Healthy people and planet: Breaking free from chemicals of high concern

Chemical management maturity, best practices, and lessons from 10 years of CFP data

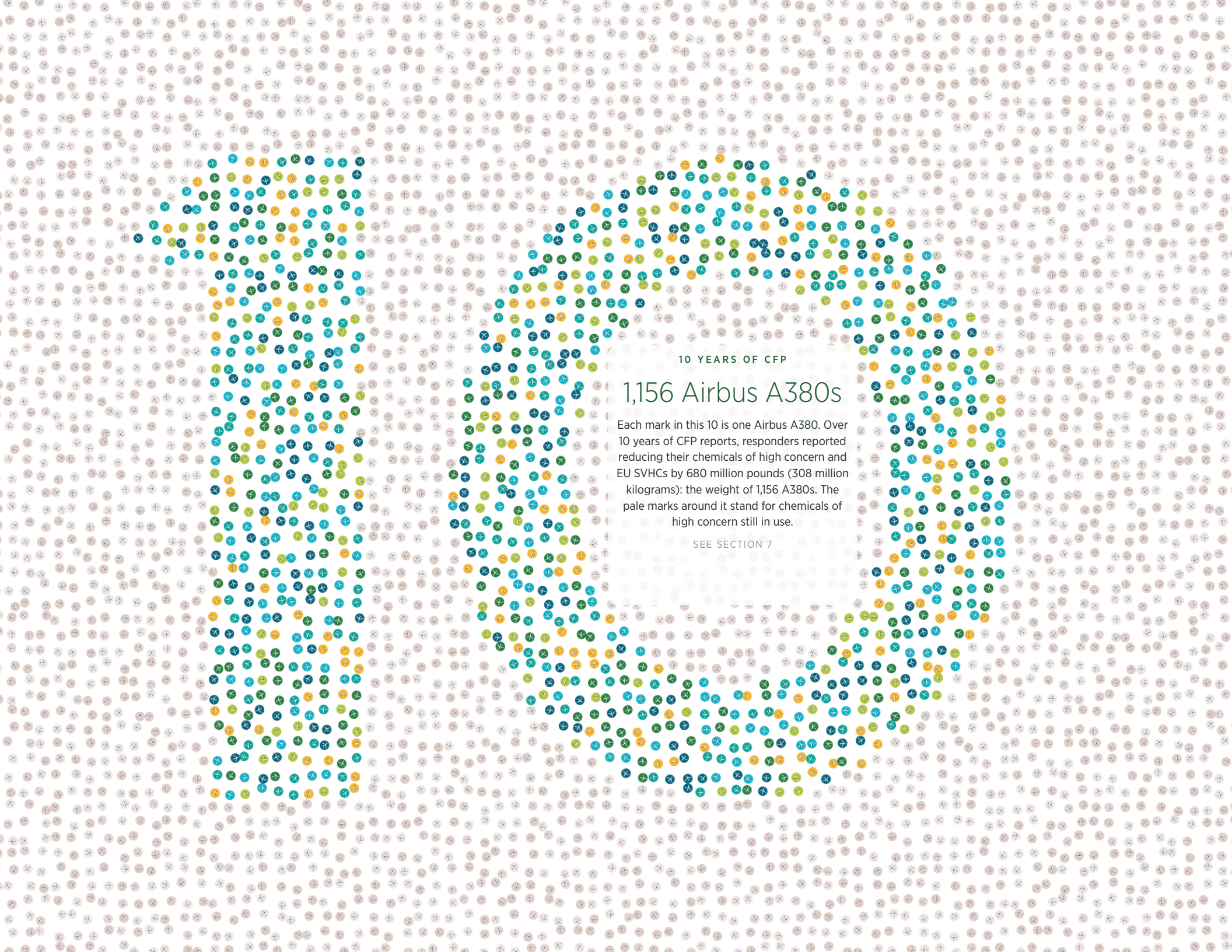


10 years

the chemical footprint project

CFP 2026 REPORT

CLEAN PRODUCTION ACTION



10 YEARS OF CFP

1,156 Airbus A380s

Each mark in this 10 is one Airbus A380. Over 10 years of CFP reports, responders reported reducing their chemicals of high concern and EU SVHCs by 680 million pounds (308 million kilograms): the weight of 1,156 A380s. The pale marks around it stand for chemicals of high concern still in use.

SEE SECTION 7

Healthy people and planet: Breaking free from chemicals of high concern

Chemical management maturity, best practices, and lessons from 10 years of CFP data

CFP 2026 REPORT

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October 2026

ABOUT THE CHEMICAL FOOTPRINT PROJECT

The Chemical Footprint Project (CFP), a program of Clean Production Action, is the first-of-its-kind initiative to measure chemical footprints and assess corporate progress away from hazardous chemicals to safer alternatives. Now companies can chart and report on their progress in reducing hazardous chemicals to a common framework. Signatories to the Chemical Footprint Project include investors with over $4 trillion in assets under management and purchasers with over $1 trillion in procurement power. Together with these supporters we engage brands in assessing and reporting their chemical management policies, procedures, and practices through the annual CFP Survey. CFP was founded by Clean Production Action, the Lowell Center for Sustainable Production at the University of Massachusetts Lowell, and Pure Strategies in 2014.

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 (IEHN), provide effective platforms for practitioners and thought leaders to work together in advancing safer chemicals, materials, products, and systems. Together our tools and collaborations are transforming the toxic chemical economy into one that is healthy for people and the planet.

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THE 8TH CFP REPORT · TEN YEARS OF CFP DATA

Executive Summary

> *"The CFP Survey continues to fill a tremendously important role in setting a high bar for corporate safety and chemicals management."*
>
> **—Lindsay Dahl**
> Chief Impact Officer, Ritual, and author of Cleaning House

The Chemical Footprint Project (CFP) benchmarks corporate progress in reducing chemicals of high concern (CoHCs) and transitioning to safer chemicals across products, manufacturing, packaging, and supply chains. Ten years ago the Lowell Center for Sustainable Production (LCSP), Pure Strategies, and Clean Production Action (CPA) released the first Chemical Footprint Project (CFP) report based on the results from the first CFP Survey.



EIGHT CFP REPORTS, 2016–2026 · SOURCE: APPENDIX, TABLE A1

10years

AT A GLANCE

The Executive Summary in six numbers

Each number comes from the part of the Executive Summary named beneath it. Follow the page number for the full discussion.

$4 trillion

in annual societal costs from environmental chemical exposures, 6.5% of global GDP

Toxic chemical risk cycle + benefits of breaking free from it

PAGE 9

9

companies reached Level 4—Frontrunner in the 2025–2026 CFP Survey

Nine 2026 CFP Frontrunners

PAGE 14

84%

of total possible points: the Frontrunners' average across all four pillars

Five steps to best practices in chemical management

PAGE 15

+281%

Footprint/Solutions Pillar gain among the eight most-improved repeat responders

Multi-year CFP responders demonstrate how to make progress to best practices in chemical management

PAGE 17

680 million pounds

of CFP CoHCs reduced by responders over ten years (308 million kg)

Hazard-driven chemical footprint metrics are effective, practical, + scalable

PAGE 18

50% by 2030

reduction of CFP CoHCs called for by CPA; zero by 2040

Call to action—Set targets + report progress

PAGE 19

> *"The CFP Survey continues to fill a tremendously important role in setting a high bar for corporate safety and chemicals management. CFP created a third party standard that can be leveraged across industries, elevates brands doing the real work, and combats cleanwashing."*
>
> —Lindsay Dahl

Today, as Lindsay Dahl, Chief Impact Officer, Ritual, and author of *Cleaning House*, highlights, "The CFP Survey continues to fill a tremendously important role in setting a high bar for corporate safety and chemicals management. CFP created a third party standard that can be leveraged across industries, elevates brands doing the real work, and combats cleanwashing."

What you will find in the 2026 CFP report are the following:

- **Parnassus Investments, "CFP Statement," by Dr. Marcy McCullaugh**
- **CFP signatories** with over $4 trillion in assets under management and $1 trillion in purchasing power
- **Toxic chemical risk cycle**
- **Benefits to breaking free from toxic chemicals**
- **CFP Chemical Management Maturity Model**
- **Nine 2026 CFP Frontrunners**
- **Five steps to best practices in chemical management**
- **Hazard-driven chemical footprint metrics are effective, practical, and scalable**

The report concludes with a call for companies to set targets and report progress to reduce financial risks and grow financial opportunities, thereby aligning with leading:

- **Financial sector and reporting initiatives** calling for greater disclosure of progress in chemical management maturity, including CPA's Investor Environmental Health Network (IEHN), the Investor Initiative on Hazardous Chemicals (IIHC), and the Sustainable Accounting Standard Board (SASB) Standards
- **Target-setting frameworks and initiatives**, including the Global Biodiversity Framework, Global Framework on Chemicals, and targets set by CPA and TFF

Now is the time for businesses to understand where they are on their chemical management maturity journey, to integrate chemical management with circularity, biodiversity, and climate initiatives, and to take action by measuring

and reducing CoHCs, and growing safer solutions. The 2026 CFP report provides a roadmap for achieving these objectives.

Toxic chemical risk cycle + benefits of breaking free from it

The life cycle of hazardous chemicals creates a toxic risk cycle for people, the planet, and the economy. Figure ES-1 illustrates the toxic chemical risk cycle, where the production, use, reuse/recycle, and disposal of toxic chemicals leads to significant risks to the health of people and the planet, exacerbates social inequities and environmental injustices, and causes significant economic costs and business risks. **The toxic chemical risk cycle is an endless cycle of exposure that keeps repeating itself as more toxic chemicals enter into the economy, as legacy wastes re-emerge from the ground, and existing products with toxic chemicals re-enter the economy with circularity.** The toxic chemical risk cycle will be perpetual until these chemicals no longer enter the economy.

The adverse impacts of hazardous chemicals on people, planet, and the economy are astronomical:

The benefits of breaking free from the toxic chemical risk cycle are clear: healthier planet; healthier people, communities, and workplaces; greater equity across communities, countries, and vulnerable populations, including children; lower health care expenses; higher workforce productivity; improved cognitive development and lifetime earnings; and for individual companies, reduced regulatory and legal risks, enhanced reputation and brand protection, greater investor confidence, and increased innovation and competitive advantage.

The banning of lead in gasoline dramatically illustrates the virtuous cycle of safer solutions:

- Children's mean blood lead level fell by more than 95% in the decade after lead was removed from gasoline in the United States
- Beginning in 1980, the mean IQ of each year's birth cohort was 2 to 5 points higher than that of pre-1980 cohorts

THE COST OF THE TOXIC CHEMICAL RISK CYCLE

$10.7 trillion
environmental impacts in the form of air and water pollution, and soil degradation that contribute to biodiversity loss[1]

$4 trillion
in annual societal costs from environmental chemical exposures or 6.5% of global gross domestic product (GDP)[2]

54 percent
of the global burden of disease attributable to environmental exposures is borne by children under the age of 15[3]

50 percent
one in two children in low- and middle-income countries (LMICs) is poisoned with lead from gasoline, paint, cookware, cosmetics, spices, and lead-acid battery recycling[4]

$200 billion
the amount companies that manufactured and used PFAS will pay in legal settlements, eclipsing the amount paid by companies in the Big Tobacco Settlement[5]

- The global estimated economic benefit for each birth cohort is about $200 billion— a cumulative benefit since 1980 of more than $8 trillion[6]

The case of personal care products illustrates the benefits and demands of products without toxic chemicals. The global clean beauty product market is projected to grow at a compounded annual growth rate (CAGR) of 16.8% from 2026 to 2033,[7] which is significantly higher than the industry as a whole, which is projected to grow at a CAGR of 5.0% from 2026–2035.[8] Growth in the clean beauty sector is being driven by increasing consumer demand for ingredient transparency, concerns about health and wellness, preferences for sustainable and ethically sourced products, regulatory restrictions on certain chemicals, and the influence of social media and younger consumers seeking products aligned with environmental and health values.[9]

Replacing toxic chemicals with safer solutions upstream breaks the perpetual cycle of toxic chemicals and creates a virtuous cycle of benefits, as opposed to a toxic cycle of adverse effects, to people, planet, economy, and businesses (see Figure ES-1). As the World Bank has emphasized, "addressing pollution at its source is an opportunity to drive economic growth, strengthen resource efficiency, and create new jobs."[10]

> *"Addressing pollution at its source is an opportunity to drive economic growth, strengthen resource efficiency, and create new jobs."*
>
> **—The World Bank**

Figure ES-1. Breaking free from the toxic chemical risk cycle with safer solutions

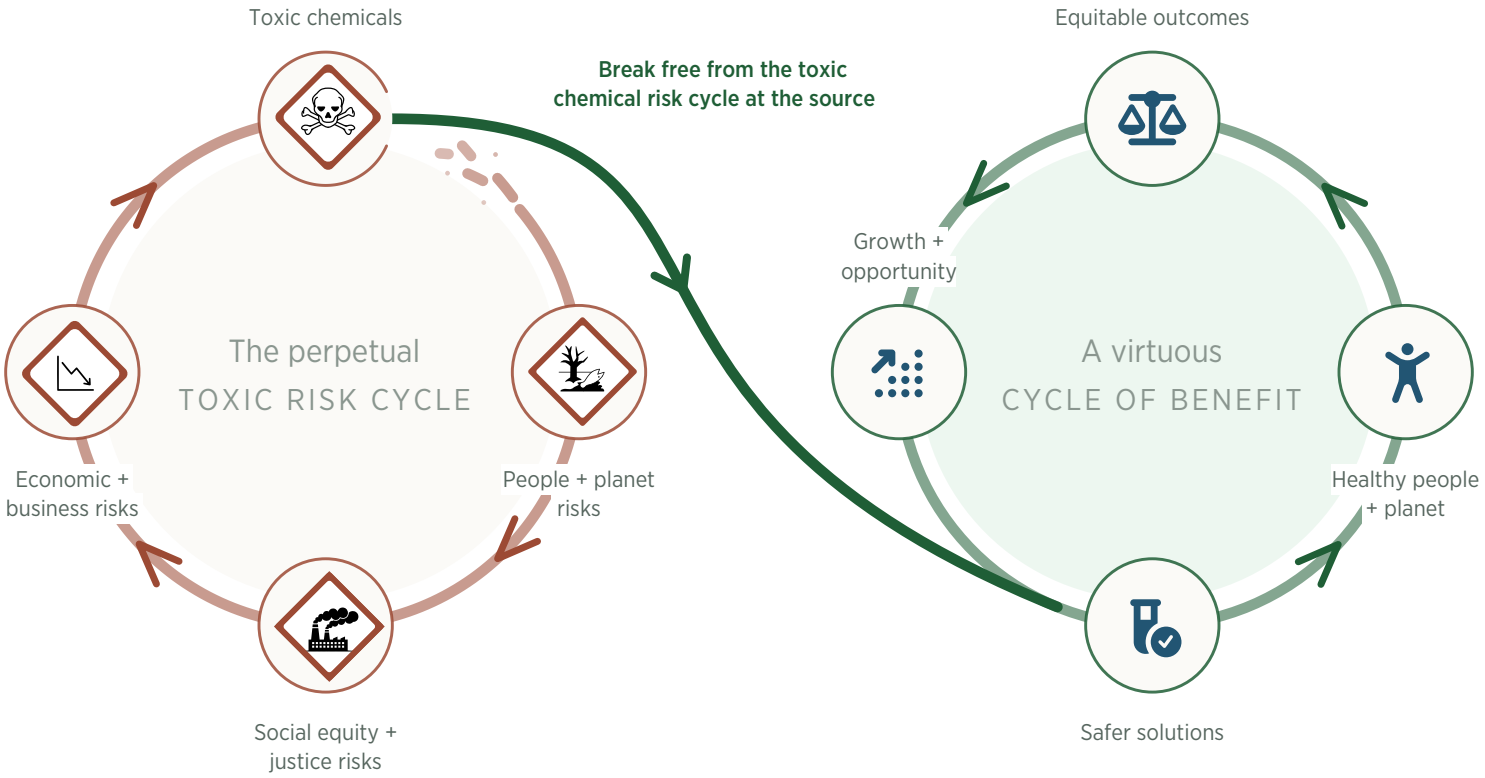
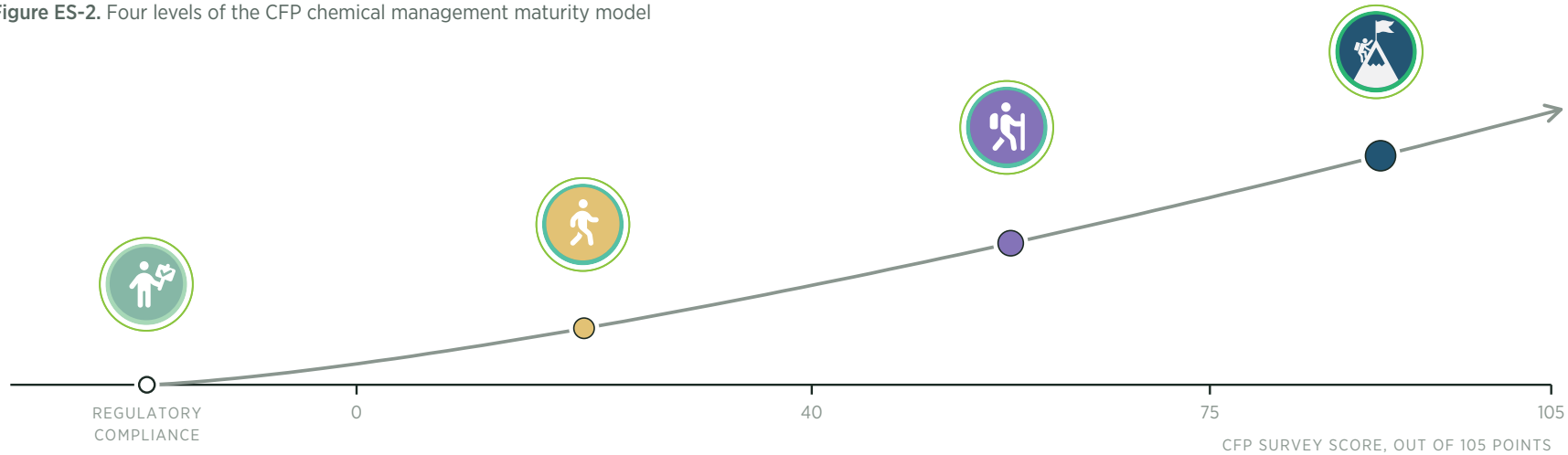


Figure ES-2. Four levels of the CFP chemical management maturity model



LEVEL 1

Compliers

Meet regulatory requirements, but do not go beyond them

Not surveyed: CFP measures progress beyond compliance

LEVEL 2

Initiators

Move beyond compliance with RSLs/MRSLs, chemical inventories, and management strategies and policies

45 responses from 32 companies

LEVEL 3

Accelerators

Systematic chemical management programs, policies, and business strategies across the organization

99 responses from 44 companies

LEVEL 4

Frontrunners

Industry-leading policies and practices, with significant hazard-driven footprint reductions and safer solutions

56 responses from 19 companies

OUTSIDE THE MODEL Non-compliers: companies that operate outside legal requirements

CFP chemical management maturity model

The CFP Chemical Management Maturity Model developed in the 2026 report builds on ESG maturity models and findings from 200 CFP Surveys. The Maturity Model defines a progression across four levels from compliance-focused policies and actions to proactive chemical management embedded in business strategy, product development, procurement, and manufacturing, and supply chain and customer engagement. Figure ES-2 graphically illustrates this progression.

The four levels of the CFP Chemical Management Maturity Model assess the extent to which an organization has developed and implemented systematic, proactive, and strategic processes for identifying, assessing, managing, and reducing chemical hazards by using safer solutions throughout its operations, products, packaging, and supply chains, and publicly shared progress on that journey. The four levels are:

- **Level 1—Compliers**: Meet regulatory requirements, but do not go beyond them. Compliers did not participate in the CFP because the survey only evaluates progress beyond compliance.
- **Level 2—Initiators**: Move beyond regulatory compliance by developing and implementing: restricted substance lists (RSLs) or manufacturing RSL (MRSLs); chemical inventory systems, especially for CoHCs; and management strategies and policies. In CFP, Initiators are defined by having scored <40 points out of a maximum of 105 points in the CFP Survey.[11] Across the 200 CFP Survey responses, 45 responses from 32 companies (22 responded to one survey and 10 responded to ≥2 surveys) scored in this range.
- **Level 3—Accelerators**: Have made significant progress beyond regulatory compliance by establishing systematic chemical management programs, policies, and business strategies across the organization. In CFP, Accelerators are defined by having scored ≥40 to <75 points out of a maximum of 105 points in the CFP Survey. Across the 200 CFP Survey responses, 99 responses from 44 companies (18 responded to one survey and 26 responded to ≥2 surveys) scored in this range.
- **Level 4—Frontrunners**: Demonstrate industry-leading policies and practices, and have a comprehensive RSL/MRSL, inventory of full chemical ingredients, chemical policy, business strategy, and footprint measurement, as well as significant hazard-driven footprint reductions and use of safer solutions. In CFP, Frontrunners are defined as having scored ≥75 points out of a maximum of 105 points in the CFP Survey. Across the 200 CFP Survey responses, 56 responses from 19 companies (6 responded to one survey and 13 responded to ≥2 surveys) scored in this range.[12]



9 companies reached Level 4 in the 2025–2026 CFP Survey

19 companies have been CFP Frontrunners since 2016

56 Frontrunner responses across eight reports

Nine 2026 CFP Frontrunners

In the 2025–2026 CFP Survey, **nine companies achieved the Level 4—Frontrunner chemical management maturity status** by scoring ≥75 points in the survey. Those nine companies are:

HOUSEHOLD + PERSONAL PRODUCTS

The Clorox Company · ECOLAB · GOJO · Grove COLLABORATIVE

BUILDING PRODUCTS + FURNISHINGS

MillerKnoll · NATUREPEDIC ORGANIC MATTRESSES

MEDICAL PRODUCTS

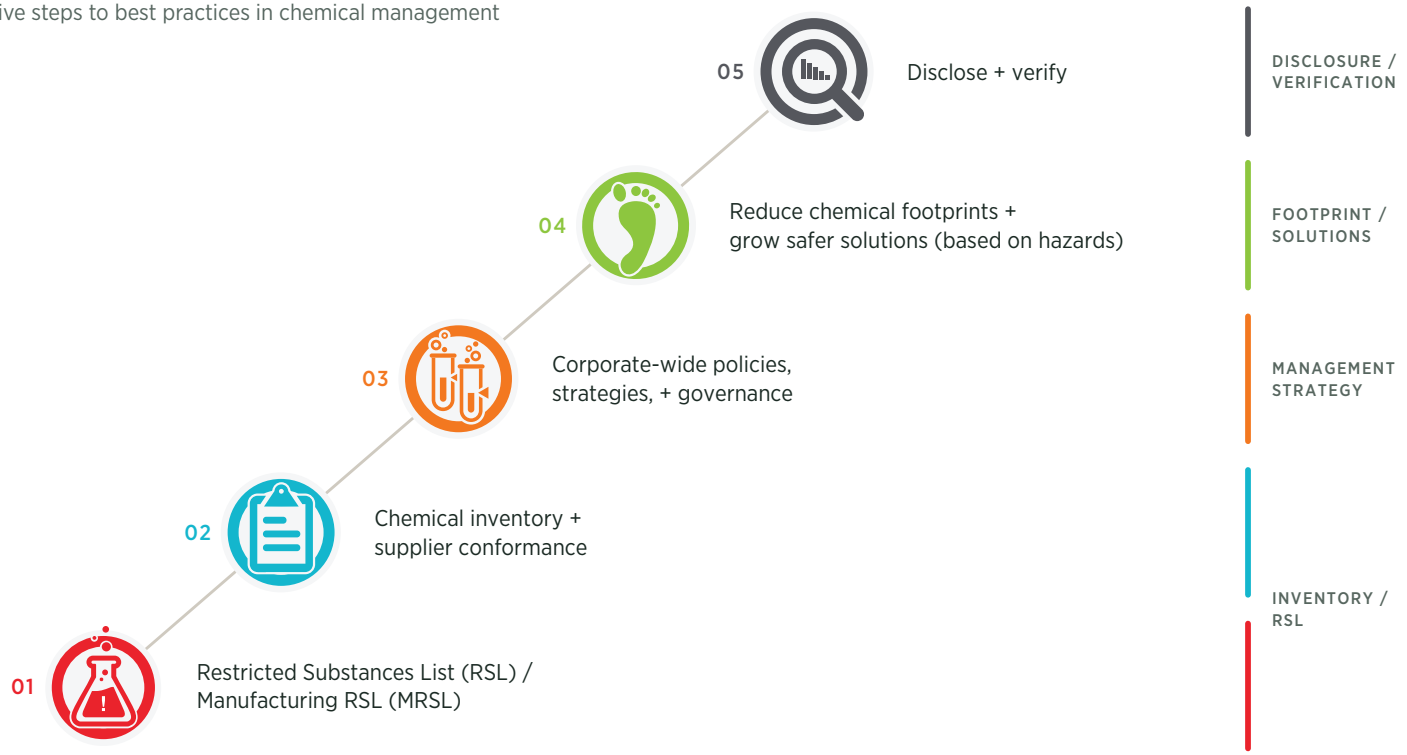
Case Medical · SW

RETAIL

Walmart

The 2026 Frontrunners highlight the ability of companies across diverse industry sectors – household and personal products, building products and furnishings, medical products, and retail – to achieve Level 4 chemical management maturity. The 2026 Frontrunners join ten other companies that have achieved Level 4—Frontrunner status in CFP.

