closely in the beginning. As companies adopt CSR programs, initial results reduce costs and decrease waste, but as the programs become more systemic, especially in the area of supplier development, pressures on program alignment increase. For example, the "greenest" decision, given a choice of suppliers, may not result in the

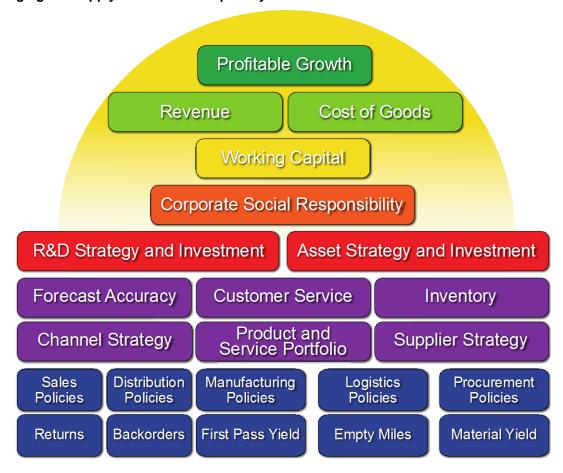
lowest cost. Companies are struggling with the right mechanisms to achieve balance and alignment between the two programs. As shown in the results of this report, the right place to start is measurement and goals, and common processes to drive alignment while recognizing these disconnects. It is the goal of this report to highlight where these are and to give guidance for executives to drive alignment.

### **Moving Forward: Goal and Program Alignment**

Within the organization, the two groups—corporate sustainability and supply chain—report to different leaders, and lack alignment. Most companies in qualitative interviews struggle with clarity of supply chain strategy, measurement systems, and governance in decision making.

Supply chains are complex systems with increasing complexity. While many executives focus on pieces of the supply chain, the best results happen when it is managed as a whole system. As companies try to make adjustments, they quickly realize that there are trade-offs as shown in figure 3. Corporate sustainability is here to stay and needs to be balanced in corporate thinking against traditional supply chain thinking. Companies perform the best when they balance CSR goals as a holistic part of system thinking.

Figure 3. Managing the Supply Chain as a Complex System with Finite Trade-offs

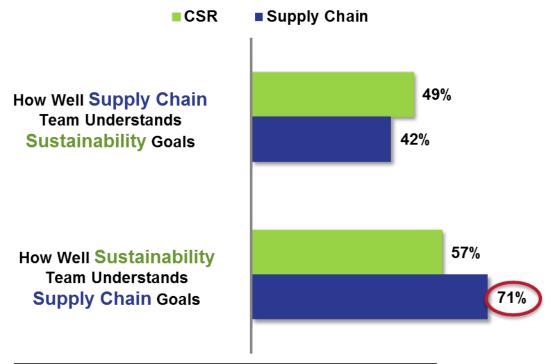


Supply chain processes are now 30 years old. Sustainability processes are less than a decade in maturity. It is ironic that while the supply chain processes are older, the sustainability teams feel that they understand supply chain goals to a greater degree than the supply chain teams feel that they understand the sustainability goals. As shown in figure 4, the gaps are substantial. The sad reality is that many supply chain leaders lack a holistic understanding of corporate social responsibility goals.

Figure 4. Team Understanding of Goals

# How Well Supply Chain and Sustainability Teams Understand Each Other's Areas

(Top 3 Box on 7-Point Scale)



Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals – CSR (n=35), Supply Chain (n=31)

Q15. Overall, how well do you believe your supply chain employees understand your company's sustainability goals in terms of day-to-day operations? Q16. Overall, how well do you believe your employees focused on sustainability understand your company's supply chain goals in terms of day-to-day operations? SCALE: 1=Does not understand them at all – 7=Understands them very well

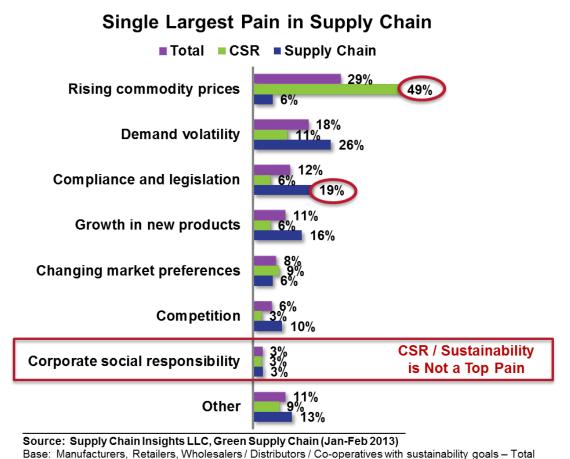
• Higher than other group (90% level of confidence)

#### Making It Happen

While the teams believe that corporate social responsibility goals are important, when compared against the day-to-day issues of the supply chain as shown in figure 5, corporate social responsibility goals do not rate at the top of the list for either organization.

