

# CHEMICAL FOOTPRINT PROJECT



2018 ANNUAL REPORT





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**WHAT CONSTITUTES A CHEMICAL OF HIGH CONCERN (CoHC)?** carcinogen, mutagen, or reproductive toxicant (CMR); persistent, bioaccumulative and toxic substance (PBT); any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that give rise to an equivalent level of concern, or a chemical whose breakdown products result in a CoHC that meets any of the above criteria.

# WELCOME

The CFP Survey evaluates progress to the environmentally sound management of chemicals and defines a clear, quantitative metric for measuring progress — the chemical footprint of an organization's products, manufacturing operations, supply chains, and packaging.

We invite you to participate in the journey to healthy products, people, and planet with the **Chemical Footprint Project (CFP), a program of Clean Production Action**. We and our co-founders, Pure Strategies and the University of Massachusetts Lowell Center for Sustainable Production, are working with CFP Signatories and participants in the annual CFP Survey to transform the use and reporting of chemicals in products and supply chains.

**CFP Signatories with \$2.8 trillion in assets under management and over \$700 billion in purchasing power are asking their stakeholders: Where are you on your chemicals management journey? Are you participating in the CFP Survey? What are your CFP Survey answers?**

**Businesses with over \$677 billion in annual revenue across sectors are leading by responding to their stakeholders**, participating in the CFP Survey, and evaluating their chemicals management performance based on the four key pillars of the Survey: Management Strategy, Chemical Inventory, Footprint Measurement, and Disclosure & Verification.

**BRANDS AND MANUFACTURERS FROM DIVERSE SECTORS PARTICIPATE IN THE CFP SURVEY:** apparel, accessories, & footwear; building products & furnishings; electronics/technology; household & personal care products; medical equipment & supplies; retail; and toys & sporting goods.

The screenshot shows the homepage of the Chemical Footprint Project website. At the top, there's a navigation bar with links like 'Clean Production Action', 'Bridging', 'GreenBiz', and 'Chemical Footprint Project'. Below the navigation is a main header 'Measure Your Chemical Footprint' with a 'Measure' button. To the right, there are icons for 'Public Disclosure', 'Emissions Management', 'Management Strategy', 'Chemical Inventory', and 'Management Strategy'. The central part of the page features several cards: 'The CFP Survey' (inspired by the Sustainability and Footprint Survey), 'Steps & Guidance for Taking the Survey' (read the steps and download the Guidance document), 'For Brands & Manufacturers' (CFP creates a clear, common logo for communicating, evaluating, and measuring corporate chemical management performance), 'CFP 2018 Pilot Verifier Program' (these organizations will work with CFP Survey Respondents to review and verify responses and demonstrate pilot achievements), and 'CFP Results' (receive your annual report). On the right side, there are sections for 'Investors care about the chemical footprint of corporations', 'Have questions?', 'Check out the FAQs to get the answers to all your CFP questions', and a quote from Jessie Ickey: 'Participating in the Chemical Footprint Project led us to develop a formal chemical policy that will be included on our website. Our chemicals policy and its successful implementation is the very heart of our company philosophy.' At the bottom, there are sections for 'Our Mission', 'Contact Us', 'Latest news', and links to 'Chemical Watch', 'Mark Rossi', 'GreenBiz', and 'Read More'.

In this 2018 CFP Annual Report we highlight the findings from the 2017 CFP Survey. This is the third annual CFP report. For all the details from the 2017 CFP Survey and to learn details on the 2018 CFP Survey go to [www.chemicalfootprint.org](http://www.chemicalfootprint.org). The 2018 CFP Survey opens on January 1, 2019 and closes on March 31, 2019. Join us in participating as a CFP Signatory (investors, retailers, governments, and health care systems) or as a participant in the CFP Survey. Companies participating in the Survey represent a diverse portfolio of businesses, including small to very large companies producing and selling formulated products, articles, or both.

# KEY FINDINGS

Continuous improvement – three years of the CFP Survey highlights the growing capacity of business leaders to develop and execute comprehensive chemicals policies, know the chemistry of their products, measure their chemical footprint, and be public about their journey.

Leadership companies participate in the CFP Survey. They step forward and take their part in an innovative, independent, NGO-driven, business-informed survey to evaluate and report on corporate systems for managing chemicals in products and supply chains. The Survey is a set of 20 questions with specified response options that support achievement of the UN Sustainable Development Goals (SDGs) by measuring corporate progress to: SDG Goal #3 – Target 3.9 – by 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution; SDG Goal #6 – Target 6.3 – by 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials; and SDG Goal #12 – Target 12.4 – by 2030, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle.

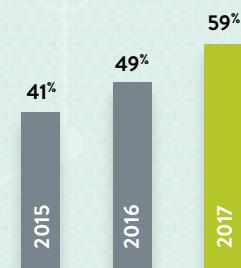
Highlighting the growing capacity of companies to develop and execute comprehensive chemicals management programs, the

Survey's average scores increased over the last three years, from an average of 41% of possible points in 2015 to 59% in 2017. Note the scale ranges from a low of zero to a high of 100 points. Over the three years of the CFP Survey, 24 companies participated each year, though the companies participating varied from year to year. In total, 43 companies participated in the Survey over the three years, with 23 companies participating one year, ten companies participating two years, and ten companies participating all three years. Companies participating all three years followed the continuous improvement trend line as well, with average scores increasing from an average of 43% of possible points in 2015 to 55% in 2017.

Significant shifts in corporate chemicals management policies, procedures, and practices are happening and being captured by the CFP Survey. Below, we detail those shifts according to the four pillars of the CFP Survey.

## Scores on the rise

CFP Survey, 2015–2017: average score for all responders, percent of total possible points



1

## MANAGEMENT STRATEGY: COMPREHENSIVE AND PUBLIC CORPORATE POLICIES.

Companies are expanding the scope of their policies beyond chemicals in products to include chemicals in manufacturing operations, packaging, and supply chains, as well as showing a preference for safer alternatives, and publishing their policies online. Average scores for the corporate policies on chemicals of high concern (CoHCs – question M1) and safer alternatives (question M2) increased from 42% of possible points in 2015 to 67% in 2017. Participation in the Survey incentivizes companies to increase the comprehensiveness of their corporate policies and to make them public, as these are comparatively easier improvements to make.

## Management Strategy Improvements

CFP Survey, 2015–2017: Management Strategy, Corporate Chemical Policies, percent of possible points scored for questions M1 & M2



## 2

**CHEMICAL INVENTORY: FULL CHEMICAL INGREDIENT INFORMATION FOR ALL PRODUCTS.**

**Companies participating in the Survey are increasing their collection of full chemical ingredient information from suppliers.** In the 2015 Survey, 46% of companies collected full chemical ingredient information for more than three-quarters of their products. In the 2017 Survey, that percentage grew to 63%. Over the same period, the percent of companies not collecting full chemical ingredient information (0% in the adjacent graph) declined from 38% to 17%. Collecting full chemical ingredient information is a major shift, especially for companies selling articles (i.e., hard goods as opposed to formulated/liquid products). The growing trend towards collection of full chemical ingredient information reflects greater participation of companies selling formulated products in the Survey (21% in 2015 to 63% in 2017) and greater awareness among companies selling articles of the need to collect full chemical ingredient information (55% of the companies selling articles collected full chemical ingredient information on greater than three-quarters of their products). Note that one-third of responders only reported for a division or portfolio of products.