Figure ES-3. Five steps to best practices in chemical management

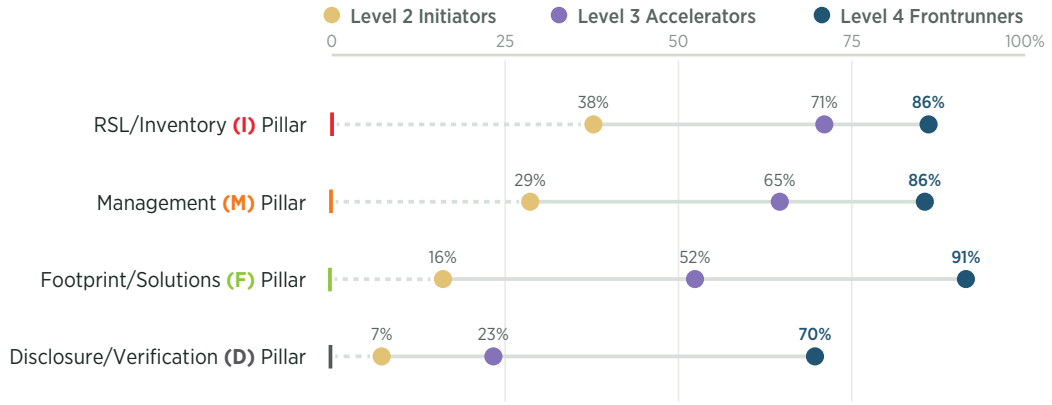


Five steps to best practices in chemical management

The analysis of the 200 survey responses across the pillars, questions, and actions by maturity level revealed five common steps to the best practices in chemical management (see Figure ES-3) as demonstrated by the Level 4—Frontrunners:

- **Step 1**—Start with developing and implementing a Restricted Substances List (RSL) and/or Manufacturing RSL (MRSL) (see the CFP Survey, RSL/Inventory Pillar, question I1)
- **Step 2**—Inventory chemicals, especially chemicals of high concern (CoHCs), in products and/or manufacturing, and proactively manage suppliers (see the CFP Survey, RSL/Inventory Pillar, questions I2-I6)
- **Step 3**—Develop and implement corporate-wide chemical management policies, strategies, and governance (see the CFP Survey, Management Strategy Pillar questions)

Figure ES-4. CFP pillar scores by maturity level:
Percent of total possible points scored for each CFP pillar (2016–2026—200 responders)



- **Step 4**—Reduce chemical footprints and grow safer solutions by using hazard-driven metrics and tools to assess footprints and select solutions (see the CFP Survey, Footprint/Solutions Pillar questions)
- **Step 5**—Publicly disclose chemicals in products and verify performance metrics with a third party (see the CFP Survey, Disclosure/Verification Pillar questions)

Figure ES-4 details the CFP pillar scores by maturity level based on the percent of total possible points scored for each pillar. Note that Level 1—Compliers are absent from Figure ES-4 because a company must be moving beyond regulatory compliance to participate in the CFP Survey. Figure ES-4 reveals that:

- **Level 2—Initiators** started strongest with the RSL/Inventory (I) Pillar, followed by the Management (M) Pillar, and fell off on the Footprint/Solutions (F) Pillar and Disclosure/Verification (D) Pillar.
- **Level 3—Accelerators** followed the same pattern as Initiators, strongest with the I Pillar and weakest with the D Pillar, but scored significantly higher for each pillar, which resulted in Accelerators scoring an average of 55% of total possible points across all four pillars as compared to 23% for Initiators. Accelerators were closest to Level 4—Frontrunners on the I Pillar questions.
- **Level 4—Frontrunners** demonstrated leading-practice maturity by scoring an average of 84% of total possible points across all four pillars, including scoring the highest on the Footprint/Solution Pillar, with 91% of total possible points for that pillar.

For companies to achieve Level 4 maturity requires making significant progress in Step 4 of best practices in chemical management. Level 4—Frontrunners especially excelled at the Footprint/Solutions (F) Pillar. At the heart of Step 4—reduce chemical footprints and grow safer solutions—are hazard-driven, quantitative, metrics for both footprints and solutions. Frontrunners excelled in Step 4 by:

- **Setting chemical footprint reduction and safer solution targets** (CFP Questions F1 and F5)

- **Measuring company-wide chemical footprints** based on CoHCs contained in products/packaging, and/or used in manufacturing operations (CFP Question F2)
- **Reducing chemical footprints**, which involves tracking changes in their footprint over time and reporting that change to CPA (CFP Question F3)

- **Implementing safer solutions** (CFP Questions F4 and F5), including by replacing CoHCs with demonstrably safer solutions (e.g., as determined by GreenScreen® for Safer Chemicals hazard assessments)

Figure ES-5 illustrates the interconnectivity of these four key actions. At the core of hazard-driven frameworks like CFP are: a definition of CoHCs; list of CoHCs by Chemical Abstracts Service Registry Number (CAS RN); and chemical hazard assessments (CHAs). GreenScreen chemical hazard assessments benchmark chemicals on a scale of 1 (red) to 4 (green)[13] and provide data on the inherent hazards of a chemical, thereby supporting determinations that alternative chemistries are safer than a CoHC.

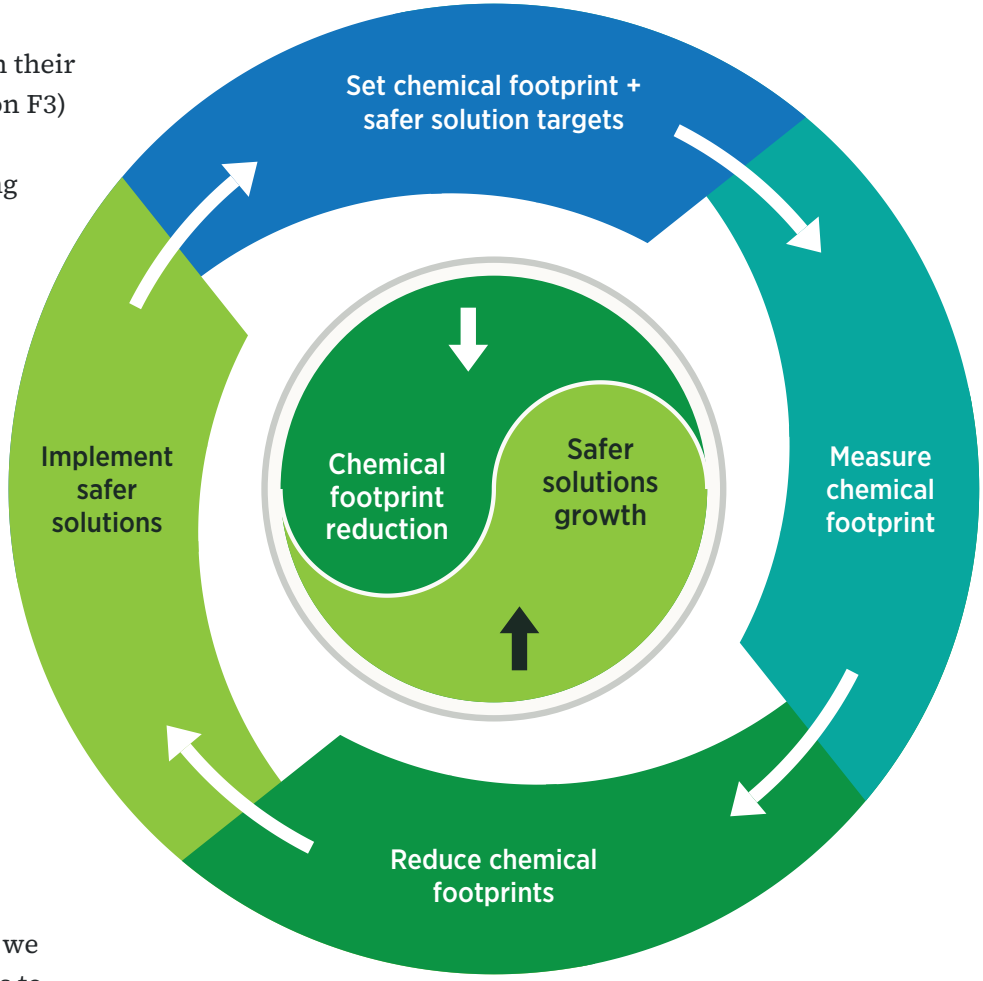


Figure ES-5. Key actions to reducing chemical footprints and growing safer solutions—Step 4 in best practices in chemical management

Multi-year CFP responders demonstrate how to make progress to best practices in chemical management

To understand how companies made significant progress over time, we narrowed the 20 companies that participated in four or more surveys to companies that improved their score by greater than 50% from their first to last survey. That netted eight companies. Those eight companies made their greatest gains in:

- Footprint/Solutions Pillar with an increase of 281% (+157 points)

- Disclosure/Verification Pillar with an increase of 184% (+67 points)
- Management Strategy Pillar with an increase of 67% (+51 points)

Their gains in the Footprint/Solutions and Disclosure/Verification Pillars reflect that the first steps companies take beyond regulatory compliance are in the RSL/Inventory and Management Strategy Pillars. Thus over time companies have the greatest opportunities for improvement in the Footprint/Solutions and Disclosure/Verification Pillars.

It is especially notable that the greatest gains were in the Footprint/Solutions Pillar questions of: F3—Footprint Change (+61 points) and F2—Footprint Measurement (+53 points); which means companies over time grew their capacity to calculate and reduce their chemical footprint using CFP's CoHCs reference list. More broadly, among all CFP Survey responders, it reflects the capacity of companies to calculate and reduce their use of CFP CoHCs/EU SVHCs by 680 million pounds /308 million kilograms.

Additionally, as companies increased their scores in the CFP Survey over time, they were more willing to publicly disclose their CFP score (D3, +30 points).

In summary, the CFP responses clearly demonstrate the trajectory companies take in their chemical management maturity journey beyond regulatory compliance. Level 2—Initiators start with Step 1—RSLs and MRSLs and Step 2—chemical inventory. Level 3—Accelerators deepen their work with Step 3—Management Strategy. And Level 4—Frontrunners, with comprehensive RSLs/MRSL, chemical inventories, and management systems and policies in place, further expand and deepen their work into Step 4 by tracking and reducing their chemical footprints and using safer solutions, and Step 5 by publicly disclosing chemical ingredients and CFP scores and responses.

Hazard-driven chemical footprint metrics are effective, practical, + scalable

In CFP the chemical footprint metric is a hazard-driven metric founded upon chemical hazard assessments, such as GreenScreen, which identify the intrinsic human health and environmental hazards of chemicals. CFP and other NGOs are demonstrating that quantitative hazard-driven metrics are effective at measuring and reducing the use of CoHCs, and practical at scale.

Hazard-driven, NGO-led initiatives are tracking reductions in the production and use of chemicals of concern and to a lesser extent, progress in using safer solutions. For example:

- CFP tracked chemical hazard reductions by weight: Over the ten years of CFP data, responders reported reducing their mass of CFP CoHCs by 680 million pounds / 308 million kilograms.
- TFF reported in 2024 that:
  - "Retailers continue to make progress reducing or eliminating chemicals and plastics of high concern. Forty-four percent (22 of 50) of retailers assessed have current, measurable goals for reduction; 68 percent (34 of 50) reported making reductions since 2020."
  - With progress, albeit slower, in safer solutions: While 20% of retailers ensure solutions to toxic chemicals and plastics are safer, 80% "are failing to ensure Safer Solutions to toxic chemicals and plastics."[14]
- ChemScore highlighted in 2025 that:
  - One-third of ChemScore companies stated they intend to phase out, reduce or avoid PFAS or other persistent chemicals.
  - Lanxess reported that it has phase-out plans for all products that contain more than small amounts of hazardous

substances; and committed to increase the share of safer solutions to 100% by 2030.[15]

Hazard-driven initiatives like CFP, TFF's Retailer Report Card, and ChemSec's ChemScore are demonstrating measurable corporate progress in reducing the number and weight of chemicals of concern, and demonstrable progress to safer solutions.

Call to action—Set targets + report progress

The CFP Survey is a holistic framework for assessing and reporting corporate progress in chemical management maturity that includes a quantitative framework for measuring and reporting progress to reducing chemical footprints.

Demands are growing from the financial sector for Level 4 chemical management maturity and for quantitative hazard-driven metrics of progress in reducing chemical footprints and growing safer solutions. Notable financial sector-driven frameworks that advance chemical footprint reductions and safer solutions growth along with CFP are IEHN (a program of CPA), the Investor Initiative on Hazardous Chemicals (IIHC—coordinated by ChemSec), and the Sustainable Accounting Standard Board (SASB) Standards. Together, CFP, IEHN, IIHC, and SASB all reflect the financial risks of toxic chemicals in products, manufacturing, and supply chains as well as the financial opportunities of products made with inherently safer chemistries. They also highlight the growing demand for greater corporate transparency on where companies are in their chemical management maturity journey.

Quantitative hazard-driven targets for chemical footprints and safer solutions

CPA and TFF have both called for ambitious time-bound reduction targets of CoHCs that are needed to address the planetary crisis caused by toxic chemicals:

- By 2030, 50% reduction of
  - CFP CoHCs (CPA)
  - Global production and use of the most hazardous chemicals and plastics (TFF)
- By 2040, zero/elimination of
  - Chemical footprint of CFP CoHCs (CPA)[16]
  - Global production and use of the most hazardous chemicals and plastics (TFF)[17]

The targets of CPA and TFF align with the targets set in international frameworks, including the Global Biodiversity Framework Target 7–Reduce Pollution to Levels That Are Not Harmful to Biodiversity and the Global Framework on Chemicals (GFC). For example, **GFC Target D6 calls for, by 2030, sustainable chemical and waste management strategies have been developed and implemented for major economic and industry sectors that identify priority chemicals of concern and reduce their impact and input along the value chain.**[18]

CFP provides clear, hazard-driven metrics, already implemented by companies at scale, for demonstrating progress toward GFC Targets, especially D6. Specifically, CFP has:

1. **A definition of a CoHC**: a carcinogen, mutagen, or developmental/reproductive toxicant; persistent, bioaccumulative (vPvB); or any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that gives rise to an equivalent level of concern—such as endocrine disruption or neurotoxicity—or a

chemical whose breakdown products result in a CoHC that meets any of the above criteria.

2. **A list of CoHCs by CAS RN:** CFP CoHCs Reference List[19]
3. **A hazard metric for establishing a baseline:** Companies track the total weight of CoHCs in products manufactured and/or sold (thereby creating a baseline) (CFP survey question F2)
4. **A hazard metric for measuring progress:** Companies measure and report change over time (CFP survey question F2)

Over ten years of CFP companies have demonstrated their ability to measure and track CFP CoHC reductions at scale, by measuring reductions of 680 million pounds / 308 million kilograms. The CFP Survey provides a structured format for quantitatively measuring and reporting chemical footprint reductions.

Join us on the journey to healthy people + planet

CPA encourages companies to:

- Participate in the CFP Survey
- Set, measure, and report on quantitative hazard-driven targets to reduce chemical footprints and grow safer solutions
- Participate in and meet the targets set by the Global Biodiversity Framework—Target 7 and GFC targets, including Target D6
- Meet the ambitious chemical footprint reduction targets set by CPA and TFF

We look forward to being on the journey with you to a safer and healthier planet for all.

02 · INVESTOR STATEMENT

Parnassus Investments—CFP statement

PARNASSUS INVESTMENTS®

For investors, chemical risk is not abstract. It lands on the income statement.

One manufacturer agreed to pay more than $10 billion to settle claims over PFAS in drinking water. Another faces multibillion-dollar liabilities tied to a widely used herbicide. These are not edge cases. Regulators, litigators, and customers are repricing the cost of hazardous chemicals across consumer products, packaging, and medical devices, and the companies that manage their chemical footprints poorly tend to learn this in a headline rather than a board meeting.

Parnassus is a signatory to the Chemical Footprint Project, and the reason is practical. The CFP Survey asks the questions we ask in our own engagements. Does a company know what is in its products? Does it run a hazard-based management system rather than a list of one-off bans? Is it moving to safer alternatives, and can it prove it? A completed survey gives us comparable, decision-useful data that no other source provides. The answers tell us whether a company is managing chemical risk or waiting to discover it.

Reporting is the point. The less mandatory disclosure requires, the more voluntary reporting is critical to investors. Through our chemical safety engagement program, we ask portfolio companies to do three things: inventory their chemical hazards and disclose a chemical footprint, adopt and validate a hazard-based management plan, and shift to safer alternatives where feasible. We are seeing movement. Companies in our program have started to use the CFP Survey to evaluate their private brands, adopt hazard-based screening of product ingredients, and reaffirm phase-outs of intentionally added PFAS. The framework gives these conversations a common reference point and a way to hold companies accountable for their progress.

Parnassus is building the internal capacity to assess the chemical footprints of the companies we hold. This enables us to identify which businesses carry real exposure to chemicals of concern and engage them before that exposure becomes a liability. The CFP framework is the backbone of this work. It gives us a common standard to measure against, and it gives companies a roadmap to follow.

We congratulate the companies that completed this year's survey. We will keep pressing the ones that have not. Strong chemical management is not a compliance exercise. It is a marker of management quality, and we intend to keep investing accordingly.

"Parnassus is building the internal capacity to assess the chemical footprints of the companies we hold. This enables us to identify which businesses carry real exposure to chemicals of concern and engage them before that exposure becomes a liability. The CFP framework is the backbone of this work."

—Marcy McCullaugh, Ph.D.
Parnassus Investments

Marcy McCullaugh, Ph.D.
Director, Sustainability Research and Director, Sustainability and Stewardship
Parnassus Investments

10years

01

Introduction

“The toxic chemical risk cycle will be perpetual until these chemicals no longer enter the economy.”

10years

The Chemical Footprint Project (CFP) benchmarks corporate progress in reducing chemicals of high concern (CoHCs) and transitioning to safer chemicals across products, manufacturing, packaging, and supply chains. Ten years ago the Lowell Center for Sustainable Production (LCSP), Pure Strategies, and Clean Production Action (CPA) released the first Chemical Footprint Project (CFP) report based on the results from the first CFP Survey.

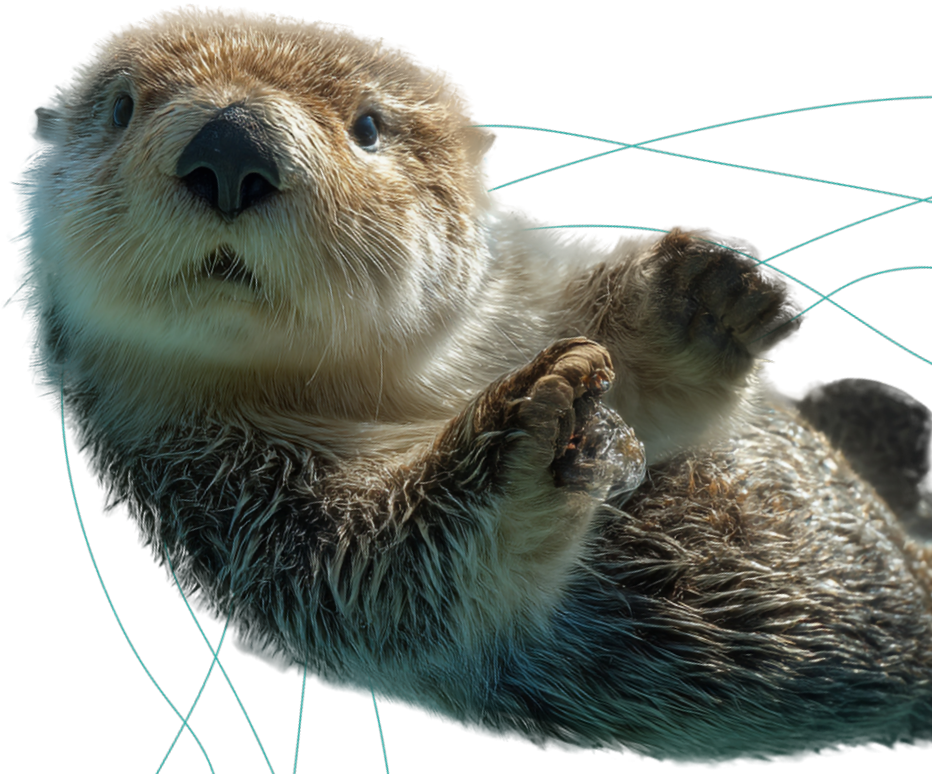
Today, as Lindsay Dahl, Chief Impact Officer, Ritual, and author of *Cleaning House*, highlights, "The CFP Survey continues to fill a tremendously important role in setting a high bar for corporate safety and chemicals management. CFP created a third party standard that can be leveraged across industries, elevates brands doing the real work, and combats cleanwashing."

Since 2016, CPA released and published, often in partnership with LCSP and Pure Strategies, CFP Surveys and reports on an annual or bi-annual basis. The 2026 report marks the 8th CFP report. For this 10 year anniversary of the release of the first CFP report we decided to take stock of all the data collected by CFP and analyze it for patterns to inform and accelerate progress away from chemicals of high concern (CoHCs) to safer solutions.

What you will find in the 2026 CFP report are the following:

- **Parnassus Investments, "CFP Statement," by Dr. Marcy McCullaugh**, Director, Sustainability Research and Director, Sustainability and Stewardship
- **CFP Signatories** representing over $4 trillion in assets under management and $1 trillion in purchasing power
- **The toxic chemical risk cycle**, which highlights the perpetual risks posed by CoHCs to people and the planet, social equity and environmental justice, and the economy and businesses
- The significant benefits to breaking free from the toxic chemical risk cycle at the source
- The four levels of the CFP Chemical Management Maturity Model
- **The nine 2026 CFP Frontrunners** from diverse industry sectors, including household and personal products, building products and furnishings, medical products, and retail

> *"The CFP Survey continues to fill a tremendously important role in setting a high bar for corporate safety and chemicals management."*
>
> **—Lindsay Dahl**
> Chief Impact Officer, Ritual, and author of Cleaning House





"For this 10 year anniversary of the release of the first CFP report we decided to take stock of all the data collected by CFP and analyze it for patterns to inform and accelerate progress away from chemicals of high concern (CoHCs) to safer solutions."

