

2015 SUSTAINABILITY PROGRESS REPORT



recycling
committee

plasticsindustry.org/recycle

WHAT’S INSIDE

A Message from the President & CEO	4
Who We Are	5
Global Industry Overview	6
Executive Summary	8
Survey Demographics	10
Environmental Goals	13
Material Management	15
Resource Management	18
Transportation Efficiency	24
Human Capital	26
Community Stewardship	30
Sustainability Investments	32
Conclusion	33
Additional Resources	35
Industry Programs	36
Appendix	37

The 2015 Sustainability Progress Report (Report) is provided for general information purposes only. The information in Report was obtained through a voluntary survey from sources believed to be reliable, but the information is in no way guaranteed. The use of any of the information found within is at your own risk. No lawyer-client, advisory, fiduciary or other relationship is created between SPI: The Plastics Industry Trade Association (SPI) and any person accessing or otherwise using any of the information in this document. SPI (and any of their respective directors, officers, agents, contractors, interns, suppliers and employees) will not be liable for any damages, losses or causes of action of any nature arising from any use of this report.





A MESSAGE FROM THE PRESIDENT & CEO

Welcome to the *2015 Sustainability Progress Report* summarizing the information we learned from the 2015 Sustainability Benchmarking Tool that was deployed to our members. With this tool, we have begun to measure industry progress in adopting and achieving sustainability goals. We also provide specific examples of how the industry is implementing the values of sustainability, which we hope will serve to educate others in the plastics industry and accelerate adoption of these important efforts.

This report summarizes findings and is an aggregated baseline that companies can use to see how they measure up against their peers. It is our intent to build upon this effort in coming years to continue to measure industry efforts to further incorporate principles of sustainability into business.

As the third largest manufacturing sector in the United States, the plastics industry has a tremendous impact on the economy, and an equally tremendous opportunity to take meaningful strides to protect the environment. Not only do our products offer sustainable solutions in the areas of light weighting, product protection, and reduced carbon footprints, we are also making gains in producing our products in more sustainable ways. As an association, we continue to challenge the industry to deliver on these sustainability advantages and do so with the lightest environmental impact from a manufacturing perspective.

I want to offer a very special “thank you” to the companies that participated in developing the tool as well as those that participated in this initial data collection round. In addition to

helping shape the conversations about our industry, participating companies benefit by:

- Undertaking an inventory of sustainability activities,
- Generating varying levels of reports through the tool to share with customers, or in some cases, taking the critical first step in generating your own corporate sustainability report,
- Identifying areas of success and opportunities for improvement,
- Having the information to communicate their sustainability activities to their employees, community and customers.

We look forward to growing participation in the survey effort in future years and encourage all members to join this effort. SPI is the world’s leading trade association for plastics manufacturers, and we take pride in our programs that drive environmental stewardship. We represent a \$427 billion industry that employs nearly one million American women and men, with facilities and offices in each of the 50 states. We are proud to bring sustainability issues to the forefront of our industry through this benchmarking effort, and look forward to continuing to deliver programs that will help the industry achieve their sustainability goals.

William R. Carteaux
President and CEO

WHO WE ARE

Founded in 1937, SPI: The Plastics Industry Trade Association that represents one of the largest manufacturing industries employs nearly one million Americans in the United States. SPI’s members represent the entire plastics industry supply chain, including processors, machinery and equipment manufacturers, Brand Owners, recyclers and raw material suppliers.

SPI’s mission statement is “to advance a pro-manufacturing agenda, strengthen global competitiveness, improve productivity and pursue zero-waste strategies for the U.S. plastics industry.”

The development of the Sustainability Benchmarking Tool is a natural extension of SPI’s Recycling Committee’s mission, which is “to create a platform for developing projects and partnerships that further the recovery and recycling of scrap plastics and engages the entirety of the plastics supply chain in the pursuit for zero waste.”

As the national trade association for the U.S. plastics industry, SPI’s objectives are three-fold:

- SPI represents and serves as the spokesperson for the industry locally, nationally and internationally, with emphasis on influencing public policy on issues of concern to the industry.
- SPI works to promote the accomplishments of the plastics industry, enhance its image and improve the business climate in which it operates.

- SPI promotes industry growth, competitiveness and the advancement of technology.

SPI accomplishes its objectives through a variety of programs, including advocating for the industry before federal and state government bodies, providing news and insight about important legislative and regulatory policy developments, identifying trends and emerging issues of concern, building coalitions to help achieve industry goals and communicating the value of the plastics industry and its products to key audiences.

SPI also serves as a resource for members needing technical expertise, statistical information and regulatory compliance assistance. It maintains liaison with national and international technical and regulatory groups to develop standards for product performance and safety to protect existing markets for plastics and open new ones.

Learn more about SPI membership and the number of projects and programs the association is involved in at plasticsindustry.org.



PLASTICS
MANUFACTURING
3rd
largest industry

2015 Sustainability Progress Report

GLOBAL INDUSTRY OVERVIEW



As the third largest manufacturing sector in the United States, the plastics industry has a great economic story, but we also have an important environmental story to tell.

* Statistics provided from SPI's [2015 Global Business Trends](#)

EXECUTIVE SUMMARY

As the third largest manufacturing sector in the United States, the plastics industry has a great economic story, but we also have an important environmental story to tell. Not only do plastics products deliver on a wide variety of sustainability benefits, the industry is taking strides to ensure the manufacturing of those products are done in a way that is efficient and minimizes the environmental impacts where possible.

Embracing sustainability is essential for the industry to continue to be a leader in the manufacturing sector. As the Millennial generation comes of age and enters the workforce, they will be major drivers of sustainability in business. 80% of millennials possess some knowledge of sustainability issues, and 60% are committed to incorporating these principles into the business sector.¹

This report represents an important first step in understanding how our members are prioritizing their sustainability goals. This benchmarking tool is framed after the Aspects in the G4 Global Reporting Initiative (GRI) guidelines which are most likely material to the plastics industry. The information was received and compiled by Scout Consulting.

While this report represents an initial, collective view of industry efforts, companies can see how their individual efforts measure up against industry trends. It is our hope that this information will help better inform companies about oppor-

tunity areas as they build their long-term business strategies.

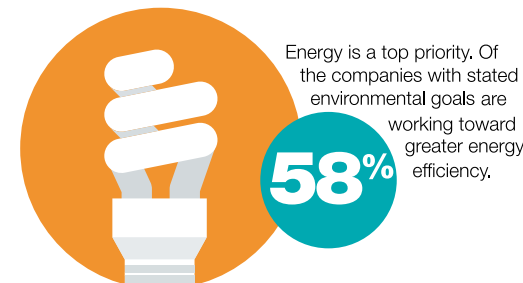
We recognize that companies fall on a spectrum when it comes to where they are in their sustainability pursuits. We also acknowledge that companies that have not prioritized sustainability efforts may have therefore opted out of participation. A total of 39 companies operating over 200 facilities globally participated in this survey. Operations for those 39 responding companies span multiple continents and cut across the plastics supply chain. And, while we need stronger participation going forward to provide statistical significance, the data does give us a good indication of how the industry is prioritizing sustainability, where they are achieving success, and which areas present the greatest challenges.