## 3

**MEASUREMENT: CALCULATE CHEMICAL FOOTPRINT.**

The CFP Survey is the first-of-its-kind initiative to define a chemical footprint and ask companies to calculate that footprint. The Survey enables companies to start chemical footprinting with a shorter list of chemicals, the 169 chemicals Substances of Very High Concern (SVHCs) as defined by the European Union REACH regulation, and progress to a broader list of 2,200-plus CoHCs as specified using GreenScreen List Translator™. Building from their knowledge of full chemical ingredient information, companies are increasingly calculating their chemical footprint and reporting progress in reductions. Percent of companies measuring their footprint grew from 29% in 2015 to 75% in 2017.

## 4

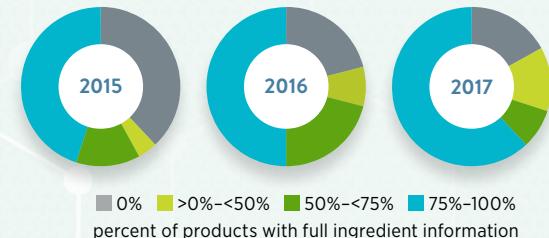
**DISCLOSURE & VERIFICATION: MAKING CFP SURVEY RESPONSES AND SCORES PUBLICLY AVAILABLE IS BECOMING THE NORM.**

Reflecting growing comfort with the Survey questions and response options, recognition of how their score compares to the average and willingness to report on their journey to comprehensive chemicals management, companies are increasingly making their Survey responses and scores publicly available. The percent of companies either disclosing their CFP responses or score, questions D2 and D3, increased from 21% in 2016 to 42% in 2017. Note the questions for D2 and D3 changed from the 2015 to the 2016 Survey, making the data for 2015 incomparable to 2016 and 2017.

**ACROSS ALL FOUR PILLARS, TRANSPARENCY IS RISING.** Integrated into the Survey questions are response options that ask whether a company makes information on its policies and practices publicly available. For example, under Chemical Inventory question I2, companies are asked whether they publicly disclose their restricted substances list (RSL) or manufacturing restricted substances list (MRSL). Incentivized to increase their points in the Survey with minimal effort, companies participating in the Survey are making more information on their chemicals management initiatives publicly available.

**Full Chemical Ingredient info up 17%**

CFP Survey, 2015–2017: Chemical Inventory, Full Chemical Ingredient Data, percent of companies and the percent of products for which they collect full chemical ingredient information, question I4

**Footprint calculations on the rise**

CFP Survey, 2015–2017: Footprint Measurement, Chemical Footprint, percent of companies measuring footprint, question F2

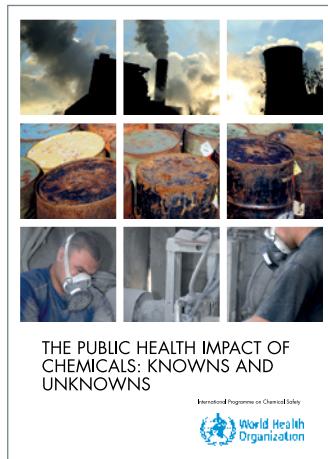
**Big steps in public availability**

CFP Survey, 2015–2017: Disclosure & Verification, percent of companies disclosing responses or scores, questions D2 & D3



# THE GLOBAL HEALTH RISKS FROM HAZARDOUS CHEMICALS

The evidence and impacts of health risks from hazardous chemicals continues to grow. Findings and conclusions from recent research includes:



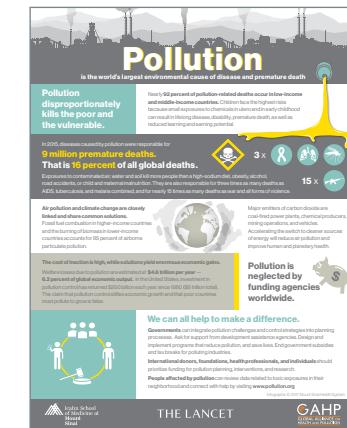
**The World Health Organization's The Public Health Impact of Chemicals: Knowns and Unknowns, estimates that 1.3 million lives and 43 million disability-adjusted life-years were lost in 2012 due to exposures to selected chemicals.**

***The Public Health Impact of Chemicals: Knowns and Unknowns*** by the World Health Organization (2016), highlights the impacts of exposures to hazardous chemicals, including:

- 164,400 deaths annually from unintentional poisonings caused by chemical exposures at home and in the workplace;
- 2% to 8% of all cancers caused by occupational carcinogens;
- 99,100 deaths per year from lung cancer caused by occupational lung carcinogens;
- 233,500 deaths per year from Chronic Obstruction Pulmonary Disease (COPD), caused by occupational particulates; and
- in the general population, 14% of lung cancers are attributable to ambient air pollution, 17% to household air pollution, and 7% to occupational carcinogens.<sup>[1]</sup>

Products account for 50% of volatile organic compound (VOC) emissions in urban areas.

McDonald, et al, in a landmark 2018 research article in *Science* concluded that “the use of volatile chemical products (VCPs) — including pesticides, coatings, printing inks, adhesives, cleaning agents, and personal care products — now constitutes half of fossil fuel VOC emissions in industrialized cities. The high fraction of VCP emissions is consistent with observed urban outdoor and indoor air measurements.”<sup>[2]</sup>



From *The Lancet* Commission on pollution and health (2017):

In their 2017 publication in the prestigious scientific journal, *The Lancet*, Philip Landrigan and colleagues concluded that “Chemical pollution is a great and growing global problem. The effects of chemical pollution on human health are poorly defined and its contribution to the global burden of disease is almost certainly underestimated.”<sup>[4]</sup>

## AT GREAT EXPENSE

Health costs from environmental chemical exposures estimated to exceed 10% of global GDP (\$11 trillion).<sup>[3]</sup>

# CHEMICAL RISKS

Regulatory, Reputation, & Redesign Risks:  
the potential financial liabilities of hazardous chemicals in products and supply chains

## REGULATORY RISKS

The potential liabilities of non-compliance with current regulations and complying with future regulations

Examples:

- Regulations of chemicals and materials, “substances” in adjacent figure, are rising faster than for any other environmental issue, including climate change and waste.<sup>[5]</sup>
- Six retailers in the U.S. paid \$200 million in fines for failure to comply with hazardous waste regulations from 2011-2013.<sup>[6]</sup>

## REPUTATION RISKS

The potential liabilities of public exposure to hazardous chemicals in products and supply chains

Examples:

- Lumber Liquidators’, the flooring retailer, stock plummeted 70% in three months and the CEO resigned in 2015 after NGOs generated media attention to its flooring products containing formaldehyde above regulated levels (though no regulatory action was taken).<sup>[7]</sup>
- During the summer of 2018, four U.S. retailers announced that they would stop selling paint strippers containing methylene chloride and NMP after NGOs and family members of victims publicized deaths directly caused by the use of these products.<sup>[8]</sup>

