

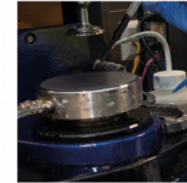
2022 ESG Report

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Vining Ivy
PPG1148-6



Pollination
PPG1215-7



Brainstorm
PPG1030-1

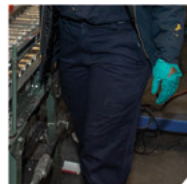


Intrigue
PPG1019-7



Visionary
PPG1210-3

Acceleration
PPG10-21



We protect and beautify the world®

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At PPG, safety is our most important core value. All images and videos within this report have been obtained prior to the COVID-19 pandemic or while adhering to our safety phases and protocols for the location at the time the image/video was taken.

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Sustainability @ PPG





To Our Stakeholders

A Message from our President and CEO

To our valued stakeholders,

In 2022, PPG remained resilient and committed to delivering on our purpose, creating value for our customers, meeting the needs of our people and supporting the communities where we operate.

While sustainability has been a critical component of our strategy for over a decade, we're continuously looking to the future. As part of our promise to deliver on our purpose – We Protect and Beautify the World – we've set new, ambitious 2030 environmental, social and governance (ESG) goals that will guide our continued efforts. We've established a stronger focus on decarbonization, including emissions reduction targets that have been validated by the Science Based Targets initiative (SBTi). These targets include PPG's first scope 3 emissions reduction target, an ambitious goal that will require working with partners throughout our value chain to collaborate on greenhouse gas reduction strategies. The full set of 2030 targets are outlined in more detail in [this report](#).

We succeed by helping our customers succeed, partnering with them to create industry-leading sustainable innovations that help improve productivity. For example, we're working alongside Steelcase, an American manufacturer of architecture, furniture and technology products, to identify new uses for waste from our industrial coatings and support the circular economy. Last year, we made approximately 250,000 pounds of recycled coatings from powder coatings used by Steelcase by reclaiming overspray that would have otherwise been sent to a landfill. While we've recently partnered with customers on new, industry-leading technologies, our sustainable innovations span decades. For nearly 20 years, the PPG B1:B2™ process has helped automakers around the world halve their energy consumption in the most energy intensive areas of their manufacturing facilities - the paint shop - by eliminating a step in the curing process.

Sustainably advantaged products and processes made up 39% of PPG's sales last year, and we expect that they will comprise half of our product sales by 2030. Throughout this report, you will see countless examples of PPG's products that are making tangible contributions to a more sustainable tomorrow - extending the useable lifespan of bridges and buildings; reducing energy use and greenhouse gas emissions by eliminating curing stages for our automotive coatings and sealants; enabling aluminum food and beverage packaging to be infinitely recyclable; and even improving the fuel efficiency of airplanes and cargo ships.



These innovations don't happen without the dedication of PPG People. That's why we continue to invest in people strategies that enable our more than 50,000 PPG People to deliver exceptional performance. We know that diverse teams perform better - period. One of our core focus areas is building and supporting a more diverse, equitable and inclusive PPG. We made strong progress toward our DE&I goals in the last year, increasing non-frontline headcount of U.S. Black employees by 19%, Latino employees by 16% and Asian employees by 8%. Our representation of non-frontline female professionals reached 31%, and we engaged 34% of our global workforce in our global Employee Resource Networks and DE&I capability-building programs. Learn more in the diversity, equity and inclusion section of [this report](#).

We know that our impact extends beyond PPG to the communities where we live, work and play. Our global community giving totaled more than \$16.2 million in 2022 to support the communities where we operate, funding educational programming that advances racial equity throughout the U.S. and promotes education in science, technology, engineering and math (STEM). PPG has also completed 473 COLORFUL COMMUNITIES® projects around the world since 2015, transforming schools, community support organizations and public spaces with PPG products and employee volunteers.

As we go forward, we will continue to focus on developing innovative solutions to help our customers achieve their sustainability aspirations, and remain a reliable, collaborative partner along the value chain.

I encourage you to learn more about PPG's progress in our 2022 ESG Report. Thank you for your continued collaboration, partnership and interest in PPG.



Tim Knavish
PPG president and chief executive officer



A message from our Vice President, Global Sustainability

To our valued stakeholders,

For decades, sustainability has been strategically embedded in how we do business. Today, it's a key component of our enterprise growth strategy and the value we provide to our stakeholders. From operating safe and healthy facilities and advancing equity in our company and communities, to developing sustainable products and solutions that further our customers' sustainability ambitions, PPG is committed to delivering positive impact through our continued focus on meeting our environmental, social and governance (ESG) commitments.

In 2022, we continued to make strong progress against our ESG strategy while reporting measurable improvements in key priority areas. We delivered continued improvement against our 2025 sustainability and diversity, equity and inclusion (DE&I) targets, furthered our work to understand our value chain emissions footprint, and determined priority emissions reduction pathways. We also conducted a prioritization assessment to define focus areas based on their capacity to impact people, the economy and the environment, while identifying risks or opportunities that may disrupt or support growth. The key findings of our [prioritization assessment](#), which are included in this report, were the foundation that informed our 2030 ESG targets and will help guide our actions moving forward.

Our new, ambitious 2030 sustainability targets further our focus on decarbonization and challenge us in the areas that are most impactful to our [business and our stakeholders](#). Our 2030 objectives include scope 1, 2, and 3 greenhouse gas emissions targets, which have been validated according to climate science through the Science Based Targets initiative (SBTi). These targets will provide a clear pathway to a low carbon future, aligning with the Paris Agreement and the emissions reductions required for a 1.5 degrees C future for our scope 1 and 2 greenhouse gas emissions and a well below 2 degrees C future for our scope 3 emissions. With validated science-based targets, we plan to invest additional resources to support an ambitious and consistent reduction in emissions from our own operations (scope 1 and 2). We are also planning to devote additional funding to renewable energy sources and identifying cleaner energy solutions. Our efforts to reduce greenhouse gas emissions across our value chain will include evaluating more circular and renewable raw materials, collaborating with suppliers to lower their emissions footprint, and innovating new lower fossil carbon solutions for our customers.

To support our enterprise growth strategy and commitments, we have continued to integrate ESG throughout PPG. In 2022, we assembled a global sustainability organization that is embedded within our businesses and functions in order to educate, motivate and activate the organization to deliver on our sustainability ambitions. We are also further integrating ESG into our business strategies and objectives.

By placing emphasis on sustainability in our core business strategy planning, we are able to be better informed of our customer priorities, and use them as a guide to reach our 2030 targets. We remain focused on delivering against the sustainability needs of our customers and are building a pipeline of sustainable solutions to meet changing customer demands. As we deliver against our targets in the coming years, we are committed to engaging stakeholders across our value chain and transparently reporting on our progress.

Thank you for reading our 2022 ESG Report. We look forward to sharing additional progress and welcome your feedback and collaboration.



Diane Kappas
PPG vice president, global sustainability



2022 Financial Performance:



The world and our industry faced great challenges in 2022, including unprecedented inflation, increases in the costs of materials, pandemic-related shutdowns in China, and a war in Europe. Each of these issues tested our business and required a rapid, strategic response from our people.

Thanks in large part to the resilience and flexibility of the global PPG team, we achieved record sales of \$17.7 billion in 2022, up 5% from the previous year. This was driven by organic growth of 8% and timely integration of recent strategic acquisitions.

Our team's work throughout the year has enabled us to continue to reward our shareholders by extending our annual dividend payments, which have been awarded every year for 123 years. In 2022, we raised our annual per share dividend payout for the 51st successive year.

Learn more about our performance in our [2022 Annual Report](#).

At PPG, we work every day to develop the paints, coatings and specialty materials that our customers trust. For 140 years, we have been solving our customers' biggest challenges through dedication, creativity and collaboration.

PPG is a global industry leader, with manufacturing facilities and affiliates supplying customers in construction, consumer products, industrial and transportation markets in more than 70 countries.

Learn more at PPG.com





2022 Progress and Highlights

For more than a decade, PPG has been working toward public sustainability goals that focus on key challenges for us, our customers and society at large.

Since our first set of sustainability goals in 2012, we have focused our efforts where we can make the most significant impact. Over the last year, we reviewed our goals and developed more ambitious 2030 targets that align with our growth strategy. These updated goals focus our efforts on areas that have the most important impacts on our business and stakeholders, and have been informed by global collaborations such as the United Nations Sustainable Development Goals and the Science Based Targets initiative (SBTi).

See our progress through 2022 against our existing goals below, as well as our new 2030 targets, which we will report against moving forward. We will continue to report against our 2025 DE&I goals, which were announced last year in our DE&I report.

Issue area	2025 goals	2022 progress	Updated targets all goals are by 2030 with a 2019 baseline, unless otherwise noted)
Sustainably advantaged products	40% of sales from sustainably advantaged products by 2025	39% of sales from sustainably advantaged products	50% of sales from sustainably advantaged products
Waste	25% reduction in total waste disposal intensity by 2025 from a 2017 baseline	13% reduction in total waste disposal intensity	25% reduction in waste intensity
	Achieve zero landfill status from process waste at 35% of PPG manufacturing and research and development locations by 2025	32% of PPG manufacturing and research and development locations have achieved zero landfill status	Drive to 100% process waste to reuse, recycle and recovery.
	On our path to eliminating spills, ensure that we achieve at least a 65% improvement in our spills and releases rate by 2025 from a 2017 baseline	20% improvement in our spills and release rate	5% annual improvement in spills and releases at our facilities
Water	20% reduction in water consumption intensity by 2025 from a 2017 baseline	0.7% increase in water consumption intensity	15% reduction in water intensity at priority sites in water scarce communities
Supplier sustainability			100% of key suppliers are assessed to sustainability and social responsibility criteria
Wellness	Active wellness programs at 100% of PPG facilities globally by 2025	61% of our sites have active wellness programs	



Issue area	2025 goals	2022 progress	Updated targets all goals are by 2030 with a 2019 baseline, unless otherwise noted)
Energy and GHG Emissions	Reduce energy consumption intensity by 15% by 2025 from a 2017 baseline	3% increase in energy consumption intensity	50% reduction in GHG emissions from our own operations (scope 1 and 2 emissions), validated by SBTi and aligned with the emissions reductions required for a 1.5 degrees C future.
	Increase renewable energy to 25% of total electricity usage exclusive of greenhouse gas (GHG) reductions by 2025	23% of total electricity usage from renewable sources	
	Reduce GHG emissions intensity by 15% measured in total tons discharged by 2025 from a 2017 baseline	6% reduction in GHG emissions intensity	30% reduction in GHG emissions in our value chain (scope 3 emissions), validated by SBTi and aligned with the emissions reductions required for a well below 2 degrees C future.
Diversity, equity and inclusion	Invest \$20MM by 2025 to advance racial equity in the U.S. by funding educational pathways for Black communities and people of color	70% toward \$20MM goal to advance racial equity in the U.S.	Invest \$20MM by 2025 to advance racial equity in the U.S. by funding educational pathways for Black communities and people of color
	34-36% representation of non-frontline, global female professionals by 2025	31% representation of non-frontline, global female professionals	34-36% representation of non-frontline, global female professionals by 2025
	45-55% increase in headcount of Black, Latino and Asian employees across non-frontline, U.S.-based employee population by 2025	Achieved a 19% increase of our non-frontline headcount for Black employees, 16% increase in non-frontline Latino employees and 8% increase in non-frontline Asian employees.	45-55% increase in headcount of Black, Latino and Asian employees across non-frontline, U.S.-based employee population by 2025
	50% global employee resource network and DE&I capability-building participation by 2025	34% global employee resource network and DE&I capability-building participation	50% global employee resource network and DE&I capability-building participation by 2025
Safety and Health	Zero injuries. On our path to zero injuries, ensure that we achieve an improvement of at least 5% per year in our injury and illness rate	Achieved an annual I&I reduction rate of 0.7% compared to the 2017 baseline	100% of employees go home safely each day. On our way, drive at least 5% annual improvement in injury and illness rate
Communities	Invest at least \$10 million by 2025 through the <i>Colorful Communities</i> initiative	\$11.2 million invested through the <i>Colorful Communities</i> initiative	\$5 million additional commitment to <i>Colorful Communities</i> projects globally, with all projects incorporating an element of sustainability, making the total investment \$15 million since 2015
	Implement the community engagement framework globally by 2025	70% of facilities met requirements of the Community Engagement Framework in 2022	



Strategic Milestones

Acquisitions, achievements and investments in 2022

In 2022, we achieved the following critical milestones aligned to our environmental, social and governance (ESG) and corporate strategic objectives.

January

PPG and The Home Depot, HD Supply expanded their relationship with the launch of a professional paint assortment at all U.S. locations. [Learn more.](#)

Announced \$10 million investment to expand production of automotive OEM coatings at the Weingarten, Germany, facility. [Learn more.](#)

March

Announced commitments to employee diversity, equity and inclusion (DE&I) and unveiled first DE&I report. [Learn more.](#)

Opened new European Central Powder Coatings Research and Development (R&D) Center in Milan, Italy. [Learn more.](#)

April

Acquired the powder coatings manufacturing business of Arsonsisi, an industrial coatings company based in Milan, Italy. [Learn more.](#)

Installed the 1,000th PPG MOONWALK™ automated refinish paint mixing system, an innovation that saves labor, reduces waste and transforms the refinish mixing room into a cleaner and safer environment. [Learn more.](#)

Announced \$17 million investment to build an aerospace application support center in Toulouse, France. [Learn more.](#)

May

Shareholders voted to replace the supermajority voting requirements, further modernizing PPG's governance. [Learn more.](#)

Committed to setting science-based targets to reduce greenhouse gas emissions in line with climate science through the Science Based Targets initiative (SBTi). [Learn more.](#)

June

Introduced the PPG ENVIROCRON LUM™ coating, which is the industry's first commercial retroreflective powder coating. The patent-pending coating is engineered to help improve visibility and safety at night and during low-light conditions. [Learn more.](#)

August

Launched PPG INNOVEL® PRO, an enhanced internal spray coating that uses no bisphenol-A (BPA) or bisphenol starting substances and provides more robust application properties for infinitely recyclable aluminum beverage cans. [Learn more.](#)

Announced \$9 million investment to expand an existing product line at our Temple, Texas, architectural coatings facility. [Learn more.](#)

Announced \$11 million investment to double the production capacity of our powder coatings plant in San Juan del Rio, Mexico. [Learn more.](#)

September

Announced the impact results of PPG's New Paint for a New Start initiative, part of our *Colorful Communities* program, transforming 36 schools globally with more than 1,000 employee volunteers and community partners. [Learn more.](#)

October

Named Tim Knavish PPG president and chief executive officer (CEO), effective Jan. 1, 2023. [Learn more.](#)



Recognition and Awards

Recognitions and awards from the past year provide independent validation of our achievements and help us benchmark our performance.

