



american cleaning institute®
for better living

SUSTAINABILITY REPORT 2015

Understanding Today, Impacting Tomorrow

Acknowledgements

ACI would like to thank Environmental Resources Management (ERM), Framework LLC, and CooperKatz & Company, Inc. for their work in support of ACI's Sustainability Metrics Program, Materiality Assessment, and design and development of the 2015 Sustainability Report, respectively.

About ACI

The American Cleaning Institute® (ACI) is the Home of the U.S. Cleaning Products Industry® and represents the \$30 billion U.S. cleaning products market. ACI members include the formulators of soaps, detergents, and general cleaning products used in household, commercial, industrial and institutional settings; companies that supply ingredients and finished packaging for these products; and oleochemical producers. ACI and its members are dedicated to improving health and the quality of life through sustainable cleaning products and practices.

If you have any questions about the 2015 ACI Sustainability Report, please contact us:

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A MESSAGE FROM ACI PRESIDENT & CEO ERNIE ROSENBERG

The American Cleaning Institute's third biennial Sustainability Report positions us for new progress by launching our first-ever materiality assessment for the cleaning products industry. Building on what a number of our member companies are doing individually, ACI is identifying and characterizing those issues that are most material across our membership and to our industry at large.

The complex process for conducting our initial materiality assessment included in-depth interviews with experts within our member companies and reviews of existing reports and analyses from corporations, government agencies, and non-governmental organizations (NGOs). The results unveiled a set of ten key issues that stood out as priorities for the industry. We believe that the roughly two-dozen or so issues captured in our initial assessment are all important. Yet we feel it is essential to zero in on the critical issues and concerns to help us determine if we are indeed addressing the right priorities in our strategic planning.

ACI is already tackling a number of these top-tier issues, including performance we tracked in our seven-year-old Sustainability Metrics Program; our long-standing, proactive efforts to enhance cleaning product ingredient transparency; and progressive advocacy to modernize and strengthen our nation's chemical safety laws.

In the months ahead, we will gather extensive feedback on our findings, not only from our member companies, but from stakeholders in and around our industry.

We welcome your comments on all of our data, initiatives and the materiality assessment. Also, please take advantage of our online Sustainability Showcase accompanying this report to explore the sustainability activities of many of ACI's member companies.

Thank you in advance for your thoughtful review of and feedback on ACI's 2015 Sustainability Report.



A handwritten signature of Ernie Rosenberg in blue ink, written in a cursive style.

LEADERSHIP VOICES

“Sustainability represents one of the **core priorities** for the American Cleaning Institute. Indeed, sustainability represents one of the core priorities for humankind. That’s why you have seen the association’s sustainability initiatives evolve from aspirational principles to in-depth, meaningful reporting on environmental metrics and individual company commitments that are infusing sustainability activities throughout the supply chain. ACI is very proud of this **evolution**, and welcomes your feedback on the activities highlighted in this report, which ACI member companies will continue to support and further develop in the years ahead.”

Shailesh Jejurikar, *President – Global Fabric Care and Brand Building Organization, Global Fabric & Home Care, Procter & Gamble*

Kevin Gallagher, *President, Croda, Inc. and President, Global Personal Care and Actives, Croda International Plc. 2015 ACI Board of Directors Sustainability Liaisons*

Tom O’Brien, *Senior Vice President, Sasol Performance Chemicals – 2015 Chair, ACI Board of Directors*

William Littlefield, *President & CEO, Phoenix Brands LLC – 2015 Vice Chair, ACI Board of Directors*

“The ACI Board of Directors encourages everyone who works in the cleaning product supply chain – and our stakeholders as well – to read through ACI’s latest sustainability report. You will find that leaders within our industry are **embedding sustainability** principles throughout their business operations. We are proud that ACI’s sustainability initiatives represent our commitment to **transparency** about the products and their chemistries that contribute to **health** and quality of life for billions of people around the world.”

“Sustainability professionals within ACI’s membership work throughout the year to help guide, build and develop the association’s sustainability initiatives and advise the staff on ensuring these activities are seen as **meaningful and credible**. As leaders of ACI’s Sustainability Committee, we believe that the information contained in this report **showcases** what our industry has done and continues to do in demonstrating sustainable behavior. Most importantly, it lays the **groundwork** for what else we need to do to enhance the sustainability of business practices throughout the cleaning product value chain.”

Calvin Chiu, *Global Business Director, Home & Personal Care, Huntsman Performance Products – 2015 Chair, ACI Sustainability Committee*

Scott Mobley, *Research Fellow, The Clorox Company – 2015 Vice Chair, ACI Sustainability Committee*

HIGHLIGHTS OF ACI'S 2015 SUSTAINABILITY REPORT

First-ever cleaning product industry materiality assessment identifies **TOP 10** issues for the industry including Materials, Disclosure and Transparency, Climate Change, Ecological Impacts, Water, Workplace Health and Safety

21% reduction in water used per ton of production for the industry since 2009

Alternative sources for energy increased **30%**

18% improvement overall in waste reduction

Hazard data publicly available for **80%** of ACI members' cleaning product ingredients

Over **6K** hygiene kits put together for families and communities in need in 2014 and 2015

25 companies committed to improving their sustainability performance through participation in ACI's Charter for Sustainable Cleaning

\$65K donated between 2014 and 2015 by ACI and our member companies to support free home cleanings for women battling cancer

ABOUT THE AMERICAN CLEANING INSTITUTE

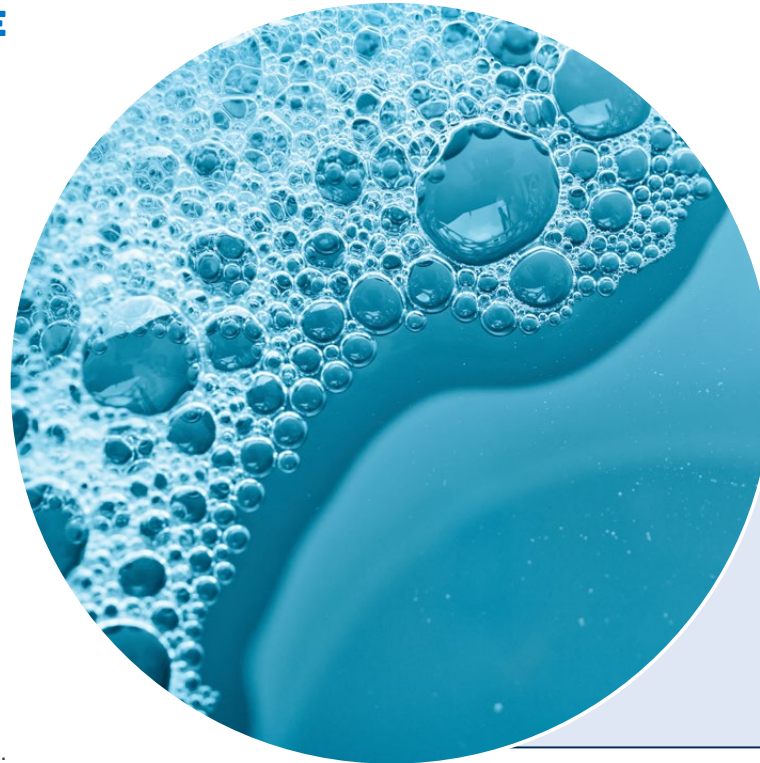
ACI is the trade association for the cleaning product supply chain, representing producers of household, industrial, and institutional cleaning products, as well as their ingredients and finished packaging; oleochemical producers; and chemical distributors to the cleaning product industry.