- The five steps to best practices in chemical management
- How hazard-driven chemical footprint metrics are effective, practical, and scalable

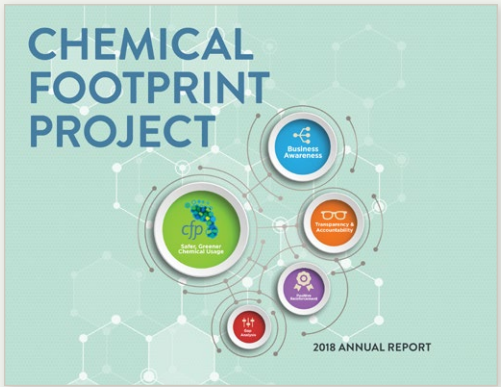
The report concludes with a call for companies to set targets and report progress to reduce financial risks and grow financial opportunities, thereby aligning with leading:

- **Financial sector and reporting initiatives** calling for greater disclosure of progress in chemical management maturity, including CPA's Investor Environmental Health Network (IEHN), the Investor Initiative on Hazardous Chemicals (IIHC), and the Sustainable Accounting Standard Board (SASB) Standards
- **Target-setting frameworks and initiatives**, including the Global Biodiversity Framework, Global Framework on Chemicals, and targets set by CPA and TFF

Now is the time for businesses to understand where they are on their chemical management maturity journey, to integrate their chemical management with circularity, biodiversity, and climate initiatives, and to take action by measuring and reducing CoHCs, and growing safer solution. The 2026 CFP report provides a roadmap for achieving these objectives.



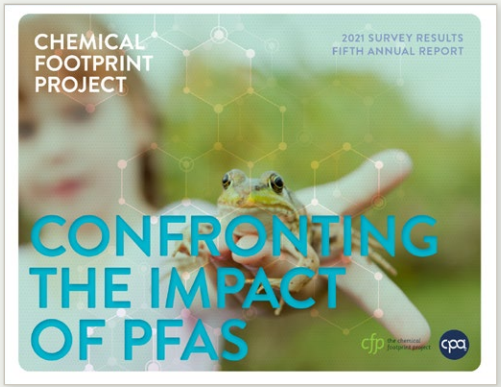


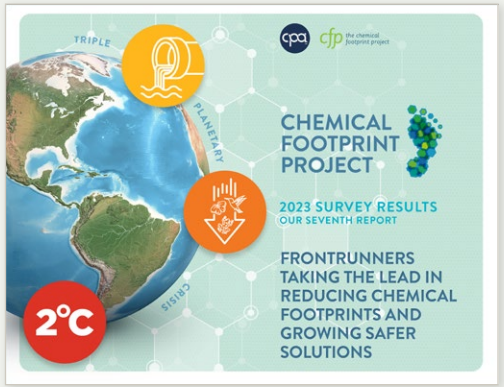




Ten years of progress. Each of these reports marks another year of CFP research, from the first survey in 2016 to the eighth report in 2026. Over that decade we have learned what companies can achieve, celebrated the milestones along the way, and seen how measuring chemicals of high concern drives change. Each step moves us further from those chemicals, for our future and the planet's.







03

CFP signatories



Over $4 trillion

in assets under management: 47 investor signatories

Over $1 trillion

in purchasing power: 29 retail, health care, government and NGO signatories

Investors, retailers, health care organizations, non-governmental organizations (NGOs), and governments want to know where companies are on their chemicals management journey. Signatories to CFP encourage companies in their sphere of influence to reduce their chemical footprint, grow safer solutions, participate in the CFP Survey, and provide feedback to Clean Production Action on how to improve the Survey. By becoming a Signatory, organizations drive meaningful change in chemicals management practices and unlock valuable benchmarking data that highlight performance and identify opportunities for improvement.

BECOME A SIGNATORY

Sign on to CFP

at chemicalfootprint.org/value/be-a-signatory →

10years

INVESTORS 47

Adrian Dominican Sisters
Arjuna Capital
As You Sow Foundation
Athens Impact Investment
Australian Ethical Investment
Aviva Investors
Bank J. Safra Sarasin Ltd.
Boston Common Asset Management
Calvert Research & Management
Carnegie Investment Counsel
Christopher Reynolds Foundation
Clean Yield Asset Management
Daughters of Charity, Province of St. Louise
Domini Impact Investments
Dominican Sisters of Hope
Everence and Praxis Mutual Funds
Figure 8 Investment Strategies
First Affirmative Financial Network
Green Century Capital Management
Harrington Investments
Impax Asset Management
Interfaith Center for Corporate Responsibility (ICCR)
Investor Voice
JLens Investor Network
Legal & General Investment Management
Maryknoll Sisters
Mercy Health
Mercy Investment Services
Miller/Howard Investments
Natural Investments
Newground Social Investment
North Star Asset Management, Inc.
Northwest Coalition for Responsible Investment
Parnassus Investments
Signity Financial
Sisters of St. Francis of Philadelphia
Sonen Capital
St. Joseph Health
State of Rhode Island
The Sustainability Group of Loring, Wolcott and Coolidge
Trillium Asset Management
Trinity Health
UBS Asset Management
Ursuline Sisters of Tildonk
Walden Asset Management
WHEB Asset Management
Zevin Asset Management

RETAILERS, HEALTH CARE, GOVERNMENTS & NGOS 29

American Sustainable Business Council (ASBC)
Anne Arundel Medical Group
Blue Cross Blue Shield of Massachusetts
ChemSec
CIS Center
CommonSpirit Health
CVS Health
Dollar General
Dollar Tree
Edward-Elmhurst Healthcare
Environmental Defense Fund
Fairview Health Services
Geisinger Health System
Hackensack Meridian Health
Inova Health Systems
Kaiser Permanente
Premier, Inc.
Rose Foundation for Communities and the Environment
SAHTECH
San Francisco Department of Environment
Staples
Target
Toxic-Free Future
University Hospitals
University of Cantabria
Vizient, Inc.
Walmart
Whole Foods Market
ZDHC

04

The toxic chemical risk cycle

IN THIS SECTION

4.1 All chemicals are not created equal
4.2 People + planet risks
4.3 Social equity + environmental justice risks
4.4 Economic + business risks

10years

The purpose of CFP is to transform global chemical use by measuring, benchmarking, and publicly disclosing corporate progress toward safer chemicals and away from hazardous substances. CFP is needed because the products that companies manufacture are made with chemicals, and all too frequently those chemicals are toxic to the health of people and the planet.

The life cycle of hazardous chemicals creates a toxic risk cycle for people, the planet, and the economy. Hazardous chemicals enter the economy, expose and cause adverse health effects to people and the planet, and disproportionately effect children, lower-income communities and countries, and communities of color. These exposures and adverse health effects, in turn, have enormous adverse economic costs both to the economy and businesses.

All chemicals are not created equal

Due to their structural design, some chemicals are inherently toxic while other chemicals are inherently safer. Characteristics of chemicals of high concern (CoHCs) to humans and the planet include:

- Human toxicity such as: carcinogenicity, mutagenicity, reproductive/developmental toxicity (CMRs); endocrine disrupting compounds (EDCs); and neurotoxicity
- Ecotoxicity—chronic and acute
- Persistence, bioaccumulation, and mobility
- Combinations of these characteristics, including persistence, bioaccumulation, and toxicity (PBT) and very persistent and very bioaccumulative (vPvB)

These characteristics qualify chemicals as Stockholm Convention on Persistent Organic Pollutants (POPs),[20] European Union (EU) REACH Substances of Very High Concern (SVHCs),[21] and GreenScreen® for Safer Chemicals Benchmark-1 chemicals.[22]

CHARACTERISTICS OF CoHCs

1. **Human toxicity**
   Carcinogenic, mutagenic, reproductive; endocrine disrupting; neurotoxic
2. **Ecotoxicity**
   Chronic and acute harm to wildlife and ecosystems
3. **Persistence**
   Lasts in the environment, builds up in organisms, moves through water and soil
4. **Combinations**
   PBT and vPvB: persistent, bioaccumulative and toxic

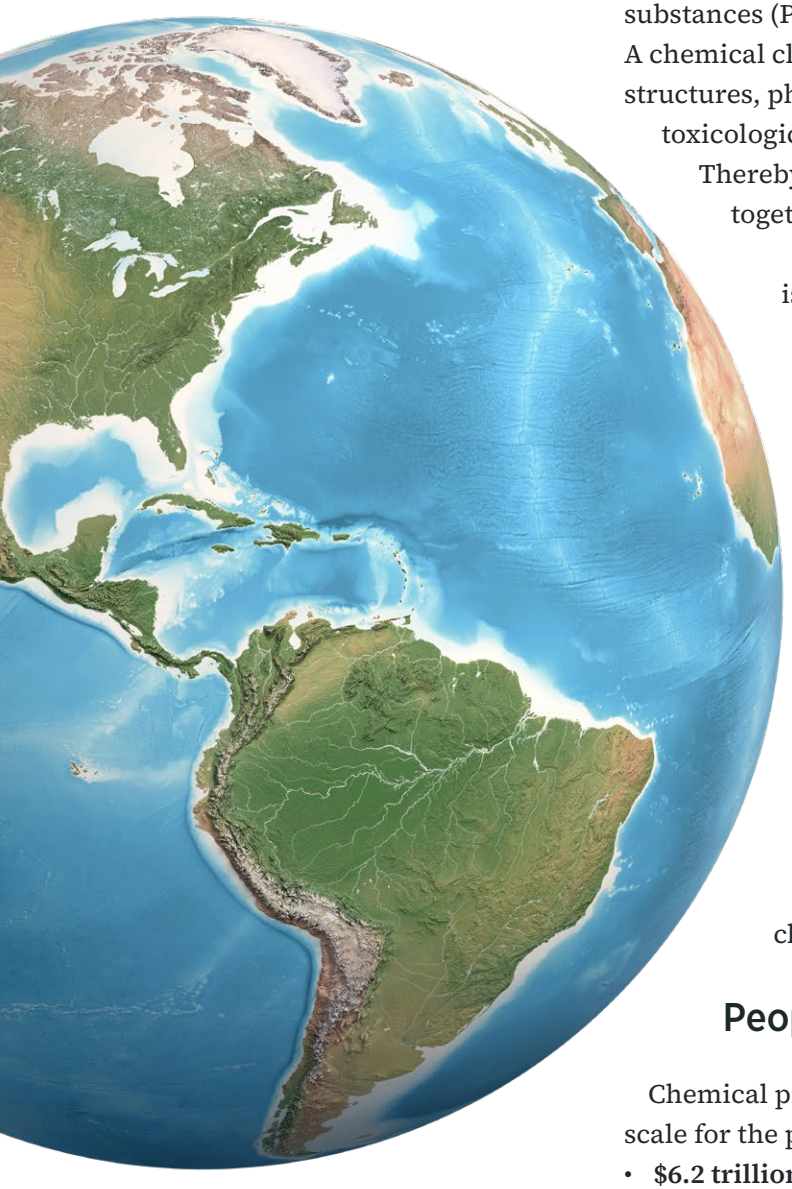
RECOGNISED AS

EU REACH SVHCs

Stockholm Convention POPs

GreenScreen Benchmark-1

The CFP Chemicals of High Concern (CoHCs) Reference List v.3.0 is a comprehensive list of 55,000 CoHCs by CAS Registry Number (CAS RN) that includes GreenScreen Benchmark-1 chemicals, EU SVHCs, as well as PFAS and 18 other chemical classes



Additionally chemical classes of high concern include per- and polyfluoroalkyl substances (PFAS), ortho-phthalates, bisphenols, and ozone depleting substances. A chemical class is a group of chemicals that share similar: molecular structures, physicochemical properties, environmental fate characteristics, toxicological effects, target organs, and/or functional uses in products. Thereby enabling chemical classes to be evaluated and/or managed together.[23]

The CFP Chemicals of High Concern (CoHCs) Reference List v.3.0 is a comprehensive list of 55,000 CoHCs by CAS Registry Number (CAS RN) that includes GreenScreen Benchmark-1 chemicals, EU SVHCs, as well as PFAS and 18 other chemical classes.[24] This is the comprehensive list of CoHCs companies participating in the CFP Survey use to calculate their chemical footprint.

Hazardous chemicals enter into the flow of the economy:

- Beginning with their production, which leads to the exposure of workers, communities, and ecosystems
- They move from production into use in agriculture and the manufacture of materials and products, where more workers, communities, and ecosystems are exposed to them
- Then they enter into the economy in products, where people in workplaces, homes, hospitals, communities, and transportation, along with ecosystems are exposed to them
- Finally they enter the post-consumer stream, where either through reuse, recycling, composting, incineration, and/or landfilling exposures continue

And this cycle repeats itself as more toxic chemicals are manufactured and as toxic chemicals in products and landfills leak out into environment.

People + planet risks

Chemical production, use, and waste, including hazardous chemicals, are now at an unprecedented scale for the planet:

- **$6.2 trillion:** Annual global revenue of the chemical industry[25]

- **50-fold growth**: Global production of chemicals and plastics increased 50-fold since 1950, and is expected to triple again by 2050 compared to 2010[26]
- **350,000**: The number of chemicals and mixtures of chemicals registered for production and use globally[27]
- **2.6 billion**: Metric tons of global production capacity for petrochemicals in 2023, an increase of 63% from 1.6 billion metric tons in 2018,[28] which is over 700 pounds / 320 kilograms (kg) per year for every person in the world
- **95**: Percent of all manufactured goods that rely on some form of industrial chemical process[29]
- **2.5 billion**: Metric tons of chemicals released to the environment annually,[30] which is 79 metric tons released every second[31]
- **400 million**: Metric tons of hazardous waste generated annually[32]
- **77**: Percent of the European Union's (EU) production of chemicals is hazardous to health[33]
- **1**: Percent of the 5 million contaminated sites globally that have been properly assessed or remediated[34]

In short, chemical pollution is everywhere. PFAS, for example, have now contaminated the vast majority of people across the globe and the planet, from peaks in the Himalayas to trenches in the oceans.[35]

Globally pollution is the world's largest environmental risk factor for disease and premature death, causing three times more deaths than from AIDS, tuberculosis, and malaria combined, and 15 times more than from all wars and other forms of violence.[36]

Recent studies highlight the devastating effects of exposure to pollution:

- **9 million**: Premature deaths per year from pollution[37]
- **6.7 million**: Premature deaths per year from air pollution[38]
- **1.8 million**: 870,000 premature deaths per year from occupational pollution and 900,000 premature deaths per year from lead pollution[39]
- **99**: Percent of the global population living in areas where the air pollution is above World Health Organization (WHO) air quality guidelines[40]
- **90**: Percent of pollution-related deaths occurred in low- and middle-income countries (LMICs)[41]

People + Planet Risks

$6.2 trillion

Annual global revenue of the chemical industry

50-fold growth

Global production of chemicals and plastics since 1950, expected to triple again by 2050 compared to 2010

350,000

The number of chemicals and mixtures of chemicals registered for production and use globally

Pollution – air pollution, water pollution, and toxic chemical pollution – is one of the five main direct drivers of biodiversity loss,[42,43] with chemical pollution in particular:

- Threatening biodiversity and ecosystem health by contaminating habitats, bioaccumulating through food webs, harming wildlife, reducing ecosystem resilience, and contributing to biodiversity loss[44,45]
- Undermining essential ecosystem services that people depend on, including pollination, soil fertility, water purification, food-web stability, and climate regulation[46]

The Global Biodiversity Framework Target 7 – Reduce Pollution to Levels That Are Not Harmful to Biodiversity, calls for the reduction of "pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects."[47] Thus, addressing chemical pollution is critical for protecting biodiversity and mitigating the broader ecological crisis.

Social equity + environmental justice risks

The impacts of pollution are unevenly distributed across the globe, with the most vulnerable and disadvantaged countries, communities, and children often bearing the greatest harm:[48]

- **90 percent of premature deaths**: More than 90% of premature deaths caused by air pollution occur in LMICs[49]
- **95 percent of premature deaths**: Of the estimated 6.4 million people who died prematurely due to exposure to fine particulate matter (PM2.5) air pollution, about 95 percent of those deaths occurred in LMICs[50]
- 90 percent of total cardiovascular disease deaths due to lead exposure occurred in LMICs[51]
- **95 percent of the total global IQ loss** due to lead exposure occurred in LMICs[52]

Children are far more vulnerable to exposure to hazardous chemicals than adults.[53] With their rapidly developing bodies, brains, and reproductive systems, children are not merely small adults. In the womb, hazardous chemicals cross the placenta.[54] The timing of exposure is at least as important as the dose during early

Social equity + environmental justice risks

90 percent

Of premature deaths caused by air pollution occur in low- and middle-income countries (LMICs)

95 percent

Of the 6.4 million premature deaths from fine particulate (PM2.5) air pollution occur in LMICs

95 percent

Of the global IQ loss due to lead exposure occurs in LMICs

human development.[55] Diseases associated with early-life exposures can manifest any time during the life span. Delayed effects include altered sexual development, reduced fertility, and lifelong increased risks of asthma, obesity, diabetes, cardiovascular disease, neurologic impairment, and cancer.[56]

Studies have revealed links between: prenatal exposures to phthalates and disorders of male reproductive development; early-life exposures to PFAS and immune dysfunction, dyslipidemia, and thyroid disorders; and in utero exposures to brominated flame retardants, phthalates, and organophosphates and lifelong decreases in cognitive function.[57] The disproportionate risks borne by children include:

- **54 percent**: Of the global burden of disease attributable to environmental exposures is borne by children under the age of 15[58]
- **50 percent**: One in two children in LMICs is lead poisoned. Along with lead in paint, other sources of lead exposure include: cookware, cosmetics, spices, and lead-acid battery recycling[59]
- **700,000**: deaths in children under five years old linked to air pollution, which represented 15% of all global deaths in children under five[60]

Children, pregnant women, workers, and disadvantaged communities are often disproportionately affected because of higher exposure levels and greater biological vulnerability to hazardous chemicals. These disparities reinforce existing health and economic inequities.[61]

Economic + business risks

Diseases caused by toxic chemical exposures in childhood can lead to massive economic losses, including health care expenditures and lifelong productivity losses resulting from reduced cognitive function, physical disabilities, and premature death.[62]

The economic costs of pollution, and more specifically, chemical pollution, are significant and include:

- **$10.7 trillion:** cost of environmental impacts in the form of air and water pollution or soil degradation that contribute to biodiversity loss[63]
- **$8.1 trillion:** the global health cost of mortality and morbidity caused by exposure to PM2.5 (fine particulate matter) air pollution[64]
- **$4 trillion:** annual societal costs from environmental chemical exposures or 6.5% of global gross domestic product (GDP).[65] Those

Economic + business risks

$10.7 trillion

Cost of environmental impacts from air and water pollution and soil degradation that contribute to biodiversity loss

$8.1 trillion

The global health cost of mortality and morbidity caused by exposure to PM2.5 air pollution

$17 trillion

Annual cost of PFAS to the world in 2023, equal to 16% of global GDP (ChemSec estimate)

PFAS: The Cost of Inaction

$58–94 billion

Annual health-related costs caused by PFAS exposure in the European Economic Area (EEA)

$19 billion

Best estimate of annual non-health costs for the EEA and Switzerland: screening, monitoring, water treatment, soil remediation

$17 trillion

Estimated annual global cost of PFAS in 2023, extrapolated by ChemSec

16% of global GDP

TEN FINANCIAL RISKS CHEMICAL HAZARDS POSE TO COMPANIES

01 **Regulatory** Not meeting applicable rules, standards or laws	02 **Reputational** Negative public perception harms brand, loyalty and trust	03 **Legal** Lawsuits or liability for harm caused	04 **Investor / ESG** ESG practices shape investor decisions, cost of capital and share value	05 **Health & safety** Worker illness, accidents, injury claims and higher insurance premiums
06 **Innovation & competitiveness** Falling behind on innovation or safer alternatives	07 **Market access** Loss of access via regulation or procurement choices	08 **Production** Disruption or failure in own manufacturing or operations	09 **Supply chain** Disruption among suppliers that affects sourcing and delivery	10 **Civil society** Vulnerability to campaigns and protests by civil society

Sources: Nordic Council of Ministers, The Cost of Inaction (2019); ChemSec (2023).

costs were calculated in 2010. In 2024 the cost at 6.5% of GDP would be $7.1 trillion. A more recent study calculated the global annual costs for lead exposure alone to be $6 trillion, based on the welfare costs of cardiovascular disease mortality and the present value of future income losses from IQ loss in 2019.[66]

- **$3.7 trillion:** cost of damaged ocean ecosystems from plastic pollution[67]

Overwhelmingly the costs, like the health effects, are borne by LMICs.[68] Air pollution, for example, "imposes a heavy economic burden both on the economies of individual LMICs and on the global economy as a result of illness, premature death, lost earnings, and increased health-care expenditures—all of which constrain productivity and economic growth. Poor people who have the least means to address the health damage of air pollution often disproportionately carry the economic burden."[69]

PFAS illustrate another dimension of the costs of chemical pollution. The Nordic Council of Ministers 2019 report on *The Cost of Inaction* calculated costs for PFAS at:

- **$58-$94 billion in annual health-related costs** caused by PFAS exposure in the European Economic Area (EEA)
- **$19 billion as the best estimate for annual non-health-related costs** (including environmental screening, monitoring, water treatment, and soil remediation for PFAS) for all EEA countries plus Switzerland[70]
- Extrapolating these figures globally, ChemSec, an international civil society organization based in Sweden, calculated the cost of PFAS to the world as $17 trillion annually in 2023, equivalent to 16% of global GDP.[71]
- Hazardous chemicals in products, materials, operations, releases to the environment, and waste pose an array of financial risks to companies, including:
- **Regulatory risks**: the risk of not meeting applicable rules, standards, or laws
- **Reputational risks**: potential for negative public perception to harm a company's brand, customer loyalty, or stakeholder trust
- **Legal risks**: the risk of legal action, such as lawsuits or liability for harm caused
- **Investor/environmental, social, and governance (ESG) risks**: the risk that a company's ESG practices will influence investor decisions, cost of capital, or share value
- **Health and safety risks**: the risk of employee injuries or illness due to exposure; accidents, such as chemical spills or explosions, leading to fatalities or long-term health issues; and potential for workers' compensation claims, lawsuits, and increased insurance premiums
- **Innovation and competitiveness risks:** the risk of falling behind competitors due to failure to innovate, respond to emerging trends, or adopt safer and more sustainable alternatives
- **Market risks**: loss of market access due to regulation or procurement choices by consumers, businesses, and institutions
- **Production risks**: the risk of disruption or failure in a company's own manufacturing or operations due to internal or site-specific issues
- **Supply chain risks**: the risk of disruptions in the external supplier network affect the company's ability to source inputs, deliver products, or operate efficiently
- **Civil society risks**: vulnerability to campaigns and protests by civil society organizations

These risks can lead to: lost revenue and sales, lower market valuation, loss of market access, product recalls, damaged brand reputation, higher cost of capital, disruptions in production, lower productivity, challenges with workforce retention, and increased cost of doing business (e.g., compliance, legal, and insurance costs).[72]

Legal risks alone can extend in the tens of billions of dollars:

- **Plastics and chemical additives**: From 2022 to 2030, corporate liabilities from plastic-related pollution, including chemical additives, are projected to likely exceed **$20 billion** in the US alone[73]
- **Johnson & Johnson (J&J) case of asbestos in talc:** Over 62,000 talc-related lawsuits have been filed against Johnson & Johnson, with around 99% of these claims involving ovarian cancer; J&J has spent over $1 billion on legal defenses; and J&J has set aside more than $10 Billion for asbestos talc lawsuit payouts[74]
- **Bayer set aside $16 billion for litigation costs** associated with the over 177,000 lawsuits from its Roundup product, made with

glyphosate.[75] Additionally, Bayer lost more than 70% of its value since the company purchased Monsanto. This decrease in value was driven largely by liabilities concerning Monsanto's Roundup product.[76]

PFAS is one of the most significant environmental litigation issues in history:

- **15,000:** Over 15,000 active lawsuits in the US alone[77]
- **$200 billion**: the amount companies that manufactured and used PFAS will pay in legal settlements, eclipsing the amount paid by companies in the Big Tobacco Settlement [78]
- **$10 billion**: 3M agreed to pay $10.3 billion in 2023 in litigation fines over the next 13 years to resolve claims that PFAS had contaminated water supplies in the United States[79]

These costs often far exceed the private costs of chemical management and can be passed on to taxpayers, communities, and future generations.