Even with some of the successes we've identified, challenges remain. Companies have clearly succeeded with some of the "lower hanging fruit" initiatives, and these are worthy places to start. However, it is clear from the responses that investing in long-term sustainability initiatives has been challenging. This presents opportunities for SPI to provide information and tools to help the industry navigate challenging areas.

Also, while many members are pursuing projects, not all of them have articulated formally stated goals. Setting a target is an important first step in garnering sustained support for sustainability investments and being able to measure those successes. Encouraging companies to begin their sustainability endeavors with clear targets is another area in which SPI may assist.

80%
of millennials
possess knowledge
of sustainability issues

ENERGY EFFICIENCY

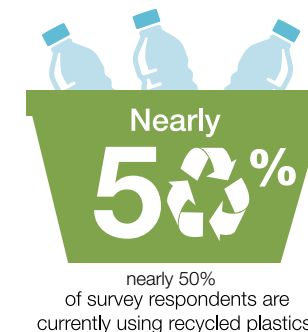


COMMUNITY ENGAGEMENT

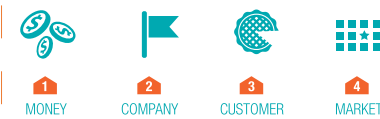


Industry Investing in workforce development and community involvement.

RECYCLED CONTENT



Key demand Drivers:

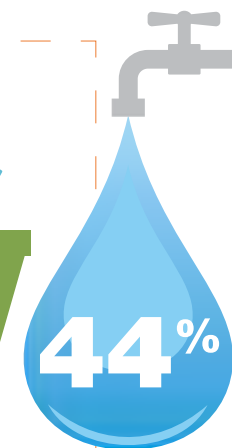


RENEWABLE ENERGY

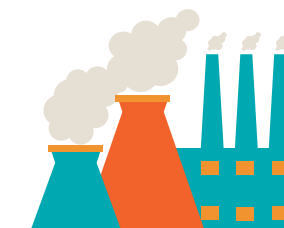


Investing in renewal energy in for of source harvesting and solar panels.

WATER REDUCTION



CARBON FOOTPRINT



46% of participants have stated environmental goals in overall carbon footprint reduction.

2015 Sustainability Progress Report

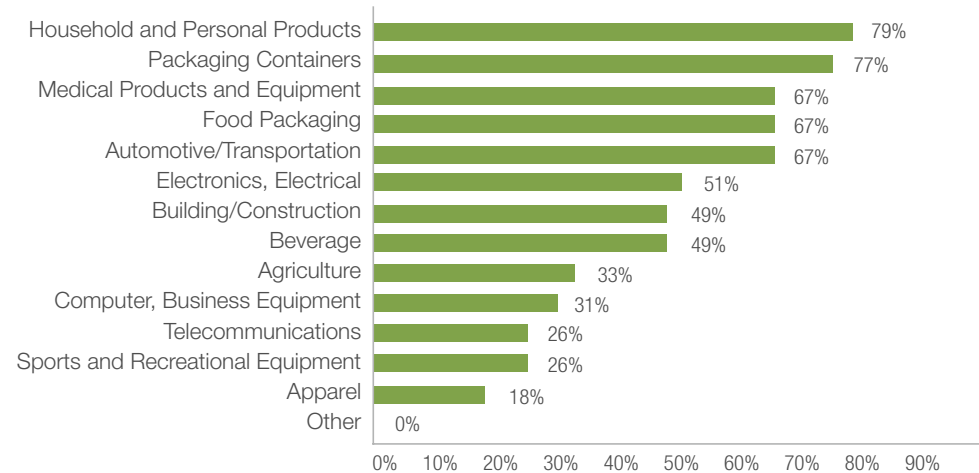
¹ Survey says millennials will be key drivers of sustainability in business, *Recycling Today*, www.recyclingtoday.com/article/cox-consereves-millennials-sustainability-survey

SURVEY DEMOGRAPHICS

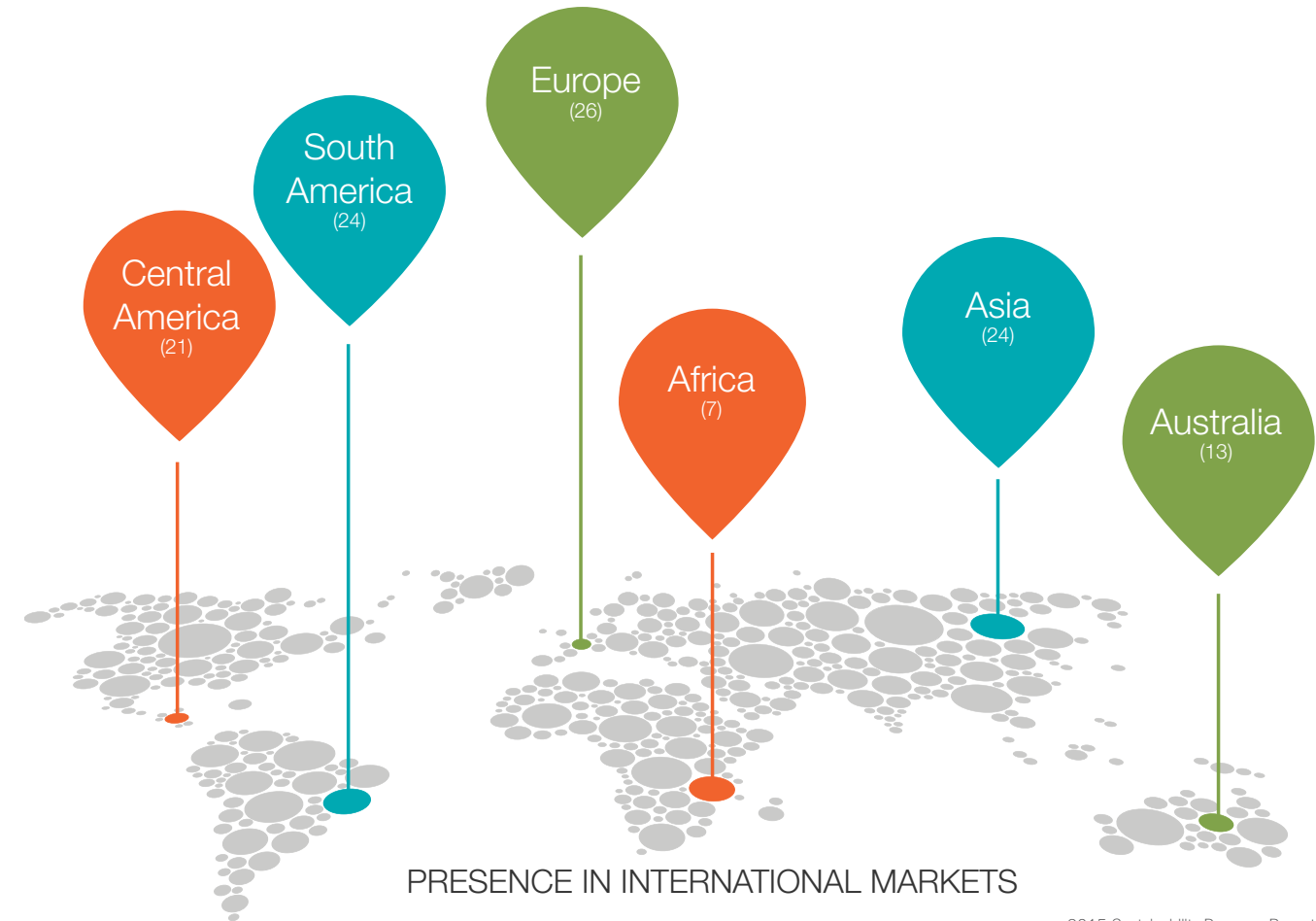
All SPI member companies were invited to participate in this first-of-its-kind survey effort. The survey opened on January 15th, 2015 and closed on September 15th, 2015. During that time, members were encouraged to participate in the online survey tool. Numerous webinars were held to help acquaint members with the tool and ultimate use of the data. Staff resources were dedicated during the summer months to directly reach out to members to encourage participation. Participants were asked questions that covered a variety of environmental impact areas.