As companies have become larger and more global, aligning these two important teams becomes more and more complex. While we have found in other research that 62% of companies have a supply chain center of excellence, in less than 10% of these teams is there a focused effort to bridge the gap between the two organizations. Instead, the groups are being pulled in many directions with an increasing pace of business. Market pressures reign. As shown in figure 5, the business pressures rank higher than CSR items in day-to-day business pain. The different reporting structures, the lack of actionable reporting in the enterprise, and the immaturity of horizontal, cross-functional processes bring the two groups together on an ad hoc basis which makes it difficult for the two organizations to synchronize and align on a common plan.

Figure 5. Supply Chain Pain for the CSR and Supply Chain Groups within the Organization



Alignment requires different metrics and changes to reporting analytics. Not all the levers are equal with varying degrees of difficulty for measurement. Carbon and water are the most problematic. The number one issue for the supply chain leader is a systemic way to track and drive continuous improvement programs against commonly aligned goals and metrics. Today, there is no system of record and these inputs are not currently accounted for in the bill of materials. All leaders interviewed believe that water and carbon reporting systems within the ERP solution are a top priority.

Q3. What is your company's single largest pain point in the supply chain, at this point in time?

(n=66), CSR (n=35), Supply Chain (n=31)

• Higher than other group (90% level of confidence)

### **Metric Alignment**

Not all companies measure the same things. The elements measured will vary by value chain. The apparel industry championed fair labor standards, while the consumer electronics market is driving the reduction in usage of conflict minerals. The most commonly measured elements are energy, waste and carbon. However, while performance and tracking of energy and waste is high, the measurement of a carbon footprint is not. These gaps can clearly be seen in the ranking of importance versus performance of sustainability goal elements in figure 6.

Figure 6. Performance versus Importance of Tracking Elements of Social Responsibility

#### **Sustainability Elements: Summary of Measures**

Top 3 Elements	Have Goal	Importance* (Top 2 Box on 7-pt Scale)	Performance* (Top 2 Box on 7-pt Scale)	Top 3 Easiest to Track*
Energy usage	97%	92%	69%	72%
Waste reduction	88%	79%	60%	53%
Carbon footprint	79%	75%	48%	40%
Water usage	74%	65%	37%	51%
Recycled content	42%	75%**	61%**	46%**
Conflict minerals	41%	37%**	37%**	11%**
Green buildings	36%			
Fair labor	30%			
Fair trade	11%			

Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals - Total (n=66)

\*Bases vary by element - only showing elements with base size = 25+; \*\*SMALL BASE SIZE: INTERPRET WITH CAUTION

Q4. In which of the following areas does your company have any goals for 2013? Please select all that apply.

While this tracking is primarily focused on the enterprise today, increasingly, companies are attempting to track and audit compliance within the supplier network. Progress is more mature in the supply network relationships than those of the channel in demand networks.

However, the management of the supplier base is easier said than done. In the words of one supply chain leader, "The management of the supply base requires us to do hard work in managing the relationship to a greater degree than we have had to do in the last fifteen years." The last decade is riddled with the failures of the audit-based approach. Slowly, companies are gaining an understanding that supplier audits are not sufficient. Increasingly, the management of the supplier base is happening through principle-based programs. However, the implementation of this principle-based approach requires the redefinition of the procurement

Q11. How important is each of these elements to your company's overall sustainability goals? SCALE: 1=Not at all important – 7=Very important

 $<sup>{\</sup>tt Q12. How would you \ rate \ your \ company's \ performance \ on \ meeting \ your \ goals \ for \ these \ same \ elements? \ SCALE: 1=Poor-7=Excellent}$ 

Q13. Please select up to 3 elements that are easiest for your company to track, in terms of progress.

program and the building of a robust supplier development program to design, implement and train suppliers on the expectations. It takes cooperation and dedication from both the sustainability and the supply chain side.