As a leader in ESG, we've earned the following recognitions and awards, acknowledging our efforts and informing how we can enhance our approach as expectations evolve.

PPG company rankings

#1 on Coatings World's Top 100 Companies list

#90 on IndustryWeek's U.S. 500

#218 on the FORTUNE® 500

#689 on the FORBES® Global 2000

#4 in the Chemicals Industry on the 2023 Fortune World's Most Admired Companies list, our 15th consecutive year on the list

ESG ratings and rankings

- AA rating by MSCI for environmental, social and governance practices for the third consecutive year
- 100% score from the Human Rights Campaign's 2022 Corporate Equality Index



- **#16** in the Materials and Chemicals category of Newsweek Magazine's America's Most Responsible Companies 2023, and #114 on the overall list
- **90%** on the 2022 CPA-Zicklin Index of Corporate Political Disclosure and Accountability, earning the "Trendsetter" ranking
- **#20** in the chemicals industry on JUST Capital's 2023 list of America's Most JUST Companies





Employer awards

- Gallup Exceptional Workplace Award 2023
- **#72** on Forbes' list of America's Best Employers for Veterans 2022
- **#350** on Forbes' list of Mexico's Best Employers 2022
- Recognized as a Best Place to Work for Disability Inclusion by Disability:IN and the American Association of People with Disabilities
- Forbes' America's Best Large Employers 2022 and 2023
- **#19** on ComputerWorld's Best Places to Work in IT, which considers a range of topics including benefits, career development and diversity, equity and inclusion



- **#44** in the American Opportunity Index, which recognizes companies for workers' access to role, wage and career advancement

ESG recognition



EcoVadis, a leading provider of business sustainability ratings, awarded PPG a Gold Rating in corporate social responsibility for the second consecutive year. PPG earned high scores for its environmental, ethics and sustainable procurement practices, and scored higher than 92% of evaluated companies.

The Ohio Chemistry Technology Council (OCTC) recognized five PPG facilities for programs that are advancing sustainability, health and safety. The facilities earned a total of seven awards from the OCTC for their work to reduce waste, water consumption and energy use, as well as their efforts to improve employee health and safety. [Learn more.](#)

FTSE4Good named PPG to the FTSE4Good Index Series for the fourth consecutive year. The index measures the performance of companies demonstrating strong environmental, social and governance practices.



FTSE4Good

Product and process awards



R&D World's R&D® 100 Awards recognized PPG for COPPER ARMOR™ antimicrobial

paint by PPG with Corning® Guardian® technology and COMEX® VINIMEX® TOTAL antiviral and antibacterial paint. PPG has earned 34 R&D 100 Awards through the years.

HOMAX® Tex>>Pro™ texture system was selected as a winner for the FacilitiesNet Vision Award in the Interior Furnishings and Materials category and a winner for the Golden Hammer Awards, hosted by HBS Dealer. Its innovative system is built to be 60% lighter than traditional sprayers when full and features a two-handed grip that allows for greater ease of use. The *Homax Tex>>Pro* product makes texture application a one-person job, helping with jobsite productivity and efficiency.



2022 BCF Coatings Care Progress Award given to Steyport Ltd, PPG's Industrial Coatings Runcorn site.



Employee Recognition



Michael McGarry, PPG executive chairman, was named Industrialist of the Year by the Western Pennsylvania Chapter of the Society of Industrial and Office Realtors. The award recognizes business leaders for their positive contributions across their industry, community, and the region. [Learn more.](#)



Diane Kappas, PPG vice president, Global Sustainability was named to the Pittsburgh Business Times' 2022 Women of Influence list. The annual listing honors the Pittsburgh region's most influential women across every industry and profession with a strong track record of performance that have made a difference in Western Pennsylvania and its communities. [Learn more.](#)



Terry Sutherland, regulatory compliance consultant for PPG's Global Regulatory & Emerging Issues Product Stewardship Center of Excellence, received The Roy Kennedy Award from the Canadian Paint and Coating Association (CPCA). The award is given to an individual that has demonstrated an outstanding contribution to CPCA, and who epitomizes Roy Kennedy's dedication to the association, its members and the paint and coatings industry.



Sustainability Vision, Values and Approach

Our sustainability vision, values and approach ladder up to our greater purpose: *We Protect and Beautify the World.*

Vision

To fulfill our purpose to Protect and Beautify the World, we are committed to delivering lasting value for all stakeholders. As One PPG, we operate with integrity, work safely, protect the environment for current and future generations, create a diverse, equitable and inclusive workplace, and engage and support the communities where we operate.

Values

- Operate safe, healthful workplaces, promote teamwork and reward performance by trusting our people every day in every way
- Cultivate a sense of belonging for all of our employees and harness the power of diversity to ignite innovation and performance
- Conduct business and operations in an ethical and compliant manner
- Minimize the impact of our operations on the environment
- Deliver innovative products and solutions, and partner with our customers to create mutual value that enables them to maximize the performance of their assets and preserve and protect the environment
- Partner with suppliers and customers to create value
- Deliver positive change in the communities where we operate and conduct business

Sustainability approach

PPG takes a broad approach to sustainability. Our sustainability organization is responsible for developing and advancing environmental, social and governance (ESG) goals, policies, programs and procedures throughout our company and value chain.

Our dedicated sustainability organization works alongside internal and external stakeholders to understand the environmental and social impacts of our business, and seeks opportunities to have a positive impact with our people, products and processes.

In 2022, we developed a new set of public goals that illustrate our ambitions through the year 2030. These goals, which are detailed in the 2022 [Progress and Highlights](#) section, include scope 1, 2, and 3 greenhouse gas emissions targets that have been validated by the Science Based Targets initiative. These targets align our decarbonization efforts with the goal laid out by the Paris Agreement to limit global warming to 1.5 degrees Celsius for our scope 1 and 2 goal, and well below 2 degrees Celsius for our scope 3 goal. Our targets also cover sustainably advantaged products, waste, water, supplier sustainability, DE&I, safety and health and community investments.

Our sustainability approach and public reporting are continuously evolving in response to feedback from our stakeholders, including customers, investors and regulators. We also take into account activities of market leaders and developing ESG reporting frameworks to ensure that we stay ahead of market expectations. This year, we have formatted this report to clearly separate our progress over the last year and standing information related to our management approach. We hope that this structure makes it easier for our stakeholders to find useful information on PPG's progress.

PPG intends to refresh our sustainability vision and values, as part of the company's broader work to align our efforts with the new 2030 targets and our enterprise growth strategy. While this work is ongoing, the vision and values included above are relevant for the 2022 reporting period.

Priority Issues

We focus on what matters most to our business and stakeholders.

Our Priority Issues

We updated our assessment in 2022 and identified the priority issues. We also started work on a new ESG roadmap and strategy, which has been informed by the priority topics identified by this assessment. This work also informed our new 2030 ESG targets.



Our updated assessment prioritized issues based on their capacity to impact people, the economy, the environment (stakeholder impact) or their capacity to create or erode enterprise value (financial impact). Some ESG issues have been prioritized based solely on their stakeholder or financial impacts, while other issues are included because of their impact on both stakeholders and PPG.

ESG issue (in no particular order)

- Addressing chemical-related social and environmental impacts, real and perceived
- Upholding human rights in PPG's supply chain
- Fostering a diverse, equitable and inclusive workforce
- Managing interactions with water as a shared resource
- Ensuring safe work environments and promoting employee well-being
- Maintaining positive community relationships
- Decarbonizing PPG operations, supply chain and customer emissions
- Using circular economy principles to reduce impacts from materials and waste
- Providing ESG training and career progression pathways for our people
- Effectively prioritizing and deploying technological improvements
- Attracting and retaining talent in a post-COVID world
- Building climate change resilience in physical assets
- Understanding and communicating the financial importance of ESG to PPG and how PPG contributes to economic, social, and environmental outcomes



Our Prioritization Assessment process

Identifying PPG impacts

We identified our impacts based on a range of sources, including:

- Analysis of global megatrends impacting PPG
- Interviews with PPG executives and external stakeholders, including industry representatives
- Formal and informal feedback received from customers and employees
- Strengths, Weaknesses, Opportunities and Threats (SWOT) analyses of PPG's current position
- Review of internal strategy papers, policies and public disclosures
- ESG reporting frameworks and standards, including surveys shared by external ratings organizations
- Media coverage of PPG and the broader paints and coatings industry

See our [Stakeholder Engagement](#) section for more information on the variety of ways that we engage with PPG stakeholders outside of this process.

Evaluating and prioritizing impacts

We assessed PPG's sustainability-related risks, opportunities and impacts using the dual lenses of impacts on stakeholders and risks and opportunities for the company's financial position. This approach ensures our strategy and reporting meets the expectations of investors interested in the long-term success of our business, as well as the expectations of stakeholders interested in our contribution to sustainable development objectives. Our prioritization assessment reflects guidance from global ESG standard setting organizations, including the Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB).

Based on our research and a series of internal and external interviews, we developed a shortlist of issues that are most likely to be impactful for PPG and its stakeholders. The list of issues was refined at a workshop with PPG's senior leadership, where each issue's relative impact was considered. Issues were deemed to be a priority based on a combination of desk research, perceptions of key stakeholders, peer review, and discussion with PPG's senior leadership. The results of this assessment were then disseminated to everyone that had participated in the process, including the Board of Directors, PPG's sustainability committee and interview participants, including functional and business leaders.

In addition to focusing on the priority topics identified by this exercise, PPG works to continuously improve our corporate governance and compliance program. This includes covering important issues, including corporate governance and ethics, data privacy, regulatory compliance and maintaining a productive relationship with our workforce and labor unions. Learn more in the [Governance](#) section.





Products





Products Overview

We develop industry-leading sustainable innovations that support our customers' sustainability ambitions.

Our product highlights in 2022



Our approach to developing safe and sustainably advantaged products is built upon more than a century of expertise. The result is a broad portfolio of paints, coatings and specialty materials that transform everything from the places we work to the vehicles we drive. [Learn more about PPG's history of innovation at PPG.com.](#)



In 2022, we expanded our efforts to incorporate safety and sustainability into product development. We used our systematic review process to evaluate approximately 87% of products at PPG for sustainable attributes (an 8% increase from 2021), enabling us to define our full portfolio of sustainably advantaged products. Learn more about our process and current portfolio of products in the [Sustainably Advantaged Products](#) section.

We invest in partnerships that make our products and our customers' products safer, stronger and more efficient. We partner with stakeholders, including customers, suppliers, academic institutions and other public and private entities to advance sustainable initiatives and technologies. Learn more about how we work with organizations from all sectors in the [Research Partnerships](#) section.

We work to minimize adverse human health and environmental impacts of our products. We review the ingredients and impacts of our products, remove substances of concern through reformulation and publicly communicate transparent, comparable information about our products through our product stewardship processes. Learn more about how we're addressing health and environmental impacts at every stage of the product lifecycle in the [Product Stewardship](#) section.



Sustainably Advantaged Products

Our products, tools, and processes help make our customers – and the world – more sustainable.

Our sustainably advantaged product highlights in 2022

Goal: 40% of sales from sustainably advantaged products by 2025

39% of sales are from sustainably advantaged products

170,000+ products evaluated against our sustainably advantaged product methodology in 2022



We have a comprehensive methodology, informed by the United Nations Sustainable Development Goals (UNSDGS) and industry best practices, to designate which of our product lines are considered sustainably advantaged, which we finalized in 2021. Since that time, we have expanded the application of this methodology to 87% of all PPG products, and 100% of our paint and coatings products. Evaluating more of our products helps us understand the full scope of our sales from sustainably advantaged products, and enables us to further highlight the benefits of our sustainable product offerings to customers.

In 2022, 39% of our total sales came from sustainably advantaged products. We are constantly innovating new products and intend to continue expanding our sales of sustainably advantaged products in line with our ambitious 2030 target. We have worked throughout the year to incorporate sustainability into our research and development (R&D) innovation pipeline. Evaluating the benefits of our products at earlier stages in the R&D process helps us invest resources in those products that we feel will have the greatest impact for our sustainability goals and our customers' goals.

PPG has been an industry leader for 140 years, providing customers with inventive paints, coatings and specialty materials. Across our business, we are continuing to partner with our customers to develop innovative new products that address their greatest challenges and achieve their objectives.



Our sustainably advantaged products approach

Product sustainability is an integral part of our enterprise sustainability strategy. We aim to invest in sustainable solutions to solve our customers' greatest challenges through new and existing innovations. We support our customers' contributions to global goals and minimize the environmental impacts associated with the application and use of our products. We also evaluate our existing product portfolio to understand where and how there are opportunities to make them more sustainable.

Sustainably advantaged products methodology

Given the breadth of our product line, we have developed a universal scoring system to assess each PPG product and identify those that support environmental or social objectives in some way. We refer to products that support a more sustainable future as sustainably advantaged products.

We developed an industry-leading methodology to classify which of our products are considered sustainably advantaged. First, we perform a systematic review of product attributes to understand how the product contributes to improved environmental outcomes. We evaluate products based on energy efficiency, emissions reductions, toxicity reductions, resource efficiency, and a paint or coating's useful lifetime. We consider a combination of data on the resource use and efficiency of manufacturing the product and a product's relative improvements over industry benchmarks for efficiency and useful lifetime.

We then review each product's contributions to the United Nations Sustainable Development Goals (SDGs). We consider how closely aligned a product is to the SDGs, as well as the magnitude of the product's contribution to meeting the goals.



PPG's sustainably advantaged products extend the useable lifespan of bridges and buildings, reduce energy use and GHG emissions by eliminating curing stages for our automotive coatings and sealant systems, make food and beverage containers safer and longer lasting, and even help improve the fuel efficiency of airplanes and cargo ships.