Overall, there were 39 company responses that could be used in the final analysis. While the number of responses does not allow us to draw conclusions with statistical significance the findings do suggest how the industry is prioritizing sustainability efforts. These companies collectively operate over 200 facilities around the globe.

MARKETS SERVED



From home consumer products, to food packaging, to clothing and apparel, responding companies produce goods and provide services that are essential to nearly every section of the U.S. economy



PRESENCE IN INTERNATIONAL MARKETS

75% stated having environmental goals

ENVIRONMENTAL GOALS

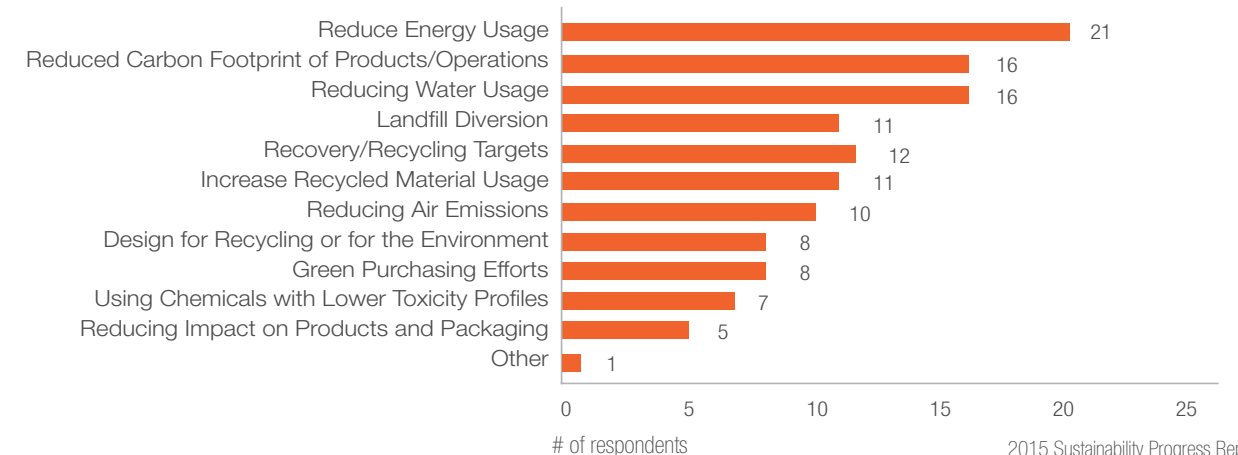
Energy reduction was a top stated goal of respondents, and is largely an internally driven decision. The fact that energy reduction emerged as a top priority is likely because of the tangible return on investment that energy reduction offers.

State and local incentives to increase energy efficiency for businesses through grants and loan programs could drive energy reduction activity.

It is interesting to note that many of the decisions in the identified opportunity areas below are internally-, rather than externally-driven.

This suggests that companies are increasingly recognizing the value of the numerous benefits when sustainability efforts are made a business priority.

INTERNALLY DRIVEN EFFORTS





54% are currently using recycled content

MATERIAL MANAGEMENT - RECYCLED CONTENT

Those respondents that are using recycled content cite a variety of motivations. Each company ranked the demand drivers for recycled content on a scale of 1-5 (1 being not a big motivator and 5 being a very strong motivator). Not surprisingly, cost savings was reported as the strongest demand driver. However, internally driven targets were a very close second. Customer demand and market differentiation strategy were third and fourth respectively.

This is very good news for recyclers in the long term, as there seems to be strong motivating factors driving demand for recycled content other than purely cost savings. In times when the cost advantage for recycled content narrows, or is eliminated, recyclers can in-part rely on sustained demand from less volatile factors. Continuing to grow non-cost related demand for recycled content is another opportunity area for the industry.

As these non-cost demand drivers become stronger, recyclers will increasingly become insulated from pricing instability, which remains one of the biggest challenges the industry faces in sustaining growth.

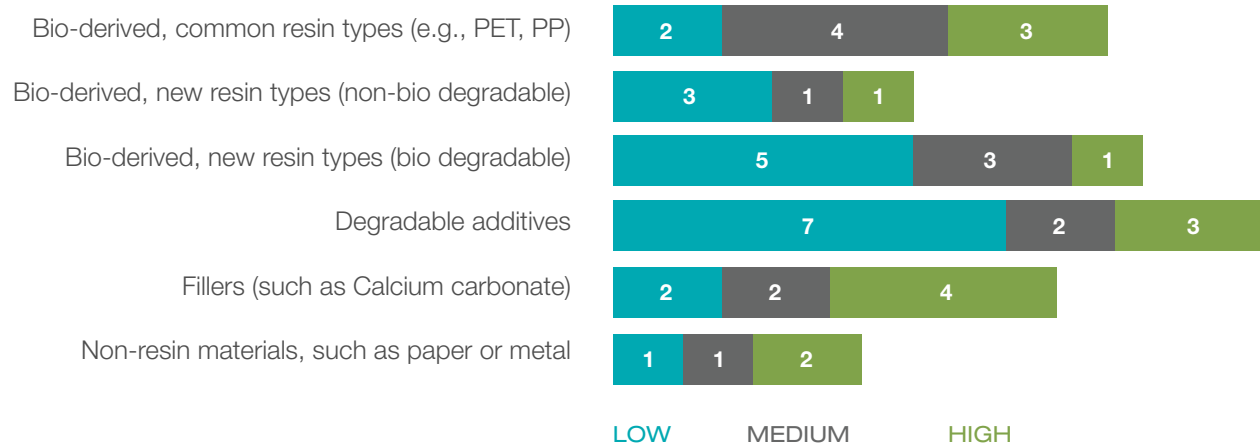
Motivating Factors for Using Recycled Content (1-Low, 5-High)	Average
Use recycled content when it is a cost-saving measure	3.8
Use of recycled content is driven by internal, stated targets and goals	3.6
Use recycled content when it is requested by the customer	3.4
Use recycled content as a market differentiator	3.2
Use recycled content as part of our reduction carbon footprint strategy	2.7
Use recycled content as a green marketing scheme	2.5
Use recycled content so products meet ecolabel criteria, a green standard or a green certification	2.3
Use recycled content in response to legislation or regulatory requirements	2.1

Using recycled content in manufacturing can reduce the environmental footprint of products, as well as the marketability of products.