ACI was founded in 1926 as the Association of American Soap and Glycerine Producers and was later renamed The Soap and Detergent Association in the 1960s. The association was re-christened the American Cleaning Institute in 2010.

ACI's mission is to support the sustainability of the cleaning product and oleochemical industries through research, education, outreach and science-based advocacy.

ACI serves both its members and the public by developing and sharing information about industry products with the technical community, policy makers, childcare and health professionals, educators, media and consumers.

We currently represent approximately 140 member companies.



ACI'S SUSTAINABILITY MISSION

Our mission is to enable our membership to drive improvements in sustainability across our industry and throughout our supply chain.

In 2014, the members of the American Cleaning Institute updated our Principles of Sustainability to better reflect the priorities of the industry.

The cleaning products industry strives to:

- Protect human health and the environment against undesirable impacts
- Optimize use of the planet's resources across all phases of a product's lifecycle
- Govern our businesses with integrity, responsibility, and transparency
- Develop innovative products that contribute to the long-term value of the industry
- Enhance the health and quality of life of our society

SHAPING OUR SUSTAINABILITY PROGRAM: OUR FIRST INDUSTRY MATERIALITY ASSESSMENT

In recent years, companies committed to sustainability have increasingly informed their strategies and reporting by conducting materiality analyses - comprehensive studies of the risks and opportunities most material to their mid- to long-term success. **In 2015, ACI became one of the first industry organizations to perform such an analysis on an industry as a whole**, a step we undertook to extend our industry's ability to take action on sustainability. This analysis followed a rigorous and balanced process inspired by the traditional assessment process applied at the company level.

With this analysis we seek to gain a deeper understanding of the sustainability issues that matter most across the cleaning products value chain. The results can be used to help drive the association's strategy and future industry-wide sustainability initiatives. Also, for our member companies, the results serve as an indicator of external stakeholder viewpoints and a guidepost for their company-level materiality analyses.

PRODUCT VALUE CHAIN

Extraction and processing of oil from both renewable and non-renewable sources

Raw Material Production

Combination of chosen ingredients into final cleaning product by blending, spray drying, and agglomeration methods

Product Formulation

Use of the product by consumers, followed by disposal of packaging and product (down the drain)

Product Use & Disposal

Chemical Production

Production of chemical ingredients including: olefins, intermediates, polymers, performance chemicals, and fragrances

Packaging

Production of paperboard or plastics for purpose of holding cleaning product

MATRIX OF ISSUES

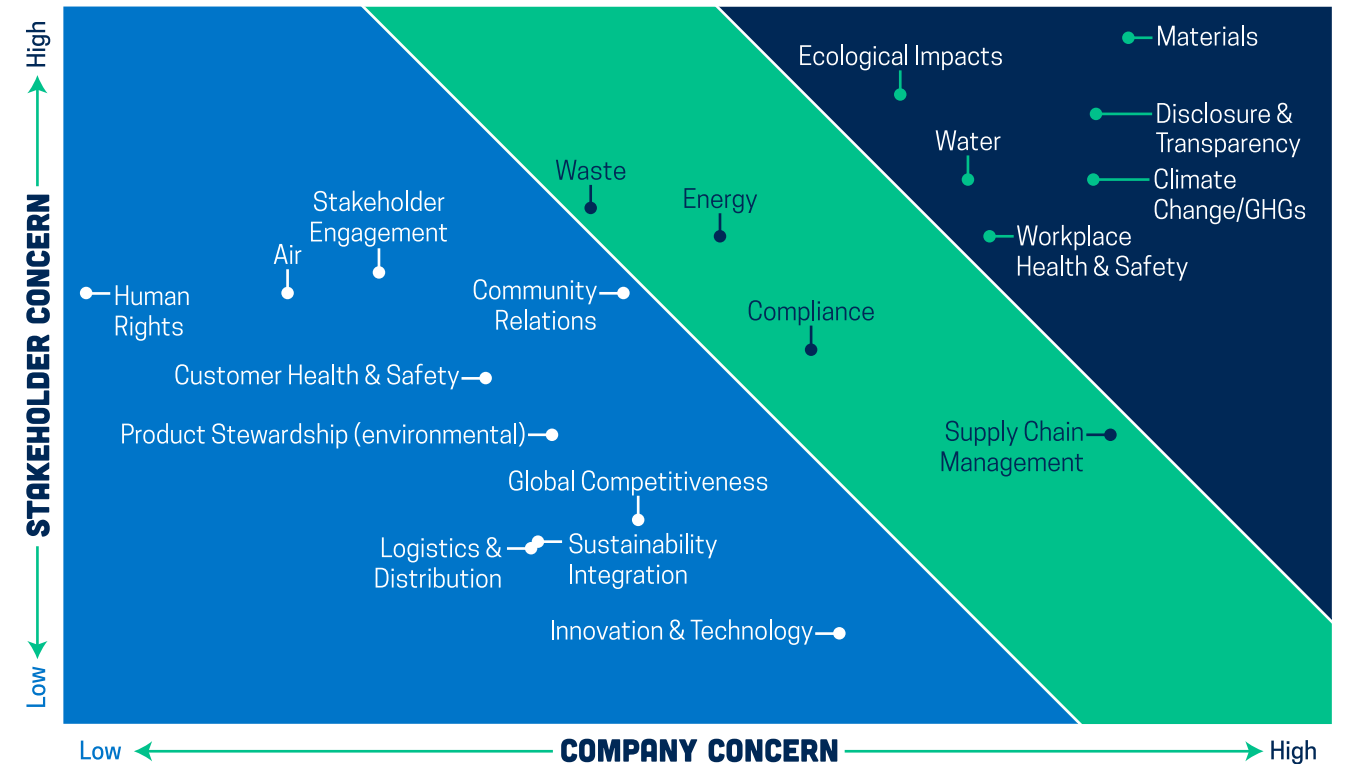
Our analysis resulted in a matrix that is representative of the material issues across all stages of the cleaning products value chain. Each value chain stage has a distinct set of material issues, all of which have been factored into the industry analysis presented here.