Our methodology to identify sustainably advantaged products

MINIMIZE	<p>Minimize harm: Systemic review of product attributes</p> <ul style="list-style-type: none"> • Energy use • Emissions • Toxicity • Resource use • Useful lifetime
OPTIMIZE	<p>Optimize positive impact: Value contribution to UN SDGs</p> <ul style="list-style-type: none"> • Energy • Infrastructure and cities • People and Health • Water • Food





Learn more about some of our most recent sustainably advantaged products

Reducing environmental impact of shipping

Around 80% of global trade by volume is carried by sea. PPG antifouling paints help keep ships clear of barnacles and other growth that cause damage and reduce fuel efficiency, while helping customers achieve their targets imposed by Maritime regulations. We recently introduced PPG SIGMAGLIDE® 2390, a biocide-free antifouling paint that uses PPG HYDROSET TECHNOLOGY™, which modifies the coating when it is immersed in water to create a super-smooth, almost friction-free surface that marine organisms cannot adhere to. This enables vessels to maintain a clean hull and reduce drag, achieving power savings of up to 20%, a speed loss performance of less than 1%, and up to 35% reduction in CO₂ emissions compared to traditional antifouling. PPG *Sigmaglide* 2390 is suitable for electrostatic spray application, enabling high transfer efficiency, less paint consumption, and emission and waste savings.

Using waste as an input

Most industrial processes create waste. We work with partners around the world to find innovative ways to re-use valuable resources and move the world toward a more circular economy. Under our Tikkurila brand, acquired by PPG in 2021, we launched a range of bio-based wood oils designed to protect wooden decks and terraces. We're promoting circularity by taking tall oil, a waste product from the paper industry, and using it as a key ingredient in the new coatings. Tikkurila was the first in their market to launch bio-based coatings that do not rely on fossil fuels.



Supporting customer use of recycled materials

Aluminum is one of the most recycled materials in the world, and we're doing our part to enable the continued use of recycled aluminum.

In 2022, we launched PPG *Innovel* PRO, a non-bisphenol/non-BPA coating that provides improved application properties for recyclable aluminum beverage cans. Our coatings ensure minimal spoilage and protect both the can and beverage integrity. In addition to its improved performance, the coating helps our customers fulfill evolving regulations to remove bisphenols from food contact coatings, and enables the continued use of recyclable cans.



PPG *Innovel* PRO beverage can coating received a Cradle-to-Cradle Certified Material Health Certificate™ at the Platinum Level.



Helping reduce emissions from automotive manufacturing

Electric vehicles (EVs) are key enablers of the transition to a low-carbon economy. PPG is working alongside some of the most powerful EV manufacturers to develop innovative products and services that will ease the transition to meet the unique requirements of the EV market.

Historically, the paint shop was the most energy intensive areas of automotive OEM facilities. One of our most recent innovations under the eCoat lineup, the PPG ENVIRO-PRIME® EPIC 300 product, can be applied to EV assemblies with heavier metal mass using less energy and heat, resulting in savings of 20kWh of energy per vehicle produced and 4kg CO₂. The product is also water-based and generates minimal waste due to its application efficiency.

Supporting the low-carbon transition with paints and coatings

As businesses move to mitigate climate change, they will need to rely on innovation across their value chains to reduce the negative environmental impacts of their operations. Many of PPG customers have set their own greenhouse gas (GHG) emission reduction targets, and we aim to support our customers' targets by reducing the GHG emissions associated with the lifecycle of PPG products. We consider sustainability throughout our R&D process, to ensure that a high volume of products in our portfolio offer the right combination of high performance and reduced environmental impact.

Select examples of PPG products that help our customers reduce their scope 1, 2 and 3 GHG emissions are included below.

- **Streamlining customer operations:** PPG CORASEAL™ 4-Wet Sealer allows automotive manufacturers to streamline the application and curing process, and reduces CO₂ generation by up to 6kg per vehicle.
- **Products with lower embodied carbon:** SEIGNEURIE™ EVOLUTEX™ Bas Carbone by PPG, an architectural coating launched in France, uses a bio-based binder and has a 20% lower carbon footprint than previous coatings.





Research Partnerships

We believe in advancing sustainability through collaboration.

We partner with customers, academic institutions and other public and private entities to advance sustainable initiatives and technologies.

Beyond our research partnerships, PPG engages broadly with a number of industry associations and stakeholders around the world. Learn more in the [Stakeholder Engagement](#) section.

Bio-based primer formulation

Many of our research projects focus on enhancing the positive and reducing the potentially negative environmental impacts of paints, coatings and specialty materials. This includes projects to incorporate renewable and bio-based materials into our products, improving recyclability or reusability, or removing potentially harmful compounds. Our commitment to responsible research and development applies to all legacy and recently acquired product lines.

Through our research partnership with the U.S. Army Combat Capabilities Development Command Army Research Laboratory (DEVCOM ARL) and Rowan University, we have identified combinations of bio-based molecules that bring superior performance properties to our coatings, and are working to incorporate these compounds into our products. As one example, the combination of DFDA, a furan-based diamine, and EVAC, a phenolic-based diepoxy, has been shown to improve performance of our aerospace-graded corrosion mitigation primers. We're working with researchers at Rowan University to better understand how these bio-based molecules lead to increased performance, scale up the researchers' capacity to manufacture DFDA and EVAC, and expand the family of renewably sourced resins that incorporate these molecules for superior performance characteristics.





Making coating systems last longer

We work directly with the U.S. Army's Combat Capabilities Development Command Ground Vehicle Systems Center (DEVCOM GVSC) and Tank-automotive and Armaments Command Watercraft Inspection Branch (TACOM WIB) to identify combinations of paints and coatings that offer increased durability and performance under strenuous conditions. Over the last year, we have been working with researchers to identify technologies that would extend the maintenance cycles on Army watercraft. Our goal is to develop a dual-purpose coating that would provide both improved abrasion resistance and antifouling properties when applied to both steel and aluminum hulls.

The current coating stacks used on underwater hulls of Army watercraft are frequently degraded by silt, grit and debris blown over the flat bottom of the boat. Boats need to be temporarily taken out of service to re-apply these coatings, which takes time, materials and labor. Extending the maintenance cycle on these coatings will help reduce the upkeep costs and time spent re-applying coatings over the long term.

To this end, our researchers are surveying available technologies and identifying any that could be an improvement over the current state of the art. Through collaborative analytical and modeling efforts, we are conducting research to understand structure-property relationships and address shortfalls in performance. Where they have been identified, we are testing promising combinations of coatings to ensure that the expected increases in performance and durability come through in a real-world setting.

Fostering collaboration across the industry

PPG participates in conferences, industry associations, and related meetings to advance sustainable practices. Our participation not only helps PPG people stay abreast of the newest developments in the industry, but also gives our employees opportunities to explore innovative new collaborations with other industry leaders to solve sustainability challenges.

As an example, in 2022 we hosted a symposium at the 26th Green Chemistry & Engineering Conference titled "Incorporating sustainable components into existing manufacturing systems." The PPG hosted symposium included speakers from academia and industry and featured a presentation from Se Ryeon Lee, PPG group leader, on bringing sustainable coatings science to the automotive battery industry. HY Zhou, Scientist, also presented a talk on incorporation of bio-based materials for adhesive development.

Our approach to research partnerships

External partnerships help us develop more effective and sustainable products to protect and beautify the world.

PPG's external funding team, within our science and technology organization, explores opportunities for PPG to participate in research projects with governmental and educational institutions. Ultimately, our goal in these partnerships is to solve problems in the real world and solve our customers' greatest pain points. We take insights developed through our work with external partners and incorporate them into PPG's internal research and development processes. Across all our partnerships, we focus on developing more effective and sustainable paints and coatings.

We approach our portfolio of research projects and partnerships in much the same way that we do other parts of our R&D processes. We work to identify partnerships that focus on developing paints and coatings that would be considered sustainably advantaged according to our internal methodology. We are currently implementing formal processes to consider sustainability throughout our research pipeline. Learn more about our methodology in the [Sustainably Advantaged Products section](#).



Product Stewardship

We take responsibility for minimizing adverse human health and environmental impacts of our products at every stage of the product life cycle.

Our product stewardship highlights in 2022



In 2022, we continued to enhance our product stewardship processes and systems. Highlights include:

- Realigned our Environmental Health & Safety - Product Stewardship Management System by rewriting our Product Stewardship Implementation Tools (PSITs). PSITs are the core of our management system and were restructured from a series of nine interconnected requirements to four simple documents that summarize the requirements relevant in each phase of the product life cycle (PLC). The new PLC format is better matched with employee responsibilities and is easier for our people to use effectively. Through heightened employee awareness and management leadership and commitment, we can create an organizational culture that reflexively engages in a continuous cycle of self-evaluation, correction and improvement of our operations and processes as it relates to product compliance globally.
- Created 17 additional Substance of Interest Scorecards, which track hazards and regulatory requirements. By the end of 2022, we had a total of 180 scorecards tracking 253 substances.
- 15 new substances added to the Restricted Substances List (RSL). The RSL now includes 1,147 substances that are restricted for all uses, and 390 substances that are restricted for specific uses.



- Assessed our products according to the United Nations Globally Harmonized System for Classification and Labeling (UN GHS) for category 1 and/or 2 for hazard warnings on products. Of the products scored globally, 33% were not classified with hazards under UN GHS category 1 or 2, and 75% of the products scored were produced in the EMEA and USCA regions. We consciously choose lower hazards, especially in architectural coatings products due to their heavy use in consumer, commercial and residential projects.
- Increased accessibility of product specific carbon footprint information to enable our business teams to collaborate with customers on ways in which PPG can innovate lower carbon solutions for our customers.
- Initiated supplier collaborations to assemble lower carbon raw material information to introduce new formulations that are designed according to sustainability principles. Raw materials with alternative renewable feedstocks or recycled content are currently being evaluated for further consideration in our industrial and consumer products. An example of this initiative in action is our *Seigneurie Evolutex Bas Carbone* by PPG, an architectural coating launched in France. The product uses a bio-based binder and has a 20% lower carbon footprint than previous coatings.

Our approach to product stewardship

We take a multifaceted approach to product stewardship that covers each stage of the product lifecycle: product development, manufacturing, distribution and customer use and disposal.

Our Product Stewardship organization is a centralized function that provides information, tools and support to employees, customers, regulators and other stakeholders. The organization is made up of three main groups:

- Community of Expertise (CoE)
- Regional Product Stewardship Operations
- Product Stewardship Business Partners

Our CoE groups monitor for regulatory and emerging issues and develop company requirements and tools to support the regional operations teams and business partners. These teams respond directly to internal and external customer inquiries using the tools developed by our CoE. The product stewardship business partners have an intimate knowledge of product portfolios and requirements, and work directly with our businesses to drive business growth through improved product stewardship.

Our product stewardship organization also engages external stakeholders, including government advocacy and trade associations. Learn more in the [Stakeholder Engagement section](#).

Focus areas

Toxicology

Toxicology is an integral component of sustainable product development. We endorse the principles of green toxicology, which describe the application of predictive toxicology in the design, manufacture, use and disposal of new materials and chemicals.

Green toxicology broadly supports [green chemistry](#) by providing tools to assess hazards so that more sustainable, less-toxic products can be developed. Green toxicology directly applies to principles 3, 4 and 10 of green chemistry – less hazardous chemical synthesis, designing safer chemicals and design for degradation.

To achieve these goals, chemists must have tools and processes to evaluate hazards. We use validated hazard assessment methods that can be applied early in product development. We use three toxicology processes to evaluate and monitor substances used in our products – Early R&D (ERD) Hazard Screen, Substance of Interest (SOI) Scorecard and PPG RSL. Driven by global, cross-functional committees, these three processes facilitate the monitoring and management of health and environmental risks of raw materials throughout the development and commercialization of our products.



Food packaging coatings and food contact

Aluminum is one of the most widely used and recyclable packaging options, and PPG coatings help keep aluminum packaging safe for consumers and enable its infinitely recyclable attributes. State-of-the-art analytical science, risk assessments and computer simulated toxicological assessments support our innovative coating portfolio.

The PPG SAFEASSURE™ program, part of our Packaging Coatings product development process, prescribes stringent protocols for screening starting chemicals and those migrating into food or beverages. It builds a dossier of key information to allow the onward supply chain to conduct appropriate risk assessments and build confidence in food or beverage products released to the market. The PPG SafeAssure program goes beyond the legal compliance requirements for packaging coatings to support the market in demonstrating food safety.

The PPG Global CoE for food contact regulatory compliance aligns with our approach to standardize processes and procedures in support of many of our businesses. For example, the food contact CoE supports the Kitchen and Industrial Bakeware segment within our Industrial Coatings business to obtain food contact compliance on new cookware coatings. The Food Contact CoE also monitors new regulations related to the Green Deal/CSS to ascertain any impacts to the business.

The CoE works closely with our research and development teams, the PPG SOI program, the RSL program and other stakeholders.

Circular economy

We review opportunities to reuse residual product that would otherwise be shipped for disposal and increase the use of post-consumer recycled (PCR) plastic in our packaging, ultimately contributing to the circular economy.

We foster partnerships with organizations focused on circularity and waste reduction, including the [PAINTCARE™](#) program in the U.S., [ProductCare](#) in Canada, the [ECO-PEINTURE™](#) non-profit in Quebec, and [PaintBack](#) in Australia, all of which allow consumers to recycle leftover or unwanted paint. We are exploring additional paint recycling opportunities globally where available.

Some of our architectural coatings product packaging, excluding the handle and lid, contain up to 100% recycled content in the U.S. and in Europe. We are currently testing packaging that uses recycled content for the lid. [Learn more](#) in the Waste section.

Green Construction

Coatings are used extensively in the building and construction market for protective and decorative purposes on the building itself and as part of components or machinery installed in the building.

We leverage data from our systems to produce declarations that support the requirements of green building schemes. These include the U.S.

Green Building Council's Leadership in Energy and Environmental Design (LEED®), Europe's Building Research Establishment Environmental Assessment Methodology (BREEAM®) and the WELL BUILDING STANDARD®. Our life cycle assessment capabilities allow the in-house production of environmental product declarations (EPDs), which declare the environmental impact of the product over its entire life cycle. To support LEED Material Ingredients reporting, we generate Health Product Declarations (HPDs), which outline the substances present and indicate the results of screening these substances against the HPD Priority Hazard Lists and the GREENSCREEN FOR SAFER CHEMICALS®. We also support substance screening and declarations for Cradle-to-Cradle certification of products.

We provide regulatory volatile organic compound (VOC) content data and support in obtaining external emission testing certifications, both of which are part of the green construction programs requirements for identifying products which have a low impact on indoor air quality. As well as supporting the requirements of green construction schemes, these assessments and certifications enable users to make informed choices on the products they choose in relation to the chemicals used, the impact on indoor air quality and the broader environmental impacts. Where PPG coatings are incorporated into products destined for the construction sector, we provide declarations of substance composition and life cycle assessment information of the coatings to support our customers in achieving certifications and declarations of their products required by green building schemes.