MATERIAL MANAGEMENT - ALTERNATIVE MATERIALS

Beyond recycled content, we also want to understand how closely companies are looking at alternative materials that are perceived as “greener” or have a lighter environmental footprint. Again, survey participants were nearly split on their response about alternative material exploration, with 49% reporting they have at times chosen to use alternative, “green” materials. The other half, at 51 percent, reported sticking with traditional resins at this time.

HOW WOULD YOU RATE THESE MATERIALS IN TERMS OF POTENTIAL LONG-TERM REPLACEMENT FOR MEETING SUSTAINABILITY GOALS?



MEMBER SPOTLIGHT

Braskem is one of the world's leading plastics and chemical companies with 36 industrial plants in countries including Brazil, Germany, Mexico and the United States. Braskem creates more environmental-friendly, intelligent and sustainable solutions through chemicals and plastics.

Braskem is also the leading global producer of bioplastics, with the production of their biobased polyethylene made from sugarcane. Braskem's biobased, I'm Green™ polyethylene has a net benefit of sequestering 2.15 tons of carbon dioxide equivalent for every 1 ton of plastic produced from a cradle (sugarcane growth) to gate.

In addition, the use of renewable, biobased polyethylene is helping companies move away from fossil-based dependency by providing the same functionality and recyclability without depleting Earth's finite fossil resources.





RESOURCE MANAGEMENT

ENERGY

71% of companies developed programs to reduce energy usage

84% of those with stated goals are on track with energy reduction targets

17% are investing to convert to renewable energy

Energy efficient lighting in HVAC upgrades were most frequently cited energy reduction investments.



By investing in renewable energy initiatives, such as solar panels and ground source heating/cooling, our members are reducing reliance on traditional energy.



MEMBER
SPOTLIGHT

Printpack, Inc. is a plastics processor headquartered in Atlanta, Georgia, with over 4,100 employees and operations in several major countries around the world. It has made significant investments to reduce environmental impact in a variety of areas including reducing energy usage, investing in landfill diversion, lowering the carbon footprint of its products, and increasing water usage efficiency.

By 2016, it is on track to reduce its total energy usage by 20% and reduce water usage by 30% as compared to 2006 baseline levels. This represents a substantial decrease in energy and water usage over a ten-year period. They have met these goals by installing more efficient manufacturing equipment, and designing more efficient water systems for new plant construction.

Their sustainability initiatives are driven by both customer demand and goals set by leadership. Printpack reports metrics to their customers, and reviews their stated environmental goals on an annual basis. Leadership at Printpack believes their focus on sustainability has been one strategy to maintain competitiveness in an increasingly crowded market place, providing an excellent example of how the plastics industry is leading in sustainability.

 **Printpack Inc.**
Packaging Better Ideas.®

RESOURCE MANAGEMENT

WATER

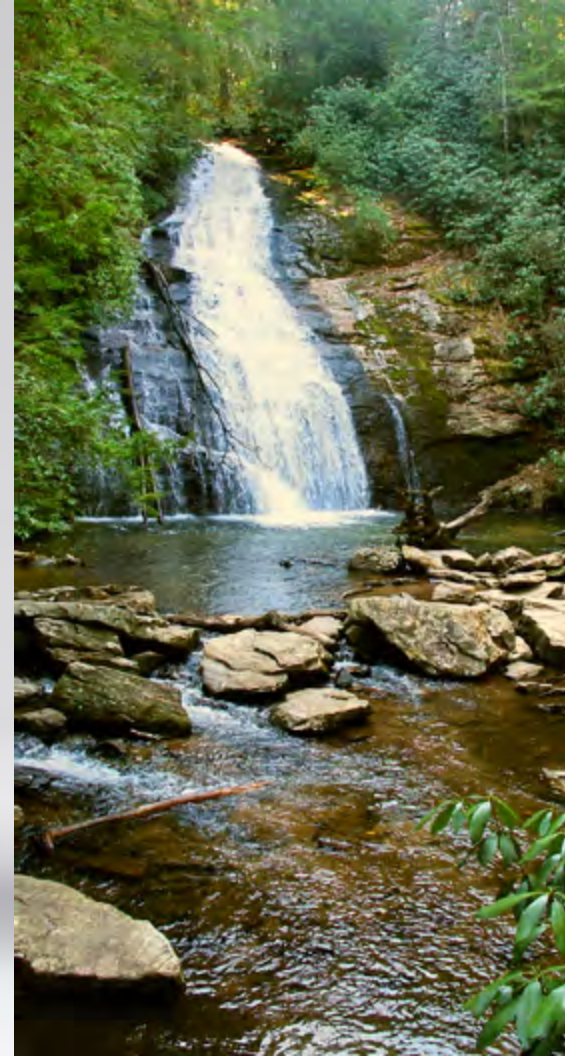


63% have calculated water usage in manufacturing

54% have identified opportunities to reduce water

51% have made investments to reduce water usage

Average respondents stated water reduction goals were 20%-30% the next 10 years.



The plastics manufacturing and recycling process can be water intensive, so it is no surprise that water conservation is another area in which respondents report monitoring and investing in conservation efforts. 44% of participants report having stated goals in water efficiency, but even more report tracking their water usage and identified areas for improvement.

On average, stated goals ranged from 20-30% water reduction in about a 10 year time frame. Water reduction can translate directly into cost savings, both from a water consumption and a water discharge perspective. Also, for those companies operating facilities in regions that are stricken by drought or simply situated in dryer climates, a reduction in water usage may be an area they are required to focus on rather than a voluntary environmental activity.

For example, the California drought has forced the state to enact many mandatory water restrictions for consumers and businesses. There has been a mandatory 25% reduction in urban water usage across the state, forcing many businesses to find ways to cut their water usage.

Some of the most effective water reduction strategies identified are:

- Installation of automatic water quantity controls,
- Recycling water throughout production process, and
- Installation of electric manufacturing machines that do not require water cooling.

RESOURCE MANAGEMENT EMISSIONS + WASTES

28% have stated emission reduction goal

11% have stated pollution discharge reduction goals

33% have landfill diversion goals or recycling targets



INDUSTRY PROGRAM SOLUTIONS

SPI Zero Net Waste Program: plasticsindustry.org/ZNW

Operation Clean Sweep: opcleansweep.org

See [Industry Programs](#) for more details.

Respondents were also asked a series of questions relating to targets around air emissions, effluents and waste management. Of those that did report having a stated goal in air emissions, it was framed as reducing overall greenhouse gas (GHG) emissions.

Those respondents that had stated pollution discharge reduction goals had the following targets:

- Reducing the biochemical oxygen demand (BOD) impact to 50% of permitted limit
- Filtering and recycling water and eliminating the discharging of process water to the drain
- Setting volume of water per ton of production goals

In terms of on-site materials management, 33% of respondents reported having landfill diversion and/or recycling targets. Of those that have a stated goal, 70% of them have defined their target as a recycling and recovery rate and/or waste intensity reduction and 20% of them report having adopted a zero waste goal. Much of the tracking on landfill diversion and recycling is being done internally as only two respondents reported using a third party tracking and reporting program for solid waste, such as the U.S. EPA WasteWise Program.