For this reason, the analysis is not applicable to one specific cleaning product company or product supplier, as no one company operates in every stage of the value chain. Rather, the results aggregate the most relevant issues across each major stage with each stage's material issues given equal weight.

Our analysis identified ten issues that stood out from a list of more than 20 issues of importance to the sector. The final list has been subdivided into **“Material”** and **“Priority”** issues. The horizontal axis represents the importance of an issue to internal stakeholders (companies in the industry), with the more important issues found on the right side of the matrix. The vertical axis shows the importance of an issue to external stakeholders, with those they are most concerned with appearing toward the top of the matrix. The upper right quadrant of the matrix, therefore, represents those issues that both our industry and our external stakeholders concur are of the highest importance.

Each of the issues identified is important in a different capacity to each area of the value chain. This exercise has allowed us to pinpoint areas around which to strategically focus future work at the industry level.

This analysis is a snapshot in time, and many of the issues relate to one another in some way. The diagram on the next page depicts the top 20 issues and reveals areas where discrepancies exist between internal and external stakeholders' perceptions of importance.



TOP ISSUES

Materials Safety of chemical ingredients; raw material sourcing and scarcity

Disclosure & Transparency Public disclosure of information related to sustainability, governance, and products

Climate Change / Greenhouse Gases Climate risks and opportunities; emissions of greenhouse gases

Ecological Impacts Biodiversity; deforestation; environmental management; responsible agricultural practices

Water Water use, waste water treatment, and water recycling

Workplace Health & Safety Health and safety management; health and wellness training programs

Waste Hazardous and non-hazardous waste; management of product end-of-life

Energy Energy use; renewable energy

Supply Chain Management Screening business partners on ethics and sustainability issues

Compliance Compliance with environmental, health, and safety regulations

REPORT ON PROGRESS

Although this is the first time we have analyzed the most important issues to our industry through a materiality assessment, many activities and initiatives are already in place at ACI that focus on one or more of the identified issues. For example, ACI's Cleaning Product Ingredient Safety Initiative is intended to enhance industry disclosure of safety information by making data and assessments more readily available to the public.

Meanwhile, ACI's Charter for Sustainable Cleaning has created a platform for companies to make continuous improvements in their sustainability performance across many of the material areas identified in this analysis. Examples of such can be seen in the activities of leading companies who are:

- Setting long-term goals to reduce overall energy consumption and increase use of renewable energy, both of which will result in lower GHG emissions
- Reducing operational water use and waste generation over the next 20 years
- Committing to only using traceable, certified sustainable palm oil and ensuring zero deforestation
- Reporting publicly and more frequently on sustainability performance, and taking steps to provide stakeholders with increasing levels of information
- Moving toward contributing zero operational waste to landfill
- Striving to improve their supply chain through strict codes of conduct for suppliers, and using audits or assessment platforms to manage performance

LOOKING AHEAD

This industry-level analysis will provide a stepping stone to better understand the issues that cut across the diverse set of companies that form the cleaning products value chain.

Because this assessment represents a new way of reporting on industry priorities, we recognize the importance of sharing the results with our stakeholders and engaging in dialogue to gain a deeper understanding of the priorities. Through this exchange, we hope to clarify specific areas of concern and identify opportunities surrounding each priority.

In addition, once a deeper understanding of each material issue is obtained, ACI plans to facilitate and lead discussions with our membership. As part of these conversations, ACI will be assessing the extent to which our current initiatives address these issues and advance future progress in areas requiring further industry attention.

With our new focus on material issues, we plan to be more strategic about tracking future industry performance on these matters, with the expectation that this report will evolve over time to better reflect this increased rigor.

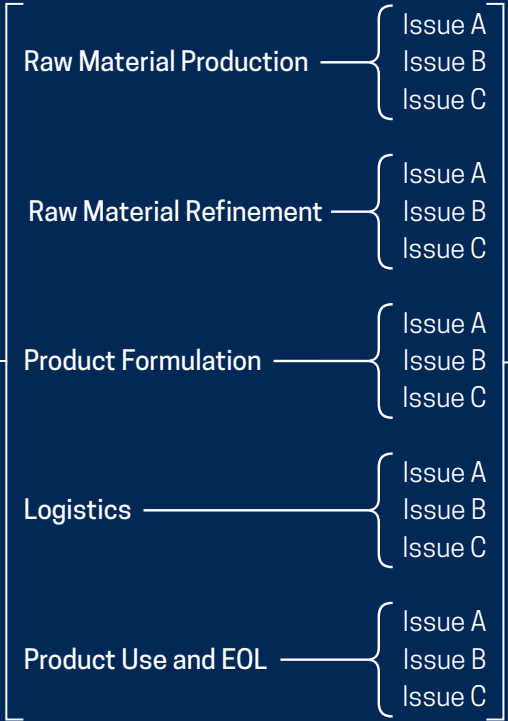
METHODOLOGY OVERVIEW

ACI’s materiality assessment was conducted by Framework LLC, an independent consultancy recognized for its expertise in materiality analysis. It followed a process developed specifically for an industry-level evaluation. The process began with the creation of a value-chain map representative of the cleaning products industry, which provided a clear view of our industry’s many stakeholders and ensured representation across the identified stages. Simultaneously, a comprehensive list of potentially material issues was developed as a basis for the analysis.

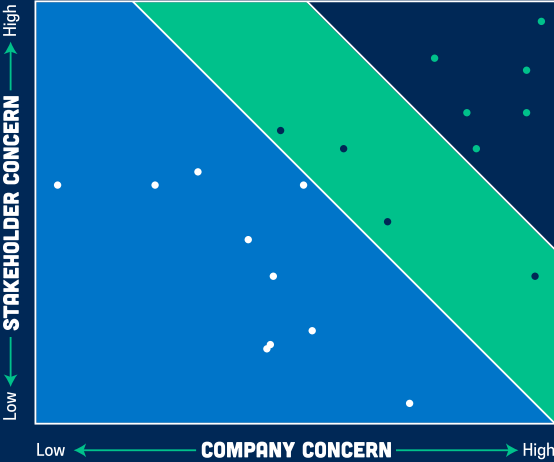
A representative sample of ACI member companies was then surveyed and interviewed to determine the potential impacts each issue could have on the industry. Select industry documents were also reviewed to supplement this direct engagement. Source documents representing the views of nine external stakeholder segments (including NGOs and governmental agency reports) were carefully evaluated to determine the level of stakeholder concern on each issue. These analyses were conducted individually at each stage of the value chain.

The stakeholder and industry results from each value chain stage were then synthesized in a manner that gave equal representation to all identified stages. Finally, a materiality matrix was developed to illustrate the key issues for the industry as a whole. We will use this set of issues to inform conversations with our membership, and will periodically revisit the findings of this assessment.