Figure 1 illustrates the toxic chemical risk cycle, where the production, use, recycle, and disposal of toxic chemicals leads to significant risks to the health of people and the planet, exacerbates social inequities and environmental injustices, and causes significant economic costs and business risks. **The toxic chemical risk cycle is an almost endless cycle of exposure that keeps repeating itself as more toxic chemicals enter into the economy, as legacy wastes re-emerge from the ground, and existing products with toxic chemicals re-enter the economy with circularity.**

> *"The toxic chemical risk cycle is an almost endless cycle of exposure that keeps repeating itself as more toxic chemicals enter into the economy, as legacy wastes re-emerge from the ground, and existing products with toxic chemicals re-enter the economy with circularity."*

PFAS litigation

15,000

Active lawsuits over PFAS in the US alone

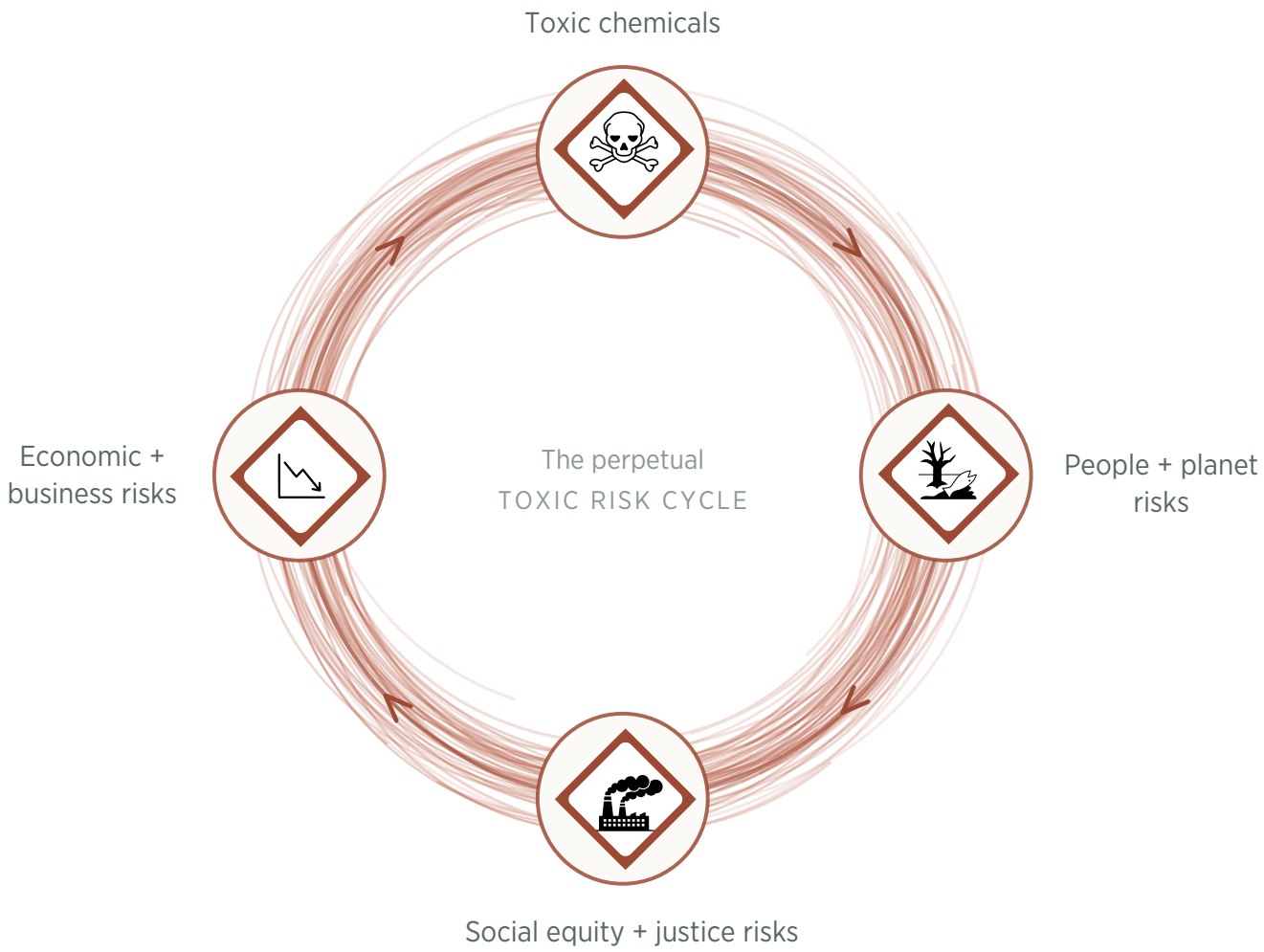
$200 billion

Legal settlements companies that made and used PFAS will pay, more than the Big Tobacco Settlement

$10.3 billion

3M agreed in 2023 to pay over 13 years to resolve claims that PFAS contaminated US water supplies

Figure 1. The toxic chemical risk cycle



05

Breaking free from the toxic chemical risk cycle

IN THIS SECTION

5.1 Benefits to people, planet, + the economy
5.2 Benefits to companies

10years

The benefits of breaking free from the toxic chemical risk cycle are clear: healthier planet; healthier people, communities, and workplaces; greater equity across communities, countries, and vulnerable populations, including children; lower health care expenses; higher workforce productivity; improved cognitive development and lifetime earnings; and for individual companies reduced regulatory and legal risks, enhanced reputation and brand protection, greater investor confidence, and increased innovation and competitive advantage.

Benefits to people, planet, + the economy

Shifting to cleaner industries and economies will drive prosperity, development, and better health, and move humanity beyond the pollution crisis. The environmental and human health benefits of avoiding the production, use, and disposal of chemicals of concern are wide ranging.

Human health benefits include: reduced risk of cancer; improved respiratory and cardiovascular health; improved reproductive health—healthier pregnancies, fewer fertility issues, lower rates of miscarriages and birth defects, and better maternal and child health; healthier neurological development, including for children enhanced cognitive development, higher IQ scores, improved learning and memory, and reduced behavioral and attention disorders, and for adults lower risk of neurodegenerative diseases and improved mental clarity and function; and decreased risk of acute poisonings.

For example, the benefits of banning lead in gasoline have been widespread across the globe:

- Children's mean blood lead level fell by more than 95% in the decade after lead was removed from gasoline in the United States
- Beginning in 1980, the mean IQ of each year's birth cohort was 2 to 5 points higher than that of pre-1980 cohorts
- The global estimated economic benefit for each birth cohort is about $200 billion— a cumulative benefit since 1980 of more than $8 trillion[80]

“Replacing toxic chemicals with safer solutions upstream breaks the perpetual cycle of toxic chemicals and creates a virtuous cycle of benefits, as opposed to a toxic cycle of adverse effects, to people, planet, economy, and businesses.”

The environmental benefits include: healthier air; cleaner water; protected and enhanced ecosystems and biodiversity, including reduced bioaccumulation of hazardous chemicals in wildlife; and improved soil health. For example: the pesticide DDT was a major cause in the decline in birds of prey because of reproductive failure due to eggshell thinning. Global restrictions reduced levels of DDT in the environment and contributed to the recovery of a number of birds of prey populations in Europe and North America.[81]

Benefits to companies

Companies who take action to identify and reduce chemicals of concern and replace them with safer alternatives can reap substantial benefits:

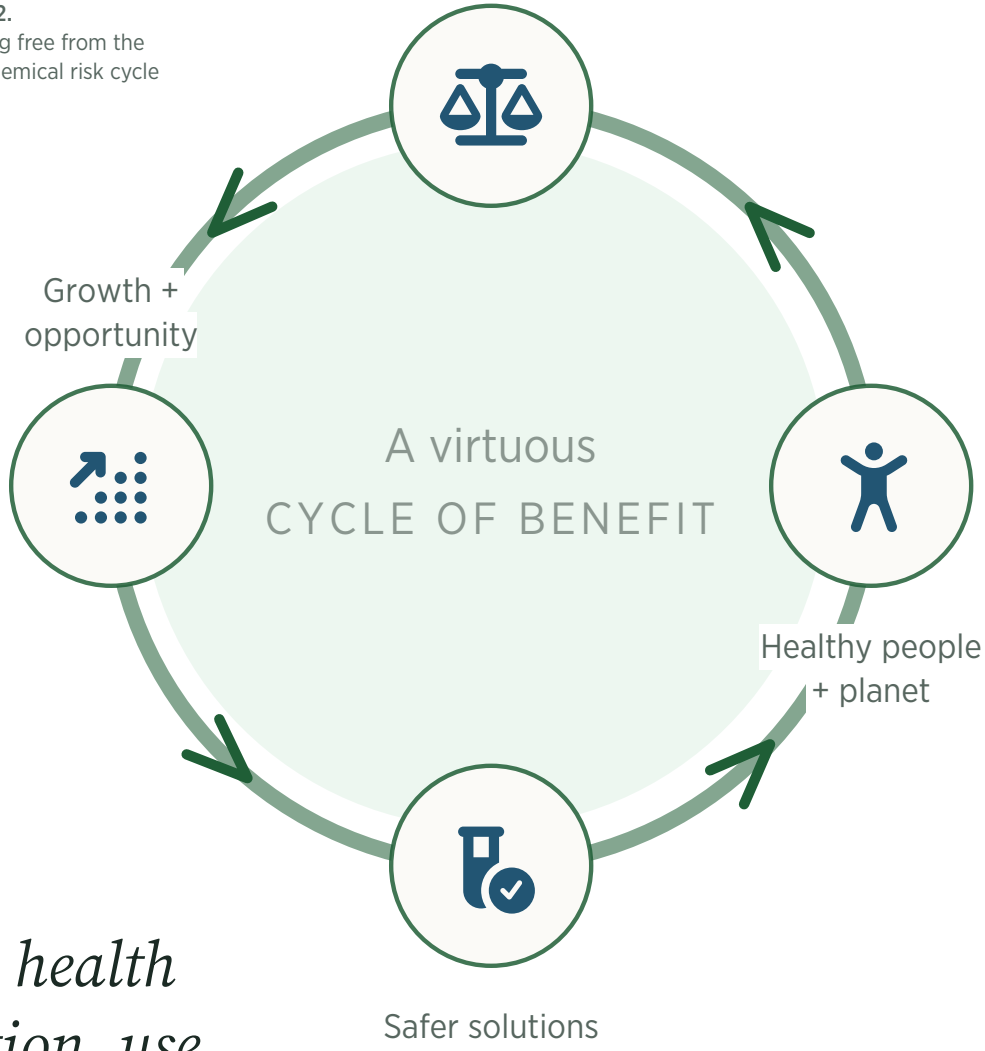
- Brand reputation protected and enhanced: companies demonstrating commitment to chemical safety can improve their brand image and attract environmentally conscious customers
- Responsiveness to customer demands builds long-term relationships and trust
- Increased sales
- Higher stock valuation / investor appeal: investors increasingly prioritizing ESG factors, and companies with strong chemical management practices can attract more capital
- Cost savings: implementing proactive measures to manage chemical risks can lead to cost savings by preventing accidents, reducing waste, and optimizing chemical usage
- Nimble in addressing shifting market and regulatory demands
- Better, more innovative products[82]

For example, in the case of personal care products, the global clean beauty product market is projected to grow at a compounded annual growth rate (CAGR) of 16.8% from 2026 to 2033,[83] which is significantly higher than the industry as a whole, which is projected to grow at a CAGR of 5.0% from 2026–2035.[84] Growth in the clean beauty sector is being driven by increasing consumer demand for ingredient transparency, concerns about health and wellness, preferences for

sustainable and ethically sourced products, regulatory restrictions on certain chemicals, and the influence of social media and younger consumers seeking products aligned with environmental and health values.[85]

Figure 2 illustrates the benefits of breaking free from toxic chemicals. Replacing toxic chemicals with safer solutions upstream breaks the perpetual cycle of toxic chemicals and creates a virtuous cycle of benefits, as opposed to a toxic cycle of adverse effects to people, planet, economy, and businesses. As the World Bank has emphasized, "addressing pollution at its source is an opportunity to drive economic growth, strengthen resource efficiency, and create new jobs."[86]

Figure 2.
Breaking free from the toxic chemical risk cycle



"The environmental and human health benefits of avoiding the production, use, and disposal of chemicals of concern are wide ranging."

06

CFP chemical management maturity model

IN THIS SECTION

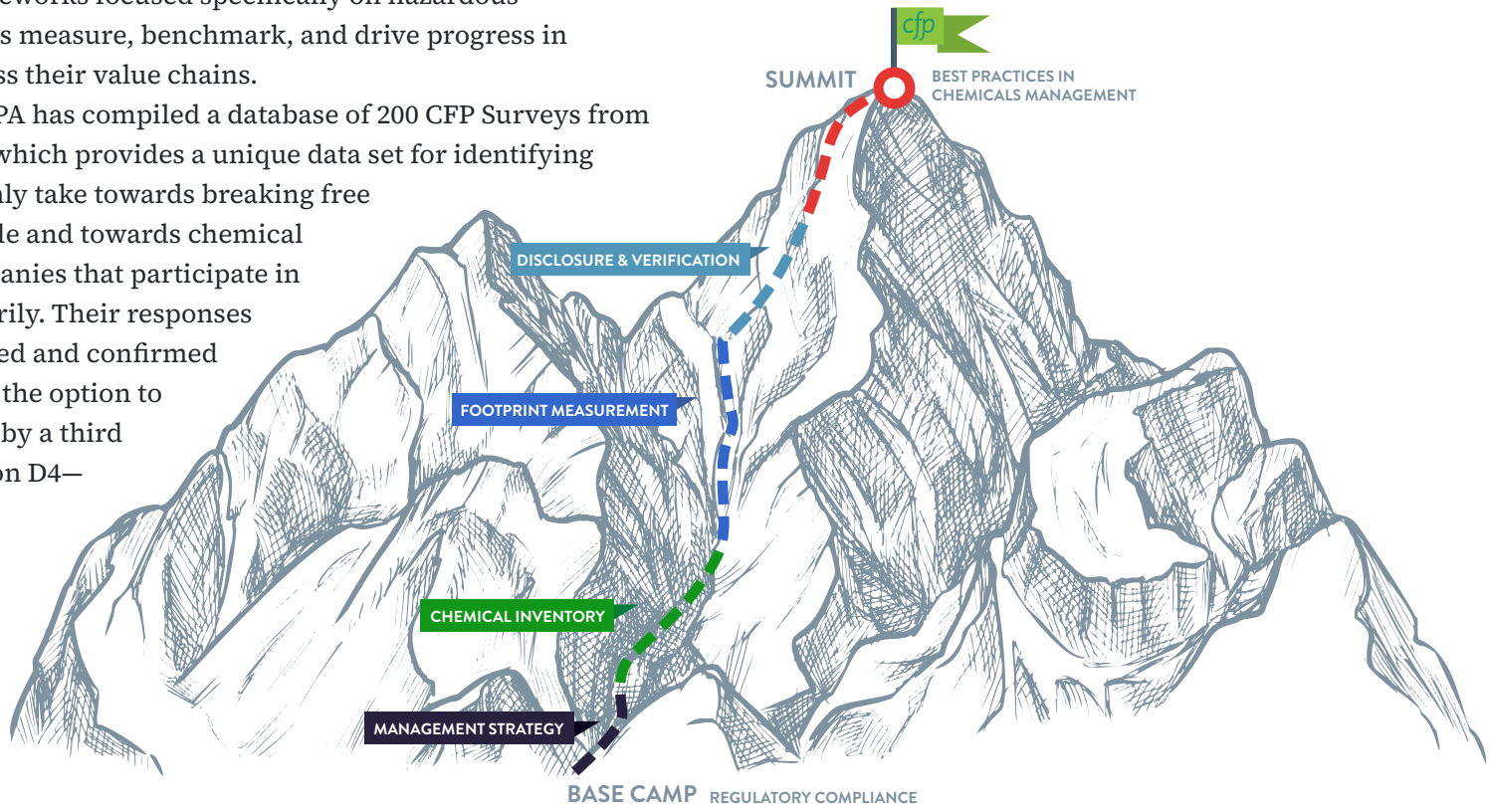
6.1 Four levels of chemical management maturity
6.2 Nine 2026 CFP Frontrunners

10years

Breaking free of the toxic chemical risk cycle is a challenge for companies. They need to know the chemicals in their products, manufacturing operations, and supply chains. They need to know their chemical footprint, their use of chemicals of high concern, and prioritize chemicals for phase-out. They need to select safer solutions. And they need to publicly share where they are on their chemical management journey.

CoHCs intersect with many areas of sustainability (including circularity, biodiversity, and climate), but they are often not directly measured, disclosed, or systematically managed within traditional environmental, social, and governance (ESG) frameworks. This creates a material blind spot in how environmental and health impacts are assessed. CFP is one of the first standardized disclosure frameworks focused specifically on hazardous chemicals, helping companies measure, benchmark, and drive progress in reducing chemical risks across their value chains.

Over the lifetime of CFP, CPA has compiled a database of 200 CFP Surveys from over seven industry sectors, which provides a unique data set for identifying the steps companies commonly take towards breaking free of the toxic chemical risk cycle and towards chemical management maturity. Companies that participate in the CFP Survey do so voluntarily. Their responses to the 19 questions are assessed and confirmed by CPA, and responders have the option to have their responses verified by a third party (see CFP Survey question D4—Verification).

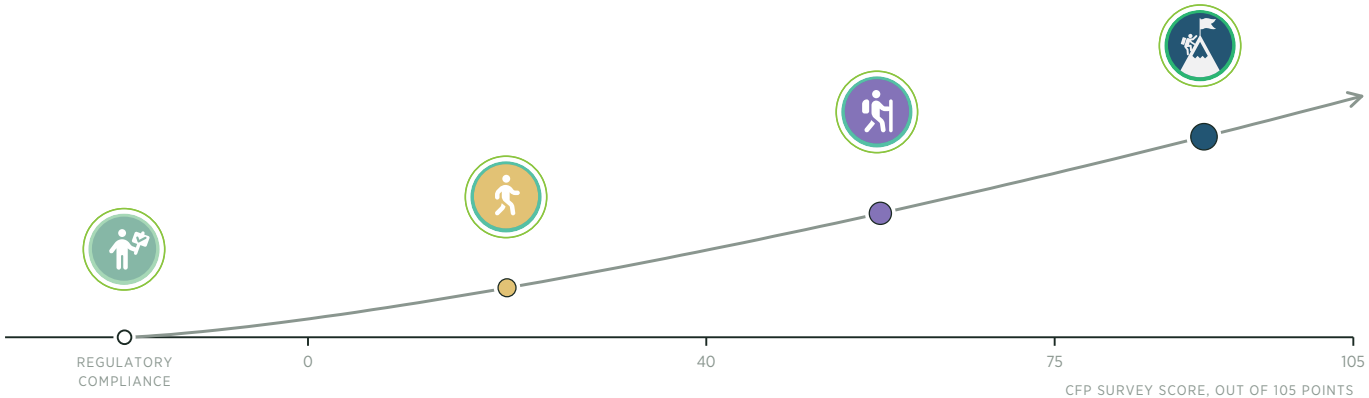


Four levels of chemical management maturity

Maturity models in environmental, social, and governance (ESG) practice provide a structure for assessing the capabilities, identifying the gaps, and defining the steps for improving the ESG performance of companies.[87] The ESG maturity models provide a framework that is applicable to chemical management and the work of CFP.

The CFP Chemical Management Maturity Model developed in this report builds on ESG maturity models and findings from 200 CFP Surveys. The Maturity Model defines a progression across four levels from compliance-focused policies and actions to proactive chemical management embedded in business strategy, product development, procurement, and manufacturing, and supply chain and customer engagement. Figure 3 graphically illustrates this progression.

Figure 3. Four levels of the CFP chemical management maturity model



LEVEL 1
Compliers
Meet regulatory requirements, but do not go beyond them
Not surveyed: CFP measures progress beyond compliance

LEVEL 2
Initiators
Move beyond compliance with RSLs/MRSLs, chemical inventories, and management strategies and policies
45 responses from 32 companies

LEVEL 3
Accelerators
Systematic chemical management programs, policies, and business strategies across the organization
99 responses from 44 companies

LEVEL 4
Frontrunners
Industry-leading policies and practices, with significant hazard-driven footprint reductions and safer solutions
56 responses from 19 companies

OUTSIDE THE MODEL Non-compliers: companies that operate outside legal requirements

The four levels of the Chemical Management Maturity Model evaluate the extent to which an organization has developed systematic, proactive, and strategic processes to identify, assess, manage, and reduce chemical hazards and risks throughout its operations, products, packaging, and supply chains, and publicly report its progress along this journey. The four levels of the Model are:

- **Level 1—Compliers**: Meet regulatory requirements, but do not go beyond them. Their driver for chemical management is compliance with laws and regulations in the jurisdictions in which they operate and sell. Compliers by definition do not participate in the CFP because the survey only evaluates progress beyond compliance.
- **Level 2—Initiators**: Move beyond regulatory compliance by developing and implementing: restricted substance lists (RSLs) or manufacturing RSL (MRSLs); chemical inventory systems, especially for CoHCs; and management strategies and policies. In CFP, Initiators are defined by having scored <40 points out of a maximum of 105 points in the CFP Survey.[88] Across the 200 CFP Survey responses, 45 responses from 32 companies (22 responded to one survey and 10 responded to ≥2 surveys) scored in this range.
- **Level 3—Accelerators**: Have made significant progress beyond regulatory compliance by establishing systematic chemical management programs, policies, and business strategies across the organization. In CFP, Accelerators are defined by having scored ≥40 to <75 points out of a maximum of 105 points in the CFP Survey. Across the 200 CFP Survey responses, 99 responses from 44 companies (18 responded to one survey and 26 responded to ≥2 surveys) scored in this range.
- **Level 4—Frontrunners**: Demonstrate industry-leading policies and practices, and have a comprehensive RSL/MRSL, inventory of full chemical ingredients, chemical policy, business strategy, and footprint measurement, as well as significant hazard-driven footprint reductions and use of safer solutions. In CFP, Frontrunners are defined as having scored ≥75 points out of a maximum of 105 points in the CFP Survey. Across the 200 CFP Survey responses, 56 responses from 19 companies (6 responded to one survey and 13 responded to ≥2 surveys) scored in this range.[89]

9	companies reached Level 4 in the 2025–2026 CFP Survey
19	companies have been CFP Frontrunners since 2016
56	Frontrunner responses across eight reports

Nine 2026 CFP Frontrunners

In the 2025–2026 CFP Survey, nine companies achieved the Level 4—Frontrunner chemical management maturity status by scoring ≥75 points in the survey. The companies are:

The 2026 Frontrunners highlight the ability of companies across diverse industry sectors – household and personal products, building products and furnishings, medical products, and retail – to achieve Level 4 chemical management maturity. The 2026 Frontrunners join ten other companies that have achieved Level 4—Frontrunner status in CFP.

HOUSEHOLD + PERSONAL PRODUCTS

The Clorox Company · ECOLAB · GOJO · Grove COLLABORATIVE

BUILDING PRODUCTS + FURNISHINGS

MillerKnoll · NATUREPEDIC ORGANIC MATTRESSES

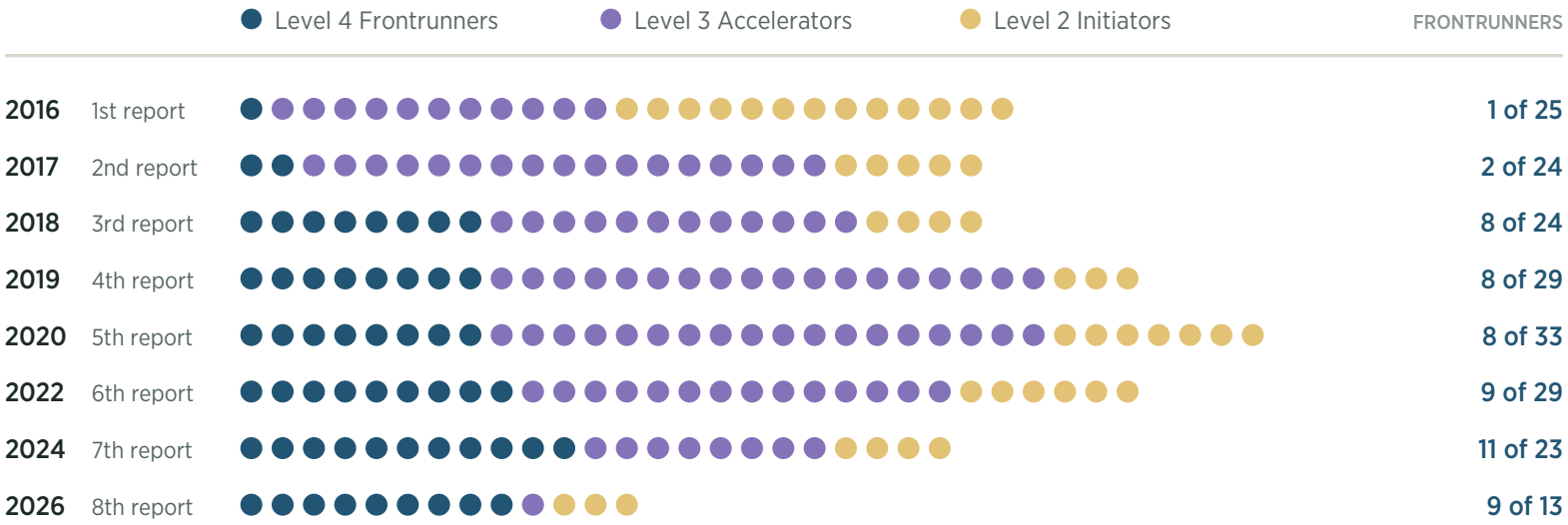
MEDICAL PRODUCTS

Case Medical · SW

RETAIL

Walmart

Ten years of CFP Frontrunners



One dot per survey response (200); a company that responded to several surveys appears once per survey.
Levels as re-scored for this report: Frontrunners scored 75 or more of 105 points. Source: Appendix, Table A1.