Training

Our product stewardship organization creates and implements training for all company stakeholders (technical, marketing, leadership), including a range of optional and assigned training modules on all aspects of product stewardship. Our Product Stewardship Training Matrix identifies more than 45 training elements, and the majority are available on-demand from our Evolve learning platform. [Learn more](#) about training at PPG in the Learning and Leadership Development section.

Continuous improvement

We conduct an annual management review in each of PPG's business units to drive continuous improvement. We benchmark against industry peers, and ensure that any critical gaps are closed by a robust action plan. We supplement this peer review with compliance assurance audits that focus on key business risks. All businesses are audited on a three-to five-year cycle.

Processes, systems and tools

We have built our product stewardship resources over many years, and we continue to evolve to meet changing business needs.

PS Pulse

Product Stewardship Pulse (PS Pulse) is our central product stewardship workflow tool. PS Pulse is a collaborative site for PPG users to submit requests to members of the product stewardship teams and escalate requests based on level of expertise required for response. PS Pulse also serves as a central location for self-help materials education on various product stewardship topics.

Chemist's EHS Toolbox

Our Chemist's EHS Toolbox is a resource on our intranet making it easy for users to access the right product stewardship tools. The Chemist's EHS Toolbox offers a roadmap of resources for chemists and formulators to support product stewardship needs at every level of product development – from new raw material introduction to formulation or use changes in existing products. The toolbox makes it easy for our technical community to understand regulatory compliance requirements. Chemists use the toolbox to determine if their formulation is compliant for shipment to a particular country, find whether a substance in the formulation will likely be deselected from the marketplace and identify those substances that require hazard warnings on a safety data sheet and label.

Global Product Stewardship system

Our centralized Global Product Stewardship (GPS) system manages the data required to author hazard communication documents.

The Globally Harmonized System for Classification and Labeling (GHS), an internationally agreed-upon standard managed by the United Nations, classifies substances for health, physical and environmental hazards. In accordance with GHS classification principles, we use a global hazard evaluation (GHE) process to assess and review 100% of our raw materials prior to them being used to safely manufacture our products and before we develop safety data sheets (SDS) and labels. Our GHE process reviews a raw material's impact on human health, physical and chemical properties, environmental impact and compliance with global regulations and PPG policies. Each PPG product formula is automatically transferred to our GPS system, which then provides a GHS-compliant SDS and a hazard warning label. These SDS and labels are available in many languages and meet the regulations of the more than 70 countries where we do business.

We leverage the GPS data to support many other compliance and customer requirements. These include chemical inventory, PPG and customer restricted substances lists, and customer requests to support their sustainability programs. Using global data allows us to quickly respond to customers and identify any potentially problematic or concerning substances. The system is used frequently throughout PPG, including by product stewardship, product development, supply chain, manufacturing and marketing.



STAN

The SDS Transmission and Notification (STAN) system is our automated email distribution for SDS based on customer orders for our products around the world. STAN supports region-specific SDS distribution while offering increased functionality. This includes the ability to distribute an SDS for non-PPG manufactured products, automated distribution for the latest SDS after a major version change, and distribution of an SDS to multiple email addresses for customers.



Regulatory and emerging issues management tools

In parallel to our GPS system, we maintain a simple-to-use matrix that details regulatory requirements for all countries where we do business. This is supported by detailed procedures for compliance, including customer use requirements. Examples include food contact, restriction of hazardous substances (RoHS), VOC emissions and items intended for use by children.

Our emerging issues tool helps us stay up to date on compliance and other regulatory issues. The tool helps us anticipate regulatory and non-regulatory concerns to capitalize on business opportunities while driving early compliance with regulations.

When we receive inquiries from customers, non-governmental organizations (NGOs) or agencies, or when social interest is detected, PPG employees can enter an issue in our emerging issues tool for review. Members of the EHS Product Stewardship team analyze the issues to determine its risk and potential impact on PPG. From there, the team develops a monitoring or action plan that may include advocacy with trade associations or governmental agencies. Plans can also include business, technical or manufacturing activities to help PPG maintain compliance or explore new business concepts. For high impact issues, we have implemented strategic management plans to reduce impacts to PPG related to substance deselection, regulatory changes and end-use restrictions.

Continuous monitoring of emerging issues and global regulatory changes is part of our standard business planning process. Alongside a project management process to implement changes to our compliance procedures, the use of our emerging issues tool helps avoid business interruptions.

Animal testing

We support global efforts to reduce animal testing, as described further in our animal [welfare policy](#) on [ppg.com](#)

Chemical Inventory Compliance

To ensure we remain in compliance with applicable regulations, we maintain a robust central management system for notifications to regulatory authorities, including those that oversee Registration, Evaluation, Authorization and Restriction of Chemicals in Europe (EU-REACH) and the Classification, Labelling and Packaging (CLP) Regulation.

Much of our technical leadership is based on the development of polymers. Our regulatory team works closely with our polymer chemists, advising them on the design of polymers for regulatory compliance and providing support at all stages of the development process. This early involvement allows us to complete the registration process in any of the countries that require polymer notification well ahead of product launch, enabling us to get our products in-market faster.



ERD hazard screen and SOI Scorecard

During a new product’s R&D phase, we assess the hazard of raw materials and potential byproducts using a hazard screen process. Following a product’s commercialization, we may develop a SOI Scorecard incorporating this assessment and any new hazard information to further guide our businesses.

SOI Scorecards include a visual for forecasting the hazards, regulatory status and stakeholder concerns for substances that are critical to our businesses.

Their purpose is to guide responsible use and handling of any potentially hazardous materials. We update our SOI Scorecards with new regulatory, scientific and market developments. When updated, we review substances for placement on the PPG Restricted Substances List (RSL). Linking the two processes enables our technical community to begin the process of product reformulation prior to the inclusion of a substance on the PPG RSL.

PPG Restricted Substances List

The PPG RSL establishes our current requirements for and restrictions on the use of certain hazardous substances in our products. PPG’s RSL Program is based on the principle of addressing the health and environmental risks of substances that we use, produce and sell. We identify substances for inclusion on PPG’s RSL based on international conventions, country-specific requirements and substance-specific information. When substances are added to PPG’s RSL, a target date for restriction or prohibition is established and the affected businesses work to eliminate the substances prior to the target date. Progress towards the target date is tracked at least twice per year.

PPG’s RSL applies to all PPG products globally, including those sold in geographies that do not have chemical regulation programs.

PPG’s RSL Program evaluates substances for addition to the list and regularly incorporates information about substances already on the list. We conduct assessments of our RSL Program at least twice per year to ensure that it is being implemented in all of our businesses globally.

PPG’s RSL includes all substances covered by the Stockholm Convention on Persistent Organic Pollutants and industrial substances on the Rotterdam Convention Prior Informed Consent (PIC) list. Since PPG’s RSL is applied to all PPG products globally, even in areas of the world where there are no chemical regulation programs, it goes beyond regulatory compliance.

The elimination of lead as an intentionally added ingredient in any PPG products is an example of PPG’s RSL Program in action. For many years, lead has not been intentionally added to any of PPG’s consumer products and in 2019, we achieved our goal of eliminating lead from all non-consumer products. PPG’s non-consumer products contained lead as an intentionally added ingredient solely to meet the unique specifications of PPG’s customers. Over the course of several years, PPG worked with those customers to develop alternative formulations that do not contain lead but achieve the same performance characteristics. We are now focusing on ensuring that lead is not used as an intentionally added ingredient in new products developed, as well as products that are added to PPG’s portfolio through acquisitions.





Life Cycle Assessment

A life cycle assessment (LCA) is a recognized method for assessing the environmental and human health impact of products – from the extraction of raw materials to the disposal of a product at the end of its useful life. An LCA covers a wide range of environmental and human health impacts, including most commonly reported impact categories such as climate change, measured by kg CO₂ equivalent per functional unit.

PPG's Product Sustainability (PS) CoE serves all businesses globally, facilitating rigorous calculation of the environmental and human health impact of our products. The CoE is focused on increasing LCA and Product Sustainability Assessment capabilities at the corporate level, through our R&D community and in our business units.

At the corporate level, the PS CoE engages with multiple software vendors and explores new tools to enable the automation of life cycle assessments for our large portfolio of products, such as an automated LCA tool that can be integrated with everyday business processes and report LCA information at the product level to our customers. As the chemical industry faces increasing demand for product-specific LCA information along a company's value chain, PPG strives to become an early adopter to apply state-of-the-art system solutions that enhance product sustainability.

The PS CoE supports PPG's R&D community to understand a product's environmental and human health impacts during the product development stage. Our recipe screening tool makes it easy for users to assess a formulation's environmental and human health impacts. Product developers can enter up to four formulations into the application and compare the life cycle impact across important environmental and human health indicators. They can integrate life cycle analysis into their product design and choose a product formulation with the lowest life cycle impact.

The PS CoE also supports our businesses to quantify a product's life cycle benefits attributable to customer operations or customer use of our products. This insight enhances our development of sustainably advantaged products and avoids shifting environmental burdens to other parts of the value chain. The PS CoE's core capabilities related to customer support include generating Environmental Product Declarations (EPD) and Health Product Declarations (HPD). Our EPDs and HPDs are used to support our customers' sustainability efforts around the globe.





Environmental

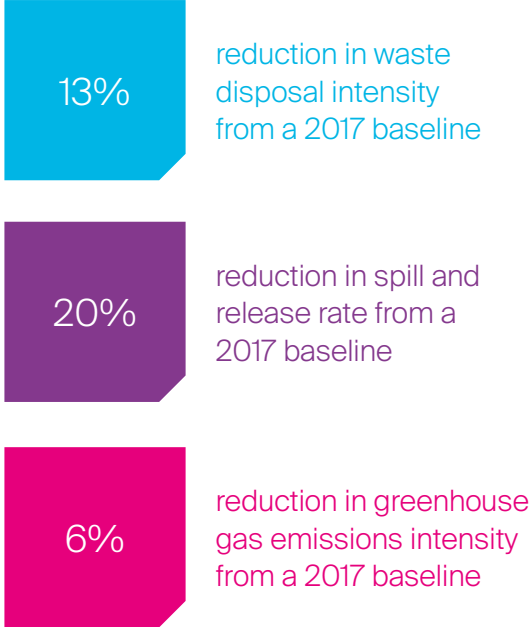




Environmental Overview

We are committed to using resources efficiently and minimizing environmental impacts throughout our value chain.

Our environmental highlights in 2022



We continue to strengthen our efforts across all areas of our footprint, including water, waste, energy and emissions. Beyond our own operations, we take responsibility for minimizing the environmental impact of our entire value chain. We work with our suppliers, contractors and customers to drive sustainability initiatives, and offer sustainable solutions to help our customers meet their goals.

Key advances in our environmental approach include:

- Defined our 2030 ambitions and set new ESG targets
- Submitted our scope 1, 2 and 3 GHG emissions reduction targets to the Science Based Targets initiative for approval
- Expanded our use of the Task Force on Climate-related Financial Disclosures framework in our strategic planning process to better understand risks and opportunities

While we continued to work toward our 2025 environmental goals over the last year, one of our major accomplishments in 2022 was defining our ambitions for 2030. Learn more about our 2030 targets in the [2022 Progress and Highlights](#) section. We will begin reporting against the 2030 targets in our next report.





Our waste reduction initiatives support the transition toward a circular economy. We evaluate our own operations and work closely with customers to identify waste streams that can be reused or recycled. Increasing raw material efficiency, operational improvements, and recycling manufacturing byproducts and unused products all have positive impacts on our bottom line in addition to reducing the amount of waste that we produce. Learn more in the [Waste](#) section.

Our water reduction and efficiency programs have also expanded over the last year. We understand that water is a shared resource and that we have a responsibility to protect water supply for our communities. PPG's water risk evaluation process helps us target water reduction efforts in the areas that are most impacted by drought or water scarcity and maximize the positive impacts of our work. Learn more in the [Water](#) section.

Our energy use and emissions reductions are closely linked. Improvements in our energy efficiency and renewable energy sourcing drive reductions in PPG's greenhouse gas (GHG) emissions, and help mitigate climate change. We are taking steps to reduce our energy use and emissions by implementing new and innovative energy solutions, sourcing renewable energy, and making our production processes more efficient. Learn more in the [Energy](#) and [Emissions](#) sections.

Over the last year, we have expanded our climate scenario analysis, which we use to understand physical and transition risks and opportunities. We have evaluated more of our product portfolio to understand the number of our products that qualify as sustainably advantaged, and worked to further integrate consideration of sustainability into our strategic planning processes. Learn more in the [Climate-related Risks and Opportunities](#) section.



The [PPG Environment, Health and Safety \(EHS\) Policy](#) provides the guidelines under which we manufacture, market and distribute products globally in a manner that protects our people, neighbors, customers and the environment. The policy incorporates elements from several voluntary global industry initiatives in which we are a participant, including the International Council of Chemical Associations (ICCA)/ American Chemicals Council (ACC) [RESPONSIBLE CARE®](#) program, the British Coatings Federation (BCF) [COATINGS CARE®](#) initiative and the American Coatings Association (ACA) PaintCare program.

We ensure consistent operations in line with our EHS standards, sustainability goals and strategies through our global EHS management system, which is aligned to ISO 14001. PPG has 58 sites that are certified to ISO 14001, which are audited by a third party against their conformance to the PPG EHS management system. The system requires locations to conform to environmental regulatory requirements and global requirements for air emissions, energy management, water discharge, waste management, spill elimination and plant footprint. The EHS management system enables us to track our progress on a location, business and global level, with metrics reported monthly to facilitate frequent performance monitoring. We also conduct periodic internal audits that check each of our sites for compliance against regulatory and PPG requirements. Learn more in the [Safety and Health](#) section.

Financial data for capital projects related to environmental expenditures are tracked through our financial systems rather than the EHS management system.



PPG recognizes the importance of moving toward a circular economy. We work to reduce waste and its associated impacts from our products and processes, starting in the design of our products. We use raw materials as efficiently as possible, minimize our waste generated from operations and promote reuse and recycling throughout our value chain. Beyond the environmental benefits, reducing waste helps lower our costs.

Our waste highlights in 2022

Goal: A **25%** reduction in total waste disposal intensity (waste produced per 100 metric tons of production) from a 2017 baseline by 2025. Achieved **13%** reduction in waste disposal intensity in 2022 versus 2017 baseline.