MEMBER SPOTLIGHT

Berry Plastics is a leading manufacturer and marketer of innovative consumer packaging and engineered specialty materials with approximately 20,000 employees globally.

Their waste reduction strategies are driven internally as well as by customer demand. Berry Plastics has made a commitment to reduce landfill waste intensity by 5% year-over-year.





41%

of respondents are looking to improve efficiencies in transportation that result in fewer emissions and cost savings potential

TRANSPORTATION EFFICIENCY

Transportation throughout the product supply chain can represent a significant portion of a product's overall environmental footprint. The benchmarking tool sought to understand how transportation efficiency ranked as a priority for companies and what type of opportunities are being explored to improve transportation efficiencies.

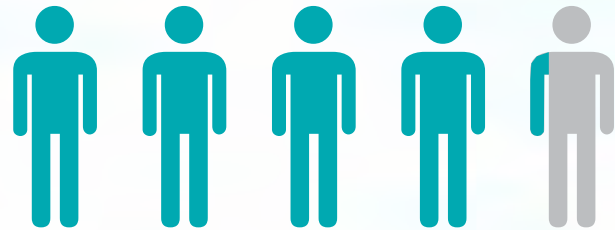
The data suggests that slightly less than half of participants report considering options to reduce the environmental impact of transportation in the supply chain. Even fewer, just eight respondents, had calculated the impact of transportation in the supply chain. However, when asked if companies are looking at making changes in transportation for cost reduction measures, 41% of total respondents are looking at opportunities to improve efficiencies. Some of the opportunities cited include:

- Going to a multi-site distribution system situated closer to shipping points,
- Evaluating alternative transportation opportunities for both workers and goods,
- Increasing use of rail transport for goods,
- Intentionally locating manufacturing around the world to put manufacturing closer to customers and using regionally available feedstocks to minimize the product's environmental footprint,
- Using the U.S. EPA Smartway program to optimize shipping efficiency, and
- Updating diesel fleets to LNG or other greener fuels.

Transportation has a profound impact on the environment. Transportation of goods and people account for 27% of total greenhouse gas emissions in the U.S., and emissions from transportation have increased by 15% over the past 25 years.¹

When evaluating energy usage in the life-cycle of a product, transportation comprises as much as one-third of the total use. By seeking efficiencies in transportation, companies can significantly reduce operational and product footprints.

¹ U.S. EPA, Source of Greenhouse Gas Emissions, www3.epa.gov/climatechange/ghgemissions/sources/transportation.html.



4.1 out of 5

Average rating of priority placed on worker satisfaction and workforce development

DIVERSITY IN THE WORKPLACE



Another 19 % are informally seeking avenues to increase gender and racial diversity in their workforce.

HUMAN CAPITAL - DIVERSITY + WORKER SAFETY

While focusing on programs that yield environmental and economic benefits are important, an area of equal importance in the sustainability equation often overlooked is the impact of businesses on people - both the people working in the company and those in the community. The benefit of investing in people and communities can, however, be difficult to measure.

Businesses' human and social impact can be tremendous, and should not be overlooked simply because the measurement of these efforts does not fit neatly into a P&L sheet. In fact, how a company treats employees and how good a community partner a company is can go a long way in building, or tarnishing a brand.

The worker experience is cited as a key priority for the companies that responded in this survey. We asked respondents to rate the emphasis that their company places on workforce satisfaction and development and the average rating was a 4.1 (1 being the lowest, 5 being the highest). This suggests that companies strive to create a workplace environment that is satisfying, safe and inclusive.

Many areas of business can suffer when the work environment is viewed poorly, including high employee turnover rates, lower productivity, and poor customer service; all of which can dramatically affect a company's bottom line. This section discusses the steps respondents are taking to ensure worker safety, consider inclusion and diversity, cultivate the talents of their workforce, and have positive impacts on the communities where they do business.

WORKER SAFETY

Covered employers under OSHA's recordkeeping regulation (29 CFR 1904) can use the records they are required to prepare and maintain to calculate incidence rates. Demographic information that would identify any employers with ten or fewer employees, and NAICS codes, were not collected for this survey. 72% of survey respondents calculate and report an annual incident rate. Of those that do calculate an incident rate, 63% have an internal safety recognition program, and 21% of them participate in [SPI's Safety Statistics and Awards \(SSA\) program](#).

The SSA program is a way to gather more information on worker safety in the industry and to recognize facilities that have achieved a level of safety performance above the industry average. Participating facilities are asked to submit their occupational illness and injury data based on their annual OSHA 300 Log of Work-Related Injuries and Illnesses.

Qualifying facilities may receive an award, and all data received is used to create an aggregated industry safety statistics benchmarking report that is shared with participating facilities. Over 200 unique facility submissions were received for the 2014 cycle from across the plastics industry (processors, machinery manufacturers, etc.). In assessing safety standards within company facilities, 51% of participants report benchmark internally amongst facilities while only 33% report benchmarking against other companies.



79% report offering professional development opportunities for employees

HUMAN CAPITAL - PROFESSIONAL DEVELOPMENT

New employee recruitment activities include:

- Offering engineering co-op programs with local universities
- Summer hire program for children of employees who are 18 or older or college enrolled students
- Working with local schools and technical training programs
- Offering internships
- Hiring through local college career departments

- Opening facilities to school visits
- Participating in job fairs

Once companies attracting the right talent, they are putting effort into cultivating and retaining it. We asked companies about their internal professional development opportunities.

In total, 67% of responding companies indicated that they offer professional development opportunities for their workforce. Those that do offer professional development were then asked to describe what type of development opportunities were offered and which employees received this benefit.

Professional Development Offered:	To All Employees	To Full-Time, Salaried Employees	To Full-Time, Hourly Employees	To Part-Time and/or Temporary Employees
On-site technical training	77%	88%	88%	77%
On-site business development opportunities (software training, etc.)	65%	88%	85%	65%
Education reimbursement (technical schools, community college, universities)	46%	69%	69%	46%
Training modules that employees can do at their own pace	50%	54%	54%	50%
Access to off-site conferences, trainings and seminars	46%	96%	73%	46%
Encourage employees to participate in industry organizations	19%	77%	38%	19%
Other, Health and Wellness Programs with Financial incentives	0%	4%	4%	0%



COMMUNITY STEWARDSHIP

- **54% of respondents report donating money or resources to community programs in their regions.**
- **41% of respondents report organizing volunteer opportunities for employees.**
- **25% of respondents allow employees to perform volunteer work as part of their paid time with certain non-profit.**

Here are some of the local programs and nonprofits that SPI members support:

- Local food and shelter programs,
- Charities helping children and disabled citizens,
- United Way,
- STEM education initiatives,
- Community Health Clinics,
- Habitat for Humanity,
- Little league baseball and softball teams,
- Police & Fire departments,
- American Heart Association, and
- Various educational associations and universities.



MEMBER
SPOTLIGHT

Innovative Injection Technologies (i2tech) is a medium-sized plastics processor headquartered in West Des Moines, Iowa. As part of their company's community engagement initiative,

they have developed a close partnership with Healing Hearts with Horses, a local non-profit organization working with at-risk foster youth.

They have donated over \$20,000 to the non-profit, demonstrating their commitment to helping their local community.