STAGES INDIVIDUALLY ANALYZED



CLEANING PRODUCTS INDUSTRY MATERIALITY MATRIX



INDUSTRY PERFORMANCE

Understanding and improving the environmental performance of the industry is a key priority for ACI. Tracking our performance is essential to this goal. ACI began tracking industry wide data in 2009 and reported results publicly in our first biennial [Sustainability Report](#) in 2011.

Currently, data is available for four key environmental impacts, all four of which were identified as Material or Priority issues in our recent materiality assessment. These include: Energy, Climate, Water, and Waste.

Tracking metrics around these issues provides a baseline and indicators by which we can measure sustainability-related performance for the cleaning products industry.

We have taken an additional step this year to distinguish between different stages of the value chain because, as identified in the materiality analysis, each stage has a distinct set of issues and challenges. **Data will now be presented individually for both the chemical production and product formulation stages of the value chain.**

PRODUCT VALUE CHAIN

Combination of chosen ingredients into final cleaning product by blending, spray drying, and agglomeration methods

Raw Material Production

Product Formulation

Product Use & Disposal

Chemical Production

Packaging

Production of chemical ingredients including: olefins, intermediates, polymers, performance chemicals, and fragrances

ACI SUSTAINABILITY METRICS PROGRAM

The Sustainability Metrics Program at ACI takes an annual snapshot of progress toward sustainable development by aggregating the environmental metrics of ACI member companies participating in the program. The results are used to gain insights into the environmental footprints of the cleaning products industry and allow companies to internally benchmark against the industry average, ultimately driving the industry toward a common set of sustainability goals. Since the program's launch in 2009, more than 5,000 data points have been collected on environmental issues most relevant to the industry.

Operational data for the reporting period of 2009 to 2013 was received from 33 ACI member companies. Each metric was aggregated and normalized per metric ton of production in order to better understand our progress as an industry. The data are representative of cleaning product-related production in the U.S. market.

Baseline Adjustments

As the program continues to grow, data are captured from more companies resulting in a larger production volume annually. To maintain long-term comparability and provide confidence in trend analysis, a Baseline Maintenance Method (based on the GHG Protocol Corporate Reporting Standard) is used to dampen year-to-year data volatility due to changing member participation. The data reported in the following sections are reflective of this methodology, as the profile of companies reporting has changed since our last report. Because of these adjustments, caution should be taken when comparisons are made with ACI's prior Sustainability Reports.

2014 MEMBER COMPANY PARTICIPATION

AkzoNobel Chemicals LLC	Firmenich Incorporated
Amway	Givaudan Fragrances Corporation
Arylessence, Inc.	GOJO Industries, Inc.
BASF Corporation	Henkel Consumer Goods Inc.
Brenntag North America	Huntsman Corporation
Celeste Industries Corporation	International Flavors & Fragrances, Inc.
Chemia Corporation	Novozymes
Church & Dwight Co., Inc.	PQ Corporation
The Clorox Company	Procter & Gamble
Colgate-Palmolive Company	SC Johnson
Corbion	Sasol
Croda, Inc.	Seventh Generation
The Dow Chemical Company	Shell Chemical LP
DuPont Industrial Biosciences	Stepan Company
Ecolab Inc.	The Sun Products Corporation
Evonik Corporation	Vantage Oleochemicals
Farabi Petrochemicals	

ENERGY



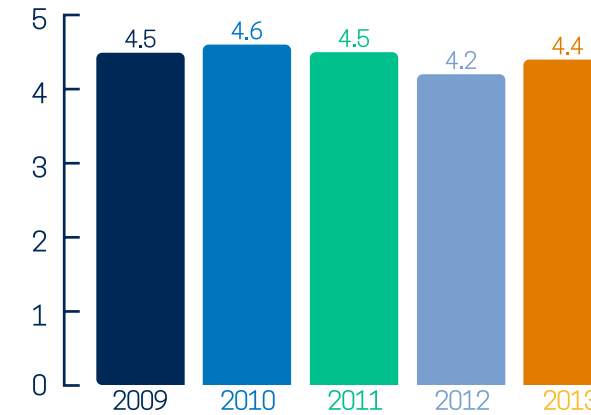
Over the five year reporting period, the industry's normalized energy profile has shown a gradual declining trend, with slight fluctuations year-over-year. With an increasing number of companies striving for reduction targets in the next ten years, we are expecting to see continued improvements in energy efficiency over time.

In 2013, the majority of energy used was derived from natural gas. Since 2009, data has shown a significant shift away from electricity generated off-site and toward increased natural gas use, which is reflective of the current energy landscape in the U.S. In addition, the absolute amount of electricity from alternative sources (wind, solar, etc.) has increased 35 percent since 2008.

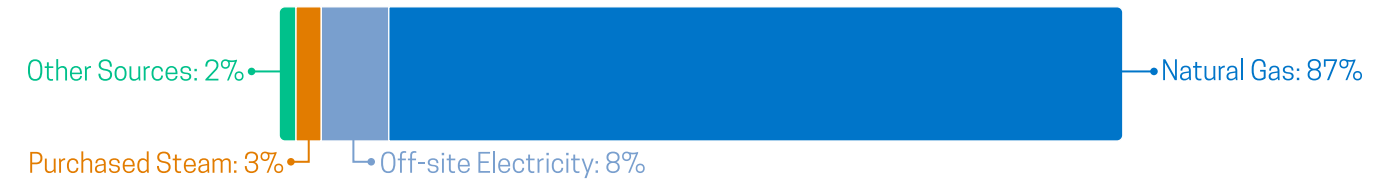
At the supply chain level, in both the chemical production and product formulation stages, the normalized energy profile has remained steady since 2009.

ENERGY EFFICIENCY

Gigajoules per metric ton of cleaning product production (GJ/MT)

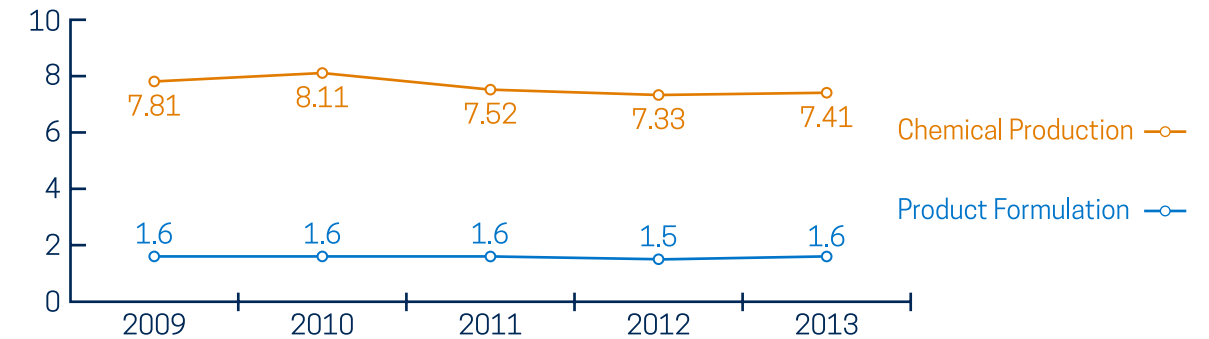


ENERGY USE BY SOURCE IN 2013



VALUE CHAIN BREAKDOWN

Energy use by value chain stage in 2013 (GJ/MT)