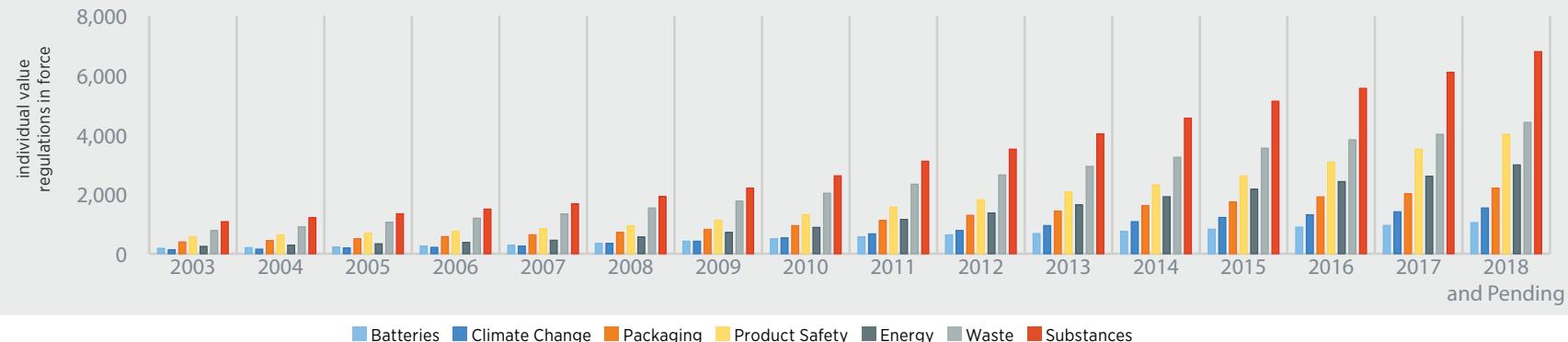
## REDESIGN RISKS

The potential liabilities of continued use of hazardous chemicals in the face of emerging regulations or shifting market demands, for example:

- Sigg USA, subsidiary of Sigg Switzerland AG, declared bankruptcy in 2011 due to financial liabilities from its failure to disclose that its stainless steel water bottles contained Bisphenol A (BPA), the endocrine disrupting chemical at the heart of the elimination of polycarbonate water bottles at the time.<sup>[9]</sup>
- Large cosmetics companies are growing slower and losing market share to natural product companies. “The space for cleaner, safer, better beauty has grown and is only continuing to grow. In fact, natural and safer brands are outselling their traditional competitors by two to threefold,” said Gregg Renfrew, founder of Beautycounter.<sup>[10]</sup>

### Global Regulations by subject: Cumulative totals

Total existing plus new regulations in force by year, 2003-July 2018. ©Compliance & Risk



# CFP SIGNATORIES

Investors, Health Care, Governments, NGOs, and Retailers

## ACTION

Investors, purchasers, governments, and NGOs want companies to report through the CFP Survey where they are on the journey to safer and healthier solutions to hazardous chemicals.

**Signatories** encourage companies in their sphere of influence to participate in the **CFP Survey** and provide feedback to Clean Production Action on how to improve the Survey questions and response options.

## Signatories are:

- Investors with **\$2.78 trillion in assets** under management (AUM)
- Health care systems, group purchasing organizations, & retailers with **over \$700 billion in purchasing power**

**Signatories profiled** in past annual reports, GreenBiz, or current report. Click the link to jump to their profile.

Adrian Dominican Sisters  
Advocate Health Care  
Anne Arundel Medical Group  
Arjuna Capital  
As You Sow Foundation  
Athens Impact Socially Responsible Investments  
Australian Ethical Investment  
Aviva Investors  
**Bank J. Safra Sarasin Ltd.**  
Blue Cross Blue Shield of Massachusetts  
BNP Paribas Investment Partners  
**Boston Common Asset Management**  
Calvert Research & Management  
Carnegie Investment Counsel  
ChemSec  
Christopher Reynolds Foundation  
Clean Yield Asset Management  
CVS Health  
Daughters of Charity, Province of St. Louise  
**Dignity Health**  
Domini Impact Investments  
Dominican Sisters of Hope  
Edward-Elmhurst Healthcare  
Environmental Defense Fund  
Everence Financial

Fairview Health Services  
First Affirmative Financial Network  
Geisinger Health System  
Green Century Capital Management  
Hackensack Meridian  
Harrington Investments  
Impax Asset Management  
Inova Health Systems  
Interfaith Center on Corporate Responsibility (ICCR)  
Investor Environmental Health Network  
Investor Voice  
JLens Investor Network  
Kaiser Permanente  
Legal & General Investment Management  
Maryknoll Sisters  
Mercy Health  
Mercy Investment Services  
Miller/Howard Investments  
Natural Investments  
Newground Social Investment  
NorthStar Asset Management  
Northwest Coalition for Responsible Investment  
Parnassus Investments  
Pax World Funds

Partners Healthcare  
Premier, Inc.  
Rhode Island Treasury  
San Francisco Department of Environment  
Signity Financial  
Sisters of St. Francis of Philadelphia  
Sonnen Capital  
St. Joseph Health  
Staples  
The Rose Foundation for Communities and the Environment  
**The Sustainability Group of Loring, Wolcott and Coolidge**  
**Trillium Asset Management**  
Trinity Health  
University of Cantabria  
University Hospitals  
Ursuline Sisters of Tildonk  
**Vizient, Inc.**  
Walden Asset Management  
Walmart Inc.  
WHEB Asset Management  
Zero Discharge of Hazardous Chemicals (ZDHC)  
Zevin Asset Management

# CFP SIGNATORY PROFILE

The Sustainability Group  
at Loring, Wolcott &  
Coolidge

**Every day companies make decisions** about the chemicals they use to make their products. These decisions affect us not only as individuals and consumers but they also affect us as investors. Regulatory requirements, consumer demand, NGO pressure, product recalls, lawsuits, and media attention devoted to chemicals are growing. As a result, management of these issues pose both significant risks and significant opportunities to companies, and, as shareholders, we require assurances that companies are managing such chemical risks effectively.

Are companies intentionally selecting chemicals and materials that are safe and healthy for people and the planet? Are the C-Suite and Board making investments that ensure their products and supply chains use safe and healthy chemicals and materials? Does the company know all of the chemicals in its products, manufacturing operations, supply chains, packaging, and facilities? Does it report publicly on goals to reduce its chemical footprint and its progress on that journey? Consumers and investors are increasingly seeking answers on this issue. Companies that can't answer these questions—or, worse, are not even asking them—face reputational, financial, and legal risks.

As investors—and because we represent clients who care about the health and environmental implications of the products they buy and the companies in which they invest—we ask these questions every day. To make informed investment decisions, we require reliable, replicable, independent, and comparable data on how companies are answering these questions and managing these risks.

The Sustainability Group at Loring, Wolcott & Coolidge is a Signatory to the Chemical Footprint Project (CFP) because it does just that. CFP Survey results provide us with comprehensive, independent, and consistent data for benchmarking companies and engaging management on their policies, procedures, and reporting. As a result, it is easier for investors to identify, engage, and reward companies that systematically improve chemicals management.

The CFP Survey provides a common framework for companies to calculate their corporate chemical footprint, sets clear metrics for evaluating risk, and encourages safer chemicals management. The tool is built to encourage companies to engage their supply chain and senior leadership, and ask questions about chemical use before a problem occurs. Further, given the risks and opportunities posed by chemicals-related issues, there is an increasing expectation that companies provide meaningful transparency in this area.

The CFP Survey helps companies address and disclose the most meaningful metrics while also ensuring companies stay on top of the growing demands to address toxic chemicals in corporate reporting standards. For example, companies that respond to the CFP Survey are well positioned to meet both the Sustainability Accounting Standards Board reporting standards and the Sustainable Development Goals relevant to hazardous chemicals. As a result, we believe it is in a company's best interest to use the CFP Survey as a tool to better inform its chemicals management strategy and provide meaningful disclosure to investors and the public.