Every CFP Survey response, 2016–2026, by chemical management maturity level (200 responses).

07

Five steps to best practices in chemical management

IN THIS SECTION

7.1 Steps 1 and 2

7.2 Step 3—Develop + implement corporate-wide chemical management strategies, policies, + governance

7.3 Step 4—Reduce chemical footprints + grow safer solutions

7.4 Step 5—Disclose + verify

7.5 Multi-year CFP responders demonstrate how to make progress to best practices in chemical management

10years

The 200 CFP Survey responses were divided into three of the four Maturity Levels based on their scores as noted in the section above (only three levels because no companies were in Level 1—Compliers). Within each of the three maturity levels the survey responses were evaluated on the basis of how companies scored on each of the four CFP pillars and the questions within those pillars:

- Restricted Substance List (RSL)/Inventory (I) Pillar—six questions worth 30 points
- **Management Strategy (M) Pillar**—four questions worth 20 points
- **Footprint/Solutions (F) Pillar**—five questions worth 33 points
- Disclosure/Verification (D) Pillar) —four questions worth 22 points[90]

Scores for each question and for each pillar were normalized based on percent of total possible points scored and ranked from highest to lowest to score within each maturity level and for all maturity levels combined. See Appendix for details on the methodology.

Assessing how Level 2—Initiators, Level 3—Accelerators, and Level 4—Frontrunners compare to each other provides a vantage point into how companies progress across maturity levels. The CFP Survey is well-positioned to capture this journey because the questions are tiered to discover the level of maturity across restrictions, inventory, supply chains, strategy, policies, governance, measurement, alternatives, public disclosure, and verification.

The analysis of the 200 survey responses across the pillars, questions, and actions by maturity level revealed five common steps to the best practices in chemical management. Figure 4 illustrates the steps, which become increasingly more challenging for companies to achieve. The five steps are:

- **Step 1**—Start with developing and implementing a restricted substances list (RSL) and/or manufacturing RSL (MRSL)
- **Step 2**—Inventory chemicals, especially chemicals of high concern (CoHCs), in products, packaging, and/or manufacturing, and proactively manage suppliers
- **Step 3**—Develop and implement corporate-wide chemical management policies, strategies, and governance

CFP DATA ANALYSIS FROM 2016–2026

200
CFP Survey responses

74
companies represented >7 sectors, including: building products, household/personal care products, retail, medical products, apparel, hardware/electronics, and toys

8
CFP reports analyzed the results from 8 surveys

4
CFP chemical management maturity levels

EACH SURVEY INCLUDES:

4
pillars

19
questions

94
potential actions embedded in the questions

105
total possible points

See Appendix for details



Figure 4. Five steps to best practices in chemical management

See the CFP 2025 Survey—Product Module Guidance for definition of terms and scope of CFP questions discussed in this report

https://chemicalfootprint.org/assess/survey-guidance

- **Step 4**—Reduce chemical footprints and grow safer solutions
- **Step 5**—Publicly disclose chemicals in products and verify performance metrics (such as CFP Survey question responses) with a third party

Figure 5 depicts the CFP pillar scores by maturity level based on the percent of total possible points scored for each pillar and highlights how:

- **Level 2—Initiators** started strongest with the RSL/Inventory (I) Pillar, followed by the Management (M) Pillar, and fell off on the Footprint/Solutions (F) Pillar and Disclosure/Verification (D) Pillar.
- **Level 3—Accelerators** followed the same pattern as Initiators, strongest with the I Pillar and weakest with the D Pillar, but scored significantly higher for each pillar, which resulted in Accelerators scoring an average of 55% of total possible points

across all four pillars as compared to 23% for Initiators. Accelerators were closest to Level 4—Frontrunners on the I Pillar questions.

- **Level 4—Frontrunners** demonstrated leading-practice maturity by scoring an average of 84% of total possible points across all four pillars, including scoring the highest on the Footprint/Solution Pillar, with 91% of total possible points for that pillar.

The sections below detail the actions taken by each maturity level at each of the five steps to best practices in chemical management.

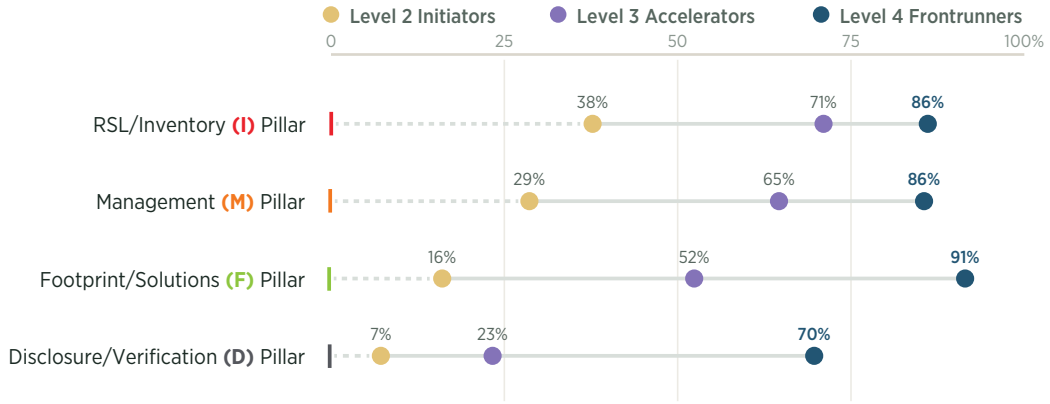


Figure 5.
CFP pillar scores by maturity level: Percent of total possible points scored for each CFP pillar (2016–2026—200 responders)

STEPS 1 + 2 OF 5 · RSL/INVENTORY PILLAR

Steps 1 and 2



Restricted substances lists (RSLs), manufacturing RSL (MRSLs), chemical data collection and management, and supplier management are all covered in the six questions of the CFP RSL/Inventory (I) Pillar. In comparison to their scores for the other three CFP Pillars, **Level 2—Initiators and Level 3—Accelerators scored the highest on the RSL/Inventory Pillar.** Initiators scored 38% and Accelerators

scored 71%, respectively, of total possible points for the six I Pillar questions. **Level 4—Frontrunners** scored on average 86% of total possible points for the I Pillar.

Figure 6 reveals, based on moving from greatest to least percent of points scored per question, how companies across maturity levels were most likely to:

- Begin with developing an RSL/MRSL (I1) and collecting data on those chemicals (I3)
- Then move to creating or adopting chemical data management platforms (I5) and collecting full chemical ingredient data from suppliers (I4)
- And finally establish processes to manage supplier compliance with their RSL/MRSL (I2) and supplier conformance and oversight for all chemical reporting requirements (I6)

Figure 6 also details how companies performed within each maturity level for the six I Pillar questions.



"RSLs/MRSLs are one of the first steps companies take beyond regulatory compliance"

Step 1—RSLs + MRSLs

RSLs and MRSLs are a clear first starting point for companies to take action beyond regulatory compliance. Among the six I Pillar questions, all maturity levels scored the highest or 2nd highest percent of total possible points for Question I1—Restricted Substance List (RSL)/Manufacturing RSL (MRSL) (see Figure 6).

These scores reflect the widespread development and use of RSLs/MRSLs across industry sectors and highlight how RSLs/MRSLs are one of the first steps companies take beyond regulatory compliance, especially for companies at the Level 2—Initiator and Level 3—Accelerator maturity levels. Initiators were most likely to develop and implement an initial RSL/MRSL consisting of a short list of chemicals. Accelerators and Frontrunners were more likely to develop and implement comprehensive RSLs/MRSLs relevant to their sector. For example, in the apparel sector, that would be akin to requiring suppliers to conform to the AFIRM RSL and ZDHC MRSL lists.

Step 2—Manage chemical inventory + suppliers



For Question I2—RSL/MRSL Compliance, Initiators were most likely to require suppliers to conform to their RSL, while Accelerators and Frontrunners, in addition to requiring suppliers to conform to their RSL, trained suppliers on their reporting requirements, updated their RSL/MRSL lists annually, and/or publicly disclosed their RSL/MRSL.

Question I3—Chemical Ingredient Data Collection from Suppliers asks for data collection beginning with RSL/MRSL chemicals and extending to full chemical ingredient information from suppliers. **Since RSLs/MRSLs are one of the first actions companies take beyond compliance, it follows that chemical ingredient data collection from suppliers was one of the highest scoring I questions.** Level 2—Initiators were most likely to require suppliers to conform to their RSL/MRSL, while Level 3—Accelerators and Frontrunners required suppliers to conform to their RSL/MRSL and requested or required suppliers to provide full chemical ingredient information.

Question I4—Full Chemical Ingredient Disclosure from Suppliers asks for what percent of products does your company collect full chemical ingredient information. Initiators and companies making/selling articles were less likely to collect full chemical ingredient information in products from suppliers as compared to Accelerators and Frontrunners, and companies making/selling formulated products, which were more likely to collect full chemical ingredient information from suppliers.

For Question I5—Data Management of Chemical Ingredients, Initiators were most likely to invest in data management systems or third parties to manage their data, while Accelerators and Frontrunners had data systems that managed chemical inventories, linked chemicals to hazard data, and/or generated reports on chemical ingredient declarations for customers.

For Question I6—Supplier Conformance and Oversight, Initiators, Accelerators, and Frontrunners all scored the lowest percent of total possible points in comparison to the other I-Pillar questions for their respective maturity level (see Figure 6). This reflects the challenge of implementing comprehensive

supply chain systems that achieve all four actions of I6: (a) audit program to verify supplier data; (b) suppliers test products in third-party approved labs; (c) suppliers trained on compliance with reporting requirements; and (d) company routinely tests products to assure conformance with reporting requirements:

- **Level 2—Initiators** were likely to do one or none of those four actions, reflecting their scoring 28% of total possible points for I6, and were least likely to routinely test products for conformance with reporting requirements.
- **Level 3—Accelerators** were likely to do two of those four actions, reflecting their scoring 54% of total possible points for I6.
- **Level 4—Frontrunners** were likely to do three to all four of those actions, which reflected their scoring 79% of total possible points for I6. The actions they were most likely not to do were (b)—require suppliers to test products or (c)—train suppliers.

RSLs/MRSLs are the easiest first step beyond compliance because they are practical, easy to understand, and often well-defined by voluntary sector-specific standard-setting bodies, NGOs, and/or ecolabels. Chemical inventory and supplier management follows RSL/MRSL creation as companies need to track CoHCs in products and supplier conformance.

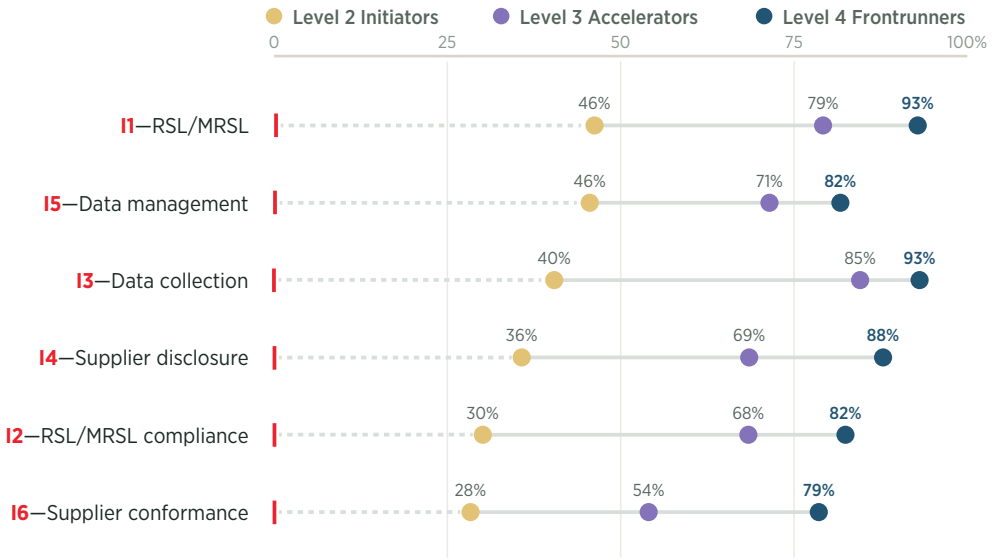


Figure 6. CFP RSL/Inventory (I) Pillar scores by maturity level: Percent of total possible points scored for the six I questions (2016–2026 — 200 responders)

STEP 3 OF 5 · MANAGEMENT STRATEGY PILLAR

Step 3—Develop + implement corporate-wide chemical management strategies, policies, + governance

The corporate-wide policies and strategies of the CFP Management Strategy (M) Pillar straddle the space between a) restricting CoHCs in products/ manufacturing operations, and collecting and managing chemical ingredient data (I Pillar) and b) taking action in design, manufacturing, and procurement to reduce chemical footprints and use safer solutions (F Pillar). The M questions encompass: corporate-level policies (M1), business strategy (M2), external engagements (M3), and accountability and governance (M4).

Level 2—Initiators and Level 3—Accelerators scored the second highest on the Management Strategy (M) Pillar questions (in comparison to their scores for the other three CFP Pillars), reflecting the comparative ease of developing and implementing corporate-wide chemical management policies, strategies, and governance relative to making changes in products and manufacturing operations, which are captured in the Footprint/Solutions (F) Pillar. See Figure 7 for the percent of total possible points scored for each M Question by chemical management maturity level.

Level 2—Initiators

Initiators scored 29% of total possible points for the four M Pillar questions (see Figures 5 and 7). While many Initiators scored zero points for any one of the M questions, where they scored points it was most likely for having:
A corporate-wide chemical policy that addressed CoHCs and/or safer alternatives in products (Question M1—Chemical policy)
A business strategy that:

- Interconnected chemicals with other sustainability initiatives (e.g., circularity); or aligned with a standard or global initiative (Question M2—Business strategy, updated in 2024)
- Included screening for CoHCs in products, preferring safer chemicals, or avoiding CoHCs in manufacturing (Question M2 prior to 2024)

External engagements that promoted: chemicals for reduction based on inherent hazards, green chemistry solutions, or public disclosure of CoHCs in products (Question M3—External engagement prior to 2024)
Delineated chemicals management responsibilities beyond compliance in job descriptions; or assigned member(s) of senior management responsibility for meeting chemical policy goals and objectives (Question M4—Accountability)

Level 3—Accelerators

Accelerators scored 65% of total possible points for the four M Pillar questions (see Figures 5 and 7). They were most likely to score points for having:

A corporate-wide chemical policy that addresses CoHCs and/or safer alternatives in products and supply chains, and publicly disclosing those policies (Question M1)
A business strategy that: highlights safer chemicals and materials in product marketing; or interconnects chemicals with other sustainability initiatives (e.g., circularity) (Question M2)
Collaborated with non-governmental organizations (NGOs); advocated for safer chemicals/materials management in standards; or publicly supported hazard-based chemicals management action (Question M3)
Delineated chemicals management responsibilities beyond compliance in job descriptions; or assigned member(s) of senior management responsibility for meeting chemical policy goals and objectives (Question M4)

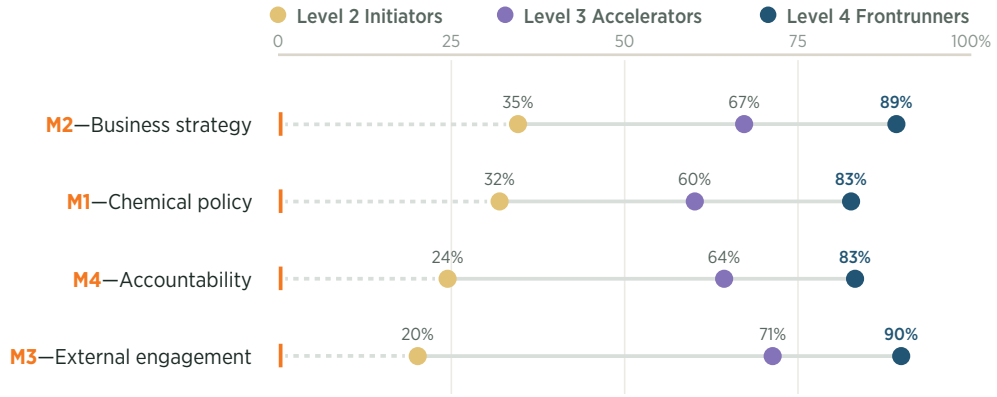
Level 4—Frontrunners

Level 4—Frontrunners scored 85% of total possible points for the four M Pillar questions (see Figures 5 and 7). They were most likely to score points for having:

- Addressed all chemical policy actions. The most likely action to be missed was having a policy to address chemical use in facilities (e.g., building maintenance and grounds keeping) (Question M1)
- A business strategy that: highlights safer chemicals and materials in product marketing; interconnects chemicals with other sustainability initiatives (e.g., circularity); and aligns with standards or global initiatives (Question M2)
- Collaborated with non-governmental organizations (NGOs); advocated for safer chemicals/materials management in standards; or publicly supported hazard-based chemicals management action. Frontrunners were less likely to advocate for safer chemicals/materials in government legislation or regulation (Question M3)
- Addressed all accountability and governance actions. The most likely action to be missed was having financial incentives for senior management to meet corporate chemical management goals (Question M4)

See Appendix, section on Management Strategy for further details on how companies scored on the M Questions.

Figure 7. CFP Management Strategy (M) Pillar scores by maturity level: Percent of total possible points scored for the five M questions (2016–2026—200 responders)



Other management strategy highlights

Figure 7 also reveals:

- A significant performance gap between Level 2—Initiators and Level 3—Accelerators and a much narrower performance gap between Level 3—Accelerators and Level 4—Frontrunners, highlighting how Level 3—Accelerators have moved to create robust corporate-wide management strategies and policies beyond regulatory compliance.
- Both Level 3—Accelerators and Level 4—Frontrunners shared similar levels of performance, including scoring the:
  - Highest for M3—External engagements, reflecting confidence in advancing proactive chemical management to reduce CoHCs and grow safer solutions outside of the organization
  - 2nd highest forM2—Business strategy, reflecting the integration of chemicals management into core business and sustainability practices

Overall, Management Strategy represents the organization-wide approach and commitment to chemicals management.

STEP 4 OF 5 · FOOTPRINT/SOLUTIONS PILLAR

Step 4—Reduce chemical footprints + grow safer solutions



The Footprint Measurement/Safer Solutions (F) Pillar is where companies demonstrate taking action to: measure and reduce CoHCs, and use safer solutions. The actions in the F Pillar require tracking CoHCs and changing to products and manufacturing processes to substitute CoHCs with safer alternatives, thereby representing one of the most challenging components of chemical management.

The F pillar is grounded in measuring and reducing chemical footprints, and using safer solutions based on the inherent hazards of chemicals. The CFP chemical footprint metric (Question F2) provides responders with options to measure footprints based on a short list of hazardous chemicals, EU REACH Candidate List of SVHCs, or a comprehensive list of hazardous chemicals, the CFP CoHCs Reference List.

CFP defines:

- "Safer Chemical" as a "chemical that, due to its inherent chemical and physical properties, exhibits a lower propensity to persist in the environment, accumulate in organisms and induce adverse effects in humans or animals."
- "Safer Alternative" as a "chemical, material, product, process or technology that is less hazardous for humans and the environment than the existing approach."[91]

Chemicals that are GreenScreen Benchmark-2, -3, or -4 are considered as safer than the chemicals listed in the CFP CoHCs Reference List.

Significantly, CFP and the companies participating in the CFP Survey have demonstrated the capacity at scale to measure their chemical footprints—weight of CoHCs in products—at the corporate level and track reductions over

time. Over the 10 years of CFP reports, responders reported reducing their mass of CFP CoHCs and EU SVHCs by 680 million pounds / 308 million kilograms, equivalent to the weight of 1,156 Airbus A380s.

Below is a summary of actions taken by companies in each of the chemical management maturity levels as well as theirs scores, see Figure 8, for the five questions in the Footprint/Solutions (F) Pillar.

Level 2—Initiators

Reflecting their lack of comprehensive systems, policies, and strategies, Initiators struggled to score F Pillar points, where they scored 16% of total possible points for the five F questions (see Figures 5 and 8). While many Initiators scored zero points for any one of the F questions, where they scored points it was most likely for having:

- Set goals to reduce CoHCs, either specific chemicals or chemicals classes (e.g., PFAS) (Question F1—Footprint reduction goal)
- Calculated their chemical footprint by number of EU REACH SVHCs or CFP CoHCs in their products (Question F2—Footprint measurement)
- Screened products for hazards, where they scored 46% of total possible points (Question F4—Hazard assessment)
- Developed a definition for safer alternative and/or rewarded suppliers for using safer alternatives (Question F5—Safer alternatives)

Initiators were unlikely to calculate any chemical footprint reduction (Question F3—Footprint change) because very few Initiators measured their chemical footprint (11%) (Question F2).

Level 3—Accelerators

For Accelerators, the F Pillar is where they started to lag behind the Level 4—Frontrunners. Overall, Accelerators scored 52% of total possible points for the five F Pillar questions (see Figures 5 and 8) and were most likely to score points for having:

- Set goals to reduce CoHCs, either specific chemicals or chemicals classes (e.g., PFAS) (Question F1)
- Calculated the chemical footprint of their products by: number of EU REACH SVHCs or CFP CoHCs (38% of Accelerators) or mass of CoHCs (30% of Accelerators) (Question F2)
- Calculated change in their chemical footprint based on count or mass of EU SVHCs (31% of Accelerators) and calculated change in their chemical footprint based on mass of CFP CoHCs (22% of Accelerators) (Question F3).
- Screened products for hazards, where they scored 87% of total possible points (Question F4)
- Developed a definition for safer alternative, rewarded suppliers for using safer alternatives (Question 5—Safer alternatives)

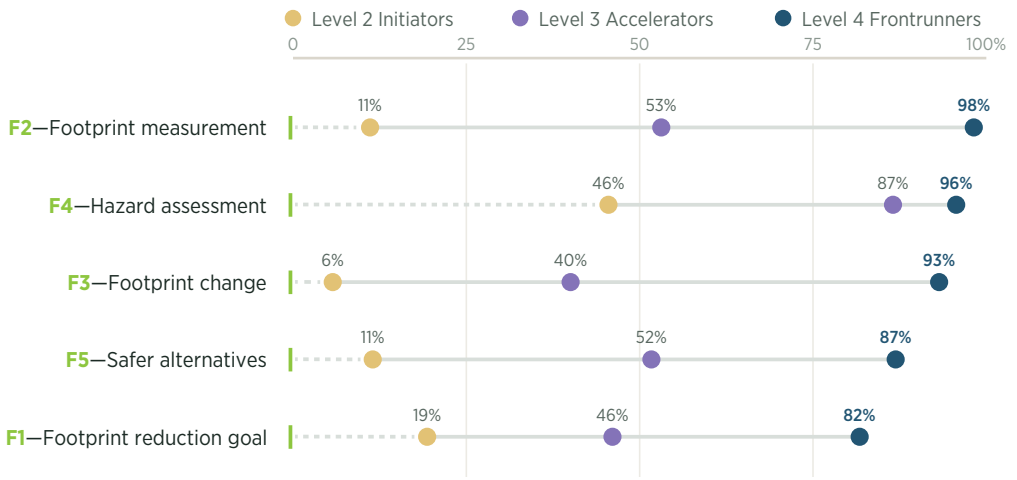
Level 4—Frontrunners

Frontrunners excelled at the Footprint/Solutions Pillar, where they scored 91% of total possible points for the five F Pillar questions (see Figures 5 and 8). Frontrunners:

- Scored 82% of total possible points for Question F1. They scored highest for: (a) has a goal for reducing CoHCs by count or mass; (b) has a goal to eliminate one or more chemicals classes of concern; and (c) has a goal to reduce its chemical footprint. And somewhat lower for: (d) publicly discloses the goal including percent reduction planned; (e) publicly discloses specific CoHCs included in the goal; and (f) publicly reports annually on progress towards meeting the goal.
- Scored 98% of total possible points for Question F2, an almost perfect score across all 56 responders because they either have no CoHCs in their products or are able to quantitatively measure their chemical footprint using the CFP CoHCs reference list. This fact demonstrates the deep awareness, capacity, and systems that Frontrunners have in place to know the presence of CoHCs in their products.