Goal: Achieve zero landfill status from process waste at **35%** of PPG’s manufacturing and research and development (R&D) locations by 2025. Achieved **32%** of PPG’s manufacturing and R&D with zero landfill status in 2022.

Goal: **65%** improvement in our spills and releases rate by 2025 from a 2017 baseline. Achieved **20%** decline in spills and releases in 2022 versus 2017 baseline

Our efforts to reduce spills and releases are driven by employee engagement activities, operational improvements and self-assessments. Our median spill in 2022 was 26.4 pounds, with 99% of spills contained onsite. We had four significant spills during the year that totaled 17,750 gallons (67,187 liters).

Given the range of our operations and production processes, we empower management at each of our sites to implement waste reduction measures as they see fit. Over the past year, we have implemented new processes to:

- Reduce packaging waste associated with transporting raw materials and finished products
- Reduce production waste by finding new uses for byproducts of our manufacturing processes
- Reduce raw material use by incorporating recycled materials in products and packaging
- Take back and repurpose unused products from customers
- Reformulate products to enable reuse and recycling at their end of life

Although we are still on track to reach our waste goals by 2025, we faced challenges at one of our largest production facilities in 2022 that impacted the amount of material accounted for as waste.



One of our manufacturing processes at our Lake Charles, Louisiana, facility produces an inert, non-hazardous material that has historically been reused as a filler material. However, in 2022 the partner that reused the material paused operations, and the material had to be sent to landfill. We were able to secure a new agreement at the end of 2022 to keep the material out of the landfill, but over the course of the year 30,000 metric tons of this material was classified as waste. This raised our waste intensity from 2.07 to 2.79, and added significant waste hauling cost over the course of the year.

We also seek to reduce the total amount of waste sent to landfills by incorporating recycled materials in our product packaging. Some of our architectural coatings product packaging, excluding the handle and lid, contain up to 100% recycled content in the U.S. and in Europe. We are currently testing packaging that uses recycled content for the lid and plan to increase the amount of recycled content in our packaging as we move forward.

Rethinking waste in partnership with Steelcase

Through our customer relationship with Steelcase, an American manufacturer of architecture, furniture and technology products, we are creating new and innovative uses for waste from our industrial coatings and supporting the circular economy. When Steelcase applies PPG coatings to their products, the overspray is collected and sent back to us. These powder coatings typically cannot be reused for the same purpose and would historically be sent to a landfill. We have developed processes to recycle the powder into new coatings, which Steelcase uses on brackets, inside drawers and other less visible surfaces in their products.

Last year, we made around 250,000 pounds of recycled coatings from powder coatings used by Steelcase. The process has completely removed this waste stream for our customer, reducing their environmental impact and saving them thousands of dollars in waste handling fees. The collaboration has opened the door for more innovative recycling and circularity initiatives, and we are continuing to develop products that use reclaimed materials.

“Steelcase is delighted to collaborate with suppliers like PPG, who are eager to collectively push forward best practices in sustainability,” said Kaila Bryzgalski, Steelcase product sustainability marketing manager. **“This project was a reinforcement of how when we responsibly choose and use materials and apply them in the design of our products, we can create better futures for people and the planet.”**



Supporting customer use of recycled materials

Aluminum is one of the most recycled materials in the world, and we're doing our part to enable the continued use of recycled aluminum.

In 2022, we launched PPG *Innovel PRO*, a non-bisphenol/non-BPA coating that provides improved application properties for recyclable aluminum beverage cans. Our coatings ensure minimal spoilage and protect both the can and beverage integrity. In addition to its improved performance, the coating helps our customers fulfill evolving regulations to remove bisphenols from food contact coatings, and enables the continued use of recyclable cans.



PPG *Innovel PRO* beverage can coating received a Cradle-to-Cradle Certified Material Health Certificate™ at the Platinum Level.



Multi-year data highlights

Total Waste Disposal		
	Intensity (metric tons per 100 metric tons of production)	Disposed (thousand metric tons)
2017	3.21	153.08
2018	3.02	144.89
2019	2.46	112.49
2020	2.10	89.68
2021	2.05	90.18
2022	2.79	116.70

Total waste disposed includes landfilled, incinerated and treated waste. Excludes waste associated with a 2017 furnace rebuild at our Lake Charles, Louisiana, plant, which is an infrequent event that occurs every 7 to 10 years. Data changes from prior reporting reflect adjustments for acquired and divested locations from the 2017 baseline onward.

Solid Waste Thousand metric tons			
	Generated	Recycled	Disposed
2017	244.74	91.65	153.08
2018	232.63	87.75	144.89
2019	194.62	82.13	112.49
2020	164.39	74.71	89.68
2021	170.15	79.97	90.18
2022	188.17	71.47	116.70

Disposed waste does not include waste that is recycled, reclaimed or incinerated for energy recovery. Data changes from prior reporting reflect adjustments for acquired and divested locations from the 2017 baseline onward.

Spills and Releases Rate per 1,000 employees	
Year	Rate
2017	1.84
2018	1.32
2019	1.25
2020	1.24
2021	1.28
2022	1.5

	Waste Generated/Recycled Non-hazardous Waste			Waste Generated/Recycled Hazardous Waste		
	Generated (thousand metric tons)	Recycled (percent)	Disposed (thousand metric tons)	Generated (thousand metric tons)	Recycled (percent)	Disposed (thousand metric tons)
2017	123.66	24%	93.61	121.08	51%	59.47
2018	115.84	25%	86.32	116.79	50%	58.56
2019	81.96	35%	52.90	112.66	47%	59.59
2020	70.69	37%	44.40	93.70	52%	45.28
2021	74.03	38%	46.26	96.12	54%	43.91
2022	100.56	25%	75.30	87.61	53%	41.40

Data for hazardous waste recycled include waste that was used to generate energy through direct incineration. We report our hazardous waste data using the regulatory framework of each country where we operate. Data changes from prior reporting reflect adjustments for acquired and divested locations from the 2017 baseline onward.





Our approach to waste management

Our paints and coatings extend the useable lifespan of products across industries, improve the performance of existing products, and refresh them so they can remain in use for many years. In this way, waste reduction is inherent to our purpose to protect and beautify the world. We also work to reduce waste from our operations as part of our wider environmental performance management.

Improving resource efficiency

Our focus on operational efficiency reduces our waste footprint, resulting in both environmental and financial benefits.

PPG acquires raw materials from suppliers and our manufacturing process converts these materials into finished products. These products are then transported to customers in the construction, consumer products, industrial and transportation industries. Typical waste streams resulting from these activities include process waste from equipment cleaning, substandard product, by-products and packaging.

We track waste produced at our facilities around the world, and manage each waste stream according to internal and legal standards. Waste that is shipped off-site for disposal is reported into a central data system, allowing us to monitor performance, identify areas for improvement and share best practices.

Our global waste stewardship process covers all waste contractors that provide waste treatment, storage, disposal or recycling services. These contractors are rigorously evaluated through our waste auditing process, ensuring alignment to regulatory and PPG waste handling requirements. Once approved, we apply our commercial requirements and communicate the status to our sites.

Facility management works to reduce or eliminate waste streams one source at a time. We prioritize waste reduction work based on criteria that includes hazard profile, volume and cost. For anything that cannot be eliminated by increasing our efficiency, we search for options to reuse and recycle materials.

We also drive waste reductions beyond manufacturing, including by focusing on product formulation and raw material management. Learn more about how we're designing out waste and factoring in environmental impacts in our [Sustainably Advantaged Products](#) and [Supplier Sustainability](#) sections.

We also foster partnerships with organizations focused on circularity and waste reduction, including the [PAINTCARE™](#) program in the U.S., [ProductCare](#) in Canada, the [ECO-PEINTURE™](#) non-profit in Quebec, and [PaintBack](#) in Australia, all of which allow consumers to recycle leftover or unwanted paint. We are exploring additional paint recycling opportunities globally where available.

Avoiding spills and releases

We recognize that even small spills can lead to environmental impacts, and risk exposing our business to clean-up costs, future liabilities and reputational risks. Our facilities have management practices in place to prevent spills and releases.

Our corporate spill elimination standard requires each facility to establish a spill elimination program and assess program performance each year. The program consists of an assessment of the facility's past performance and prioritized risks. Our EHS Management system requires that each of our sites assesses their environmental performance on an annual basis. PPG also performs periodic compliance audits, which are conducted by either internal experts or third-party consultants. Where necessary, facilities are provided with a corrective action plan that includes defined milestones for improvement.





All facilities conduct regular environmental and spill control training, as well as spill elimination workshops. During these events, employees from various functions assess their facilities to identify areas for immediate improvement and opportunities for longer term actions.

We prioritize interventions at our highest risk sites to further reduce the risk of spills. All of our sites are required to implement the following controls:

- Overflow protection for stationary processes and storage vessels
- Clear labeling of all lines and connections with contents and destination
- Securing portable tanks and loose containers on pallets when transported around the facility

We identify issues before they become significant through strict internal spill reporting requirements. Reporting thresholds vary by material and government-reportable levels, with the lowest threshold at 11 pounds (5 kilograms). Our internal reporting requirements include specific data related to each spill. This data allows a site to define and improve the process for material and product handling and movement to avoid future spills.

Remediation

Some of our past waste disposal methods, which were once authorized and accepted industry practices, can require environmental remediation or land reclamation to meet current regulations, our internal standards or stakeholder expectations.

We follow regulatory guidance and rules to assess and manage environmental issues and impacts at our facilities. This commonly includes a site assessment, which is conducted at various stages of a remediation project lifecycle and provides an environmental evaluation according to standard industry practices. The assessment determines what, if any, remediation activities or restrictions will be implemented to meet our goal of leaving each facility in a condition in which it can be reused safely and productively.

To learn more about our remediation efforts, please refer to our [2022 Form 10-K](#), beginning on page 61.





Water

We optimize water use and reduce our environmental impact through conservation and reuse.

We recognize that water is a finite, shared resource and minimize water use in all of our facilities through conservation, innovation and reuse. We consider our impacts on the entire water basin, and take into account the local environmental, regulatory and socioeconomic context of each of our sites.

Our water highlights in 2022

Goal: 20% reduction in water intensity by 2025 from a 2017 baseline.

0.7% increase in water intensity from a 2017 baseline.



reduction in total water withdrawal from a 2017 baseline



gallons of water reused through our Zero Discharge Project

In 2022, our water intensity was 4.24 cubic meters per metric ton of production, an increase of 0.7% from our 2017 baseline. We withdrew 17.73 million cubic meters of water during the year, a 11.8% reduction compared to the 2017 baseline.

The increase in our total water intensity over the last year has largely been driven by our Lake Charles, Louisiana, facility, which had to produce its own steam for a portion of 2022 due to issues with an external utility provider. Our product mix has also shifted since 2017 in response to changing customer demand, and reductions in some of our least water-intensive processes have driven our total water intensity higher.

We continue to explore and scale water efficiency measures across our operations. However, we recognize that our water use in water-stressed regions has a more significant impact on other users of the water basin. We are prioritizing water-efficiency measures in areas with high water scarcity risk, rather than focusing on bringing down our overall water intensity.

In 2022, we continued to improve our cleaning and production processes to reuse water without sacrificing the quality of our finished products. Our water reduction measures are closely tied to our efforts to reduce waste. We have continued to reduce both waste production and water usage through resource efficiency improvements, including replacing fresh water with wash water in production runs where appropriate. PPG's Zero Discharge Project has continued to expand in the United States, Canada and Mexico, and has led to water reuse or reduction projects at eight sites.



Impact of PPG's Zero Discharge Project in East Point, Georgia

During our production processes, some paint gets left behind in the drums used to mix ingredients and the pipes used to move paint. We clean out the system between batches with water to keep it running properly and avoid cross contamination between batches. Historically, we have sent the wash water to a municipal water treatment facility to be cleaned and released back into the local water system.

In 2022, we updated the cleaning processes at our East Point facility to reduce waste associated with the production of textured paint. We added a tank to collect waste material from the washing process and reuse it in future paint batches. This system allows us to reuse wash water in place of fresh water as an ingredient, saves the raw materials that would have otherwise become waste, and ultimately reduces our waste handling and disposal costs.

This single program reduces the waste intensity for our architectural coatings business in the U.S. and Canada by 3%, and will save more than 60,000 gallons of wastewater per year.

We've also enhanced our focus on the areas of our operations where water is scarce. Through our annual process of reviewing water scarcity and risk, we identified 26 facilities that we designated as priority sites. Priority sites either use more water or are situated in areas with high water stress. We will be focusing our water conservation efforts on these sites in the future to enable the greatest possible impact on our water footprint.



Reducing water used for irrigation in San Juan del Rio, Mexico

As our facilities work to reduce total water use, we frequently need to look beyond improvements to our production processes.

San Juan del Rio is a city in the Querétaro state of Mexico. The area has high water stress, meaning that the demand for safe, useable water exceeds the supply. The stress is caused by a country wide drought, and worsened by heavy users such as the state's agricultural sector.

Following a review of their water use on site, our team in San Juan del Rio realized that almost a quarter of their total water use was for irrigation of the landscape around the facility. While the site does not use a lot of water in their production processes, we have been able to significantly reduce water use by cutting back on irrigation. The reduction was achieved by developing a work plan for gardening personnel and establishing schedules for irrigation, which saved 55,000 cubic meters of water.



Multi-year data highlights

Water intensity Cubic meters per metric ton of production	
2017	4.21
2018	3.99
2019	4.09
2020	3.57
2021	4.03
2022	4.24

Data changes from prior reporting reflect adjustments for acquired and divested locations from the 2017 baseline onward.

2022 water withdrawn – All sources Million cubic meters	
Source	Amount withdrawn
Surface water	4.96
Groundwater	6.81
Seawater	0
Produced water	0
Third-party water	5.96

2022 freshwater consumption Million cubic meters	
Source	Amount withdrawn
Municipal water withdrawn	6.00
Fresh surface water withdrawn	5.00
Fresh groundwater withdrawn	6.80
Water discharged	14.64
Net freshwater consumption	3.16

Water consumption – All Sources Million cubic meters			
	Withdrawn	Discharged	Net consumption (withdrawn minus discharged)
2017	20.09	14.09	6.01
2018	19.15	14.57	4.58
2019	18.73	13.87	4.86
2020	15.28	13.29	1.99
2021	17.72	14.38	3.35
2022	17.73	14.64	3.09

Total may not equal the sum due to rounding.

Water withdrawal and water discharge data are provided by each location on a monthly basis using the best available data, including direct measurements when possible. Data changes from prior reporting reflect adjustments for acquired and divested locations from the 2017 baseline onward.