On behalf of our clients and with the help of the CFP Survey, we look forward to engaging with companies on their journey to safe and healthy products.

**Amy Domini**, Partner; **Wendy S. Holding**, Partner; **Nushin Kormi**, Partner;  
**W. Andrew Mims**, Partner; **Larisa Ruoff**, Director of Shareholder Advocacy

Investors need “reliable, replicable, independent, and comparable data on how companies are answering these [CFP] questions and managing these [chemical] risks”

“The CFP provides a common framework for companies to calculate their chemical footprint”

“it’s in a company’s best interest to use the CFP Survey as a tool to... provide meaningful disclosure to investors and the public”



# ALIGNMENT

CFP Survey Aligns with Sustainability Accounting Standards Board (SASB)  
& UN Sustainable Development Goals (SDGs)

## CFP SURVEY ALIGNMENT WITH SASB METRICS

SASB			Relevant CFP Survey Questions & Metrics
Standard	Topic	Metrics	
Apparel, Accessories & Footwear (draft)	Management of Chemicals in Products	Description of processes to maintain compliance with restricted substances regulations	<b>I1:</b> Restricted Substances List (RSL) and manufacturing (RSL) <b>I2:</b> Implementation of RSL/MRSL
		Description of processes to assess and manage risks associated with chemicals in products	Footprint Measurement indicators: <b>F2:</b> chemical footprint and <b>F4:</b> hazard assessment
Building Products & Furnishings (draft)	Manage- ment of Chemicals in Products	Description of processes to assess and manage risks and/or hazards associated with chemicals in products	Footprint Measurement indicators <b>F2</b> and <b>F4</b>
		Percentage of applicable products meeting volatile organic compound (VOC) emissions and content standards	<b>I1:</b> VOCs captured under Restricted Substances Lists
Household & Personal Products (draft)	Product Environ- mental, Health, and Safety Perfor- mance	Revenue from products that contain REACH substances of very high concern (SVHC)	<b>F2:</b> Chemical footprint
		Revenue from products that contain substances on the California DTSC Candidate Chemicals List	<b>F2:</b> Chemical footprint
		Discussion of process to identify and manage emerging materials and chemicals of concern	Footprint Measurement indicators <b>F2</b> and <b>F4</b>
		Revenue from products designed with green chemistry principles	<b>F5:</b> addressed in part, steps to encourage safer alternatives
Toys & Sporting Goods (draft)	Chemical & Safety Hazards of Products	<ul style="list-style-type: none"> <li>Number of recalls and total units recalled</li> <li>Number of Letters of Advice received</li> <li>Amount of legal and regulatory fines and settlements associated with product safety</li> </ul>	<b>Not applicable:</b> CFP Survey does not ask questions concerning regulatory compliance
		Description of processes to assess and manage risks and/or hazards associated with chemicals in products	Footprint Measurement indicators <b>F2</b> and <b>F4</b>

## CFP SURVEY METRIC FOR MEASURING PROGRESS TO UN SUSTAINABLE DEVELOPMENT GOALS (SDGs)



### GOAL 3. ENSURE HEALTHY LIVES AND WELL-BEING FOR ALL AT ALL AGES

- SDG Indicator 3.9:** by 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution
- CFP Survey Footprint Measurement questions:** **F1:** set goals to reduce chemical footprint; **F2:** measure chemical footprint; and **F3:** reductions in chemical footprint

### GOAL 6. ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

- SDG Indicator 6.3:** by 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials
- CFP Survey Footprint Measurement questions:** **F1:** set goals to reduce chemical footprint; **F2:** measure chemical footprint and **F3:** reductions in chemical footprint

### GOAL 12. ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

- SDG Indicator 12.4:** by 2030, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle
- CFP Survey:** entire Survey aligns with achieving the “environmentally sound management of chemicals” — in fact, the CFP Survey is a proxy for measuring corporate progress to SDG indicator 12.4

# SIGNATORY PROFILE

## Vizient®

**Vizient**® is the largest member-driven health care group purchasing organization in the U.S., serving approximately 3,100 health system members. Our purpose is to help ensure our members deliver exceptional, cost-effective care. Our members include academic medical centers, pediatric facilities, community hospitals, integrated health delivery networks and non-acute health care providers — and represent approximately \$100 billion in annual purchasing volume. In 2018, Vizient again received a World's Most Ethical Company designation from the Ethisphere Institute. This is the third consecutive year Vizient has been recognized and builds on the work of Novation, part of the merger that formed Vizient in 2015, which held the designation from 2012 through 2015.

Vizient offers the broadest, most cost-effective portfolio of environmentally preferred products in the industry. At its core, the Vizient Environmentally Preferred Sourcing (EPS) Program focuses on reducing patient risk and improving patient safety. The health care industry inadvertently causes harm by exposing patients, family members and caregivers to toxic substances, hazardous waste and pollution from regularly used products. Our EPS Program positively contributes to human and environmental health by enabling responsible sourcing decisions for those products.

The Vizient Environmental Advisory Council is comprised of 19 experts from our member hospitals across the country. The Environmental Advisory Council advises and guides our EPS strategy with a focus on identifying, vetting and encouraging the purchase of products and services that reduce harmful environmental and human health impacts in health care, while maintaining quality and affordability. Council members provide feedback regarding upcoming bids, share best practices, and collaborate with Vizient leaders and experts to move the market toward environmentally preferred sourcing practices.

Through support of the council, we adopted 23 environmentally preferred attributes for products, 15 of which directly relate to chemical composition. These include, for example, providing a chemical inventory for a product and confirming that the product does not contain bisphenol A, flame retardants, mercury, polyvinyl chloride, phthalates, or persistent and bioaccumulative toxic chemicals. In October 2017, completion of environmentally preferred attributes in the Vizient "request for proposal" became an element of the nonfinancial criteria in all bids. In select bids, additional points are considered when the supplier answers in the positive for the attributes. The new Vizient Catalog allows members to view and filter for environmental attributes at the product level, including whether attributes are third-party verified. Vizient is now actively working with our industry counterparts to adopt standardized environmentally preferable attributes across the health care industry.

Vizient encourages its suppliers to participate in the Chemical Footprint Project Survey as a way to measure their own progress toward comprehensive chemicals management systems. These systems enable our suppliers to make informed choices about chemicals in the products they produce, allowing them to reduce their chemical footprints in alignment with health care priorities.

By identifying and standardizing priorities for chemical safety in the products in our supplier agreements and creating transparency around chemical and environmental attributes, we enable our members to make informed purchasing decisions, improving their ability to deliver excellent health care.

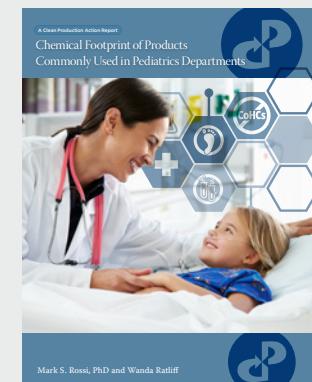
**Cristina D. Indiveri, MS**, Senior Director, Program Services, Environmentally Preferred Sourcing

### CFP Survey: Value to Signatories

- Encourages transparency and innovation in chemicals use
- Provides platform for substantive engagement on journey to safer solutions
- Is a common framework for documenting progress to comprehensive chemicals management
- Delivers clear, comparable information on how companies manage chemical risks
- Aligns to SDG and SASB metrics

### Health Care Leadership

Recognizing the health risks of hazardous chemicals, health care systems and group purchasing organizations (GPOs) are active in CFP, including Dignity Health, Hackensack Meridian, Kaiser Permanente, and Vizient.