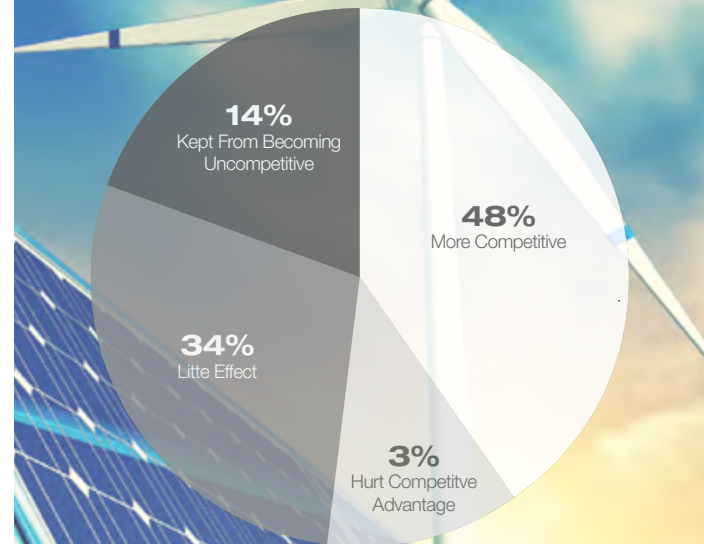
PERFORMANCE OF SUSTAINABILITY INVESTMENTS

Overall 46% of the survey respondents report investing in sustainable operational improvements and/or technologies. The survey asked if respondents felt their sustainability efforts had affected their company. Of the 29 respondents that answered that particular question, nearly half of survey respondents, 48%, indicated that a corporate commitment to sustainability made them **more competitive**.

Interestingly, respondents do not largely report having different return on investment expectations for investments in sustainability versus other traditional investments in the business. Only two respondents said that they did have different ROI expectations on sustainability initiatives as compared to other investments in the business, with one of those respondents citing that investments in sustainability are given special consideration if they do not perform as well. Investments in water and energy efficiency efforts were most frequently cited as areas where companies have achieved full return on their investments.

The survey also asked if there were any particular areas of sustainability activity where they struggled to achieve their goal, or realize the long-term financial value. Only three respondents reported they had identified specific challenge areas. When asked about those areas, respondents cited incorporating post-consumer recycle content on a mass scale into production and “end-of-life/lifecycle” product tracking.

EFFECTS OF CORPORATE COMMITMENT TO SUSTAINABILITY ON COMPETITIVENESS



CONCLUSION

SPI challenges the industry to keep driving forward in pursuing sustainability efforts. Some companies are in a position to undertake significant programs that will reduce their environmental impact. Others might be just be starting. Regardless of where each company is in the sustainability spectrum, we believe each company can, and should be making efforts in sustainability a priority in some way. We challenge every company to set goals, as this is a critical first step to measuring success. A great starting point is considering resource management. We encourage members to benchmark water and energy usage and evaluate opportunities to improve efficiency.

The data collected in this effort suggests that goals in water and energy reduction cannot only be met within expected timeframes, but also meet return on investment expectations. SPI also challenges members to consider management of scrap and waste generation as an extension of their resource management efforts. Every facility should focus on opportunities not only to maximize diversion from landfill and drive toward zero net waste, but also evaluate opportunities to reduce the scrap being generated as well. Scrap materials, particularly plastics, are a resource too valuable to lose to landfills whenever possible. And like efforts in energy and water reduction, activities in recycling, recovery and waste reduction can yield environmental, as well as economic benefits.

SPI also encourages members to seek new opportunities to use recycled content in manufacturing. Despite market conditions and pricing, there are many advantages beyond cost savings, to using recycled content. Those benefits include:

Cost Savings

Many PCR feed streams also present cost savings over prime material. While pricing is not officially tied to that of prime, trends in price fluctuation over time suggest that PCR generally maintains a fairly standard price spread with virgin.

Market Differentiation

PCR can be a way to set your products apart from competition offering similar products. Early adopters of PCR usage in new applications get significant mileage from PCR as a market differentiator.

New Thresholds for Market Entry

PCR has become a requirement for entry into a market for many sectors. Brand owners also face pressure from customers who require recycled content as part of their institutional purchasing plans.

Carbon Footprint Reduction

Because the extraction and initial production stages are avoided, recycled materials have reduced resource intensity. Research suggests that using recycled plastics can reduce the carbon footprint of a product from 30% to 50% (pwgo.to/1310).

This data collection effort suggests the plastics industry is making their workforce and local communities a priority. Whether it's through cultivating our future leaders in the millennial generation, or actively engaging with the non-profits in our communities, the plastics industry takes investing in people and community stewardship seriously. We can be proud to be part of an industry that is making people and local communities a priority; do not lose focus of that.

SPI looks forward to continuing to further benchmark our environmental and social progress in 2017. We encourage all members of SPI to participate so we can communicate the journey we are taking into implementing sustainability in the plastics industry.

**Your Participation
is Needed. Learn How.**

Kim Holmes | kholmes@plasticsindustry.org



ADDITIONAL RESOURCES

If your company is looking to understand more about sustainability benchmarking and reporting, we encourage you to learn more about the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB).



Global Reporting Initiative
The Global Reporting Initiative (GRI) is an international non-profit organization that provides a framework for sustainability reporting. Many of the GRI Reporting Guidelines influenced the structure of the SPI Benchmarking tool and contents of this report. GRI offers a comprehensive approach to reporting and measuring efforts in the broad spectrum of sustainability activities.

More information about GRI can be found at their website: www.globalreporting.org/Pages/default.aspx

Sustainability Accounting Standards Board
The Sustainability Accounting Standards Board (SASB) is an independent non-profit organization that provides sustainability accounting standards, so that companies are able to identify areas of sustainability that are material to their business and reporting that information to investors.

For more information about these standards, check out their website at: www.sasb.org



INDUSTRY PROGRAMS



The **SPI Zero Net Waste (ZNW) program** recognizes the companies that have taken steps to drive toward zero net waste in manufacturing. These companies have demonstrated leadership in landfill diversion, waste reduction, and most importantly a commitment to ensuring valuable resources go to the highest and best use. The ZNW program offers members the tools and resources that will help them successfully achieve their recycling and waste reduction goals. As a Zero Net Waste program participant, they can broadcast those successes to their community, employees, and customers.

Learn more: plasticsindustry.org/znw



Operation Clean Sweep (OCS) is an international program designed to prevent resin pellet loss and help keep pellets out of the marine environment. Every segment of the plastics industry has a role to play — including resin producers, transporters, bulk terminal operators, plastics processors, and recyclers — by implementing good housekeeping and containment practices.

Learn more: opcleansweep.org



In an effort to engage the next generation of plastics leaders, SPI created the **Future Leaders in Plastics (FLiP)** - a new group for plastics professionals under the age of 40.

FLiP's mission is to provide young professionals in the plastics industry the exposure, education and resources they need to advance themselves and the plastics manufacturing industry.