Water usage in water-stressed regions		
	Percent of total withdrawn	Percent of total consumed
2017	8%	15%
2018	9%	22%
2019	9%	20%
2020	11%	53%
2021	10%	29%
2022	9%	28%

Included facilities are in North America, South America, Europe, Australia and Asia. Data changes from prior reporting reflect adjustments for acquired and divested locations from the 2017 baseline onward and updated water-stress analysis.

Water Non-Compliances	
	Number
2017	5
2018	3
2019	6
2020	7
2021	6
2022	10

Data cover non-compliances associated with water quality permits, standards and regulations and is based on the year that PPG is notified of the non-compliance by a governmental authority.

Water non-compliances are typically minor deviations from existing discharge permits. These incidents are thoroughly investigated and corrective actions are implemented to minimize reoccurrence.



Our approach to water management

We use water in a wide variety of ways: as an ingredient, as a coolant, for washing machinery, to irrigate the land around our facilities, and even to help control air pollution. We track water use across our operations and work to reduce our total impact on the water system.

Mapping water usage and risks

Our water management approach is based on a global mapping process that enables us to identify relative water withdrawal and discharge risks in our portfolio.

Our operations withdraw water from varying sources depending upon availability in the areas in which they are located. These sources include municipal water, surface water and groundwater. We use the World Resources Institute's Aqueduct Water Risk Atlas to evaluate water risks at our locations globally. Water risks considered by the Aqueduct Water Risk Atlas include the frequency and severity of flooding, drought and water stress.

Other factors that we consider are:

- Seasonal rainfall variability
- Water quality
- Local water restraints, especially in water stressed regions
- Regulatory and financial impacts, including constraints from other water users, the ability to obtain water rights and permits, and regulatory restrictions

We rank our sites based on water usage, scarcity risk and other factors. Rankings are updated annually to reflect operational changes and sites that are acquired or sold.

Reducing and reusing water

Our water reduction strategy involves updating our production facilities and processes to reduce and reuse water. We focus our reduction efforts on the sites with the highest absolute water use and those that have been judged to have high water risk through our global water risk mapping process.

Many of the tactics that we use to reduce water use are specific to a single facility or business unit, but we share best practices and lessons across the company to identify scalable improvements.

Most of our operations have low water use and are not subject to usage constraints. However, we use water in many stages of our production processes, including cleaning and cooling machinery and as an ingredient in our products. As part of our sustainability efforts, we have increased our production of water-based products for customers, while balancing our efforts to conserve water. Water consumption is closely managed and monitored at the site level and periodic reports that evaluate this progress are shared with executive leaders. Water consumption metrics are included in each plant's environmental scorecard to encourage continuous improvement.





At many PPG sites, equipment cleaning makes up a significant percent of water use. We focus on improving processes to minimize equipment cleaning and water use while maintaining high quality production standards. Where possible, we also replace older water cooled equipment with newer technologies. These improvements can have an outsized impact on a site's water use while also providing cleaner, safer environments for our employees.

To supplement our water efficiency efforts, we look for opportunities for water reuse and recycling. Through our Zero Discharge Project, we work to reduce waste intensity and increase the reuse of wash water in our processes and products. At our Architectural Coatings facilities in the U.S. and Canada, we save the water used to wash the drum and piping after a batch of paint is made and recycle the water in the production of future paint batches. The wash water recycling lowers the cost of paint production by reducing raw material waste and water treatment and disposal costs, without impacting the end product's performance. We share best practices from this program across our business, with the intention of finding opportunities to reduce water use in our other business lines and geographic areas.

Wastewater treatment and discharge

We discharge most of our wastewater to municipal treatment facilities in compliance with local regulations. We monitor and report water quality as needed. In some cases, we are required to treat discharged water prior to release. We look for opportunities to reduce discharge across our product formulations and entire production process.

We ensure each location complies with our internal water discharge management guidelines, which include:

- Identifying, characterizing and documenting all water discharge sources according to regulatory requirements
- Identifying and documenting regulatory requirements for water discharge
- Demonstrating compliance with all regulatory requirements at the facility
- Identifying and documenting operational control procedures and maintaining a written preventive maintenance program for all critical water management equipment at the facility
- Training personnel in accordance with regulatory requirements and facility compliance
- Maintaining documentation and records pertaining to the water discharge management program according to regulatory requirements

Some of our operations are located near waterways, such as rivers or streams. To address and mitigate pollution risk, we focus on spill elimination and spill control and response. Learn more about our efforts to eliminate spills in the [Waste](#) section.





Energy

We are creating a culture of energy innovation and conservation.

PPG is committed to reducing the environmental impact of our operations. We work to reduce our energy usage, improve energy efficiency across our operations and increase the energy that we source from renewable power generation. These efforts minimize our greenhouse gas (GHG) emissions, lower operating costs and maximize resource efficiency.

Our energy highlights in 2022

Goal: 15% reduction in energy consumption intensity by 2025 from a 2017 baseline

Goal: 25% of purchased electricity comes from renewable sources by 2025
23% of purchased electricity came from renewable sources in 2022

We consumed 12.71 million gigajoules of energy in 2022, which was a 10% decrease from 2021. Despite our focus on reducing our overall energy use, our energy intensity increased 3% due to a change in product mix driven by changing customer demand. Our energy intensity was 3.04 gigajoules per metric ton of production – a 3% increase over the prior year. Our direct energy intensity increased 4%, and our indirect energy intensity increased 2% since 2017.

We completed the rollout of an energy management assessment at the majority of our large facilities in 2022. This evaluation supports our goal to continuously improve our energy efficiency efforts. We continue to improve the accessibility and usability of these evaluations to ensure that our facility managers benefit from them.



We also expanded our renewable energy sourcing efforts over the past year. In 2022, 6% of our total energy consumed came from renewable sources. Of the electricity that we purchased, 23% was generated by renewable sources in 2022. We continued to work with partners to evaluate on-site renewable opportunities and to secure renewable energy through power purchase agreements (PPAs). PPAs guarantee renewable energy supplies for years in the future, and help us lock in a fixed rate for electricity.

As part of our 2030 goals, we have announced decarbonization targets that have been approved by the Science-Based Targets initiative. As we prepare for the next phase of our decarbonization journey, we will be partnering with clean energy solutions providers to define a comprehensive global strategy for renewable and clean energy sources to our network of facilities around the world.

See the following case studies for specific examples of our work to improve energy efficiency in 2022.



Increasing energy efficiency of our IT infrastructure

Data centers are important enablers of our operations, as they allow for the electronic storage, processing, and dissemination of data and applications.

We began transitioning from PPG dedicated physical, standalone data centers and host servers to large cloud providers like AWS and Azure in 2022. These cloud providers are 3.6 times more energy efficient than the median U.S. enterprise data center, which helps reduce the overall environmental impact of our operations. By the end of 2024, we expect the transition away from physical data centers to reduce our annual energy consumption by 1,681 mWh and save 852 metric tons of CO₂ emissions.

Purchasing renewable energy in Adrian, Michigan

While we can reduce our energy intensity by increasing the efficiency of our operations, we rely on external vendors to meet our renewable energy goal. In one such partnership, we entered into a new power purchase agreement (PPA) with Constellation to supply renewable energy equivalent to the annual usage of our facility in Adrian, Michigan. The 12-year agreement will help PPG purchase 3,500 megawatt hours of energy per year from the Double Black Diamond solar project, and will help reduce our GHG emissions by more than 2,400 metric tons per year.

Reducing energy and water use in Zhangjiagang, China

Last year, our automotive coatings facility in Zhangjiagang, China, installed a new heating recovery unit (HRU) and pipelines to reuse steam condensate for heating the site and cooling water replenishment. Not only does the HRU make the facility's heating system more energy efficient, it also reduces the need to bring in fresh water to cool equipment. The new HRU and pipelines are expected to avoid as much as 1,000 metric tons (MT), or 264,170 gallons, of water withdrawals from the local water basin each month and will save PPG approximately \$75,000 in heating and water costs annually.



Multi-year data highlights

Energy intensity Gigajoules per metric ton of production			
	Total	Direct	Indirect
2017	2.95	1.71	1.24
2018	2.96	1.74	1.22
2019	2.94	1.70	1.23
2020	2.60	1.48	1.13
2021	2.94	1.75	1.19
2022	3.04	1.77	1.27

Total may not equal the sum due to rounding.

Energy intensity includes all types of energy consumed within the organization related to manufacturing and research and development. Data changes from prior reporting reflect updated data and adjustments for acquired, divested and closed locations from the 2017 baseline onward.

Energy Costs Millions of dollars	
2017	149
2018	165
2019	146
2020	125
2021	177
2022	263

Data changes from prior reporting reflect updated data and adjustments for acquired, divested and closed locations from the 2017 baseline onward.

Energy consumption Million gigajoules			
	Total	Direct	Indirect
2017	14.07	8.15	5.92
2018	14.24	8.37	5.87
2019	13.45	7.80	5.65
2020	11.12	6.31	4.81
2021	12.92	7.70	5.23
2022	12.71	7.41	5.30

Total may not equal the sum due to rounding.

Direct energy consumption is the amount of primary energy we combust on-site. Our direct energy sources may include coal, natural gas, fuel distilled from crude oil, propane, biofuels, ethanol and hydrogen. Indirect energy refers to the energy we consume that is generated by external suppliers. We consume indirect energy through electricity, heat, steam and electricity generated from renewable energy sources, such as solar and wind. Data changes from prior reporting reflect updated data and adjustments for acquired, divested and closed locations from the 2017 baseline onward.





Energy consumption by source												
Million gigajoules/percent of total energy consumption												
	2017		2018		2019		2020		2021		2022	
	Million gigajoules	Percent	Million gigajoules	Percent	Million gigajoules	Percent	Million gigajoules	Percent	Million gigajoules	Percent	Million gigajoules	Percent
Nonrenewable fuels purchased and consumed	8.15	57.92%	8.37	58.80%	7.80	57.98	6.31	56.72	7.70	59.55%	7.41	58.30%
Nonrenewable electricity purchased	3.18	22.58%	3.14	22.09%	2.94	21.87	2.67	23.97	2.73	21.13%	2.69	21.16%
Steam/heating/cooling and other nonrenewable energy purchased	2.06	14.66%	2.02	14.19%	2.00	14.86	1.45	13.07	1.70	13.14%	1.83	14.42%
Total renewable energy purchased or generated	0.68	4.84%	0.70	4.93%	0.71	5.28	0.69	6.24	0.80	6.17%	0.78	6.13%
Total nonrenewable energy sold	0.00	–%	0.00	–%	0.00	–%	0.00	–%	0.00	–%	0.00	–%
Total nonrenewable energy consumption	13.38	95.16%	13.54	95.07%	12.74	94.72	10.43	93.76	12.12	93.83%	11.93	93.87%

Total may not equal the sum due to rounding.

Data changes from prior reporting reflect updated data and adjustments for acquired, divested and closed locations from the 2017 baseline onward.



Our energy approach

To fulfill our purpose to protect and beautify the world, we recognize the need to reduce our environmental impacts. We have committed to:

- Reduce our annual energy consumption through implementation of innovative energy solutions
- Increase our use of renewable energy across our operations
- Ensure reliable supply of energy and contingency measures in the event of a power failure or gaps in renewable energy generation
- Replace technologies that use fossil fuels (coal, oil and natural gas) with those that use electricity as an energy source

To enable these actions, we are focused on developing an energy-conscious culture throughout PPG. We build awareness across the company through frequent communication, developing energy management requirements for our facilities, and focusing our efforts and resources on locations with the highest energy use.

Energy management

Most of our coatings are produced at ambient temperatures and pressures, and most of our production processes are not energy intensive. We focus on identifying the processes that require the most energy and making them more efficient. For example, we are working to improve the efficiency of the milling process, where ingredients such as pigments are broken down to the correct particle size for use in our paints and coatings, by improving production processes and upgrading technology in our facilities. We also work to shorten cycle times, and increase the efficiency of those processes that may require heating or cooling.

At our most energy intensive facilities, we establish energy management requirements based on the ISO 50001 Energy Management Standard. We regularly update and improve these requirements based on feedback from our facility managers, to support continuous improvement throughout the organization. Key aspects of these energy management requirements include:

- Identification and characterization of energy usage
- Documentation of and compliance with all regulatory requirements for energy usage
- Documentation of operational practices to reduce energy consumption, including identification of equipment with high energy use, a written preventative maintenance program and energy-reduction processes
- Training on energy use and minimization
- Documentation and records of energy usage on the site

We have an internal portal for sharing energy management performance data. The portal provides management with timely information on their sites' energy performance compared to goals, previous years and similar facilities. This allows us to identify areas of high energy use and evaluate the impact of efficiency improvements as they are implemented.

We conduct full-scale audits at our facilities that consume the most energy and make efficiency improvements based on these findings. We are undertaking these improvements over time to optimize the impact, focusing on the projects with the greatest improvement opportunities for the resource investment required. Efficiency improvements may include:

- Process changes to reduce the energy required to manufacture our products
- Upgrading outdated equipment such as boilers, chillers and air compressors
- Switching to LED lighting
- Electrification of processes that use fossil fuels

We also use our energy audit process to look for opportunities to implement renewable energy generation on site at our facilities, including rooftop and freestanding solar panels.



Renewable energy sourcing

Most power generation still relies on burning fossil fuels, which are not renewable and release greenhouse gases. We work with external suppliers to increase the percentage of our electricity that comes from renewable sources. We source renewable energy through a variety of means, including direct investment, PPAs, renewable energy certificates and green tariffs.

Much of our renewable energy is sourced through PPAs, which allows us to purchase electricity at a fixed cost for anywhere from 10-25 years, and helps developers build renewable energy infrastructure. These agreements are key in supporting our decarbonization commitments. Learn more in the [Emissions](#) section.





Emissions

We are committed to reducing greenhouse gas emissions across our operations and value chain.

Our emissions highlights in 2022

Goal: 15% reduction in GHG intensity (scope 1 and 2) from 2017 baseline by 2025

Achieved **6%** reduction in GHG intensity from 2017 baseline

Achieved **17%** reduction in absolute direct and indirect GHG emissions

In 2022, we achieved a 6% reduction in GHG emissions intensity and a 17% reduction in absolute direct (scope 1) and indirect (scope 2) GHG emissions from the 2017 baseline. Emissions intensity measures the amount of greenhouse gases relative to production levels or economic output, which was adversely impacted in 2022 due to our product mix. Absolute emissions refers to the total quantity of GHG emissions. For more information on energy related projects that have contributed to GHG emissions reduction, see the [Energy](#) section.