Mark S. Rossi, PhD and Wanda Ratliff

# THE CFP SURVEY

20 questions leading companies to environmentally sound chemicals management — a holistic framework necessary for systemic solutions



Management  
Strategy



Chemical  
Inventory



Footprint  
Measurement



Disclosure &  
Verification

**Management Strategy**

**(20 points):** evaluates the scope of corporate chemicals policies and their integration into business strategy, accountability, and employees' incentives for safer chemical use, as well as the company's external advocacy for safer chemical use.

**Chemical Inventory**

**(30 points):** evaluates the efforts a company makes to identify chemicals of high concern (CoHCs) in its products, the extent of chemical data collected from its suppliers, and its systems for managing chemical data and ensuring supplier compliance with its reporting requirements.

**Footprint Measurement**

**(30 points):** evaluates the goals that a company sets to reduce chemicals of high concern, its efforts to establish a baseline chemical footprint and measure progress, and its process for assessing and implementing safer alternatives.

**Disclosure and Verification**

**(20 points):** evaluates the extent to which a company publicly discloses the chemicals in its products beyond regulatory requirements, discloses its score and its answers to the CFP Survey questions, and whether its CFP Survey answers have been independently verified by a third party.

# CFP 2017 SURVEY RESULTS

Over the first three years, 2015–2017, companies improved their scores for each of the four pillars of the Survey, with an average increase of 44%.

The 24 companies participating in the 2017 Survey ranged in size from small privately-owned companies to large, publicly-owned, multinational corporations that manufacture and/or sell a wide range of products ranging from cosmetics to electronics. Of the 24 companies, 23 agreed to share their name publicly (see below).

The CFP Survey evaluates companies on their organization-wide chemicals management policies, procedures, and practices. For companies just beginning to report into the CFP Survey we offer the option of reporting for a subset of the business to enable a deeper understanding of the questions, what is needed to answer the questions, as well as how they score. In the 2017 Survey, one-third of the companies reported for a division or product portfolio and two-thirds reported for the entire company.

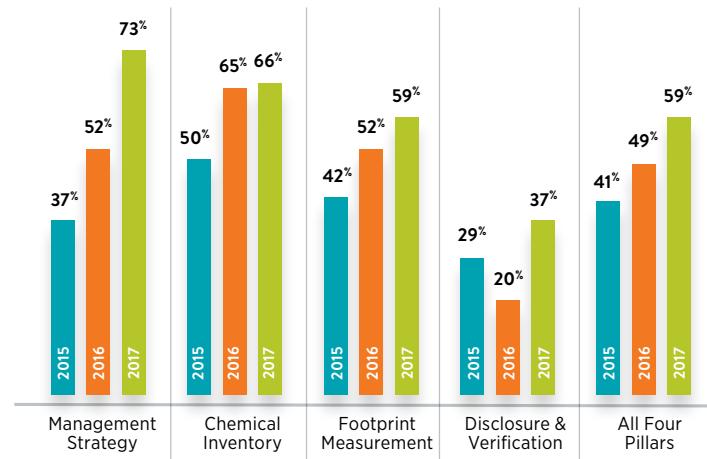
The CFP Survey encompasses 20 questions, scored to a maximum total of 100 points, across four pillars that set the structure for environmentally sound chemicals management:

Management Strategy (20 points), Chemical Inventory (30 points), Footprint Measurement (30 points), and Disclosure & Verification (20 points). Overall the 2017 Survey responders averaged 59% of the possible points, a significant increase from the average of 41% in 2015.

The rising scores reflect greater familiarity with the Survey, increased awareness of the 3 Rs of chemical risks (regulation, reputation, and redesign risks), more comprehensive chemicals management systems, and a shift from a majority of article only companies in 2015 (63% of respondents) to a majority of companies selling either only formulated products or both formulated products and articles in 2017 (63% of respondents). Management Strategy experienced the greatest rise, reflecting in part the comparative ease of changing policies versus, for example, successfully collecting chemical ingredient information from suppliers. Rising scores in Footprint Measurement are directly attributable to more companies calculating their footprint. The dip in Disclosure & Verification from 2015 to 2016 occurred due to changes in questions D2 and D3.

## CFP Survey Results

Four Pillars: average percent of possible points for all responders



## High scorers in the 2017 Survey:

Among companies agreeing to publicly share their results are **Beautycounter, Case Medical, Humanscale, Levi Strauss & Co., Milliken, Naturepedic, Seagate Technology, Seventh Generation, all of which scored well above the average of 59 points and represent a mix of small, medium, and large companies across sectors.**

## Participants in 2017 Survey

**Participants profiled** in current report.  
Click the link to jump to their profile.

Beautycounter  
Becton Dickinson and Co. (BD)  
Burton  
California Baby  
Case Medical  
Construction Specialties

Ecolab Inc.  
GOJO Industries  
**Herman Miller, Inc.**  
HP Inc.  
Humanscale  
Johnson & Johnson

Kimball Hospitality, Inc.  
Kimberly-Clark  
Levi Strauss & Co.  
**Milliken & Company**  
Naturepedic  
Nora Systems, Inc.

Radio Flyer  
Reckitt Benckiser Group plc (RB)  
Seagate Technology PLC  
Sealed Air Corporation  
Seventh Generation  
Walmart Inc.

# MANAGEMENT STRATEGY

Corporate chemicals policies specify how companies approach the environmentally sound management of chemicals — they state the position of the organization and senior management towards chemicals and materials health.

Chemicals and materials, and their corresponding health impacts, be they benign or malign, are part of every business. They are our office furniture, the interiors of our cars, planes, and trains, and the components of our electronics. Even businesses to which chemicals seem irrelevant, such as the financial or technology sectors, expose their employees every day to the chemicals that are part of office buildings. Google invests in green building materials because they want healthy, productive employees, as their environmental program tagline states, "Smelling the carpet: Making buildings healthier, along with the people in them."<sup>[11]</sup>

Leadership companies across sectors create and implement corporate-wide policies that explicitly avoid chemicals of high concern (CoHCs) and prefer safer solutions. Comprehensive chemicals policies are inclusive of the end product, manufacturing operations, packaging, and supply chains. Senior management and the board integrate these policies into business strategies through product design and development, manufacturing processes, procurement, and supply chain management. In addition, leadership companies recognize the value of and participate with external organizations to advocate for safer chemicals in products and supply chains.

CFP Survey questions M1 and M2 ask responders about their policies. Chemicals policies are distinct from a company's overall sustainability policy — they provide specific guidance related to chemicals and materials management. CFP evaluates policies based on scope (products, manufacturing, supply chain, and/or packaging), whether they include an explicit preference for safer alternatives to hazardous chemicals, and public disclosure. For a model chemicals policy template and examples see "[Corporate Chemicals Policies](#)" at BizNGO.org.

Tracking the positive trend to more comprehensive policies (see Key Findings section above), companies are increasingly making their policies public. In 2015, 46% of responders posted policies on their websites. In 2017, that number grew to 63%. Making policies public increases accountability and clearly highlights an organization's commitment to implementation of the policy.