CLIMATE



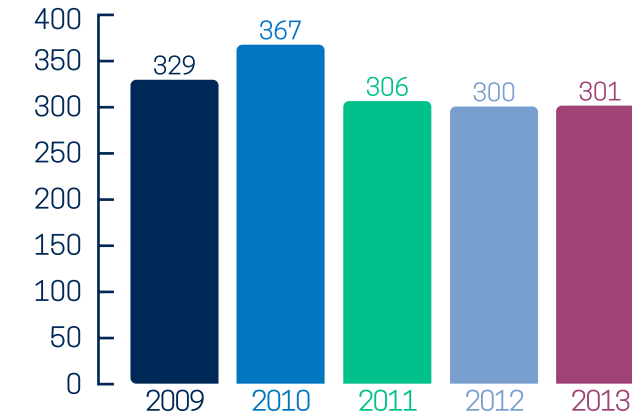
Since 2009, the profile of industry greenhouse gas (GHG) emissions has correlated directly with the trend in the industry's energy use profile. Emissions were the highest in 2010 but decreased in 2011, remaining relatively steady from 2011 to 2013. Overall, a nine percent decline in emissions has occurred since 2009. In the coming years, an anticipated increased use of natural gas and alternative energy sources could lead to the decoupling of the energy consumption and greenhouse gas emission trends, as these sources generate less CO₂ equivalents.

A significant majority of these emissions are in the direct emissions category (from a source owned by an entity) due to the prominent use of natural gas. Eleven percent of the emissions are indirect, i.e., from an off-site source generating electricity that is purchased by the entity.

At the supply chain level, the product formulation stage has shown a consistent decreasing trend in greenhouse gas emissions, with an 11 percent reduction since 2009. The GHG emissions profile of the chemical production stage has varied over the reporting period, but ultimately there has been a nine percent reduction since 2009.

GREENHOUSE GAS EMISSIONS

Kilograms CO₂ equivalents per metric ton of cleaning product production (KG/MT)

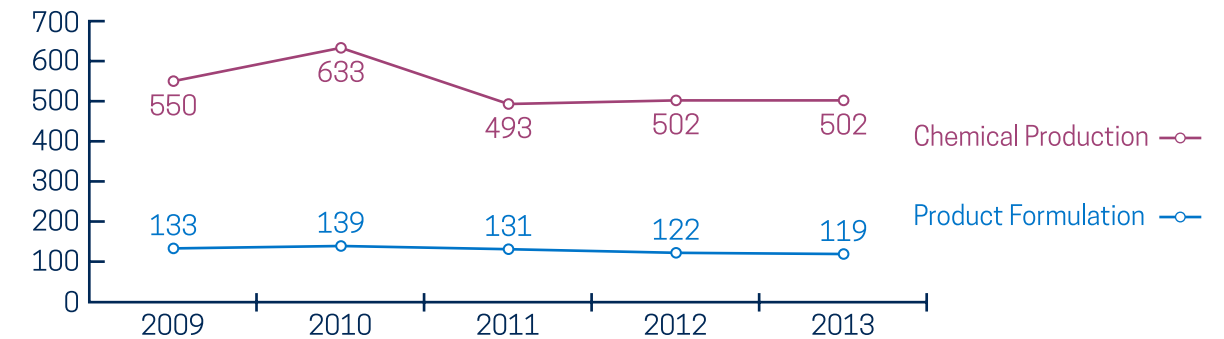


EMISSIONS PROFILE IN 2013



VALUE CHAIN BREAKDOWN

Greenhouse Gas Emissions (KG CO₂ eg/MT)



WATER



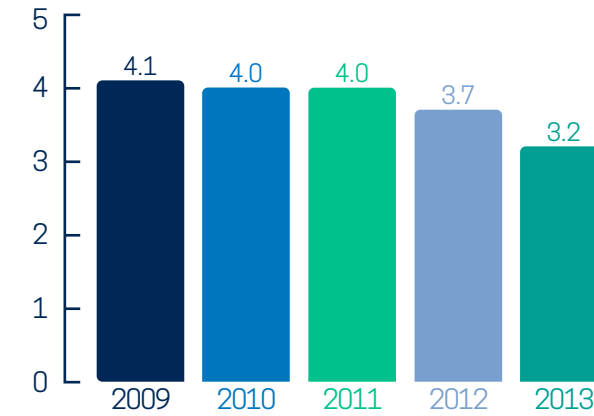
Increased water efficiency has been among the most substantial improvements in the environmental footprint of cleaning product production. The industry has reduced its water use 22 percent over the five year reporting period. This trend has been particularly pronounced in the most recent two years. From 2012 to 2013 alone, there was a decrease of 14 percent in water use.

Additionally, the data show a sharp decrease in the amount of purchased water (approximately 25 percent) with almost three million cubic meters of water sourced as recycled in 2013.

Within the supply chain, the chemical production value chain stage has generated a 21 percent decline since 2009 with a 16 percent decrease in just one year (from 2012 to 2013). The product formulation stage has shown a steady year-over-year decrease totaling 26 percent since 2009.

WATER EFFICIENCY

Cubic meters of water per metric ton of cleaning product production (M³/MT)

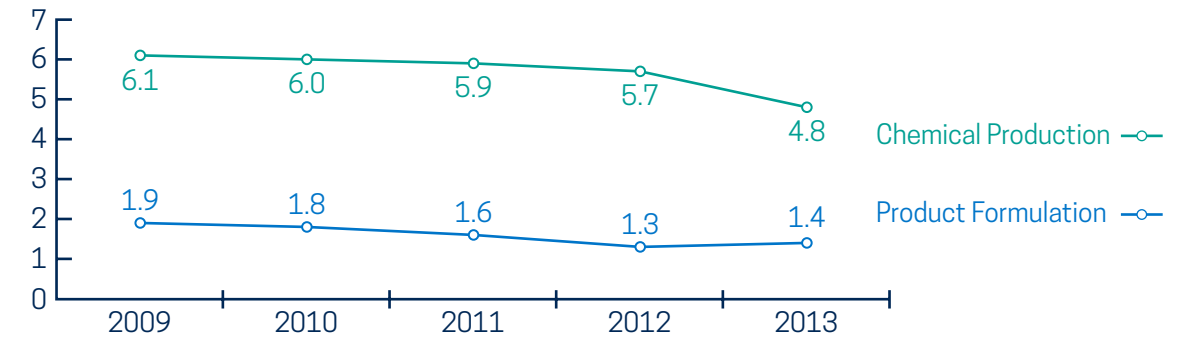


WATER USE BY SOURCE IN 2013



VALUE CHAIN BREAKDOWN

Water Efficiency (M³/MT)