In early 2022, we committed to setting near-term company-wide emission reductions targets through the Science Based Targets initiative (SBTi). The SBTi is a partnership between CDP, the United Nations Global Compact, World Resources Institute and the World Wide Fund for Nature that defines and promotes best practice in emissions reductions in line with climate science. The SBTi provides companies with independent assessment and validation of GHG emissions reduction targets. Our SBTi-approved targets, which cover our direct (scope 1), indirect (scope 2) and value chain (scope 3) emissions, formed the basis for our new 2030 energy and emissions goals.

Moving forward, we will focus on reducing emissions in these categories:

- Direct emissions (scope 1)
- Indirect emissions (scope 2)
- Purchased goods and services, including raw materials and packaging (upstream)
- Customer processing of sold products (downstream)
- End-of-life treatment of sold products

While we do not report hazardous air pollutants (HAPs) on a global level, we do track those emissions at our U.S. facilities. In 2022, our U.S. operations emitted 223 metric tons of HAPs. As we reformulate products to make them more sustainable, our use and therefore the emissions of hazardous air pollutants should decrease.



Increasing efficiency at Quattordio, Italy

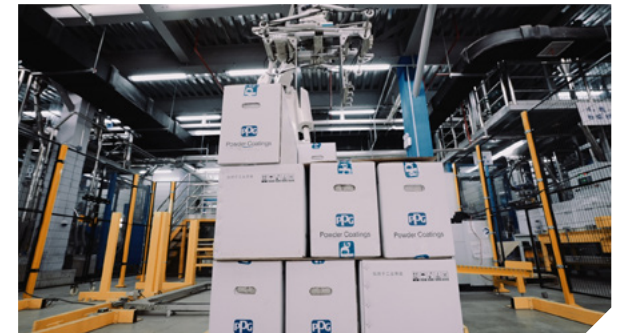
We are committed to identifying and implementing new processes that increase our energy efficiency and decrease related emissions. We recently installed a high-efficiency power generation facility at our automotive paint and coatings manufacturing site in Quattordio, Italy. We partnered with Grastim, a developer of high-efficiency energy-generation solutions that include trigeneration and cogeneration, to install and operate the power generation facility. Trigeneration is a process that increases energy efficiency by combining cooling, heating and power generation.

We will purchase energy through a power purchase agreement, which helps lower our energy costs over the next seven years, in addition to reducing our scope 2 emissions. The trigeneration system is expected to contribute to a 13% reduction in total energy costs and a 10% reduction in CO₂ emissions related to power generation. Although the system is powered primarily by natural gas, it is designed to be powered with a mix of natural gas and clean hydrogen fuel. With future investment, the system can be adapted to use anywhere from 20% to 60% hydrogen.

Reducing scope 2 emissions in Tianjin, China

Our coatings manufacturing facility in Tianjin, China, uses a chilled-water cooling system in some of their production processes. The facility installed an automatic control system in 2022, which can adjust temperatures at the optimal time to avoid unnecessary energy consumption and product variation caused by unstable cooling temperatures.

Historically, the system was manually controlled, meaning that employees had to start and stop a large number of equipment and valves at various stages of the process to maintain the optimal temperature. The automatic control system removes manual work at this phase and ensures a stable, cool water supply in our production process. The upgrade is estimated to save more than 2.2 million kilowatt hours (kWh) of electricity each year, which in turn helps reduce our scope 2 greenhouse gas emissions. It is estimated that this will also lead to more than \$275,000 in annual energy cost savings for PPG.





Multi-year data highlights

Greenhouse gas emissions intensity Metric tons of emissions per metric ton of production			
	Total	Direct (scope 1)	Indirect (scope 2)
2017	0.22	0.09	0.13
2018	0.21	0.09	0.13
2019	0.21	0.09	0.12
2020	0.19	0.08	0.11
2021	0.20	0.09	0.11
2022	0.21	0.09	0.11

Total intensity data include direct and indirect emissions. We report greenhouse gas as carbon dioxide equivalents for carbon dioxide, methane and nitrous oxide. Data changes from prior reporting reflect updated data and adjustments for acquired and divested locations from the 2017 baseline onward. Total may not equal the sum of direct and indirect due to rounding.

Greenhouse gas emissions Million metric tons of carbon dioxide equivalents			
	Total	Direct	Indirect
2017	1.05	0.41	0.64
2018	1.03	0.42	0.61
2019	0.96	0.40	0.56
2020	0.80	0.32	0.48
2021	0.87	0.40	0.47
2022	0.87	0.39	0.48

Our plants are not significantly impacted by emission-limiting and/or emissions reporting-based programs or regulations. In 2022, we had zero direct emissions that were covered under an emissions-limiting regulation or program. Data changes from prior reporting reflect updated data and adjustments for acquired and divested locations from the 2017 baseline onward.

Air emissions Metric tons				
	Particulates	Volatile organic compounds	Nitrogen oxides	Sulfur dioxide
2017	372.84	2014.33	1117.43	68.91
2018	415.75	2260.34	1291.67	74.62
2019	364.93	2555.83	1057.52	74.14
2020	274.86	1855.33	613.16	47.07
2021	339.79	1910.81	821.61	35.35
2022	299.10	1797.15	840.84	38.76

Data changes from prior reporting reflect updated data and adjustments for acquired and divested locations from the 2017 baseline onward.

Air emissions intensity Metric tons of emissions per 1,000 metric tons of production				
	Particulates	Volatile organic compounds	Nitrogen oxides	Sulfur dioxide
2017	0.08	0.42	0.23	0.01
2018	0.09	0.47	0.27	0.02
2019	0.08	0.56	0.23	0.02
2020	0.06	0.43	0.14	0.01
2021	0.08	0.43	0.19	0.01
2022	0.07	0.43	0.20	0.01

Data changes from prior reporting reflect updated data and adjustments for acquired and divested locations from the 2017 baseline onward.



Our approach to reducing our emissions

We reduce air emissions globally through improved operating practices, product reformulations and, where necessary, emissions control equipment.

Greenhouse gas emissions

The sources of our emissions vary by facility due to the different types of energy used across our operations. We take a facility-level approach to reducing our direct emissions, focused on the sites that release the most greenhouse gasses (GHGs).

Our approach to reducing scope 1 and 2 GHG emissions is closely tied to our energy management efforts, which focus on improving our energy efficiency and sourcing more renewable energy. Beyond improved environmental outcomes, improving energy efficiency also reduces our operations costs. Learn more in the [Energy](#) section.

Scope 3 emissions come from sources that PPG does not own or control, including the extraction or production of raw materials, use of sold products, and product end-of-life. We work with our suppliers and customers to evaluate and reduce these emissions in our value chain. Learn more about how we improve environmental performance across our value chain in the [Supplier Sustainability](#) section.

Other air emissions

We work to reduce the air pollutants released by our operations, particularly those that are regulated by government agencies, such as volatile organic compounds (VOCs) and particulate matter. In the United States, we measure and report U.S. EPA hazardous air pollutants (HAPs) from our facilities.

We use a range of solutions to reduce our air emissions, including technological and process improvements in our facilities. We also reformulate our products to reduce harmful compounds, including those designated as HAPs and VOCs. Learn more in our [Product Stewardship](#) section.





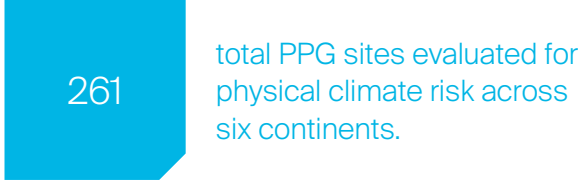
Climate-Related Risks and Opportunities

We use a systematic approach to manage climate risks.

The effects of climate change are already being felt around the world, and will continue to impact generations to come.

Climate-related risks and opportunities in 2022

Physical changes, such as rising sea levels and changing weather patterns, create significant risks that need to be identified, assessed and mitigated. At the same time, the transition to a low-carbon economy will present both risks and opportunities for PPG.



To advance our approach to managing climate-related risks and opportunities in 2022, we:

- Improved the climate risk modeling used in our risk assessment process
- Completed in-depth analysis of climate risks at key sites
- Continued to expand sales of sustainably advantaged products to capture climate-related opportunities
- Worked with business units to incorporate climate risk into decision making processes
- Developed targets for scope 1, 2 and 3 emissions and submitted the targets to the Science Based Targets initiative (SBTi) for approval

PPG products support the low-carbon transition

As businesses move to mitigate climate change, they will need to rely on innovation across their value chains to reduce the negative environmental impacts of their operations. Many of PPG customers have set their own greenhouse gas (GHG) emission reduction targets, and we aim to support our customers' targets by reducing the GHG emissions associated with the lifecycle of PPG products.

We consider sustainability throughout our R&D process, to ensure that a high volume of products in our portfolio offer the right combination of high performance and reduced environmental impact.

Select examples of PPG products that help our customers reduce their scope 1, 2 and 3 GHG emissions are included below.

Streamlining customer operations: PPG *Coraseal* 4-Wet Sealer allows automotive manufacturers to streamline the application and curing process, and reduces CO₂ generation by up to 6kg per vehicle.

Reducing customer energy use: The expanded bake PPG ENVIRO-PRIME® EPIC coating used in manufacturing electric vehicles requires less time and energy to cure.

Products with lower embodied carbon: *Seigneurie Evolutex* Bas Carbone by PPG, an architectural coating launched in France, uses a bio-based binder and has a 20% lower carbon footprint than previous coatings.



Our approach to climate-related risks and opportunities

Understanding climate risks and opportunities

To expand our understanding of likely impacts and refine our response to climate change, PPG proactively undertakes climate scenario analysis, risk assessment and planning activities. These activities reflect guidance from the Task Force on Climate-related Disclosures (TCFD).

We conduct climate scenario analysis regularly to consider the resilience of our strategy against a range of possible future scenarios. Climate scenario analysis is a well-established method for developing and testing strategic plans. Our last scenario analysis was undertaken in 2021, and included input from more than 700 participants representing a wide range of business units and functions across PPG. We developed a range of possible climate scenarios based on well-established, publicly available resources including:

- International Energy Agency Sustainable Development Scenario
- Principles for Responsible Investment Inevitable Policy Response (Forecast Policy Scenario)
- Intergovernmental Panel on Climate Change RCP 8.5
- Intergovernmental Panel on Climate Change RCP 6.0





In addition to our scenario analysis work, we conduct risk assessments to understand our exposure to physical impacts of climate change. Our physical climate risk assessment starts with a high-level, qualitative perspective on climate change stressors with potential to affect PPG’s global portfolio of facilities. We evaluate sites across our portfolio to understand their exposure to these stressors and assign relative risk scores based on site-specific data. Working with a third party, we use global climate models to assess the relative risk of each facility against six climate change stressors: drought, flooding potential, extreme heat, extreme seasonal precipitation, sea level rise and high wind speeds. PPG personnel can explore the outcomes of this analysis through an interactive dashboard, which can be filtered by type of risk, business unit, region, country and type of facility.

Sites with high relative risk scores and those that are most important to our continued operations are included in a more thorough risk assessment. This assessment includes more refined climate modeling and detailed site information, including site plans and information on critical infrastructure. Results of the climate risk assessment are reviewed with regional and global operations management teams. We are continuing to build on these efforts by defining action plans for at-risk locations, prioritizing sites with the nearest-term risks.

Environmental, social and governance risks are also considered through our mainstream enterprise risk management processes. [Learn more](#) about PPG’s approach to risk management in our TCFD Index.

We have formal processes in place throughout PPG to ensure we identify and capture climate-related opportunities. For example, we hold structured regular meetings with our customers to understand how PPG can help them meet their environmental objectives – through our existing products and through research and development to address unmet customer needs. Each of PPG’s businesses has a dedicated sustainability subject matter expert to ensure that sustainability considerations are integrated into customer engagement across our product lines. This process helps us identify new markets for our existing products, and ensures that we are developing the right technologies to meet our clients’ needs.

[Learn more](#) about how we develop products to help our customers meet their environmental goals in the Sustainably Advantaged Products section.

Managing risks and opportunities in our operations

We regularly update our emergency and crisis management processes to account for climate-related risks. Through these processes, we coordinate the efforts of our local emergency management teams at each location with our regional and global crisis management leadership. Global, regional and local plans consider the risk of natural disaster, infectious disease, supply chain interruptions, employee safety, asset protection, customer impacts and other business continuity requirements.

Each year, the local emergency management team at our facilities around the world must review and update its emergency response plan to reflect current conditions and changes in risk. Emergency preparedness and response is a key element of PPG’s EHS Management System. This includes assuring employees are properly trained and equipment needed to respond to emergencies is available. Each site also performs an emergency response exercise, and our global leadership monitors conformance with these requirements through an internal corporate auditing process. Our regional and global crisis management teams conduct similar crisis response exercises annually.



Transition risks arise from action taken to transition the economy away from fossil fuels through policy, technology change and shifts in market or consumer preferences. These risks also present opportunities for companies focused on supporting the low-carbon transition through enhanced resource efficiency. We focus on resource efficiency through activities to reduce our environmental impact and establishing emissions reduction targets expected to be certified by the Science Based Targets initiative. Accompanying these emissions targets are other environmental targets designed to support the long-term success of the business and reduce our impacts.

[Learn more](#) about how we're acting on opportunities to improve our resource efficiency in the Energy, Water, and Waste sections.

Managing risks and opportunities in our value chain

We're also focused on opportunities to support decarbonization along our value chain. We pursue supplier management strategies that help us make more sustainable choices in what we buy and from whom. We work with EcoVadis to evaluate and improve our suppliers' environmental performance, recognizing that efficiency improvements throughout our value chain represent opportunities for saving costs and reducing our environmental impacts. PPG has also analyzed tier one suppliers' carbon emission contribution and reduction potential of top raw materials which contribute to scope 3 emissions. This analysis provides insights on potential scope 3 reductions and also sets the basis for further analysis on upstream value chain transitional risks related to shifting to a low carbon economy. Learn more about our work in the [Supplier Sustainability](#) section.

Our products, processes and innovations can help consumers live more sustainably and help industries reduce their impact on the planet. We identify products in our research and development pipeline that are sustainably advantaged, and are constantly working to increase the percentage of our sales that come from sustainable products. Learn more in the [Sustainably Advantaged Products](#) section.