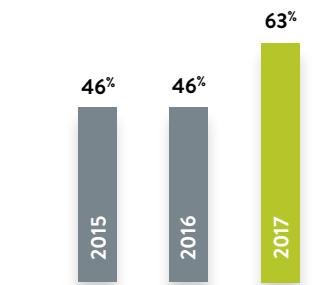
**“We are committed to ensuring the principles outlined in this [Materials and Chemicals Management] policy are integrated into business operations. This includes conducting assessments, defining performance goals and metrics, reviewing results with senior management regularly, and publicly reporting on our continual improvement in areas covered by this policy.”**

**— Judy Glazer, Global Head of Sustainability and Product Compliance, HP Inc. (CFP 2017 Annual Report)**



## CFP Survey Results

Gaining Ground in establishing Chemicals Policies: Average Percent of Possible Points, questions M1 & M2



GETTING STARTED WITH A MANAGEMENT STRATEGY

For a model chemicals policy template and examples visit BizNGO's "[Corporate Chemicals Policies](#)" page.

Milliken & Company is committed to operating in a manner that protects the quality of our environment and the health and safety of our entire value chain, including suppliers, associates, customers and the public. To that end, we have set a goal of zero human health impacts to anyone who comes into contact with any aspect of Milliken & Company's operations and products. We work to achieve this through a continual improvement process that includes the evaluation of all existing, new and proposed products and processes.

#### Knowing the chemicals in our products

We are committed to understanding 100% of the chemical ingredients used in the materials we select for Milliken flooring solutions. We require all suppliers and vendors to provide chemical and ingredient information to 100 parts per million before we purchase materials for production. Collecting this level of detail enables us to make informed decisions about the composition of our products. It also enables Milliken to calculate our chemical footprint and to have product transparency labels, like Declare, third party verified for accuracy and completeness.

#### Assessing the chemicals in our products & selecting safer alternatives

We have established priorities, goals, and metrics for the elimination of chemicals of high concern as part of our 10 year sustainability roadmap. To manage the impacts of our materials on human health, we evaluate all new and existing supplier materials to understand their human health impacts before we will allow a new chemical to be considered for experimentation. We do so using our Design for Human Health strategy, developed through WAP Sustainability's Value Chain Chemical Management System (VCCM®).

Using the GreenScreen® for Safer Chemicals methodology, the Healthy Building Networks Red List, the California Proposition 65 List and the Green Science Policy Institutes Six Classes, we screen and assess the chemicals used in potential materials. If we identify any issues during this assessment process, we search for safer chemical alternatives. If no alternatives can be identified that do not contain the safest levels of ingredients, we will further explore risks from form-specific hazards as we continue to research and develop safer alternative chemistries.

#### Transparency and safer chemistry

Milliken is committed to being transparent about the chemicals and ingredients used in our products, while also working to promote and advance material science with new levels of safe products.

We are committed to considering our families, our associates, our customers, and our communities as we design and develop new products. We must consider environment and human health in those decisions, striving to be a leader in safer chemistries.

**Philip Ivey**, Strategic Sustainability Leader, Milliken Floor Covering Division

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We have established priorities, goals, and metrics for the elimination of chemicals of high concern as part of our 10 year sustainability roadmap.

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At Milliken, we marry chemical evaluation with LCA, providing the information necessary to make the most ethical, responsible and informed environmental and health decisions.

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# CHEMICAL INVENTORY



Chemical ingredient information is the bedrock of chemical footprinting. To ensure the accuracy of this information, 80% of CFP respondents take one or more action(s) to ensure supplier conformance with their requirements.

Knowing full chemical ingredient information in formulations, materials, and products is essential to chemical footprinting. Without these data, either in-hand or through a third party, companies cannot know their chemical footprint, cannot quantitatively measure progress, and cannot know the impacts of their efforts to pivot from chemicals of high concern (CoHCs) to safer solutions.

CFP defines “full chemical ingredient information” differently for formulated products and articles (i.e., hard goods), reflecting the differences and challenges in extracting this information from suppliers:

- For **formulated products** a company knows 100% of the intentionally added substances by mass and any likely impurities that are both a CoHC and present at 100 parts per million (ppm) or higher in the formulation.
- For **articles** a company knows 95% of the intentionally added substances by mass and any likely impurities that are both a CoHC and present at 1,000 ppm or higher in a homogeneous material.<sup>[12]</sup>

Highlighted above in the Key Findings section, companies are increasingly requesting, requiring, and collecting full chemical ingredient information from suppliers. To ensure conformance to their data and restricted substances list (RSL) or manufacturing RSL (MRSR) requirements, **80% of the respondents to the 2017 Survey take one or more of the following actions to monitor supplier conformance with their requirements:** routinely perform their own testing, require suppliers to test products in approved labs, train suppliers to comply with reporting requirements, and audit suppliers. Twenty nine percent of respondents employ all four of these conformance measures.

Most companies begin their chemical inventory journey by creating a short list of chemicals of concern to avoid in products, which the CFP Survey calls an RSL. An RSL is a list of chemicals restricted by a company in products, parts, or components from its suppliers. RSLs are simpler to develop and manage in comparison to trying to collect full chemical ingredient information from all suppliers. **In the 2017 Survey, 92% of respondents had some form of an RSL (question II).**

New to the 2017 Survey was the option to disclose the development and use of a manufacturing RSL or MRSR (question I2). An MRSR restricts chemicals used in manufacturing that do not end up in the final product above *de minimis* levels. **In the 2017 Survey, 21% of the respondents reported having an MRSR along with their RSL.**

## CFP Survey Results, 2017

Chemical Inventory, Supplier Conformance: percent of companies with conformance requirements (question I6)



LS&Co.'s Screened Chemistry program allows us to engage with our suppliers to scrutinize both approved and restricted chemicals for use in garment finishing and raw materials processing.

— Bart Sights, Technical Innovation,  
Levi Strauss & Co. (CFP 2016 Annual Report)

## Herman Miller's Journey Toward Positive Transparency

At Herman Miller, we solve problems like designers. It's just part of our DNA. And it turns out that the creative approach to problem-solving that we take when making furniture works just as well when it comes to ensuring the health and safety of our planet. Good design at Herman Miller means we ask ourselves, "Have we made the best choices possible?" Only by continuing to ask that question and making sustainability a key criterion for how we do business, can we be confident that we are creating a better world.

Ten years ago, we put into place a set of environmental goals that included a zero operational footprint. We have sharpened our goals around the smart use of resources, eco-inspired design, and engaging our broader community of suppliers and employees in sustainable practices. A key aspect of Earthright, our 10-year sustainability strategy, is positive transparency.

Herman Miller helped usher in the new age of sustainable design when our Mirra Chair was introduced as the first product designed to meet both Cradle to Cradle™ and our Design for Environment (DfE) requirements. Since then, we continue to share an unprecedented amount of information about our products through material ingredient disclosures, lifecycle assessments, low-emitting product certifications, Environmental Product Declarations, and most recently, Declare labels.

Today, we set ambitious annual goals for our company that demand new, innovative ways of problem solving. These goals are part of a corporate scorecard that is integrated into our overall business strategy with the aspiration that every single product we sell is sustainable and meets our DfE requirements. Our progress to this and all of our sustainability goals are shared publicly in our annual [Better World Report](#).

We believe that safe chemistry is a requirement for any sustainable product. Herman Miller maintains a database of approximately 4,000 chemicals that have been eco-profiled. These chemicals are combined into more than 3,000 materials that make up our products that are reviewed by either an external party or internally by our chemical engineers. Our goal is to work with our suppliers toward a future where we use the safest chemicals to make our products. Just as important is making this information accessible to our customers. We share data about the benefits and impacts of our products through, Ecomedes — an environmental calculator, found on our company website.