Learn more: plasticsindustry.org/flip

APPENDIX

FIGURE 1: SURVEY RESPONDENTS

Company Size	Number of Respondents	%
0-100 Employees	16	41%
101-1000 Employees	10	26%
>1000 Employees	13	33%
TOTAL	39	

FIGURE 2: PRESENCE IN INTERNATIONAL MARKETS

Countries	Number of Respondents	%
Business conducted outside of North America	33	85%
Africa	7	18%
Australia	13	33%
Central America	21	54%
Asia	24	62%
South America	24	62%
Europe	26	67%

FIGURE 3: PRESENCE IN INTERNATIONAL MARKETS

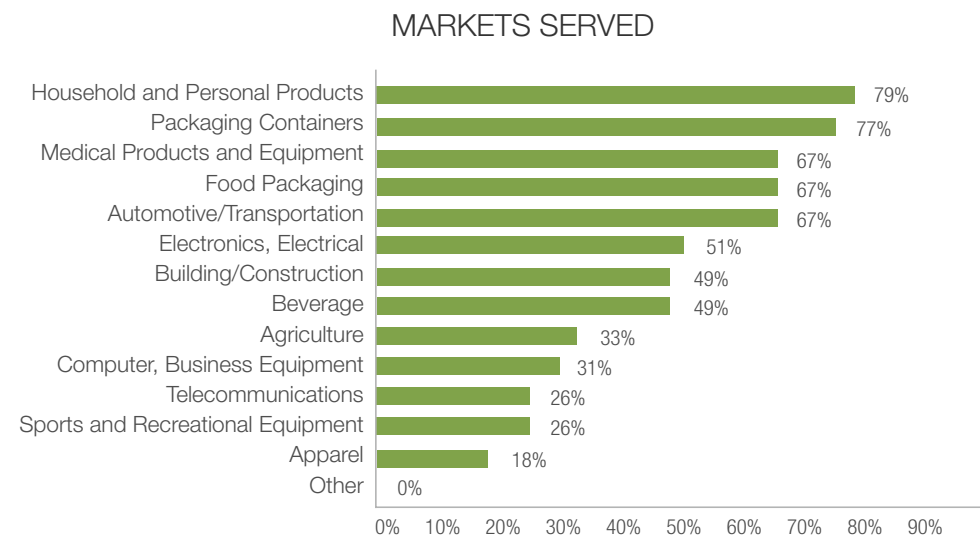


FIGURE 4: STATED ENVIRONMENTAL GOALS

Does your company have stated environmental goals?	Number of Respondents	%
Yes	28	73%
No	10	27%

FIGURE 5: PRESENCE IN INTERNATIONAL MARKETS

In what categories does your company have environmental goals?	Count (Yes)	Percent (Yes)	Customer Driven	Internally Driven	Regulatory Driven	Financially Driven	Voluntary Ecolabel Standard or Accreditation Requirement	Marketing Tool / Differentiator	Other
Reduce energy usage	23	58%	10	21	3	14	3	5	0
Reduced carbon footprint of products/ operations	18	46%	9	16	8	8	2		
Reducing water usage	17	44%	6	16	5	9	1		
Landfill diversion	13	33%	7	11	2	7	1	3	0
Recovery/recycling targets	13	33%	8	12	3	8	1	3	0
Increase recycled material usage	12	31%	7	11	2	5	1		
Reducing air emissions	11	28%	3	10	6	5	2		
Design for recycling or for the Environment	10	26%	6	8	3	2	2	7	0
Green purchasing efforts	10	26%	3	8	1	4	1	2	1
Using chemicals with lower toxicity profiles	7	18%	3	7	4	3	2	6	0
Reducing impact of products and packaging	5	13%	3	5	2	2	2	2	0
Other - please specify	3	8%	1	1	1	1	0	1	2

FIGURE 6: SUCCESS IN ACHIEVING GOALS

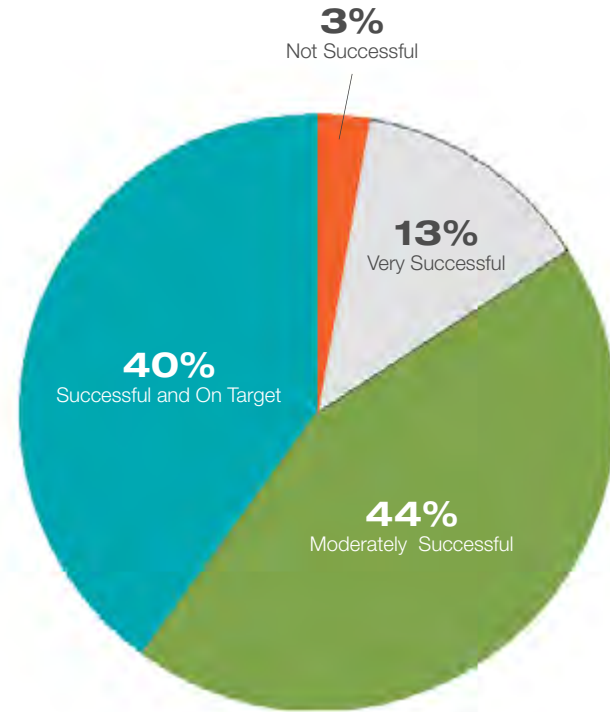


FIGURE 7: HOW DO YOU MANAGE YOUR COMPANY'S SUSTAINABILITY PROGRAM?

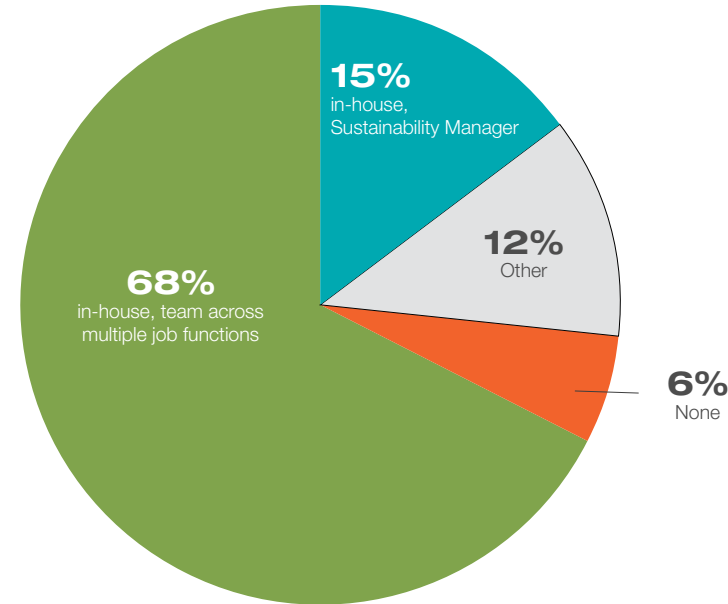


FIGURE 8: HOW OFTEN IS THE PLAN FOR ACHIEVING ENVIRONMENTAL GOALS REVIEWED?