Figure 7. Driving Compliance through the Supplier Value Network



Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals – CSR (n=35), Supply Chain (n=31)

In qualitative interviews, the ability to track these elements and align metrics in the supplier network remains a major opportunity. Many companies like **Wal-Mart Stores, Inc.** and **The Procter & Gamble Company** are trying to bring accountability to these metrics through sustainability scorecards. However, this has had limited success due to:

• Lack of Availability of Supplier Data. Tracking this data is new for all supply chain partners. As a result, while the scorecards may be filled out, the data may not be accurate.

- Not Being Tied to Buying Behavior. At this point, the scorecards are largely a formality. Things
  will get more serious when the scorecard performance is tied to the buying decision. It is when
  companies put their money where their mouth is that performance will accelerate.
- Lack of Standards and Consistent Metric Definitions. The definitions of good metrics to improve corporate sustainability programs are still in their infancy. What is clear is that the standard supply chain definitions are not sufficient. What is not clear is how to move forward and what to replace them with. Many sustainability leaders are actively experimenting with alternatives, but there is no common industry-standard set of definitions.

### **General Electric Case Study on Metrics Alignment**

Progress and alignment on joint programs often means the redefinition of metrics. While the conventional metric is Overall Equipment Effectiveness measures (OEE), General Electric has moved from OEE to a series of granular metrics that capture the original intent of OEE while accounting for waste.

The redefinition of traditional metrics and rewards systems is critical to drive alignment and action.

**Production consumption/downtime consumption** – this measures total, then compares it to the amount consumed during unplanned downtime, providing a rough barometer of outright wasted usage and cost. To the degree that the nominal consumption can be modeled based on equipment consumption ratings, targets for each area in a facility can be established, which are useful for implementing alarm/escalation regimens based on trends within a day or shift.

**Consumption/unit of production** – this is a rough "footprint added" calculation that is useful for comparing performance at different times and places, and for different product families. Where nominal resource consumption rates are known for equipment or processes, it is possible to establish a "target" footprint for each unit of a given product family, and to proactively trigger inquiry and remedial action when the total consumption related to a production order begins to trend and hold above the target.

Consumption/unit of good production ("energy or water efficiency or intensity") – this refines the metric above by accounting for the wasted inputs that went into scrap. Its value is in the emphasis it adds to the understanding that the margin you earn from what you ship has to "make up" for what was not produced in saleable condition. As consumers, market makers in sales channels, and governments become more sophisticated in the ways they reward or incentivize good stewardship, this metric is likely to grow in usage and importance.

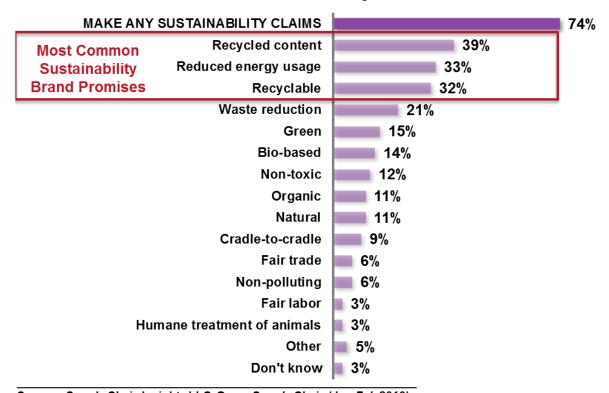
#### Why it Matters

Being a good corporate citizen is the right thing to do, but today there are two primary drivers increasing the need to improve CSR goals. They are financial investors and the impact on the brand.

In the study, 92% of respondents publicly communicate their sustainability or CSR goals, such as in an annual report or on their website. This is not a new statement to the market. These companies have had sustainability goals for over six years on average. One of the original goals was to influence the financial trading funds targeted at investors that want to improve the sustainability of the planet. There is also a growing market for sustainable, good-for-the-planet products and companies are eager to seize upon new market opportunities. As a result, corporate sustainability has increasingly been tied to product marketing. As shown in figure 8, in our study, 74% of respondents report that their company makes brand promises based on their sustainability goals. The most common brand claims center on the use of recycled materials, energy and recyclable products. (Note the rating in figure 6 on tracking recycled materials and the potential brand risk due to lack of compliance.)

Figure 8. Brand Promises and the Intersection with Corporate Sustainability Goals

#### Brand Promises Claimed Based on Sustainability Goals



Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals – Total (n=66) Q14. In marketing your products, what brand promises does your company currently claim, if any, based on your sustainability goals? Please select all that apply.

#### **Direct Quotes from Qualitative Interviews:**

To make progress on corporate sustainability goals, we have to redesign the organization to do the "hard work" in customer and supplier relationships. It requires taking ownership for the network and building an organization to ensure relationship alignment.