By making products that can meet certifications, holding ourselves to stringent environmental requirements, and sharing massive amounts of environmental data, we help our customers achieve their own goals, promote health and well-being, and deliver the best possible products.

We've made great progress, but we still have a long way to go. As we continue asking ourselves if we're making the most sustainable choices, we remain committed to creating a better world by design.

**Gabe Wing**, Director, Safety and Sustainability



# FOOTPRINT MEASUREMENT



Chemical footprinting establishes the foundation for setting quantitative goals and measuring progress away from chemicals of high concern (CoHCs) to safer solutions. In 2017, 75% of Survey respondents calculated their chemical footprint.

The CFP Survey offers responders three pathways for reporting their chemical footprint (question F2). First and most comprehensively, companies report CoHCs in products, either by mass or count. Using GreenScreen List Translator™, CFP specifies over 2,200 CoHCs. The percent of companies calculating their footprint using CoHCs grew from 29% in 2015 to 63% in 2017:

- **21% reported zero chemical footprint** because their products contain no intentionally added CoHCs;
- **29% calculated CoHCs by mass and reported over 592 million pounds of CoHCs in products sold or shipped;** and
- **13% calculated CoHCs by count and reported using 88 CoHCs** (note some companies reported mass as well as count).

Second, companies not collecting full chemical ingredient information may report mass or count of substances of very high concern (SVHCs) as defined by the European Union's REACH Candidate List of SVHCs (at the time of the 2017 Survey it contained 169 chemicals). Introduced with the 2016 Survey, 16% of responders reported SVHCs in 2016 and 21% in 2017. These companies reported using three SVHCs in their products.

## Goal-setting leaders

**GOJO Industries:** set goal to reduce chemical footprint by 50% by 2020

**Walmart:** set goal to reduce chemical footprint by 10% by 2022

Third, companies have the option of not calculating their footprint. The number of companies not calculating their footprint dropped dramatically from 71% in 2015 to 25% in 2017. Note that many companies get started in calculating their chemical footprint by reporting on select product lines or a single division rather than the entire product portfolio. Points in the Survey are awarded for the degree to which a company can calculate its chemical footprint, not the footprint itself.

Question F3 in the Survey asks responders to report on progress in reducing CoHCs, either as mass or count. **In 2017, companies reported reducing 42 million pounds of CoHCs in products** and one company reported eliminated the use of one CoHC across all of its products in the past two years.

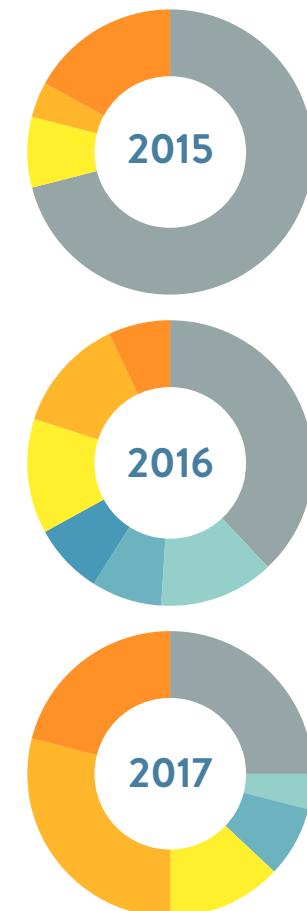
Measuring CoHCs across all products by mass is a challenge, but the 2017 results clearly show increased efforts by responders to quantify the CoHCs in their products.

We screen every potential ingredient using the best available data and avoid ingredients associated with hazards such as cancer, developmental toxicity, and hormone disruption.

— **Beautycounter (CFP 2016 Annual Report)**

## Survey Results

Footprint measurement, chemical footprint: Percent of companies by footprint metric used (question F2)



SVHCs, none	CoHCs, count
SVHCs, count	CoHCs, mass
SVHCs, mass	CoHCs, none
Did not calculate	

# DISCLOSURE & VERIFICATION



Transparency is rising. Business-to-business customers, shareholders, and individuals increasingly want to know chemical ingredients in products and where companies are on their journey to safer solutions. Responding to these growing demands, 42% of CFP respondents disclosed their 2017 Survey answers and score.

Of the 24 companies participating in the 2017 Survey, nearly half made their responses and/or score public (questions D2 and D3). **Companies opening the door to their chemicals management journey are Beautycounter, BD, Case Medical, GOJO Industries, Humanscale, Levi Strauss & Co., Milliken, Naturepedic, Radio Flyer, Seagate Technology, and Seventh Generation.** For all the details on their responses and/or score go to [www.chemicalfootprint.org](http://www.chemicalfootprint.org). Reflecting growing comfort with the Survey and increasing demands from stakeholders, the number of respondents publicly sharing their results leapt from 13% in 2015 to 42% in 2017. Although not required, many participants are now verifying their responses through third party review (question D4).

In addition to the four Disclosure & Verification questions (see [CFP 2017 Guidance Document](#) for details), the CFP Survey also asks whether companies publicly disclose their:

- corporate chemicals policies (questions M1 and M2),
- restricted substances list (RSL) or manufacturing RSL (MRSRL) (question I2),
- hazard reduction goal (F1), and
- definition of safer alternative (question F5).

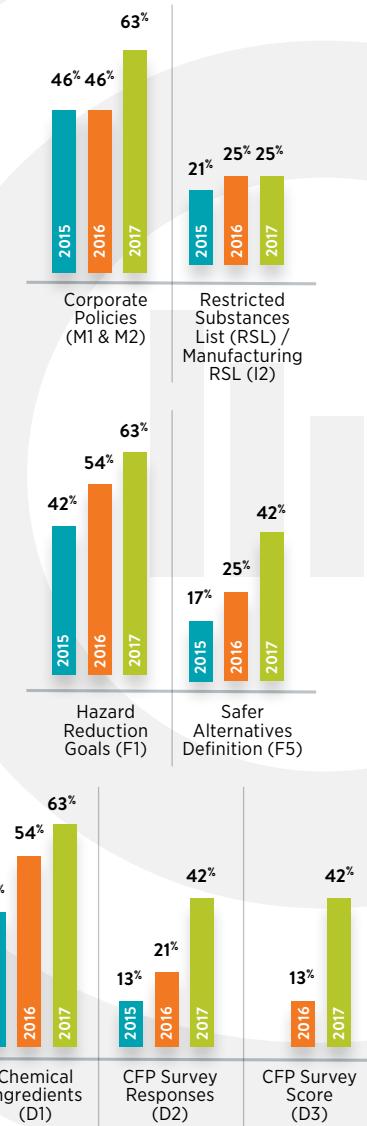
**For almost every transparency-related question in the Survey, companies are increasingly releasing this information to the public.** In 2017, 63% of respondents disclosed their policies (M1 and M2), hazard reduction goal (F1), and chemical ingredients in products (D1). Interestingly, companies are reluctant to disclose their RSL/MRSRL. Of the 22 companies with an RSL/MRSRL, only six made it public.

Ultimately, increased transparency is a business opportunity — enhancing brand reputation, improving internal due diligence, responding to retailer and purchaser requirements, and increasing trust with investors and consumers.



BD makes our chemical policy, reduction goals, progress reports, and Materials of Concern list publicly available on its website, along with our documentation for our suppliers. BD believes that being transparent about where we are on the journey is critical in open communications to our customers and stakeholders. — **Ellen Kondracki, Senior Director, Global Sustainability, BD (CFP 2017 Annual Report)**

**CFP Survey Results**  
Transparency Rising: percent of companies publicly reporting CFP-related data



# FORMULATED PRODUCTS, ARTICLES, & COMPANY SIZE

Across all company sizes and sectors the average CFP scores continue to rise. For companies selling only articles, average scores rose from 41% in 2016 to 51% in 2017. For companies selling only formulated products or formulated products and articles, average scores rose from 59% in 2016 to 67% in 2017.