- Scored 93% of total possible points for Question F3. Almost all responders, 98%, scored some points for F3: 86% calculated their change in chemical footprint based on mass of CFP CoHCs with the remainder calculating their footprint based on mass of EU SVHCs or count of CFP CoHCs.
- Scored 96% of total possible points for screening products for hazards (Question F4)
- Scored 87% of total possible points for Question F5. Among Frontrunner responders: 2% did not score any points, 18% scored three to four points, and 80% scored five to six points. Frontrunners scored similarly across five of the six F5 actions: (a) developed definition and criteria for safer alternative; (b) asked suppliers to use safer alternatives criteria; (d) integrated safer alternatives criteria into product development; (e) tracked progress to improve the hazard profile of chemicals across products; (f) publicly disclosed its definition for a safer alternative. Comparatively fewer Frontrunners rewarded suppliers for using safer alternatives—action F5(c).

Figure 8.
Footprint/Solutions (F) Pillar scores by maturity level: Percent of total possible points scored for the five F questions (2016–2026—200 responders)



For companies to achieve Level 4 maturity requires making significant progress in Step 4 of best practices in chemical management. At the heart of Step 4 are hazard-driven, quantitative, metrics for both footprints and solutions. Frontrunners excelled in Step 4 by:

- Setting chemical footprint reduction and safer solution targets (CFP Questions F1 and F5). For example:
  - Ecolab set the target of removed from its global portfolio all chemical products manufactured by the company that contain intentionally added PFAS by the end of 2026[92]
  - MillerKnoll set the target of eliminating added PFAS worldwide (already achieved in North America) by fiscal year 2027[93]
  - Reckitt set the target of reducing its chemical footprint by 65% by 2030[94]
  - Target Corporation set targets, by 2030: Footprint reduction target—Achieve measurable reductions in certain chemicals and materials in our owned brand products; and Safer solutions target: Double the assortment of consciously formulated products in select categories (third-party validated products formulated without Target's priority chemicals, e.g., Target Clean)[95]
- **Measuring company-wide chemical footprint** based on CoHCs contained in products/packaging, and/or used in manufacturing operations (CFP Question F2)
- **Reducing chemical footprints**, which involves tracking changes in their footprint over time and reporting that change to CPA (CFP Question F3)

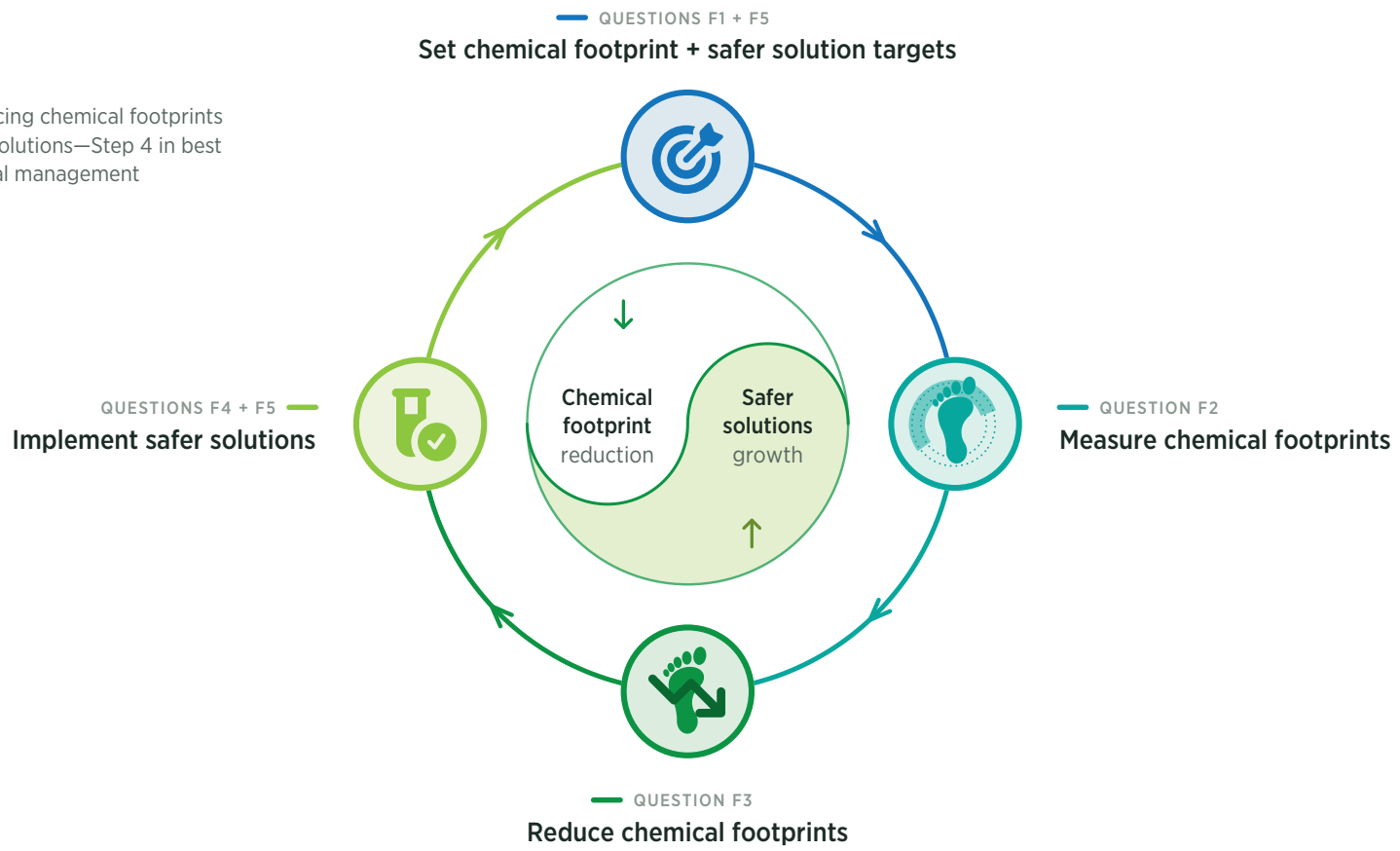


Figure 9.
Key actions to reducing chemical footprints and growing safer solutions—Step 4 in best practices in chemical management

- **Implementing safer solutions** (CFP Questions F4 and F5), including by replacing CoHCs with demonstrably safer solutions (e.g., as determined by GreenScreen hazard assessments)

Figure 9 illustrates the interconnectivity of these four key actions. At the core of hazard-driven frameworks like CFP are: a definition of CoHCs; list of CoHCs by CAS RN; and chemical hazard assessments (CHAs). GreenScreen chemical hazard assessments benchmark chemicals on a scale of 1 (red) to 4 (green)[96] and provide data on the inherent hazards of a chemical, thereby supporting determinations that alternative chemistries are safer than a CoHC.

CFP Frontrunners clearly demonstrate how to meet the best practices that defines Level 4 chemical management maturity.

STEP 5 OF 5 · DISCLOSURE/VERIFICATION PILLAR

Step 5—Disclose + verify



The public disclosure of where companies are on their chemical management maturity journey is a challenge, as companies frequently only want to share what they have achieved as opposed to where they are on the journey. The CFP data bear this out as companies across all chemical management maturity levels scored the lowest, compared to the other pillars, on the Disclosure and Verification (D) Pillar (see Figure 5).

The D pillar asks companies, do they:

5. Publicly disclose full chemical ingredients (see definition in side box) in their products (Question D1)
6. Publicly disclose their CFP responses (Question D2)
7. Publicly disclose their CFP score (Question D3)
8. Verify through a third party their responses to the CFP Survey questions (Question D4). Note that CFP Survey responses are reviewed by CPA and require documentation. Third-party review is an assessment and validation by qualified organizations.[97]

Below is a summary of actions taken by companies in each of the chemical management maturity levels as well as theirs scores, see Figure 10, for the four questions in the Disclosure/Verification (D) Pillar.

Level 2—Initiators

Reflecting that they are at the beginning of their chemical management journey, Initiators scored very few points for the D pillar, 7% of total possible points for the four D questions (see Figures 5 and 10). Only a few Initiators were willing to publicly disclose their CFP responses (D2) and even fewer were willing to disclose chemical ingredients in products (D1) and their CFP score (D3). Verification of CFP responses (D4) seldom happened.

CFP DEFINITION FOR "FULL CHEMICAL INGREDIENT INFORMATION"

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 1000 ppm or higher in a homogeneous material.

Level 3—Accelerators

Similar to Initiators, Accelerators were also less likely to be publicly prominent on their status in chemical management maturity. Overall, Accelerators scored 23% of total possible points for the four D Pillar questions (see Figures 5 and 10). They were generally unlikely to publicly disclose their:

- Full chemical ingredient information of products, scoring 27% of total possible points for Question D1
- CFP score, scoring 23% of total possible points for Question D3
- CFP responses, scoring 20% of total possible points for Question D2

And similarly, Accelerators were unlikely to pursue third-party verification of their CFP responses, scoring 18% of total possible points for D4.

Level 4—Frontrunners

Frontrunners, similar to the other levels of chemical management maturity, performed the lowest of any pillar for the D Pillar, where they scored 70% of total possible points for the four D Pillar questions (see Figures 5 and 10).

Different than the other maturity levels, the 70% of total possible points for Frontrunners was:

- Significantly higher than the other maturity levels and
- Almost as high as the highest total possible points scored by any other maturity level for any other pillar—the highest score for any other pillar for any other maturity level was Level 3—Accelerators scoring 71% of total possible points for the I Pillar (see Figure 5)

In terms of disclosure, Frontrunners were:

- Very likely to disclose their CFP score, scoring 93% of total possible points for Question D3
- Also likely to disclose their CFP responses, scoring 83% of total possible points for Question D2. The difference between disclosing scores and responses is due in part to companies not wanting competitors to know how they respond to specific questions.

- Somewhat less likely to disclose full chemical ingredient information of products, scoring 66% of total possible points for Question D1. In general, companies making/selling formulated products were more likely to score all points for D1 in comparison to companies making/selling articles.

Third-party verification of responses to CFP questions was the lowest scoring question of all the CFP questions for each of the chemical management maturity levels. Frontrunners scored 38% of total possible points for D4. D4 is a lagging indicator in the CFP Survey in part because companies often lack internal and external demands that would justify spending additional money on the verification process.

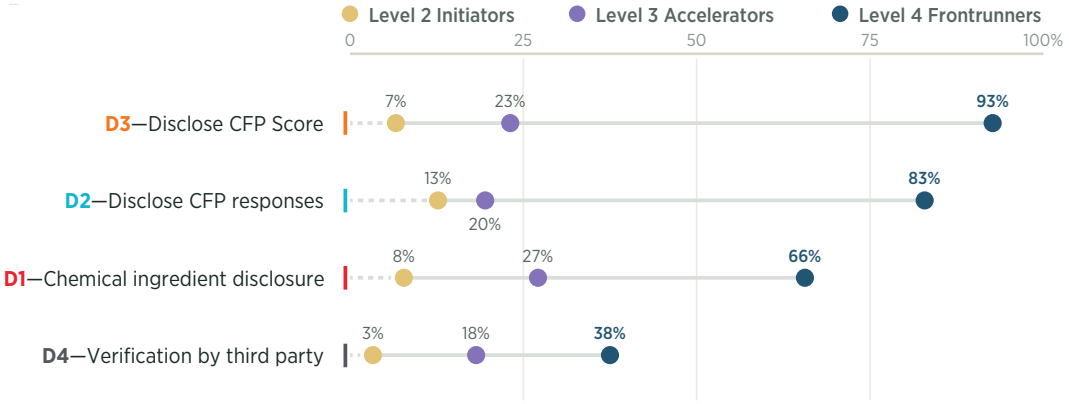


Figure 10. Disclosure/Verification (D) Pillar scores by maturity level: Percent of total possible points scored for the four D questions (2016–2026—200 responders)

Multi-year CFP responders demonstrate how to make progress to best practices in chemical management

To understand how companies changed their chemical management performance over time we analyzed data from the 20 companies that participated in four or more surveys. Those 20 companies made their greatest

gains in the Disclosure/Verification Pillar and the smallest gains in the RSL/Inventory Pillar:

- Disclosure/Verification Pillar (D): 78% increase
- Footprint/Solutions Pillar (F): 56% increase
- Management Pillar (M): 32% increase
- Inventory/RSL Pillar (I): 17% increase

To better understand how companies made significant progress over time, we further narrowed the 20 companies that participated in four or more surveys to companies that improved their score by greater than 50% from their first to last survey. That netted eight companies. Those eight companies made their gains in:

- **Footprint/Safer Solutions (F) with an increase of 281% (+157 points)**, which was driven by F3—Footprint Change (+61 points) and F2—Footprint Measurement (+53 points); along with additional gains in F1—Footprint Reduction Goal (+21 points) and F5—Safer Alternatives (+17 points)
- **Disclosure (D) with an increase of 184% (+67 points)**, which was driven by: D3—Disclosure of CFP Score (+30 points, increased from zero points); D1—Chemical Ingredient Disclosure (+22 points); D2—Disclosure of CFP Responses (9 points); and D4—Third Party Verification (+6 points)
- **Management Strategy with an increase of 67% (+51 points)**, which was driven by: M1—Chemical Policy (+20 points); M3—External Engagement (+13 points); and M4—Accountability (+11 points)
- **Chemical Inventory with an increase of 36% (+49 points)**, which was driven by: I5—Data Management (+14 points); I6—Supplier Conformance (+14 points); I2—RSL Compliance (+12 points); and I1—RSL (+8 points)

Their greater gains in the Footprint/Solutions (F) and Disclosure/Verification (D) Pillars reflect that the first steps companies take beyond regulatory compliance are in the RSL/Inventory (I) and Management Strategy (M) Pillars. Thus over time companies have the greatest opportunities for improvement in the F and D Pillars.

It is especially notable that the greatest gains were in F3—Footprint Change (+61 points) and F2—Footprint Measurement (+53 points), which means companies over time grew their capacity to calculate and reduce their chemical footprint using CFP's CoHCs reference list. More broadly, among all CFP Survey responders, it reflects the capacity of companies (as highlighted above) to calculate and reduce their use of CFP CoHCs/EU SVHCs by 680 million pounds /308 million kilograms.

Additionally as companies became more confident in participating and increased their scores in the CFP Survey, they became more were willing to share their CFP score (D3, +30 points).

In summary, the CFP responses clearly demonstrate the trajectory companies take in their chemical management maturity journey beyond regulatory compliance. **Level 2—Initiators** start with RSLs, MRSLs, and chemical inventory. **Level 3—Accelerators** take the next steps with Management Strategy. **And Level 4—Frontrunners**, with comprehensive chemical management systems and policies in place, take the next steps in maturity by tracking and reducing their chemical footprints, using safer solutions, and publicly disclosing chemical ingredients and CFP scores and responses.

“In summary, the CFP responses clearly demonstrate the trajectory companies take in their chemical management maturity journey beyond regulatory compliance.”

08

Hazard-driven chemical footprint metrics are effective, practical, + scalable

IN THIS SECTION

8.1 The Responsible Business Alliance (RBA)
8.2 Toxic-Free Future (TFF) + its Retailer Report Card
8.3 ChemSec's ChemScore
8.4 Campaign for Healthier Solutions (CHS)
8.5 Tracking progress

10years

Core conceptual foundations to the CFP Survey and the CFP Chemical Management Maturity levels are clean production, pollution prevention, toxics use reduction, and precautionary action. All of these concepts emphasize the importance of reducing the use of inherently hazardous chemicals upstream and designing them out of manufacturing operations and products, because that is the most effective means of reducing exposure downstream. If hazardous chemicals are **not** used in manufacturing, then workers, fenceline communities, and downstream ecosystems are not exposed to them and hazardous wastes are eliminated. If hazardous chemicals are **not** contained in products, then consumers are not exposed to them in use and the products themselves can enter the circular economy without exposing workers, consumers, and ecosystems.

For these reasons, **in CFP the chemical footprint metric is a hazard-driven metric** founded upon **chemical hazard assessments**, such as GreenScreen, which identify the intrinsic human health and environmental hazards of chemicals. **CFP and other NGOs are demonstrating that quantitative hazard driven metrics are effective at measuring and reducing the use of CoHCs, and practical at scale.**

Many organizations, including non-governmental organizations (NGOs), investors, and companies apply chemical hazard-driven metrics to measure chemicals of concern and progress to safer solutions. The terms they use to describe these metrics vary. Some use "chemical footprint" to articulate chemicals of concern, while others use terms such as "chemical hazard reduction" or "reduction/elimination of high hazardous chemicals." For example, those using chemical hazard-riven metrics include:

- NGOs such as the Responsible Business Alliance (RBA), Toxic-Free Future (TFF), ChemSec, Campaign for Healthier Solutions, ChemForward, Green Science Policy Institute, and Safer Chemistry Impact Fund.[98]
- Investors such as members of the Investor Environmental Health Network and the Investor Initiative on Hazardous Chemicals.



GreenScreen for Safer Chemicals. Hazard assessments such as GreenScreen identify the intrinsic human health and environmental hazards of chemicals, the basis of CFP's hazard-driven footprint metric.



CFP DEFINITIONS

Chemical footprint: total mass of chemicals of high concern (CoHCs) used by an event, organization, service, building, or product.

Chemical footprint of an organization: total mass of chemicals of high concern (CoHCs) in products sold by a company; used in its manufacturing operations, facilities, and by its suppliers; and contained in packaging.

Chemical of High Concern (CoHC): A carcinogen, mutagen, or developmental/ reproductive toxicant; persistent, bioaccumulative (vPvB); or any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that gives rise to an equivalent level of concern — such as endocrine disruption or neurotoxicity — or a chemical whose breakdown products result in a CoHC that meets any of the above criteria.

- Companies such as participants in the CFP Survey and RBA's Chemical Management Leadership Program, and retailers scored in TFF's Retailer Report Card.

Hazard-driven metrics are critical for breaking free of the toxic risk cycle and advancing safer solutions because they are:

- Scalable, practicable, and readily measurable
  - Clear measurements allow clear management decisions—you can't manage what you can't measure
  - Based on clear, transparent decision rules that are readily understood
  - Can be done by anyone
  - Rapid screening and grouping
  - Promotes consistency and predictability
  - Quantifiable, comparable, and actionable, enabling management and investment decisions
- Effective and preventive
  - Upstream-oriented: promotes the avoidance of hazardous chemicals in the first place rather than controlling exposure after the fact
  - Supports phasing-out substances because they are dangerous by nature, not just in certain conditions
  - Implementation results in the avoidance of worker exposure controls, environmental releases, and end-of-pipe mitigation
- Precautionary
  - Reduces reliance on uncertain and incomplete exposure data. Exposure and risk estimates are often incomplete, variable, and highly modeldependent. Risk-based systems struggle with mixture effects and chronic low-dose toxicity
  - Implementation results in earlier and more protective decisions, especially when data gaps exist
- Innovation-oriented

- Encourages development of inherently safer solutions. Accelerates green chemistry, safer material development, and the reformulation and redesign of products and manufacturing processes
- Allows companies to be ahead of the curve with regard to new regulations

Below we highlight hazard-driven metric initiatives developed and implemented by RBA, TFF, ChemSec and the Campaign for Healthier Solutions.

The Responsible Business Alliance (RBA)

The Responsible Business Alliance (RBA) is "an industry coalition dedicated to responsible business conduct in global supply chains." Companies in the electronics sector are participating in the RBA's Chemical Management Leadership Program (CMLP),[99] which is a voluntary commitment program that aligns closely with the CFP approach to chemical footprinting.

The RBA's new Corporate Self-Assessment Questionnaire on Chemical Management Maturity (Corporate SAQ-CM) and Facility SAQ on Chemical Management Intensity (Facility SAQ-CM)[100] were developed in collaboration with CPA to serve as supporting resources for companies participating in CMLP. These Corporate and Facility SAQ-CMs are based on CFP Survey modules and utilize CFP's definition and list of "chemicals of high concern" (CoHCs) for measuring chemical footprints. For example, the RBA's Corporate SAQ-CM adopts CFP questions on Chemicals Policy (Question M1) and Business Strategy & Sustainability (Question M2), and the RBA's Facility SAQ-CM adopts CFP questions on Footprint Reduction Goals (Question F1), Footprint Measurement (Question F2), and Footprint Change (Question F3).