One of the largest stumbling blocks to goal attainment is resource tracking and reporting in manufacturing processes. We have to redesign our bill of materials to account for water, energy, recycled materials, etc. It is the toughest with smaller suppliers.

Operational reporting is an opportunity. A stumbling block for resource accounting will be the tracking and reporting of the major supply chain inputs of carbon and water.

We are early in understanding our environmental impact. Our earlier work has been on labor policies.

We are what we measure. It requires tracking across all suppliers and down all categories of spend. We are not there yet.

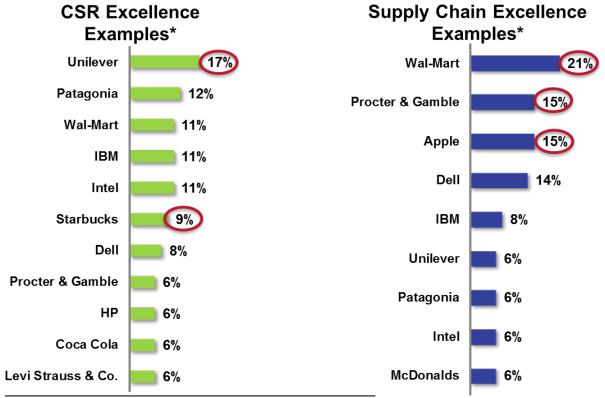
To close the gap, capability building is essential. It cannot happen from just compliance reporting.

#### Who Does It Well?

Companies are competitive. They want to be recognized for superior supply chain and sustainability performance. To gain an understanding of current performance, we asked survey respondents to tell us which companies they admire for leading supply chain and sustainability performance.

Based on survey responses, **Wal-Mart Stores**, **Inc.** is seen as doing both supply chain and corporate sustainability well. **Unilever NV/PLC** and **Patagonia**, **Inc**. are seen as sustainability leaders while **Procter & Gamble** and **Apple Inc.** are seen as leaders in supply chain. As shown in figure 9, there is significant overlap in the two lists indicating the coalescence of sustainability and supply chain excellence. The capability building that has happened in supply chain processes is being carried into sustainability programs to drive continuous improvement.

Figure 9. Who does It Best?



Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals - Total (n=66)

• Higher than other group (90% level of confidence)

#### Recommendations

Today, companies are vulnerable. They are focused on their enterprise processes. They lack an end-to-end focus and struggle with the evolution of programs for the value network. The work within the enterprise is easier, but the risk in the management of the network is greater. To help companies move forward, we offer the following suggestions:

• Focus on Metrics Definition and Alignment with a Goal in Mind. When programs start, sustainability becomes synonymous with reducing costs. In these first stages of maturity, manufacturing and operations executives quickly get onboard to save water, energy and material waste. It is good for both groups and alignment is easy. However, as the program shifts from costs to value, and from the enterprise to the value network, the scope becomes more complex. It can be overwhelming. Focus systematically with a goal in mind of reducing corporate vulnerability and improving goal attainment.

<sup>\*</sup>Only showing companies with over 5% mentions

Q20. When you think of corporate social responsibility or sustainability excellence in the supply chain, what companies do you think do it well? Q21. When you think of supply chain excellence, what companies do you think do it well?

- Align the Supply Chain Center of Excellence on Capability Building. Actively Bridge the Gap.
  Use the supply chain centers of excellence in cooperation with the Corporate Sustainability team to
  build organizational capabilities. Make the CSR strategy a part of Sales and Operations Planning
  (S&OP) and actively measure the impact of network redesign activities on the elements and
  measurement of sustainability.
- Actively Network with Other Thought Leaders. This is one of the fastest changing areas of supply chain management. As a result, active networking with other corporate sustainability leaders is paramount. Budget time and resources to ensure that your organization is learning at the pace of the industry.
- When a Problem Happens, Act Quickly and Responsibly. Network failures happen. To prevent a
  crisis, try to align reporting and brand promises to build capabilities and conservatively report based
  on what can be measured with confidence. However, if a problem happens, act quickly and
  responsibly. The last decade is rife with stories of sustainability failures and corporate denial.

Social responsibility is about more than green. Its impact is more pervasive. Companies in the first stages of supply chain maturity will adopt corporate sustainability initiatives; but under the covers, it will be only about cost reduction and compliance. To align teams, it needs to become part of the corporate fabric. At this stage, sustainability becomes synonymous with reducing costs. In these first stages of maturity, manufacturing and operations executives quickly get onboard to save water, energy and reduce material waste. The more advanced alignment requires more work and leading companies are just beginning to pave the way forward.