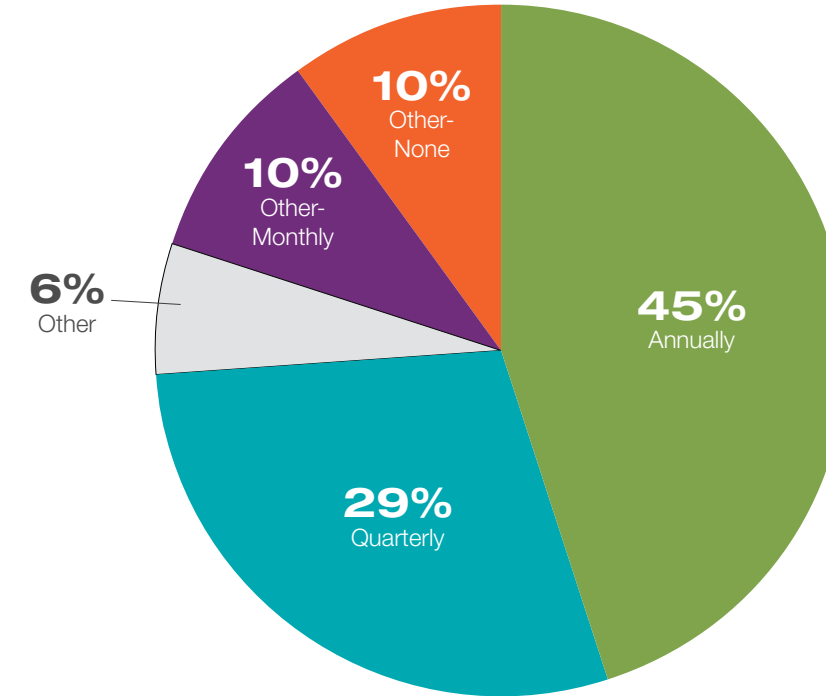


FIGURE 9: CURRENT USE OF RECYCLED PLASTICS

Does your company currently use recycled plastics	Number of Respondents	%
Yes	20	54%
No	17	46%

FIGURE 10: MOTIVATING FACTORS FOR USE OF RECYCLED PLASTICS

Motivating factors for using recycled content (1-low, 5-high)	Average
Use recycled content when it is a cost-saving measure	3.8
Use of recycled content is driven by internal, stated targets and goals	3.6
Use recycled content when it is requested by the customer	3.4
Use recycled content as a market differentiator	3.2
Use recycled content as part of our reduced carbon footprint strategy	2.7
Use recycled content as a green marketing scheme	2.5
Use recycled content so products meet ecolabel criteria, a green standard or a green certification	2.3
Use recycled content In response to legislation or regulatory requirements	2.1

FIGURE 11: USE OF ALTERNATIVE MATERIALS

Has your company chosen alternative materials in the manufacturing or production process which are perceived to be “greener” or more sustainable?	Number of Respondents	%
Yes	18	49%
No	19	51%

FIGURE 12: WHAT ALTERNATIVE MATERIALS EVALUATING

What materials have you evaluated and how did they rate in terms of potential for long-term material replacement for meeting sustainability goals?	Low	Medium	High
Bio-derived, common resin types (ex. PET, PP)	2	4	3
Bio-derived, new resin types (non-bio degradable)	3	1	1
Bio-derived, new resin types (bio degradable)	5	3	1
Degradable additives	7	2	3
Fillers (such as Calcium carbonate), list specific filler in comments	2	2	4
Non-resin materials, such as paper or metal	1	1	2

FIGURE 13: HAS YOUR COMPANY CHOSEN ALTERNATIVE MATERIALS

Has your company chosen alternative materials in the manufacturing or production process which are perceived to be “less toxic” or reduce risks for human exposure?	Number of Respondents
Yes	12
No	23

FIGURE 14: COMPANY ENERGY CONSERVATION GOALS

Does your company have stated energy conservation goals?	Number of Respondents	%
Yes	14	37%
No	24	63%

FIGURE 15: DOES YOUR COMPANY OFFER PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR EMPLOYEES?

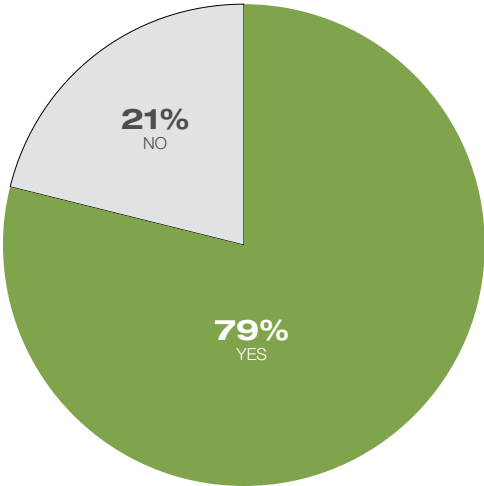


FIGURE 16: DOES YOUR COMPANY OFFER PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR EMPLOYEES?

Professional Development Offered:	To all employees	To full-time, salaried employees	To full-time, hourly employees	To part-time and/or temporary employees
On-site technical training	77%	88%	88%	77%
On-site business development opportunities (software training, etc.)	65%	88%	85%	65%
Education reimbursement (technical schools, community college, universities)	46%	69%	69%	46%
Training modules that employees can do at their own pace	50%	54%	54%	50%
Access to offsite conferences, trainings and seminars	46%	96%	73%	46%
Encourage employees to participate in industry organizations	19%	77%	38%	19%
Other, Health and Wellness Programs with Financial incentives	0%	4%	4%	0%

FIGURE 17: EFFECTS OF CORPORATE COMMITMENT TO SUSTAINABILITY ON COMPETITIVENESS

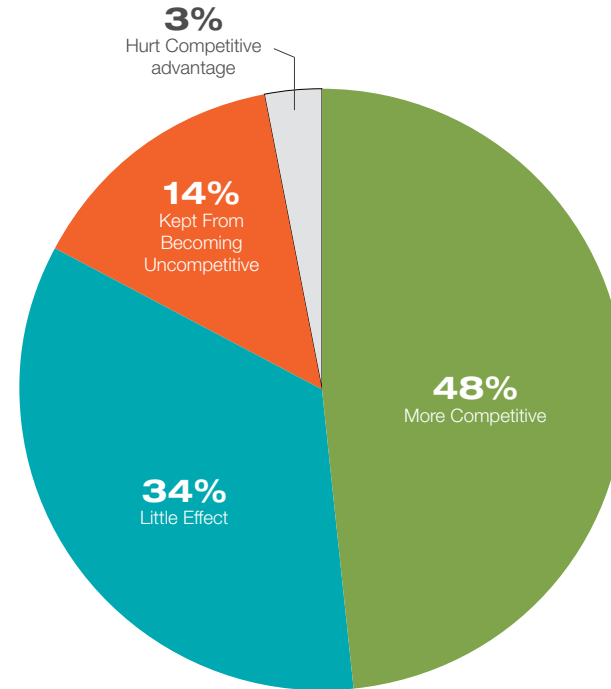


FIGURE 18: HAVE SUSTAINABILITY INVESTMENTS MADE YOUR COMPANY MORE COMPETITIVE?

If sustainability investments have made your company more competitive, please describe how those investments have worked to your advantage:	Number of Respondents	%
Improved Company Image	12	86%
Improved Customer Satisfaction	11	79%
Improved Products	10	71%
Improved Profitability	7	50%
Improved Employee Retention	6	43%



SPI: The Plastics Industry Trade Association

1425 K Street, NW • Suite 500
Washington, DC 20005-3686

(202) 974-5200 | plasticsindustry.org