SOLID WASTE



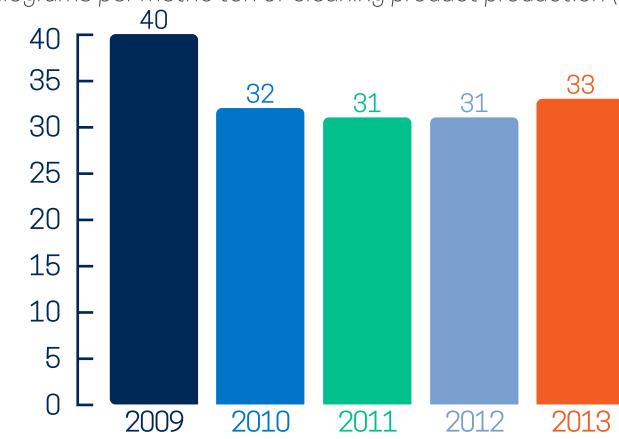
Over the five year reporting period, the amount of solid waste generated per ton of cleaning product production has significantly decreased, showing an 18 percent improvement overall. Unlike the trend in the water use metric, where sharp reductions have been seen in the most recent data, the majority of improvement in the waste profile to-date occurred around 2009. Since 2010, the waste profile of the industry has remained relatively stable.

Solid waste generation remains the most challenging metric to accurately capture for reporting purposes; in 2013, only 31 percent of waste could be categorized. A majority of the waste reported is handled offsite, often by third parties. Over the years, data have showed the amount of waste reported as reused or recycled increasing steadily. This could reflect changing waste disposal methods or better record-keeping of the fate of the waste.

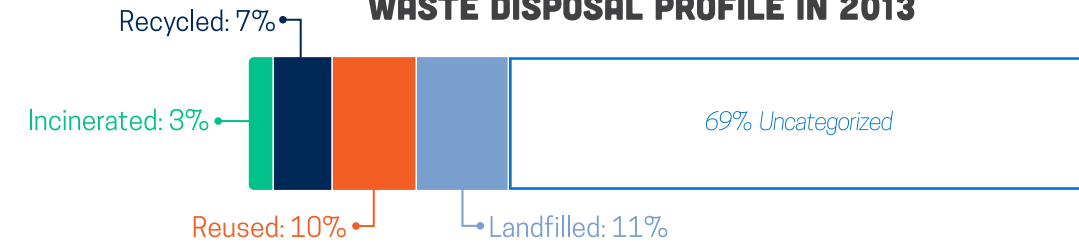
In the supply chain, the chemical production value chain stage has seen a 28 percent decline since 2009 with a 27 percent decrease in just one year (from 2009 to 2010). Since 2010, the profile has remained constant. The product formulation stage has remained stable since 2009, but an increase was seen in 2013 and the cause is still under investigation.

SOLID WASTE GENERATION

Kilograms per metric ton of cleaning product production (KG/MT)

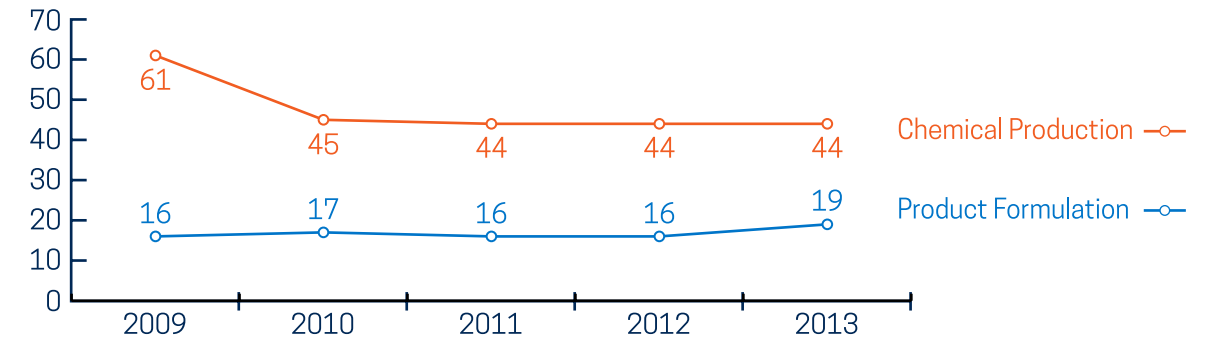


WASTE DISPOSAL PROFILE IN 2013



VALUE CHAIN BREAKDOWN

Solid Waste Generation (KG/MT)



ACI ACTIVITIES & INITIATIVES



Cleaning products help provide better living for consumers and play an essential role in our daily lives. Every year, ACI shares information, ideas, perspective and expertise with the media, educators and consumers on proper and essential cleaning behaviors to enhance health and quality of life for our society at-large.

Additionally, decades of ACI published research, collaborative partnerships, and information sharing have contributed to a wealth of publicly available knowledge and expertise supporting decisions that enhance the safety and sustainability of cleaning products and their ingredients, underscoring our continued commitment to product stewardship and transparency.

What follows is an update on how ACI's research, technical, sustainability, advocacy, and outreach efforts are contributing not just to a sustainable industry, but also to a more sustainable world.

ADVANCING SUSTAINABILITY MANAGEMENT

Providing a Framework for Continuous Improvement

Launched in 2014, the [Charter for Sustainable Cleaning](#) is a voluntary lifecycle-based framework that promotes a common industry approach to sharing and reporting best practices for sustainability. Companies participating in the Charter demonstrate their commitment to continuous improvement of key aspects of sustainability across all stages of the cleaning product supply chain.

The Charter exists as a guideline for best practices in sustainability and consists of three mandatory components:

- Charter companies must formally commit to the ACI Principles for Sustainability.
- Charter companies must participate in ACI's Sustainability Metrics Program.
- Charter companies must work toward implementing a set of Essential Sustainability Procedures and Activities.

Twenty-five companies completed the requirements for the first year and 29 companies are now working toward the 2015 requirements.

Enabling Access to Sustainability Knowledge

Over the past four years, ACI has offered representatives of our member companies training on key sustainability topics. ACI's online courses and webinars provide access to state-of-the-art information and case study examples that can assist them in their mission to create progress at their own company. In 2015, ACI formalized this program as the ACI Sustainability Academy. Training has covered topics such as metrics tracking, sustainability reporting, materiality assessments, and sustainability performance surveys.