Companies participating in the RBA's CMLP include: Apple Inc., Dell Technologies, Fairphone B.V., HP Inc., and Intel Corporation.[101]

Responsible Business Alliance
Advancing Sustainability Globally

> *"RBA members may use and deploy the new Facility SAQ-CM to supply chain facilities via RBA-Online to help assess chemical management strategy, worker engagement, ingredient disclosure, supplier conformance, and chemical footprint measurement practices. The RBA integrated CFP Survey questions into its Corporate and Facility SAQ-CMs to provide a practical, comprehensive, and scalable approach to assessing chemical management risks, use of chemicals of concern, and adoption of safer alternatives."*
>
> **—Ben Marks**
> Director of Environment, Health & Safety, RBA

Toxic-Free Future (TFF) + its Retailer Report Card

Toxic-Free Future (TFF) is an environmental health organization that conducts research and advocacy to win strong health protections for people and the environment.[102] TFF's "Essential Elements for a Healthier Future" is a "shared policy solution framework for moving away from toxic chemicals and plastics and toward safer solutions that protect health" and calls for retailers, manufacturers, and government to achieve the following goals:

- "Global reduction of production and use of the most hazardous chemicals and plastics by 50% by 2030.
- Global elimination of the production and use of the most hazardous chemicals and plastics by 2040."[103]

Meeting these goals would "help society meet the UN Sustainability Goals and the UN Global Framework on Chemicals."[104]

TFF's Retailer Report Card evaluates and ranks over 50 retailers on their chemical management policies and practices,[105] and awards points for publicly reporting on quantifiable goals and actual reductions or elimination of chemicals or plastics of high concern, including reporting on reductions in chemical footprints. TFF identifies "the most hazardous chemicals and plastics" based on their inherent hazards to human health and the environment and defines "chemicals of high concern" (CoHCs) in alignment with CFP's definition of CoHCs and GreenScreen Benchmark-1 criteria. Using these criteria, TFF created its *Ban the Bad Priority List*, which is a "list of high-priority chemicals, chemical classes or groups, and plastics of high concern."[106]

For TFF, methods appropriate for measuring chemical footprints include those described by the Chemical Footprint Project or ChemForward D or F chemicals. The Retailer Report Card also awards points to retailers for demonstrably moving to safer solutions based on chemical hazard assessments as defined by GreenScreen Benchmark-2 or higher and ChemForward B and C, or higher; and quantifying progress to safer chemicals based on hazard-based

> *"Retailers need to collect and publicly report on quantitative metrics for reducing the use of hazardous chemicals and plastics in the products on their shelves and moving to verifiably safer alternatives"*
>
> **—Cheri Peele**
> Director of Government and Market Policy, Toxic-Free Future

third-party safer chemicals standards or a ChemForward Ingredient Intelligence Report.[107]

ChemSec's ChemScore

ChemSec is an independent nonprofit organization that advocates for the substitution of hazardous chemicals with safer alternatives through policy, business and investors, and tools. ChemSec's ChemScore evaluates and ranks "the world's top 40 chemical producers on their work to reduce their chemical footprint."[108] The ChemScore ranking of chemical manufacturers includes:

- The level of transparency in the company's approach to hazardous substances and emissions
- Phase-out of persistent chemicals: assesses whether a company identifies, manages, and phases out persistent chemicals (such as PFAS) in its operations and supply chain
- Product portfolio: evaluates how many hazardous chemicals a company produces
- Safer solutions: assesses whether a company defines, develops, and promotes chemical products that are intrinsically safer for health and the environment[109]

The hazardous chemicals include those listed as: persistent, such as PFAS; EU REACH Candidate List of Substances of Very High Concern (SVHCs); EU REACH Authorisation List; Stockholm POPs; Rotterdam Convention PIC chemicals; Highly Hazardous Pesticides (HHPs); and ChemSec SIN List.[110]

chemsec CHEMSCORE

> *"ChemScore ranks the world's biggest chemical producers and holds them accountable for the toxic pollution they create and the persistent chemicals they leave behind, as well as the transparency they offer and the innovation they drive. The Chemical Footprint Project takes that accountability all the way down the supply chain. Together, these two leave no link in the chain unchecked. The goal is a future where every chemical is safe and the toxic chemical footprint is zero"*
>
> **—Jerker Ligthart**
> Senior Chemicals Expert, ChemSec

Campaign for Healthier Solutions (CHS)

The Campaign for Healthier Solutions (CHS) is a community-led initiative that engages the largest dollar stores—retailers that sell household goods and general merchandise at very low prices—to phase out harmful chemicals from the

CAMPAIGN FOR Healthier Solutions

products they sell and adopt safer, healthier options to protect low-income and environmental justice communities.[111]

CHS calls for the two major dollar store chains in the U.S., Dollar General and Dollar Tree/Family Dollar, to:

- "Measure and disclose their chemical footprint and set clear, ambitious public goals with timelines and quantifiable metrics to eliminate chemical classes and plastics of high concern. To avoid replacing hazardous chemicals in their chemicals policy and communicate this to suppliers. Substitutes for hazardous chemicals can be assessed using tools like GreenScreen® for Safer Chemicals, ChemFORWARD, and Clearya Insights."
- "Immediately expand their restricted substances lists by adopting the Ban the Bad Priority list and Chemical Footprint Project's comprehensive Chemicals of High Concern Reference List (CoHC)."
- "Report on the amount of CoHC that were eliminated in these products and the measures used to ensure substitutes are safer."
- "Eliminate the use of CoHC and plastics of high concern in all product categories within 3 years with safer alternatives."[112]

CHS defines "chemical footprint" using the CFP definition, highlighting that: "some companies are already measuring their 'chemical footprint'—the amount of hazardous chemicals in the products they sell. And they are transparently reporting on progress to substitutes. Dollar General, Dollar Tree, and Family Dollar continue to fall behind these competitors."[113]

> *"Dollar stores need to know the chemical footprint of the products on their shelves, commit to quantifiable goals to reduce those chemical footprints, and use demonstrably safer solutions. They need quantifiable metrics to create effective management systems to protect consumers along with communities and workers from unnecessary exposures to toxic chemicals"*
>
> **—Jose Bravo**
> National Coordinator, Campaign for Healthier Solutions

Tracking progress

These hazard-driven initiatives are tracking reductions in the production and use of chemicals of concern and to a lesser extent, progress in using safer solutions. For example:

- CFP tracked reductions by weight: Over the 10 years of CFP reports, responders reported reducing their mass of CFP CoHCs and EU SVHCs by 680 million pounds / 308 million kilograms.

- TFF found in their 2024 report that:
  - "Retailers continue to make progress reducing or eliminating chemicals and plastics of high concern. Forty-four percent (22 of 50) of retailers assessed have current, measurable goals for reduction; 68 percent (34 of 50) reported making reductions since 2020."
  - Yet, progress is slower towards safer solutions: "Eighty percent of retailers are failing to ensure safer solutions to toxic chemicals and plastics."[114]
- ChemScore in 2025 highlighted that:
  - One-third of ChemScore companies stated they intend to phase out, reduce or avoid PFAS or other persistent chemicals
  - Lanxess reported that it has phase-out plans for all products that contain more than small amounts of hazardous substances; and committed to increase the share of safer solutions to 100% by 2030.[115]

Hazard-driven initiatives like CFP, TFF's Retailer Report Card, and ChemSec's ChemScore are demonstrating measurable corporate progress in reducing the number and weight of chemicals of concern, and demonstrable progress to safer solutions.

09

Call to action—Set targets + report progress

IN THIS SECTION

9.1 Leading financial sector initiatives advancing chemical management maturity

9.2 Quantitative hazard-driven targets for chemical footprints + safer solutions

9.3 Join us on the journey to healthy people + planet

10years

The CFP Survey is a holistic framework for assessing and reporting corporate progress in chemical management maturity that includes a quantitative framework for measuring and reporting progress to reducing chemical footprints.

Demands are growing from the financial sector for Level 4 chemical management maturity and for quantitative hazard-driven metrics of progress in reducing chemical footprints and growing safer solutions. Notable financial sector-driven frameworks that advance chemical footprint reductions and safer solutions growth along with CFP are IEHN (a program of CPA), the Investor Initiative on Hazardous Chemicals (IIHC—coordinated by ChemSec), and the Sustainable Accounting Standard Board (SASB) Standards. Together, CFP, IEHN, IIHC, and SASB all reflect the financial risks of toxic chemicals in products, manufacturing, and supply chains as well as the financial opportunities of products made with inherently safer chemistries. They also highlight the growing demand for greater corporate transparency on where companies are in their chemical management maturity journey.

Leading financial sector initiatives advancing chemical management maturity

CFP and chemical management maturity

This report defines a chemical management maturity model for moving from Level 1—Compliers to Level 4—Frontrunners. Section 6 details the steps that companies typically take as they mature in chemical management from Level 2—Initiators to Level 3—Accelerators to Level 4—Frontrunners. Companies use the CFP Survey to holistically measure and report corporate-wide progress in chemical management maturity. For example, The Clorox Company has public set the goal of improving its CFP Survey score by 50% by 2030.[116] Reflecting the value of companies reporting on their chemical management maturity, investors

with over $4 trillion in assets under management (AUM), like Parnassus Investments, are signatories to CFP.

Financial sector-driven frameworks for corporate best practices in chemical management: IEHN, IIHC, and SASB

Notable other financial sector driven frameworks that advance chemical footprint reductions and safer solutions growth are the Investor Environmental Network (IEHN), Investor Initiative on Hazardous Chemicals (IIHC), and Sustainable Accounting Standard Board (SASB) Standards.

IEHN, a program of Clean Production Action, is a leadership network of investors working to reduce the financial risks of chemical pollution and leverage the economic value of sustainable chemistry.[117] In 2025, IEHN's "Safer chemical management recommendations for consumer-facing brands" called for consumer-facing brands to:

- **"Conduct a full chemical hazard inventory**: Starting with high priority products, categories, or aspects of the supply chain, assess chemical ingredients, rate them by hazard, and disclose their chemical footprint.
- **Adopt a comprehensive chemical management plan and validate its efficacy**. Establish a hazard-based plan—with appropriate oversight and accountability, and covering operations and supply chains—that evaluates risks, prioritizes safer chemical alternatives, and ensures continuous evaluation for efficacy.
- **Incentivize safer chemistry solutions when legally feasible**. Invest in independently verified safer chemistry solutions for products and production, thereby reducing the use of chemicals of concern that pose the greatest business risk and adding value to the brand."[118]

IIHC, coordinated by ChemSec, is an investor-led collaborative of more than 75 investors with over $23 trillion in assets under management that engage chemical companies in reducing the financial risks of hazardous chemicals. IIHC's key requests of chemical companies are that they:

- **"Increase transparency**: Disclose both the share of revenue and production volume of products that are, or contain, hazardous chemicals.

Investor Initiative on Hazardous Chemicals
Supported by ChemSec

- **Phase-out of persistent chemicals**: Publish a timed action plan on how to eliminate all persistent chemicals, with clear KPIs covering revenues and volumes to show progress.
- **Reduce hazardous product portfolio**: Draw up a strategy to reduce the company's production of hazardous chemicals with clear KPIs covering revenues and volumes to show progress.
- **Increase share of safer solutions**: Set a 2030 target for the share of revenue generated by safer solutions and publish a strategy to achieve it."[119]

The industry-specific SASB Standards, which are part of the IFRS Foundation, are "designed to help companies disclose information about sustainability-related risks and opportunities most likely to affect a its cash flows, access to finance or cost of capital over the short, medium or long term."[120] Investors use the SASB Standards to inform investment decisions because they are "industry-based, metric-driven and focused on the risks and opportunities most likely to affect cash flows, access to finance and cost of capital."[121] Asset managers representing roughly $41 trillion in assets under management (AUM) use the SASB Standards.[122]

The SASB Standards include chemical-related risks and metrics for specific industry sectors, especially for consumer-facing sectors, including: Apparel, Accessories & Footwear; Building Products & Furnishings; Hardware (computers, consumer electronics, etc.); Household & Personal Products; Medical Equipment & Supplies; Retailers (Multiline and Specialty Retailers & Distributors); and Toy & Sporting Goods. Each of these standards includes chemical-related metrics that are roughly a subset of metrics included in the CFP Survey, including:

- Discussion of processes to:
  - Maintain compliance with restricted substances regulations (Apparel)
  - assess and manage risks or hazards associated with chemicals in products (Building Products; Retail; and Toy & Sporting Goods)
  - Identify and manage emerging materials and chemicals of concern (Household & Personal Care)

  - Assess and manage environmental and human health considerations associated with chemicals in products, and meet demand for sustainable products (Medical)
- Percentage of:
  - Products by revenue that contain IEC 62474 declarable substances (Hardware-electronics)
  - Eligible products, by revenue, meeting the requirements for EPEAT registration or equivalent (Hardware-electronics)
- Revenue from products:
  - That contain substances of high concern (Household & Personal Care)
  - Designed with green chemistry principles (Household & Personal Care)
  - Third-party certified to environmental or social sustainability standards (Retail)
- Number of recalls and total units recalled (Toy & Sporting Goods)
- Total amount of monetary losses as a result of legal proceedings associated with product safety (Toy & Sporting Goods)

Together, CFP, IEHN, IIHC, and SASB all reflect the financial risks of toxic chemicals in products, manufacturing, and supply chains as well as the financial opportunities of products made with inherently safer chemistries. They also highlight the growing demand for greater corporate transparency on where companies are in their chemical management maturity journey.

Quantitative hazard-driven targets for chemical footprints + safer solutions

"Having been involved in the early development of the Chemical Footprint Project, it has been rewarding to see CFP grow from an idea that many companies thought was too difficult into a practical tool that helps leading companies around the world use safer chemicals. When CFP first started, we asked a basic question: 'Could companies measure their chemical footprint in a way that was clear, meaningful, and consistent?' Ten years later, the answer is yes. CFP helps companies go beyond simply meeting regulations by giving them a way to measure and improve their chemical management as part of their overall business maturity"—Roger McFadden, President, Senior Scientist, McFadden and Associates, LLC

CPA and Toxic-Free Future (TFF) have both called for ambitious time-bound reduction targets of CoHCs that are needed to address the planetary crisis caused by toxic chemicals:

- By 2030, 50% reduction of
  - CFP CoHCs (CPA)
  - Global production and use of the most hazardous chemicals and plastics (TFF)
- By 2040, zero/elimination of
  - Chemical footprint of CFP CoHCs (CPA)[123]
  - Global production and use of the most hazardous chemicals and plastics (TFF)[124]

The targets of CPA and TFF align with the targets set in international frameworks, including on biodiversity and chemicals:

- **The Kunming-Montreal Global Biodiversity Framework—Target 7:** Reduce Pollution to Levels That Are Not Harmful to Biodiversity calls for, by 2030 to:
  - "Reduce pollution risks and the negative impact of pollution from all sources... to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: ... reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management ... and also preventing, reducing, and working towards eliminating plastic pollution."[125]

- **The Global Framework on Chemicals** (GFC) includes targets that call for, by 2030:
  - Comprehensive data and information on the properties of chemicals are generated and made available and accessible (Target B2)
  - Companies invest in and achieve innovations towards advancing sustainable chemistry (Target D1)
  - The private sector, including the finance sector, incorporates strategies and policies to implement the sound management of chemicals and waste in its finance approaches and business models (Target D3)
  - Relevant stakeholders give priority to sustainable solutions and safer alternatives to harmful substances in products and mixtures, including in consumer products (Target D4)
  - Sustainable chemical and waste management strategies have been developed and implemented for major economic and industry sectors that identify priority chemicals of concern and standards and measures, such as the chemical footprint approach, to reduce their impact and, where feasible, their input along the value chain (Target D6)[126]

CFP provides clear, hazard-driven metrics, already implemented by companies at scale, for demonstrating progress toward GFC Targets, especially D6. Specifically, CFP has:

- **A definition of a CoHC:** a carcinogen, mutagen, or developmental/ reproductive toxicant; persistent, bioaccumulative (vPvB); or any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that gives rise to an equivalent level of concern — such as endocrine disruption or neurotoxicity — or a chemical whose breakdown products result in a CoHC that meets any of the above criteria.
- **A list of CoHCs by CAS RN:** CFP CoHCs Reference List[127]
- **A hazard metric for establishing a baseline:** Companies track the total weight of CoHCs in products manufactured and/or sold (thereby creating a baseline) (CFP survey question F2)



- **A hazard metric for measuring progress:** Companies measure and report change over time (CFP survey question F2)

As highlighted above, CFP responders have demonstrated their ability to measure and track CFP CoHC reductions at scale by measuring reductions of 680 million pounds / 308 million kilograms over. The CFP Survey provides a structured format for quantitatively measuring and reporting chemical footprint reductions.

Join us on the journey to healthy people + planet

CPA encourages companies to:

- Participate in the CFP Survey— https://chemicalfootprint.org/
- Set, measure, and report on quantitative hazard-driven targets to reduce chemical footprints and grow safer solutions
- Participate in and meet the targets set by the Global Biodiversity Framework (Target 7) and GFC (many targets)
- Meet the ambitious chemical footprint reduction targets set by CPA and TFF

We look forward to being on the journey with you to a safer and healthier planet for all.

Endnotes

EXECUTIVE SUMMARY

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12 The number of Initiators (32 companies) + Accelerators (44 companies) + Frontrunners (19 companies) = 95 companies. Yet, 74 companies provided the 200 responses to the surveys. That difference is the result of the 21 companies whose maturity level changed over the course of submitting multiple surveys.

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07 · FIVE STEPS

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Appendix—CFP data and data analysis methodology

The Appendix includes:

- An overview of all CFP surveys and reports to date
- The methodology for organizing and analyzing data from 200 responders into the chemical management maturity levels, as well as the data behind that analysis
- Management Strategy (M) Pillar data for each M Question by chemical management maturity level
- Footprint Measurement and Safer Solutions (F) Pillar data for each F Question by chemical management maturity level
- Data on the 20 companies that responded to four or more surveys

The methodology and data provided herein is the foundation for the data and analysis in the 8th CFP report.

CFP Survey & Report Database

The CPA database of CFP surveys and responses used in this report includes the following:

- **8 CFP surveys and reports on products.** The reports were released over a 10 year period (see Appendix Table A1 below). Each CFP report is based on the results of companies responding to questions in the CFP survey, which is typically released the year before the report. Note that other CFP surveys on manufacturing and packaging were not included in the analysis in this report.
- **200 completed product surveys by 74 companies:**
  - 29 companies responded to one survey
  - 25 companies responded to two to three surveys

  - 20 companies responded to four or more surveys
- **19 CFP questions divided into 4 pillars**:
  - Restricted Substance List (RSL)/Chemical Inventory (I) Pillar: 6 questions
  - Management Strategy (M) Pillar: 4 questions
  - Footprint Measurement and Safer Solutions (F) Pillar: 5 questions
  - Disclosure and Verification (D) Pillar: 4 questions

See Table A2 for a list of the 19 CFP questions. Note that for each question there is a subset of actions related to that question. For example, see CFP Survey Question F5—Safer alternatives below. Answers to these questions were used to further refine the actions taken within each maturity level. Across all 19 questions of the CFP survey are 94 possible actions.

Example of CFP survey question: Question F5—Safer alternatives

F5. How does your company encourage the use of safer alternatives to chemicals of high concern?

Our company, select all that apply for Options "a-f" or select only Option "g":

1. Has a definition and criteria for a "safer alternative" that is consistent with the CFP definition, and we include such criteria in our business processes.
2. Communicates our criteria for safer alternatives to suppliers and asks suppliers to use our criteria when evaluating alternatives to CoHCs.
3. Rewards suppliers that use safer alternatives.
4. Has integrated criteria for safer alternatives into our product development process.
5. Has established a goal and is tracking progress to improve the profile of chemicals across our products, consistent with our company's criteria for a safer alternative.
6. Publicly discloses our company's definition for a "safer alternative" and our approach to integrating it into our business practices.
7. Products do not contain CoHCs using the CFP CoHCs Reference List and we publicly disclose how we evaluate the chemical safety of our products using

a hazard-based framework. Describe in documentation how your company ensures that the safest chemicals available are used.

Chemical management maturity levels: Methodology for organizing and analyzing data from 200 responders

- **Responders for each year in the Survey were grouped into one of three maturity levels** based on total points scored in the Survey:
  - Level 2—Initiators: <40 points
  - Level 3—Accelerators: ≥40 to <75 points
  - Level 4—Frontrunners: ≥75 points
- **For each maturity level**:
  - **All responders were grouped together and separated by report year** (see Table A1):
    - For example, all 99 Accelerators are included together and separated by report year.
    - This means the same company can be listed more than once, depending on the number of years it responded to a CFP survey and was an Accelerator. Note some companies that responded to multiple surveys can be found in more than one maturity level (Initiator, Accelerator, and/or Frontrunner) depending on its score that year.
  - **Each responder by year** included points scored for:
    - Each question
    - Each pillar
    - Total points for all questions in that year
  - **Each question**:
    - **All points were aggregated across all reports**. For example, for Accelerators, the 99 scores for Question F3-Footprint Change are aggregated together, totaling 313 points.
    - **All total possible points were calculated.** For example, for question F3, for the 99 responders that were Accelerators, the total possible points

scored were 782 points. The 782 points were calculated based on the number of responders for a given report year and the total possible points assigned for that year. For F3, reports #1 and #2 allocated up to 6 points, reports #3-#5 allocated up to 8 points, and reports #6-#8 allocated up to 10 points. Thus the total possible points for F3 for Accelerators were calculated as follows: 28x6 (the 28 responders for reports #1-#2 times 6 points) + 48x8 (the 48 responders for reports #3-#5 times 8 points) + 23x10 (the 23 responders for reports #6-#8 times 10 points) = 782. See Table A2 for points available for each question for each report.

- **Normalized to percent of total possible points**. Each question is then normalized as percent of total possible points. For example, for F3 for Accelerators, the normalized percent is 40% (313 points received by the 99 responders divided by 782 total possible points). The normalized percent enables comparable comparison of scores for each question across maturity levels.
- **Ranked based on its normalized percent of total points received**. The 19 CFP questions were ranked from #1, highest percent of total points received, to #19, lowest percent of total points received.

– **All the above data are summarized** in the following Tables included below:
  - Table A3 for the 45 Initiators
  - Table A4 for the 99 Accelerators
  - Table A5 for the 56 Frontrunners.
  - Additionally Table A6 includes all the data combined into one table for all maturity levels, thereby creating an average across all 200 responders

Note an outcome of the scoring being comparative across maturity levels is that even though Frontrunners score higher as a percent of total points for a question, their ranking for that question may be lower than other maturity levels. For example, for Question I5—Chemical Data Management, Initiators scored the 3rd highest for I5 based on having scored 46% of total possible points; whereas Frontrunners scored the 14th highest for I5, yet they scored 82% of total possible points.

Management Strategy (M) Pillar: Chemical management maturity level scores for each M Question

Chemical Policy (M1)

M1 encompasses corporate-wide policies to reduce CoHCs and use safer alternatives in products, supply chains, and facilities (e.g., building maintenance and grounds keeping). Initiators scored the 2nd highest, and Accelerators and Frontrunners scored the lowest percent of total possible points for Question M1 (in comparison to the other M Pillar questions for their respective maturity level).

- **Initiators** scored 32% of total possible points for M1. Most Initiators scored points for having policies that addressed CoHCs and safer alternatives in products. But Initiators were much less likely than Accelerators and Frontrunners to score points for having policies that addressed supply chains and facilities, and were publicly disclosed.
- **Accelerators** scored 60% of total possible points for M1: most Accelerators scored points for having policies that addressed CoHCs and safer alternatives in products; somewhat fewer gained points for supply chains and publicly disclosing their policies; and even fewer scored points for having policies that addressed chemical use in facilities.
- **Frontrunners** scored 83% of total possible points for M1, with: most Frontrunners scoring 100% of total possible points for having policies that addressed CoHCs and safer alternatives in products and supply chains, and publicly disclosing their policies; and fewer Frontrunners scoring points for having policies that addressed chemical use in facilities.

Note that Chemical Policy (M1) question from 2016–2023 included sub-questions on policies for: products, manufacturing, packaging, supply chains, and facilities. With the 2024 report, products, manufacturing, packaging had their own CFP survey modules. Question M1 in the product module for the 2024 report asked sub-questions on policies or: products, supply chains, and facilities.

Business Strategy (M2)

Initiators scored the highest, and Accelerators and Frontrunners scored the 2nd highest percent of total possible points for Question M2 (in comparison to the other M Pillar questions for their respective maturity level). CPA updated Question M2 for the 2024 report.

Prior to the 2024 report, the M2 actions were: (a) screen for CoHCs in products; (b) have a preferred list of safer chemicals; (c) avoid CoHCs in manufacturing processes; and (d) highlight safer chemicals and materials in product marketing. During this period for M2:

- Initiators scored 38% of total possible points and were most likely to implement one action, either (a), (b), or (c).
- Accelerators scored 69% of total possible points and were most likely to implement, in the following order, actions (a), (d), (b), or (c).
- Frontrunners scored 96% of total possible points and were most likely to implement all the actions.

With the 2024 report update, the M2 actions became: (a) highlight safer chemicals and materials in product marketing (this is the prior (d) action); (b) integrate chemical use into materiality assessments; (c) interconnect chemicals with other sustainability initiatives (e.g., circularity, climate change, or biodiversity loss); and (d) align chemical management with standards or global initiatives such as the UN Sustainable Development Goals. With the updated M2 actions:

- Initiators scored 14% of total possible points and either scored zero points for M2 or implemented the new (c) or (d) actions. In both versions of M2, Initiators were unlikely to highlight the use of safer chemicals in marketing.
- Accelerators scored 53% of total possible points and averaged implementing two actions, with the new (a) (the prior (d) action) and (c) being most widely implemented, followed by (b) and (d).
- Frontrunners scored 78% of total possible points and averaged implementing three actions, with the new (a) (the prior (d) action) being most widely implemented, followed equally by (c) and (d), and then (b).

External Engagement (M3)

Initiators scored the lowest, while Accelerators and Frontrunners scored the highest percent of total possible points for Question M3 (in comparison to the other M Pillar questions for their respective maturity level). CPA updated Question M3 for the 2024 report.

Prior to the 2024 report, the actions for M3 were, our company engaged in external initiatives that clearly promoted the: (a) prioritization of chemicals for reduction based on their inherent hazards; (b) development and adoption of safer alternatives, including green chemistry solutions; and (c) public disclosure of chemicals of high concern or other chemical ingredients in products. During this period for M3:

- Initiators scored 23% of total possible points and either did not implement any M3 actions or implemented one of the following in order of most to least frequent: (a), (c), or (b).
- Accelerators scored 71% of total possible points and implemented two of the three actions at similar rates.
- Frontrunners scored 91% of total possible points and were most likely to implement all the actions.