How any one company scores in the CFP Survey depends on a variety of factors, including its sector, size, mission, and culture. In the 2016 Annual Report we highlighted that Design for Health companies, those whose mission and culture specify a preference for the healthiest and safest chemicals and materials, are likely to score higher than average because they consciously integrate chemical/material selection decisions into product design and development, supply chain engagement, and business strategy. Beautycounter, California Baby, Naturepedic, Humanscale, and Seventh Generation exemplify Design for Health companies. Similarly, companies selling formulated products are likely to score higher than average because they intentionally specify the chemicals in their products.

Overall, the 24 companies participating in the 2017 Survey averaged 59% of possible points. Note that the following findings we report on concerning

differences or similarities among companies by size and product type are limited by the small number of companies participating in the CFP Survey.

Reflecting the presence of Design for Health companies, small companies selling only formulated products or formulated products and articles scored higher across all four pillars of the CFP Survey (score of 79% of possible points) than the large (score of 61%) and medium (score 53%) companies.

For companies selling only articles, across all four pillars of the CFP Survey, it was the medium (score of 68%) and large (score of 55%) companies that scored higher than the small companies (score of 35%). Small companies selling articles have limited capacity and frequently no orientation to material health selection, thereby challenging the development and execution of holistic chemicals management systems.

**Companies  
participating in CFP  
Survey 2017 by size**

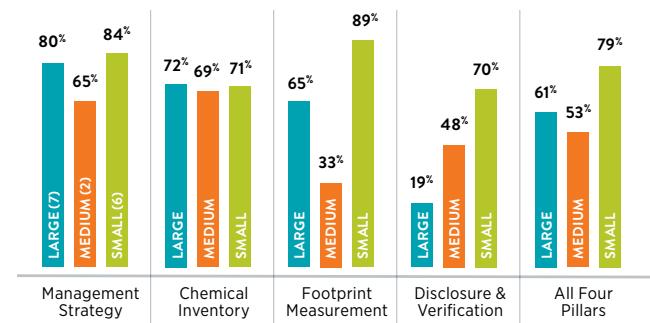
LARGE  
(>\$5 BILLION)  
**9**  
COMPANIES

MEDIUM  
(\$500M - \$5 BILLION)  
**4**  
COMPANIES

SMALL  
(<\$500 MILLION)  
**11**  
COMPANIES

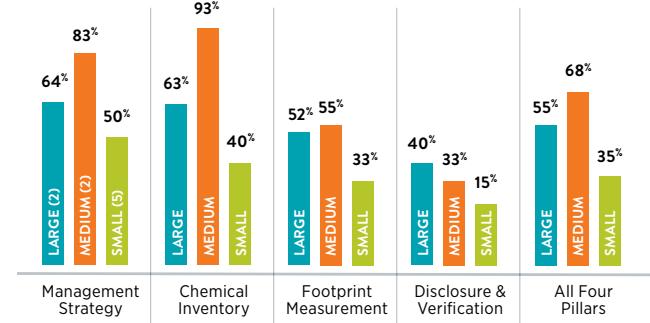
## CFP Survey Results, 2017

Companies selling only formulated products or formulated products and articles: average percent of possible points by CFP pillar and company size



## CFP Survey Results, 2017

Companies selling only articles: average percent of possible points by CFP pillar and company size



# JOIN US ON THE CHEMICAL FOOTPRINT JOURNEY

Chemicals management leadership is participating in the CFP Survey:

- Report to a replicable, independent, and comparable framework.
- Provide meaningful disclosure to investors, purchasers, and the general public.
- Unlock chemical and material health strategies for driving long-term growth.
- Join peers in the apparel & footwear, building product & furnishings, electronics, household & personal care, medical supplies & devices, retail, and toys & sporting goods sectors in participating in the CFP Survey.

We encourage all companies interested in participating in the Survey to download the **Guidance document** (to be updated in Q4 2018), review the **questions and response options**, and contact us at [moreinfo@chemicalfootprint.org](mailto:moreinfo@chemicalfootprint.org) with any questions. Upcoming activities and learning opportunities are posted at [www.chemicalfootprint.org](http://www.chemicalfootprint.org). For companies first starting to report into the CFP Survey, an onboarding option is available to report for a select portfolio of products or division of the company. In addition, our [CFP Verifiers](#) — Pure Strategies and WAP Sustainability Consulting — are helpful resources to understand the value of CFP and documentation requirements. In addition to the upcoming next steps highlighted in the side box, in 2019 Clean Production Action will begin developing criteria for measuring chemical footprints in supply chains through our [BizNGO collaboration](#).

For investors, retailers, governments, and health care systems, join CFP as a Signatory. **CFP Signatories engage their stakeholders in participating in the Survey and leverage the systemic framework and findings of the Survey to inform their decision making.**





# ENDNOTES

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## the chemical footprint project

**The Chemical Footprint Project** is the first-of-its-kind initiative to elevate “chemical footprinting” to the equivalent of carbon and water footprinting. Now companies can chart and report on their progress in reducing their use of chemicals of high concern (CoHCs). Signatories to the Chemical Footprint Project include investors with over \$2.3 trillion in assets under management and purchasers with over \$700 billion in procurement power. Together with these supporters we engage brands and retailers in reporting their overall chemicals management practices and progress to safer solutions through the annual CFP Survey.

**Clean Production Action**’s mission is to design and deliver strategic solutions for green chemicals, sustainable materials, and environmentally preferable products. We are a solutions organization. Our tools, GreenScreen® for Safer Chemicals and Chemical Footprint Project, simplify the complexity of substituting chemicals of concern to human health and the environment with green chemistry solutions. Our collaborations, BizNGO and Investor Environmental Health Network, provide effective platforms for practitioners and thought leaders to work together in advancing chemicals, materials, products, and systems that are healthy for people and the planet. Together our tools and collaborations are transforming the toxic chemical economy into one that is healthy for people and the planet.



### Authors:

**Cheri Peele, MCP,**  
Senior Research Associate,  
Clean Production Action

**Mark S. Rossi, Ph.D.,**  
Executive Director,  
Clean Production Action

**Sally Edwards, Sc.D.,**  
Senior Research Associate,  
Lowell Center for Sustainable  
Production at the University of  
Massachusetts Lowell

### CFP Steering Committee:

**Susan Baker,**  
Trillium Asset Management, LLC

**Constantina Bichta,**  
Boston Common Asset Management

**Vanessa Blanco,**  
Kaiser Permanente

**Ashley Hall,**  
Walmart Inc.

**Ronald Hart,**  
Independent Advisor

**Mary Ellen Leciejewski,**  
Dignity Health

**Roger McFadden,**  
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Network

**Monica Nakielski,**  
Blue Cross Blue Shield of  
Massachusetts

**Sarah Vogel,**  
Environmental Defense Fund

[chemicalfootprint.org](http://chemicalfootprint.org)

**cfp**

the chemical  
footprint project

**Chemical Footprint Project**  
C/O Clean Production Action  
1310 Broadway, Suite 101  
Somerville, MA 02144  
781-391-6743

[moreinfo@chemicalfootprint.org](mailto:moreinfo@chemicalfootprint.org)