ENDORISING POLICY SOLUTIONS

Modernizing and Strengthening our Chemical Safety Law

ACI has called for strengthening of the Toxic Substances Control Act (TSCA) for many years, even before the recent Congressional efforts to amend the law. A modernized TSCA has the potential to incentivize the innovation that our members have long displayed in developing sustainable cleaning products and would help contribute to improved public confidence in the chemicals used to manufacture cleaning products.

ACI believes changes to TSCA must be practical and achievable in order to maintain U.S. leadership in the management of chemical substances. Therefore, ACI remains committed to being an active participant in bipartisan discussions, hearings, and meetings as well as other processes to advance the modernization of TSCA. A robust and credible federal program is crucial to the national uniformity that the industry requires and to assuring that public health and environmental health interests are protected.

DEVELOPING SCIENTIFIC DATA, RESEARCH, AND TOOLS

Facilitating Access to Safety Information on Cleaning Product Ingredients

ACI continues to expand our [Cleaning Product Ingredient Safety Initiative](#) (CPISI) to illustrate how safety data and risk assessment methodology are used to demonstrate the safe use of ingredients present in cleaning products. Initially, ACI compiled a comprehensive [Ingredient Inventory](#) of more than 900 chemicals used to manufacture consumer cleaning products sold in the U.S.

In 2014, we opened a web-based portal which makes human health and environmental [hazard data sets](#) for each ingredient available to the public.

In 2015, ACI expanded the portal to include [human exposure models](#) associated with each cleaning product application for every ingredient on the inventory and estimated the consumer exposure associated with the use of each chemical in cleaning products.

Improving Our Understanding of Asthma

It is often difficult to evaluate how humans may be exposed to asthma through cleaning products or chemicals. In 2014, ACI supported research published in the journal [Regulatory Toxicology and Pharmacology](#), assessing the quality of a number of current assessment schemes for predicting the ability of a chemical to trigger asthma or asthma-like symptoms. This work is an important step in the ongoing effort to develop methods for reliable assessment strategies applicable to consumer exposure scenarios. It will aid in the development of a system which incorporates the best features of existing guidance, frameworks, and models to better predict the potential for consumer product exposures to trigger asthma.



Protecting Worker Safety through Enzyme Handling Guidelines

Enzymes are naturally occurring proteins with the power to “break down” complex stains, soils, and food residue – making them ideal candidates for use in detergents. In order to minimize worker exposures to enzymes and manage the risks associated with their use in detergent factories, it is essential to properly control occupational exposure to these proteins in detergent manufacturing facilities.

*“What we are seeing represents an industry-wide success story.”
- Study co-author Dr. Francis Kruszewski, ACI Senior Director,
Human Health & Safety*

Over the years, ACI has published guidance for the cleaning products industry setting forth enzyme handling practices to protect workers from adverse health effects, specifically the symptoms of enzyme allergy. In 2015, a study co-authored by ACI and published in the peer-reviewed [Journal of Occupational and Environmental Hygiene](#) examined, over a five-year period, the procedures put in place at approximately 100 manufacturing facilities around the world where enzymes are used to formulate detergent products. These procedures included air monitoring that supported the minimizing of worker exposures as well as tracking incidences of respiratory sensitization to enzymes in the workforce. The results show that following the industry guidelines for managing the risk associated with enzyme use, manufacturers can deliver a safe work environment.

Showcasing the Environmental Safety of Detergents' Workhorse Ingredients

Since the late 1930s and early 1940s, when the first synthetic surfactants were developed, they have been increasingly used as the active ingredient in a wide variety of consumer products. Detergents that contained these surfactants increased in popularity because they provided better cleaning than traditional soaps and at lower prices.

This rapid expansion of detergents led to environmental challenges as the wastewater was discharged into surface waters.

For more than half a century, ACI and its member companies have undertaken surfactant research and stewardship activities, spending more than \$30 million assessing the environmental safety of major surfactants. In 2014, ACI co-authored a comprehensive review of five decades' worth of research, bringing together 250 published and unpublished studies on the environmental properties, fate, and toxicity of the four major, high-volume surfactant classes. The article, published in the journal *Critical Reviews in Environmental Science and Technology*, showed that use of surfactants has had no adverse environmental impacts on waterways and river sediments. To date, this is the most comprehensive report on these substances' use, environmental fate, monitoring, toxicity, and bioaccumulation.



Giving the Heads Up on Down-the-Drain Ingredients

iSTREEM®, a web-based tool developed by ACI, is helping product manufacturers, regulators and researchers estimate levels of down-the-drain chemicals in streams and rivers. The model predicts the environmental concentrations of ingredients used in consumer products, across a large geographic scale, for a variety of chemical characteristics and stream flow scenarios. The tool enhances our understanding of water quality in regards to the potential impact of chemicals to the environment.

— In 2015, the Great Lakes Region of Canada was incorporated into the model. The expansion of iSTREEM to Canada has resulted in representation of more than a third of the total Canadian population. The U.S. and Canada share this major watershed, making it essential to include Canada in the model for accurate analysis of the impact of down-the-drain chemicals on the waters they drain into.

BUILDING EXCELLENCE & SHARING EXPERTISE

Partnering to Prevent the Spread of Cold and Flu

ACI's experience in developing strategic partnerships brings together experts to share crucial information on preparing for the cold and flu season. Our latest [educational webinar](#) featured experts from the Centers for Disease Control and Prevention; Global Public-Private Partnership for Handwashing; and Family, Career and Community Leaders of America.

The webinar communicated best practices to a variety of consumer audiences, including more than 250 health educators, Family & Consumer Science teachers, Extension professionals, Family, Career & Community Leaders of America chapter advisers, and school nurses.

Shining the Spotlight on Student Achievement in Hygiene Education

For more than 13 years, the [Healthy Schools, Healthy People. It's a SNAP program](#) has honored school-based efforts to improve hand hygiene habits to help prevent the spread of infectious disease and reduce related absenteeism. This grassroots, education-based effort – supported by ACI and the Centers for Disease Control and Prevention (CDC) – promotes public health by making hand cleaning an integral part of the school day. The Healthy Schools, Healthy People program annually recognizes students and educators that create innovative education campaigns in their schools and communities to promote good hand hygiene.

In 2015, students from [Minnesota's Fulda High School](#) were recognized for their "Clean Up Germ City" project. The students created a lesson plan for each grade to teach correct handwashing steps, and educated people in their community about how to stay healthy and avoid getting sick not only during the cold and flu season, but also year-round.



Making the Connection between Cleanliness and Health

For decades, ACI has partnered with the [National Extension Association of Family and Consumer Sciences](#) (NEAFCS), whose thousands of members share ACI's science-based information on properly and beneficially using cleaning and hygiene products with millions of individuals, families and communities.