#### **Conclusion**

Sustainability is growing in importance. To align teams, it needs to become part of the corporate fabric. It requires building capability deep in the organization and making it part of measurement and decision processes.

Today, companies are exposed. Their promises in corporate statements and brand promises are greater than they can track and measure. This is primarily due to the focus on the enterprise versus the value chain. Closing this gap will not be easy. It will be forged by the sustainability leaders. The pace of change is fast and the impacts are large.

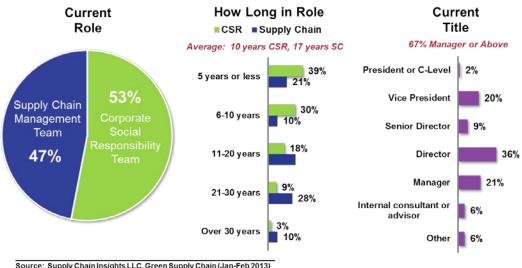
### **Appendix**

The quantitative data in this report was sourced from a survey fielded by Supply Chain Insights in the winter of 2013. These surveys were conducted online. The respondents answered the surveys of their own free will. The only offer made to stimulate a response was to share the results in the form of Open Content research at the end of the study.

The names of those that completed the surveys are held in confidence, but the demographics are shared to help the readers of this report gain perspective on the respondents. The demographics supporting these figures are found in figures A-D.

The study compares the perceptions of two roles: corporate social responsibility and supply chain leaders. As shown in figure A, in the responses of the study, the average time in the role varies by a factor of two. Supply chain leaders have been in their positions for seventeen years on average, while the corporate social responsibility (CSR) roles average ten years in tenure.

Figure A. Study Demographics by Role



Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals - Total (n=66), CSR (n=35), Supply Chain (n=31)

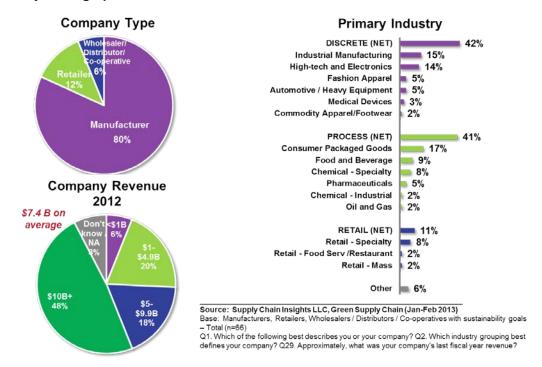
Q31. Which of the following best describes your current role within your company?

Q32. For how long have you personally focused on [corporate social responsibility or sustainability][supply chain management] in your career? Q30. Please indicate which of the following best describes your current title or level

The study respondents were primarily from distribution-intensive industries. As shown in figure B, this study equally represents the views of discrete make-to-order and process/distribution-intensive industries averaging \$7.4 billion in annual revenues.

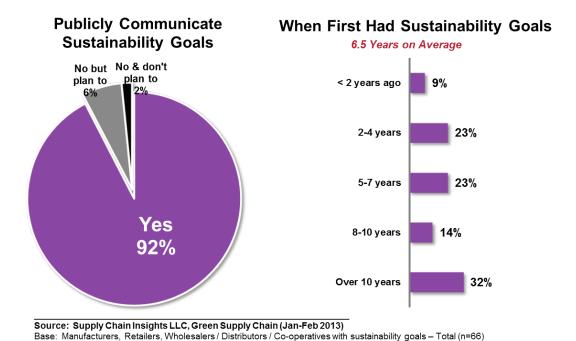
Base: Manufacturers. Retailers. Wholesalers / Distributors / Co-operatives with sustainability goals and fit within CSR or Supply Chain - CSR (n=33). Supply Chain (n=29)

Figure B. Study Demographics Overview



As a requirement to get into the survey, all respondents work at companies who currently have corporate sustainability goals. As shown in figure C, 92% of the respondents publicly communicate these goals. These programs are mature with 69% of the respondents having public statements for five years or more.