With the 2024 report revisions, the actions for M3 were updated to be: (a) collaborated with non-governmental organizations (NGOs) that advance inherently safer alternatives to chemicals of concern; (b) advocated for safer chemicals/materials in government legislation or regulation; (c) supported safer chemicals/materials management in standards, certifications, ecolabels, or NGO-led pledges; and (d) presented publicly, stated on website, or published documents that support hazard-based chemicals management action. With the updated M3 actions:

- Initiators scored 4% of total possible points and were unlikely to implement any actions related to M3.
- Accelerators scored 75% of total possible points for M3 and were likely to implement, in order of most to least frequent, (a), (c)/(d), and (b).

- Frontrunners scored 88% of total possible points for M3 and 65% implemented all of the new actions, 30% implemented three of four actions (a mixture of not implementing any one of the four actions), and 5% did not score any points for the new M3.

Accountability and Governance (M4)

Initiators, Accelerators, and Frontrunners scored the 2nd or 3rd highest percent of total possible points for Question M4 (in comparison to the other M Pillar questions for their respective maturity level). Question M4 includes four actions: (a) delineated chemicals management responsibilities in job descriptions and individual annual performance metrics; (b) assigned member(s) of senior management responsibility for meeting chemical policy goals and objectives; (c) had financial incentives for senior management to meet corporate sustainability goals; and (d) had Board level engagement in the implementation of our chemicals policy.

- **Initiators** scored 24% of total possible points for M4, and were most likely to score points for actions (a) and (b).
- **Accelerators** scored 64% of total possible points for M4, and scored on average the most points for actions (a) and (b), and fewer points for actions (c) and (d).
- **Frontrunners** scored 83% of total possible points for M4, with many scoring 100% of possible points for M4, while the others were most likely to score points for (a), (b), and (d), and less likely for (c).

In general, companies were most likely to score points for (a)—chemical management responsibilities in job descriptions and (b)—assigning members of senior management chemicals management responsibilities; and were less likely to score points for (c)—financial incentives for senior management to meet chemicals management goals and (d)—board level engagement in chemicals management policies.

Footprint Measurement / Safer Solutions (F) Pillar: Chemical management maturity level scores for each F Question

Chemicals of High Concern Reduction Goal (F1)

Frontrunners scored the lowest, Accelerators scored the 4th highest, and Initiators scored the 2nd highest percent of total possible points for Question F1 (in comparison to the other F-Pillar questions for their respective maturity level). Question F1 includes the following actions, our company: a) has a goal for reducing CoHCs by count or mass; b) has a goal to eliminate one or more chemicals classes of concern; c) has a goal to reduce its chemical footprint; d) publicly discloses the goal including percent reduction planned; e) publicly discloses specific CoHCs included in the goal; and f) publicly reports annually on progress towards meeting the goal.

- **Frontrunners** scored 82% of total possible points for F1. Among Frontrunner responders: 2% did not score any points, 9% scored one to two points, 34% scored three to four points, and 55% scored five to six points. Frontrunners scored highest for actions F1a-c, and somewhat lower for F1d-f.
- **Accelerators** scored 46% of total possible points for F1. Among Accelerator responders: 21% did not score any points, 26% scored one to two points, 40% scored three to four points, and 12% scored five to six points. Accelerators scored highest for actions F1a-b, in the middle for F1e, and lowest for F1c, d and f.
- **Initiators** scored 19% of total possible points for F1. Among Initiator responders: 56% did not score any points, 27% scored one to two points, and 18% scored more than two points. Initiators were most likely to score points for actions F1a-c.

Footprint Measurement (F2)

Frontrunners scored the highest, Accelerators scored the 2nd highest, and Initiators scored the 4th highest, percent of total possible points for Question F2 (in comparison to the other F-Pillar questions for their respective maturity level).

- **Frontrunners scored 98% of total possible points for F2, an almost perfect score across all 56 responders because they either have no CoHCs in their products or are able to quantitatively measure their chemical footprint using the CFP CoHCs reference list**. This fact demonstrates the deep awareness, capacity, and systems that Frontrunners have in place to know the presence of CoHCs in their products.
- **Accelerators** and **Initiators** dropped off dramatically from the performance of Frontrunners on Footprint Measurement.
  - Accelerators scored 53% of total possible points for F2, with 69% of Accelerator responders able to calculate any type of chemical footprint: 38% calculated their chemical footprint by count (i.e., number) of European Union (EU) REACH Substances of Very High Concern (SVHCs) or CFP CoHCs; and 30% calculated by mass (i.e., pounds/kilograms) of CFP CoHCs.
  - Initiators scored 11% of total possible points for F2, with 22% of Initiator responders calculated their chemical footprint by count of EU REACH SVHCs or CFP CoHCs.

Footprint Change (F3)

Frontrunners scored the 3rd highest, and Accelerators and Initiators scored the lowest percent of total possible points for Question F3 (in comparison to the other F-Pillar questions for their respective maturity level).

- **Frontrunners** scored 93% of total possible points for F3 with 98% of Frontrunner responders scoring some points for F3: 86% calculated their change in chemical footprint based on mass of CFP CoHCs with the remainder calculating their footprint based on mass of EU SVHCs or count of CFP CoHCs.
- **Accelerators** and **Initiators** dropped off dramatically from the performance of Frontrunners on Footprint Measurement.

- Accelerators scored 40% of total possible points for F3 with 54% of Accelerator responders scoring some points for F3: 31% calculated their change in chemical footprint based on count or mass of EU SVHCs and 22% calculated their change in chemical footprint based on mass of CFP CoHCs.
- Initiators scored 6% of total possible points for F3; with 13% of Initiator responders scoring some points for F3; because very few Initiators measured their chemical footprint (Question F2) they were unable to measure any change in their footprint.

Over the ten years of CFP reports, responders reported reducing their mass of CFP CoHCs / EU SVHCs by 680 million pounds (308 million kilograms).

Hazard Assessment (F4)

Frontrunners scored 2nd highest with 96%, and Accelerators with 87% and Initiators with 46% scored highest for F4 based on total possible points scored (in comparison to the other F-Pillar questions for their respective maturity level).

Initiators and Accelerators scored disproportionately higher on Question F4—Hazard Assessment in comparison to other F-Pillar questions. F4 asks: does your company use a system or tool, internal or third party, to evaluate chemical hazards; does your company ask suppliers to provide their evaluations of chemical hazards in the products they sell to you; and to provide the percent of products screened for hazard. Responders across maturity levels scored higher for F4 because they were more likely to screen products for hazards in comparison to other actions.

Safer Alternatives (F5)

Frontrunners scored the 4th highest, Accelerators scored the 3rd highest, and Initiators scored the 4th highest percent of total possible points for Question F5 (in comparison to the other F-Pillar questions for their respective maturity level). For the summary actions included in F5 see the section above: “Example CFP Question: Question F5—Safer Alternatives.”

- **Frontrunners** scored 87% of total possible points for F5. Among Frontrunner responders: 2% did not score any points, 18% scored three to four points, and

80% scored five to six points. Frontrunners scored similarly across F5a-b and d-f, with comparatively fewer Frontrunner responders rewarding suppliers for using safer alternatives (F5c).

- **Accelerators** scored 52% of total possible points for F5. Among Accelerator responders: 8% did not score any points, 34% scored one to two points, 36% scored three to four points, and 21% scored five to six points. Accelerators scored similarly across F5a-e, with comparatively fewer Accelerator responders publicly disclosing their definition for safer alternatives (F5f).
- **Initiators** scored 11% of total possible points for F5. Among Initiator responders: 56% did not score any points, 29% scored one point, 11% scored 2 points, 4% scored three to five points, and none scored six points.

Data on the 20 companies that responded to four or more surveys

The 20 companies that participated in four or more surveys:

- Represented six business sectors:
  - Household & Personal Products = 7 companies
  - Building Products & Furnishings = 4 companies
  - Retail = 4 companies
  - Medical Equipment & Supplies = 2 companies
  - Technology & Communications = 1 company
  - Apparel, Accessories & Footwear = 1 company
- Made or sold a mixture of product types:
  - 45% made or sold formulated products
  - 45% made or sold articles
  - 10% made or sold both formulated products and articles
- Encompassed, on last year of the survey they participated, a range of maturity levels:
  - Level 4—Frontrunners = 14 companies
  - Level 3—Accelerators = 5 companies
  - Level 1—Initiator = 1 company
- They generally improved their scores, from first to last survey:
  - 90% improved their score

  - 85% improved their score by greater than 10%
  - 40% improved their score by greater than 50%
  - 15% improved their score by greater than 100%

On average from first to last survey, companies made the greatest gains in the Disclosure & Verification Pillar and the least gains in the Inventory/RSL Pillar:

- Disclosure Pillar (D): 78% increase
- Footprint/Solutions Pillar (F): 56% increase
- Management Pillar (M): 32% increase
- Inventory/RSL Pillar (I): 17% increase

The greater gains in the Disclosure and Footprint/Solutions Pillars reflect that companies' first steps beyond regulatory compliance are in the Inventory/RSL and Management Pillars; thus they have the greatest opportunities for improvement in the Disclosure and Footprint/Solutions Pillars.

Inventory changes:

- I5—Data management: 5 started with 5 points / 10 ended with 5 points
- I6—Supplier conformance: 5 started with 5 points / 7 ended with 5 points
- I2—RSL compliance: 2 started with 5 points / 10 ended with 5 points
- I3—Data collection: 10 started with 5 points / 12 ended with 5 points
- I1—RSL: 6 started with 5 points / 10 ended with 5 points
- I4—Full chemical ingredient information: 9 started with 5 points / 6 ended with 5 points

Significant Disclosure change: D3—Disclose CFP score: none at beginning; 6 at the end.

Eight companies improved their score by greater than 50%

The companies that utilized CFP to inform their behavior:

- 3 started at the Initiator maturity level and
  - 1 advanced to the Accelerator maturity level
  - 2 advanced to the Frontrunner maturity level
- 5 started at the Accelerator maturity level and

  - 1 started at the low end of the Accelerator level and advanced to the high end of the Accelerator level
  - 4 advanced to the Frontrunner level
- Footprint/Safer Solutions (F): 281% / 157 points increase
  - F3—Footprint Change: 61 points
    - 13 started with zero points
    - Ended with 6 having 8 points and 8 having 10 points
    - In general, for all responders across the 10 years
      - For Initiators, F3 was one of the lowest scoring questions in the entire Survey
      - For Accelerators, F3 was the lowest scoring question outside of the Disclosure questions
  - F2—Footprint Measurement: 53 points
    - Went from 4 companies having 8 points to 10 companies having 8 points
      - Means companies are able to calculate their chemical footprint using CFP CoHCs reference list
      - Some have no CoHCs, some have CoHCs
      - Mixture of companies selling articles and formulated products
    - In general, for all responders across the 10 years
      - For Initiators, F2 was also one of the lowest scoring questions
      - For Accelerators, F3 was the lowest scoring question outside of the Disclosure questions
  - F1—Footprint Reduction Goal: 21 points
    - In general, for all responders across the 10 years
      - For Initiators, F1 was also one of the lowest scoring questions, with only F2, F3, and F5 along with Disclosure/Verification questions scoring lower
      - For Accelerators, F1 was the next to lowest scoring question outside of the Disclosure questions and F3
  - F5—Safer Alternatives: 17 points
    - In general, for all responders across the 10 years

    - For Initiators, F5 was also one of the lowest scoring questions, with only F2 and F3 along with Disclosure questions scoring lower
  - In general, for all responders across the 10 years, for all F questions
    - For Initiators, F questions were among the lowest scoring questions outside of the D questions, in order of lowest to highest scoring for F questions: F3, F2, F5, F1, F4
    - For Accelerators, F questions were among the lowest scoring questions outside of the D questions, in order of lowest to highest scoring for F questions: F3, F1, F5, F2, F4
- Disclosure (D): 184% / 67 points increase
  - D3—Disclosure of CFP Score: increased from zero to 30 points
  - D1—Chemical Ingredient Disclosure: 22 points
  - D2—Disclosure of CFP Responses: 9 points
  - D4—Third Party Verification: 6 points
  - In general, for all responders across the 10 years
    - For Initiators, D questions were all among the lowest scoring questions, in order of lowest to highest scoring for D questions: D4, D3, D1, D2
    - For Accelerators, across the board, they scored lowest for D questions, in order of lowest to highest scoring for D questions: D4, D2, D3, D1
- Management Strategy: 67% / 51 points
  - M1—Chemical Policy: 20 points
  - M3—External Engagement: 13 points
  - M4—Accountability: 11 points
- Chemical Inventory: 36% / 49 points
  - I5—Data Management: 14 points
  - I6—Supplier Conformance: 14 points
  - I2—RSL Compliance: 12 points
  - I1—RSL: 8 points
  - I3—Data Collection: 2 points
  - I4—Full Chemical Ingredient Disclosure: 1 point

Table A1. Chemical Footprint Project (CFP) reports over 10 years (2016–2026) and corresponding number of responders by maturity level

CFP REPORT	LEVEL 2—INITIATORS	LEVEL 3—ACCELERATORS	LEVEL 4—FRONTRUNNERS	TOTAL NUMBER OF RESPONDERS
1st report released in 2016	13	11	1	25
2nd report released in 2017	5	17	2	24
3rd report released in 2018	4	12	8	24
4th report released in 2019	3	18	8	29
5th report released in 2020	7	18	8	33
6th report released in 2022	6	14	9	29
7th report released in 2024	4	8	11	23
8th report released in 2026	3	1	9	13
TOTAL	**45**	**99**	**56**	**200**

Initiators: 0 to <40 points
Accelerators: ≥40 - <75 points
Frontrunners: ≥75 points
Note on rounding: all fractions are rounded up/down: e.g., ≥39.5 rounds to 40 and <39.5 rounds to 39.

Table A2. CFP questions and points across eight CFP reports

CFP SURVEY QUESTION	1ST (2016) + 2ND (2017) REPORTS - POINTS	3RD (2018) REPORT - POINTS	4TH (2019) + 5TH (2020) REPORTS - POINTS	6TH (2022) REPORT - POINTS	7TH (2024) + 8TH (2026) REPORTS - POINTS	NOTES
Management Strategy Pillar (M)						
M1: Chemical Policy	8	8	8	8	8	Reports #1-#3 had 5 M questions worth 4 points each. Report #4 combined M1 + M2 into one question (M1) worth 8 points. For data analysis, M1 + M2 were combined into M1 for reports #1-#3.
M2: Business Strategy	4	4	4	4	4	1) For data analysis: M2 data were M3 for reports #1-#3. Report #4 shifted M3 to M2 when M1 + M2 were combined. 2) Report #7 made revisions to question M2.
M3: External Engagement	4	4	4	4	4	For data analysis: M3 data were M4 for reports #1-#3. Report #4 shifted M4 to M3 when M1 + M2 were combined. 2) Report #7 made revisions to question M3.
M4: Accountability	4	4	4	4	4	For data analysis: M4 data were M5 for reports #1-#3. Report #4 shifted M5 to M4 when M1 + M2 were combined.
M total	**20**	**20**	**20**	**20**	**20**	

CFP SURVEY QUESTION	1ST (2016) + 2ND (2017) REPORTS - POINTS	3RD (2018) REPORT - POINTS	4TH (2019) + 5TH (2020) REPORTS - POINTS	6TH (2022) REPORT - POINTS	7TH (2024) + 8TH (2026) REPORTS - POINTS	NOTES
Restricted Substances List (RSL) / Chemical Inventory Pillar (I)						
I1: RSL/MRSL	5	5	5	5	5	No change in points.
I2: RSL/MRSL Compliance	5	5	5	5	5	
I3: Data Collection	5	5	5	5	5	
I4: Supplier Chemical Disclosure	5	5	5	5	5	
I5: Chemical Data Management	5	5	5	5	5	
I6: Supplier Conformance	5	5	5	5	5	
I total	**30**	**30**	**30**	**30**	**30**	
Footprint Measurement / Safer Solutions Pillar (F)						
F1: Footprint Reduction Goal	6	5	5	6	6	Report #3 reduced to 5 points and Report #6 increased to 6 points.
F2: Footprint Measurement	6	8	8	8	8	Report #3 increased to 8 points to incentivize footprint calculations.
F3: Footprint Change	6	8	8	10	10	Report #3 increased to 8 points and report #6 increased to 10 points to incentivize footprint reductions.
F4: Hazard Assessment	6	3	3	3	3	Report #3 reduced to 3 points due to comparative ease of answering F4 relative to other questions.
F5: Safer Alternatives	6	6	6	6	6	No change in points.
F total	**30**	**30**	**30**	**33**	**33**	
Disclosure & Verification Pillar (D)						
D1: Chemical Disclosure	8	8	8	8	8	No change in points.
D2: Disclosure of CFP Responses	0 ('16) / 3 ('17)	3	3	3	5	1) Due to significant revision to D2 from report #1 to #2, points received for D2 in report #1 were excluded from the analysis. 2) Report #7 increased to 5 points.
D3: Disclosure of CFP Score	4 ('16) / 5 ('17)	5	5	5	5	Report #3 increased to 5 points.
D4: Third Party Verification	4	4	4	4	4	No change in points
D total	**16 ('16) / 20 ('17)**	**20**	**20**	**20**	**22**	
Total	**96 ('16) / 100 ('17)**	**100**	**100**	**103**	**105**	

CFP SURVEY QUESTION	1ST (2016) + 2ND (2017) REPORTS - POINTS	3RD (2018) REPORT - POINTS	4TH (2019) + 5TH (2020) REPORTS - POINTS	6TH (2022) REPORT - POINTS	7TH (2024) + 8TH (2026) REPORTS - POINTS	NOTES

Yellow highlights indicate change in points from the prior survey.

Table A3. Points scored by CFP question by the 45 responders at the Level 2—Initiators maturity level (<40 points)*

	LEVEL 2—INITIATORS(45 RESPONDERS)			
CFP QUESTION	TOTAL POINTS SCORED	TOTAL POSSIBLE POINTS	PERCENT OF TOTAL POSSIBLE POINTS RECEIVED	RANK BY QUESTION FROM MOST TO LEAST % OF POINTS
I1	104	225	46.2%	1
I5	103	225	45.6%	2
F4	86	189	45.5%	3
I3	91	225	40.4%	4
I4	80	225	35.7%	5
M2	62	180	34.6%	6
M1	115	360	32.0%	7
I2	68	225	30.1%	8
I6	64	225	28.3%	9
M4	44	180	24.4%	10
M3	36	180	20.2%	11
F1	50	256	19.3%	12
D2**	14	110	12.7%	13
F5	31	270	11.5%	14
F2	36	324	11.1%	15
D1	28	360	7.8%	16
D3	14	212	6.6%	17
F3	20	350	5.7%	18
D4	6	180	3.3%	19
I total	**509**	**1350**	**37.7%**	
M total	**258**	**900**	**28.6%**	
F total	**223**	**1389**	**16.1%**	
D total	**62**	**862**	**7.2%**	
Total	**1051**	**4501**	**23.4%**	

CFP QUESTION	LEVEL 2—INITIATORS(45 RESPONDERS) TOTAL POINTS SCORED	TOTAL POSSIBLE POINTS	PERCENT OF TOTAL POSSIBLE POINTS RECEIVED	RANK BY QUESTION FROM MOST TO LEAST % OF POINTS

*Note: numbers may not add up due to rounding ** Due to significant revision to Question D2 from report #1 to #2, points received for D2 in report #1 were excluded from the data analysis.

Table A4. Points scored by CFP question by the 99 responders at the Level 3—Accelerator maturity level (≥40 to <75 points)*

CFP QUESTION	LEVEL 3—ACCELERATORS(99 RESPONDERS) TOTAL POINTS SCORED	TOTAL POSSIBLE POINTS	PERCENT OF TOTAL POSSIBLE POINTS RECEIVED	RANK BY QUESTION FROM MOST TO LEAST PERCENT OF TOTAL POSSIBLE POINTS RECEIVED
F4	330	381	86.5%	1
I3	418	495	84.5%	2
I1	392	495	79.2%	3
I5	354	495	71.5%	4
M3	282	396	71.3%	5
I4	339	495	68.5%	6
I2	339	495	68.4%	7
M2	266	396	67.2%	8
M4	255	396	64.3%	9
M1	476	792	60.1%	10
I6	267	495	54.0%	11
F2	391	736	53.1%	12
F5	307	594	51.7%	13
F1	252	546	46.1%	14
F3	313	782	40.0%	15
D1	215	792	27.1%	16
D3	112	484	23.1%	17
D4	72	396	18.2%	18
D2**	55	282	19.5%	19
I total	**2110**	**2970**	**71.0%**	
M total	**1280**	**1980**	**64.6%**	
F total	**1592**	**3039**	**52.4%**	
D total	**454**	**1954**	**23.3%**	
Total	**5436**	**9943**	**54.7%**	

*Note: numbers may not add up due to rounding** Due to significant revision to Question D2 from report #1 to #2, points received for D2 in report #1 were excluded from the data analysis.

Table A5. Points scored by CFP question by the 56 responders at the Level 4—Frontrunner maturity level (≥75 points)*

CFP QUESTION	LEVEL 4—FRONTRUNNERS(56 RESPONDERS) TOTAL POINTS SCORED	TOTAL POSSIBLE POINTS	PERCENT OF TOTAL POSSIBLE POINTS RECEIVED	RANK BY QUESTION FROM MOST TO LEAST PERCENT OF TOTAL POSSIBLE POINTS RECEIVED
F2	434	442	98.2%	1
F4	169	177	95.6%	2
F3	466	500	93.2%	3
I3	261	280	93.1%	4
I1	260	280	92.9%	5
M3	201	224	89.9%	6
M2	200	224	89.2%	7
I4	246	280	87.8%	8
F5	292	336	86.9%	9
D3	254	274	92.7%	10
D2**	170	205	82.9%	11
M4	186	224	83.2%	12
M1	370	448	82.7%	13
I2	231	280	82.4%	14
F1	255	312	81.7%	15
I5	229	280	81.7%	16
I6	220	280	78.6%	17
D1	294	448	65.6%	18
D4	84	224	37.5%	19
F total	**1616**	**1767**	**91.5%**	
I total	**1446**	**1680**	**86.1%**	
M total	**958**	**1120**	**85.5%**	
D total	**802**	**1151**	**69.7%**	
Total	**4822**	**5718**	**84.3%**	

CFP QUESTION	LEVEL 4—FRONTRUNNERS(56 RESPONDERS) TOTAL POINTS SCORED	TOTAL POSSIBLE POINTS	PERCENT OF TOTAL POSSIBLE POINTS RECEIVED	RANK BY QUESTION FROM MOST TO LEAST PERCENT OF TOTAL POSSIBLE POINTS RECEIVED

*Note numbers may not add up due rounding** Due to significant revision to Question D2 from report #1 to #2, points received for D2 in report #1 were excluded from the data analysis.

Table A6. Points scored by CFP question by the 200 responders for all maturity levels*

CFP QUESTION	ALL MATURITY LEVELS: INITIATORS, ACCELERATORS, AND FRONTRUNNERS (200 RESPONDERS) TOTAL POINTS SCORED	TOTAL POSSIBLE POINTS	PERCENT OF TOTAL POSSIBLE POINTS RECEIVED	RANK BY QUESTION FROM MOST TO LEAST PERCENT OF TOTAL POSSIBLE POINTS RECEIVED
F4	585	747	78.3%	1
I3	770	1000	77.0%	2
I1	756	1000	75.6%	3
I5	685	1000	68.5%	4
I4	666	1000	66.6%	5
M2	528	800	66.0%	6
M3	520	800	65.0%	7
I2	637	1000	63.7%	8
M4	485	800	60.7%	9
M1	962	1600	60.1%	10
F2	861	1502	57.3%	11
I6	551	1000	55.1%	12
F5	630	1200	52.5%	13
F1	556	1114	49.9%	14
F3	799	1632	49.0%	15
D2**	239	597	40.0%	16
D3	380	970	39.2%	17
D1	537	1600	33.6%	18
D4	162	800	20.3%	19
I total	**4065**	**6000**	**67.7%**	
M total	**2495**	**4000**	**62.4%**	
F total	**3431**	**6195**	**55.4%**	
D total	**1318**	**3967**	**33.2%**	
Total	**11309**	**20162**	**56.1%**	

*Note numbers may not add up due rounding** Due to significant revision to Question D2 from report #1 to #2, points received for D2 in report #1 were excluded from the data analysis.



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