“NEAFCS members have been very fortunate to have the support of the ACI. Our members have used the ACI's consumer education materials for many years to support their grassroots programs. Their partnership plays an integral part in the work our extension educators are doing to help families and individuals understand the vital link between clean homes and good health.” - Jody Rosen Atkins, NEAFCS Executive Director

ACI's [Clean and Healthy Families & Communities Award](#) honors outstanding NEAFCS educational programs that use ACI's informational materials that promote the connection between cleanliness and health. In 2014, ACI honored efforts that promoted handwashing and encouraged a healthy lifestyle through technology-based programming.

TOUCHING HEARTS, ENHANCING HEALTH

Getting Hygiene Products to Those Who Need Them the Most

ACI partners with [Clean the World](#), a non-profit organization that collects discarded soaps, shampoos, conditioners and other hygiene products from more than 4,000 participating hotels and hospitality partners. Instead of being tossed away in landfills, these materials are safely and sanitarily recycled, and shared with groups in need to help prevent millions of hygiene-related deaths each year.

“ACI puts an emphasis on partnerships that help provide better living for everyone, and we can’t overstate the value of their advocacy on hygiene issues. By supporting our [ONE Project initiative](#), ACI has donated thousands of hygiene kits to school children who are homeless or experiencing financial hardship. It is an honor to collaborate with them.” - Shawn Seipler, Founder and CEO of Clean the World



Clean the World®

In April 2015, ACI’s Nancy Bock traveled to Guatemala with Clean the World and a representative from ACI member company, The Clorox Company, to distribute 15,000 bars of soap to children in desperate need of basic hygiene supplies. The message that soap keeps you healthy was enthusiastically received by the children and mothers in the towns that they visited.

All told, since 2009, Clean the World has distributed more than 25 million bars of soap in 99 countries.

At the 2014 and 2015 ACI Conventions, participants from our member companies rolled up their sleeves and put together more than 6,000 hygiene kits for families and communities in need in the U.S.

Making a Difference in the Lives of Women Battling Cancer

ACI believes in partnering with organizations that share its mission and commitment to better living. The non-profit [Cleaning for a Reason Foundation](#) provides the gift of free home cleanings to women battling cancer. ACI has supported this foundation since 2008, including hosting annual charitable events at our Industry Convention.



“I am so grateful for ACI and the generosity of their members. They continue to surprise us each year with their enthusiastic support for our cause. ACI members are making a tangible difference in the lives of many women suffering with cancer.” - Debbie Sardone, Cleaning for a Reason President & Founder

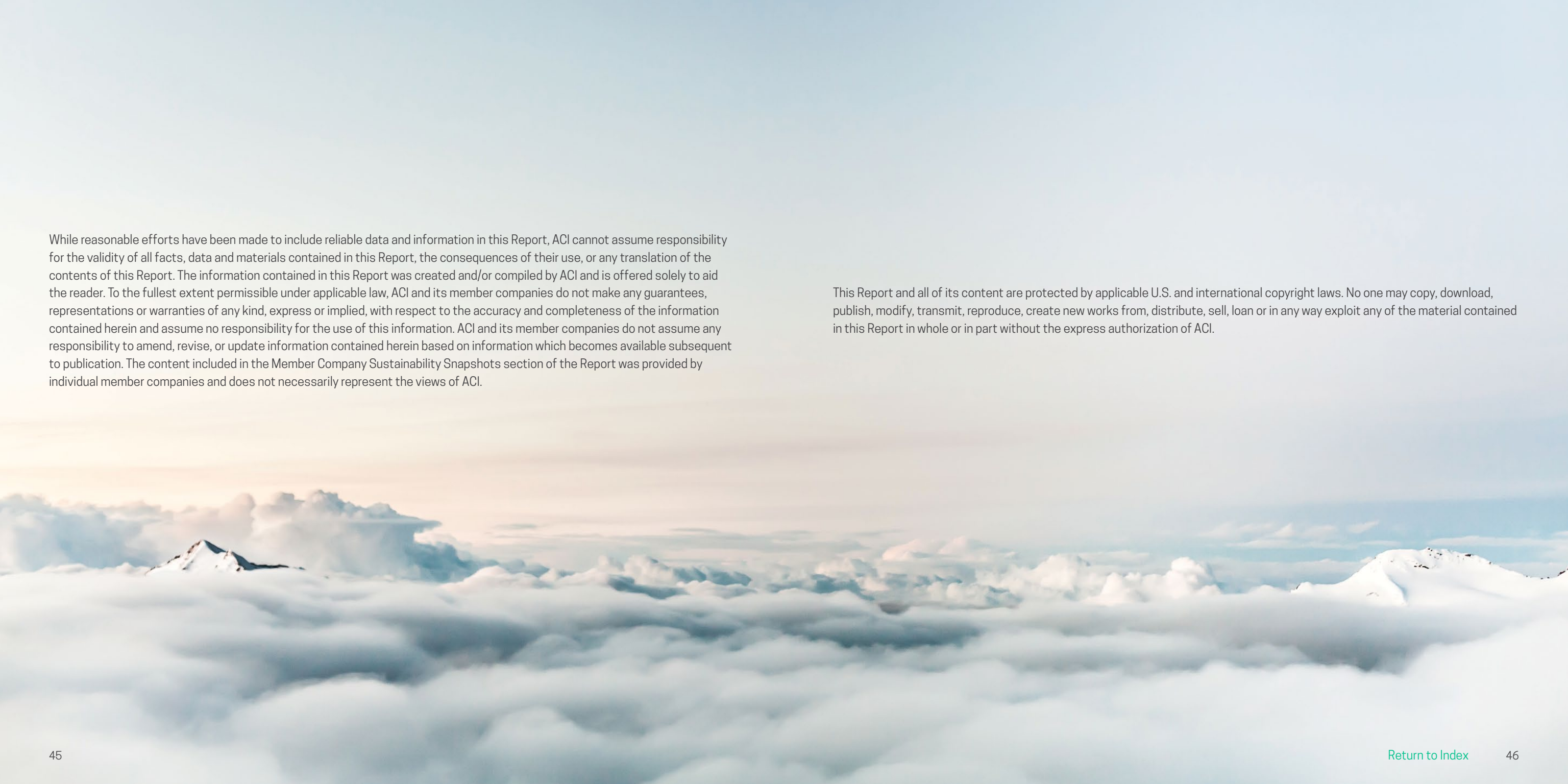
In 2014 and 2015 alone, ACI and our member companies donated hundreds of volunteer hours and more than \$65,000 to Cleaning for a Reason to support their efforts across the U.S. and Canada.

STORIES OF SUSTAINABILITY

ACI member companies are committed to increasing sustainability and demonstrating corporate social responsibility. We invite you to learn more about their individual efforts in our online showcase, available here: www.cleaninginstitute.org/sustainability2015

ACI member companies on the following page have shared their stories.





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