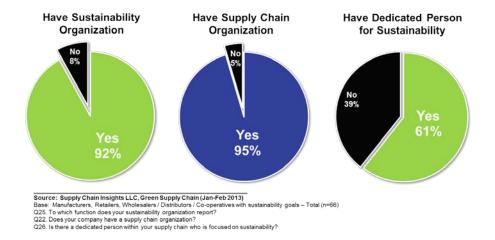
Figure C. Public Statements



Q6. Does your company publicly communicate any of its corporate social responsibility, sustainability, or citizenship goals -

such as on your website, in a report, etc.? Q7. How long ago did your company first have any sustainability goals? Your best estimate is fine As shown in figure D, in this study over 90% of the respondents had BOTH a supply chain and a sustainability organization, and 61% had a person dedicated to improving sustainability. However, the two organizations seldom have similar reporting structures. In this study, the corporate sustainability organization typically reported through a corporate function while the supply chain organization had a more traditional operational reporting relationship.

Figure D. Organizational Definition



The primary focus area for corporate sustainability goals of manufacturing, while vital to the design and implementation of overall supply chain processes, is seldom found in direct reporting relationships to the formal supply chain organization.

Figure E. Supply Chain Organization Reporting Relationships



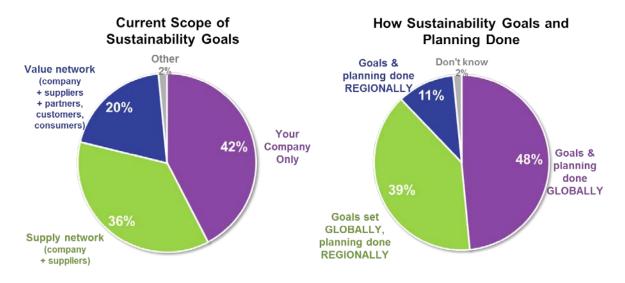
Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals – Total (n=66)

Q23. Companies define their supply chain organizations in different ways. Please tell us how you define your company's supply chain by selecting which function(s) report through the supply chain organization. Select all that apply.

The evolution of programs is ongoing. In the study, as shown in figure F, 42% of respondents have programs that represent ONLY the enterprise, 36% represent the enterprise and their suppliers and only 20% have programs that represent the value network from the customers' customer to the suppliers' supplier. Due to the nature of global corporate reporting, the corporate sustainability programs are more global than the governance of supply chains themselves. In this study, only 11% of respondents report having regional sustainability goals. (In contrast, in prior Supply Chain Insights surveys, 30-45% of supply chain decisions are made regionally even though products are distributed globally. Global governance of corporate sustainability decisions is stronger for sustainability initiatives than those of the traditional supply chain.<sup>1</sup>)

Figure F. Governance and Scope of Corporate Sustainability Work



Source: Supply Chain Insights LLC, Green Supply Chain (Jan-Feb 2013)

Base: Manufacturers, Retailers, Wholesalers / Distributors / Co-operatives with sustainability goals – Total (n=66)

Q8. What is the current scope of your company's sustainability goals?

Q9. Which of the following best describes how your company selts its sustainability goals and planning? Please select the one that fits best.

## **Additional Interesting Supply Chain Insights Reports:**

Questions about corporate sustainability have also been asked in other Supply Chain Insights reports. To gain additional insights in specific areas, check out these studies:

**Conquering the Supply Chain Effective Frontier** 

State of Transportation: Where Are We on the Vision of Automation?

Packaging Artwork: An Important Value Chain Process

#### **About GreenBiz Group**

**GreenBiz Group** provides clear, concise, accurate, and balanced information, resources, and learning opportunities to help companies of all sizes and sectors integrate environmental responsibility into their operations in a manner that supports profitable business practices.

## **About Supply Chain Insights LLC**

**Supply Chain Insights LLC (SCI)** is a research and advisory firm focused on reinventing the analyst model and delivering independent, actionable and objective advice for supply chain leaders. A company dedicated to research, turn to us when you want the latest insights on supply chain trends, technologies to know, and metrics that matter

#### **About Lora Cecere**



Lora Cecere (twitter ID @Icecere) is the Founder of Supply Chain Insights LLC and the author of popular enterprise software blog Supply Chain Shaman currently read by 4500 supply chain professionals. Her book, *Bricks Matter*, published on December 26<sup>t</sup>, 2012.

With over nine years as a research analyst with **AMR Research**, **Altimeter Group**, **and Gartner Group** and now as the Founder of Supply Chain Insights, Lora understands supply chain. She has worked with over 600 companies on their supply chain strategy and speaks at over 50 conferences a year on the evolution of supply chain processes and

technologies. Her research is designed for the early adopter seeking first mover advantage.

iiii Voice of Supply Chain Leader, <u>Supply Chain Insights Reports</u>, Spring and Winter 2012