Creating sustainably advantaged products and supporting more responsible processes along our supply chain are just a couple of the tools that we use to combat climate change. Industry-wide change and legislative support are important magnifiers of these efforts. Through our Government Affairs department and membership with trade associations and coalitions, we engage directly and indirectly on an ongoing basis with policymakers at the local, state and national levels on issues related to climate change. Two key focus areas are energy efficiency and clean energy generation. We support an "all-of-the-above" approach to energy generation, which includes clean energy generation methods such as wind and solar. We believe that clean energy generation must occur in a measured way, without significant price fluctuations and without harming our production, suppliers and business customers.

We are constantly exploring ways to better support the growing industries that will aid the transition away from fossil fuels. As a producer of advanced coatings that go into clean energy generation, we closely follow the advanced energy manufacturing industry. We frequently support the advocacy efforts of wind, solar and other clean energy stakeholders. We also work with alternative energy providers to source more renewable electricity for our operations. Learn more about our use of low emission energy sources in the [Energy](#) section.





Transportation

Internal experts, mandatory practices and effective processes help ensure our products are transported safely.

Each day, our products are transported by land, sea and air around the world. We work to ensure they arrive at their destination safely and minimize the environmental impact of transportation.

Our transportation highlights in 2022

Transportation incidents

In 2022, there were 288 incidents reported via a U.S. DOT 5800 incident report or PPG transportation incident report – a 48% decrease compared to 2021. Twelve of these required immediate notice to a governmental authority, and were therefore considered significant according to our internal criteria and that of the Sustainability Accounting Standards Board (SASB). Of these 12, seven occurred outside the U.S. and five were within the U.S.

Transportation emissions

To reduce the emissions associated with moving our products, we integrated language that communicates our efficiency goals into supplier agreements for the first time in 2022. All suppliers are encouraged to quote for “green solutions” which use alternative fuels and release less CO₂ into the atmosphere.

We use a range of tools to track emissions in our value chain. In 2022, we launched a dashboard to help track supplier emissions related to transportation. The dashboard is based on EcoTransIT World, an industry-standard solution for calculating emissions of freight transportation, and supports analysis of CO₂ emissions by shipping lane and carrier. Using the dashboard, we can identify how factors such as distance, transport mode and fill rate of vehicles impact transportation-related emissions. These insights help us identify improvement opportunities and inform how we engage with our carriers to improve their environmental impact by changing shipping patterns, processes or types of vehicles.

Reducing transportation-related emissions in Stowmarket, UK

As part of our effort to reduce our direct (scope 1) emissions, we have been exploring ways to replace our fleet of gas- and diesel-powered vehicles with electric vehicles and bicycles. At our automotive refinish coatings site in Stowmarket, UK, we piloted a program to replace diesel vans used within the facility with a fleet of cargo bicycles. The bikes are being used to move tools and equipment around the mile-long facility, and have been embraced by the staff on site.



“We’ve just begun piloting the bikes and they’re already a huge hit. They’re efficient, easy to maneuver and a great way to get some workday exercise. They really get the job done.”

Richard Hallett, PPG senior supply chain analyst



Our approach to transportation

Globally, about 85% of our transportation is by truck. While we have a small fleet of company-owned trucks and vans for local delivery from our stores, the vast majority of our shipments are handled by third parties. We work with these carriers to ensure our products are transported safely and compliantly.

Before engaging the services of a third-party transport provider or renewing an existing contract, we assess the company's safety record, financial security and other factors. We do not contract with any company that does not meet our requirements.



Each carrier we engage must sign our transportation agreement, which includes specific requirements related to safety and valid operating authority. In addition to complying with all applicable safety laws, PPG requirements, facility operating procedures, and any other policies in effect at PPG or customer facilities, these include:

- Maintaining a “satisfactory” U.S. DOT safety rating or its foreign equivalent. Should a carrier’s safety rating change, the carrier must notify us in writing within five days of receiving notification from the respective government authority.
- Ensuring drivers and employees are fully trained and hold the qualifications, permits and licenses required by law or regulation to perform the services.
- Training drivers in the proper handling of our shipments from point of origin to point of delivery.
- Promptly reporting any incidents to PPG and, when required, governmental agencies.

We perform additional assessments, evaluations and reviews for carriers that transport hazardous materials or dangerous goods. We manage this legal requirement through our transportation of dangerous goods management system, which establishes criteria for reporting significant incidents via our EHS incident reporting system. We investigate each significant incident and implement appropriate corrective actions to minimize the likelihood of recurrence.

In addition to the safe transportation of our products to their destination, we are committed to identifying actions we can take to make our transportation more sustainable. Key aspects of our approach to lowering transportation emissions include:

- Operating a localized manufacturing model – meaning our products are often sold in the same market where they are manufactured
- Continuously looking for ways to manufacture products closer to our customers
- Improving the efficiency of our operations and supply chain
- Encouraging high truck utilization
- Moving raw materials and finished goods by train transport where possible





Depending on availability in the market in which they operate, we encourage our supply chain teams to pursue efficiency measures above and beyond our company-wide standards. Examples include:

- Providing additional training on safe and fuel-efficient driving
- Monitoring efficient driving performance for PPG fleets within our Refinish business in Europe on a weekly basis
- Grouping shipments into a smaller number of larger trucks to reduce the cost and carbon emissions associated with transportation. This initiative, which has been taken up in many of our other businesses and geographies, helped avoid the release of the equivalent of 156 metric tons of CO₂ from our automotive business in Brazil.
- Using electric vehicles to deliver products to our industrial customers in Bangalore, India. This initiative avoided burning more than 2,500 liters of diesel fuel each year.





Social





People Overview

PPG people make it happen.

Our people highlights in 2022



PPG Employees across more than 70 countries around the world



increase of our U.S. non-frontline headcount for Black employees



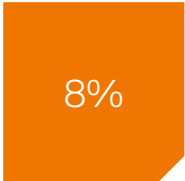
members in our eight Employee Resource Networks



increase in U.S. non-frontline Latino employees



faster engagement growth than comparable companies



increase in U.S. non-frontline Asian employees

Our people strategies provide the foundation for our team members to thrive, deliver and grow, enabling them to deliver exceptional performance and live our purpose to protect and beautify the world. We remain committed to being a purpose-driven organization where our entire diverse workforce is engaged and can bring their best self to work.





By creating and fostering an inclusive culture throughout PPG, we continue to become a more innovative, productive and competitive company. We know that diverse teams perform better, which is why we work to enable all employees to show up as their best selves. Learn more in our [Diversity, Equity and Inclusion](#) section.

The PPG Way defines the values we live by, and helps cultivate our company culture of ownership, empowerment and inclusiveness. It helps enable and engage employees to deliver world-class performance. In 2022, we introduced The PPG Way to Lead, a science based behavioral competency model based on the six tenets of The PPG Way. This model identifies specific behaviors that employees at all levels can use to become better leaders. We have formally incorporated The PPG Way to Lead into our talent processes, starting with performance management, assessment and hiring. Learn more about how we are improving our leadership at every level of the company in the [Learning and Leadership Development](#) section.

Our employee recognition and development programs drive employee engagement and help retain our best talent at PPG. Over the past year, we leveraged our employee listening strategy to understand employee sentiment related to hybrid work. We deployed multiple surveys and focus groups to gauge effectiveness, drive productivity and determine how best to support people leaders and all employees. We plan to expand our listening strategy to other business priorities in the coming years. Learn more in the [Engagement](#) section.

Our world-class safety and wellness programs protect the overall well-being of our people. Last year, we expanded our Employee Assistance Program (EAP) offering to all employees. We also launched our first global Financial Wellness program designed to help employees understand their finances so they are able to achieve or retain financial security. We continued to embed a culture of safety throughout the company in 2022 by leveraging our global environmental health and safety management system, supported by a series of initiatives that address the unique environments of our operations. Learn more in our [Safety and Health](#) and [Wellness](#) sections.

We extend our efforts into the communities where we operate, to Protect and Beautify the World beyond the scope of our operations. Over the last year, we have collaborated with global colleagues, communities and neighbors to help our communities thrive. Learn more in the [Community Engagement](#) section.

Multi-year data highlights

Number of employees	
2022	52,000
2021	49,300
2020	46,900
2019	47,600
2018	47,300

Numbers are average for the full year and include PPG joint ventures.

2022 employees by region					
	Asia Pacific	Europe, Middle East and Africa	Latin America	U.S. and Canada	Total
Female	1,727	5,493	2,205	5,041	14,466
Male	5,219	12,156	6,386	12,834	36,595
Non-binary	0	0	0	16	16
Not specified	0	57	4	0	61
Total	6,946	17,706	8,595	17,891	51,138

Numbers are as of Dec. 31, 2022.

2022 Employees by Employment Type		
	Full-Time	Part-Time
Female	13,679	787
Male	36,032	563
Non-binary	15	1
Not specified	60	1
Total	49,786	1,352

Numbers are as of Dec. 31, 2022.



Diversity, Equity and Inclusion

One of PPG's greatest strengths is the diversity of our people.

A diverse workforce and inclusive culture promote employee well-being and are intrinsically linked to stronger company performance. PPG is consistently working to find new ways to amplify the voices of our underrepresented employees and help all of our employees bring their best selves to work.

Our diversity, equity and inclusion highlights in 2022



In 2022, we continued to cultivate a sense of belonging for all of our employees. Our commitments and key highlights from the past year are summarized on the following page (all achievement figures as of December 2022 unless otherwise noted). This section focuses on performance during 2022. For more information about our approach to DE&I, see our [approach](#) to diversity, equity and inclusion.





2025 Commitments	2022 Progress
Achieve 34% to 36% representation of non-frontline global female professionals by 2025.	Achieved 31% representation of non-frontline global female professionals.
Increase the headcount of Black, Latino and Asian employees by 45% to 55% across our non-frontline, U.S.-based employee population (using January 1, 2021, as our baseline).	Achieved a 19% increase of our non-frontline headcount for Black employees, 16% increase in non-frontline Latino employees and 8% increase in non-frontline Asian employees.
Reach total global employee resource network and DE&I capability-building participation of 50% by 2025.	Achieved 34% employee participation, including more than 7,500 PPG employees that are members of the global Employee Resource Networks.

Black + Latino Employee Network Day

Our Employee Resource Networks (ERNs) organize flagship events for their members throughout the year, and come together with other ERNs to network, build connections and learn from one another. Last year, our Latino Employee Network and our Black Employee Network worked together to host a Black + Latino Employee Network Day (BLEND). The event, which took place at PPG’s Aerospace plant in Mojave, California, highlighted the importance of building new connections among PPG’s employees and the broader community. BLEND brought together more than 300 employees and several local businesses to share their experiences and explore similarities between Black and Latino cultures. Events like BLEND help employees, especially those in manufacturing plants and distribution centers, celebrate diversity and create stronger understanding of each other’s lived experiences.

“The event exceeded all expectations, as it was the perfect blend of company, culture and community,” said Edith Hayes, PPG plant manager, Aerospace, Mojave, and Black ERN cultural awareness pillar lead. **“I’m proud of how our employees displayed their pride and embraced learning about others.”**

“Partnering with other ERNs, like BLEND, help employees, especially those in our manufacturing plants and distribution centers, celebrate diversity and create a stronger appreciation for each other,” said Mariana Molinolo, PPG customer service manager, Aerospace, and Latino ERN co-chair.





In support of our DE&I strategy and commitments, our eight Employee Resource Networks (ERNs) are designed to be a catalyst where diverse employees throughout the world will realize their full potential at PPG. The ERNs empower all employees to shape their careers, strengthen their communities, make an impact to PPG's business strategies while celebrating their diverse culture, background and experiences. Highlights from the past year are included below.

The Abilities First Network aims to provide individuals with special abilities opportunities to reach their full potential by creating educational experiences and fostering an inclusive environment. In 2022, the ERN made available the PPG Autism Color Palette, a guide for selecting colors that help reduce stimulation and create calm spaces for autistic persons. In addition, the network achieved a 100 rating on the Disability:IN Equality Index and was recognized as a [“Best Place to Work for Disability Inclusion.”](#)

The Black Employee Network works to enhance the personal and professional development of Black employees, represent PPG through community outreach and serve as a key resource in driving business growth for the company. Last year the network hosted a fireside chat with Dr. Bernice A. King, daughter of the late Dr. Martin Luther King Jr. and an African Ancestry reveal event “Unlocking the Power of our African roots” to celebrate Juneteenth.

The Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ+) Network works to create an environment that recognizes and supports LGBTQ+ employees, assists in PPG's efforts to promote diversity and inclusion, and helps identify best practices in a variety of areas affecting LGBTQ+ team members. This year, the network raised awareness of the importance of pronouns in the workplace, helped launch a template to make it easy for employees to add pronouns to their email signatures, and featured influential advocates of the LGBTQ+ Community, including Tegan & Sara from the Tegan & Sara Foundation and Judy Shepard, the mother of the late Matthew Shepard.

The Women's Leadership Network fosters an appreciation of the value of women in the workplace and creates an inclusive work environment that attracts, retains and advances women. The network continued their work on the Men as Allies campaign, encouraging men to support women's careers in the workplace, and organized a “50 ways to Break the Bias” workshop.

The Asian Employee Network works to connect Asian employees across the globe, inspire Asian and Asian-descent employees to share their unique heritages, educate non-Asian employees, help employees grow and give back to those in need. In one example of their work over the last year, the network hosted a session with Dr. Russell Jeung, founder of Stop AAPI Hate.

The Latino Employee Network works to create an environment that celebrates and embraces the diversity of the Latino community, generates additional career development opportunities for members and empowers members to leverage and demonstrate their insights and passions. In 2022, the network organized an English as Second Language mentoring program to help increase confidence in speaking English in the workplace.

The Veterans Employee Network aims to provide veterans with support and networking opportunities, such as mentoring, community outreach, career development and cultural awareness activities. Among their other activities in 2022, the network organized veteran recruiting events and guest speakers featuring Charles McCaffrey from Paralyzed Veterans of America and singer and Army veteran Keni Thomas. In addition, PPG was ranked #72 among the best 200 U.S. companies on Forbes Top Places to Work for Veterans.

The Young Professional Network is focused on driving improved engagement and retention of PPG employees with a focus on those who are new to PPG and/or early in their careers by organizing events that align with four strategic pillars: careers for career advancement, commerce to accelerate business growth, community to strengthen community presence and culture to increase engagement. The network hosted an event with Ryan Jenkins, bestselling author and speaker, focused on reducing isolation and loneliness in the workplace.



Data highlights

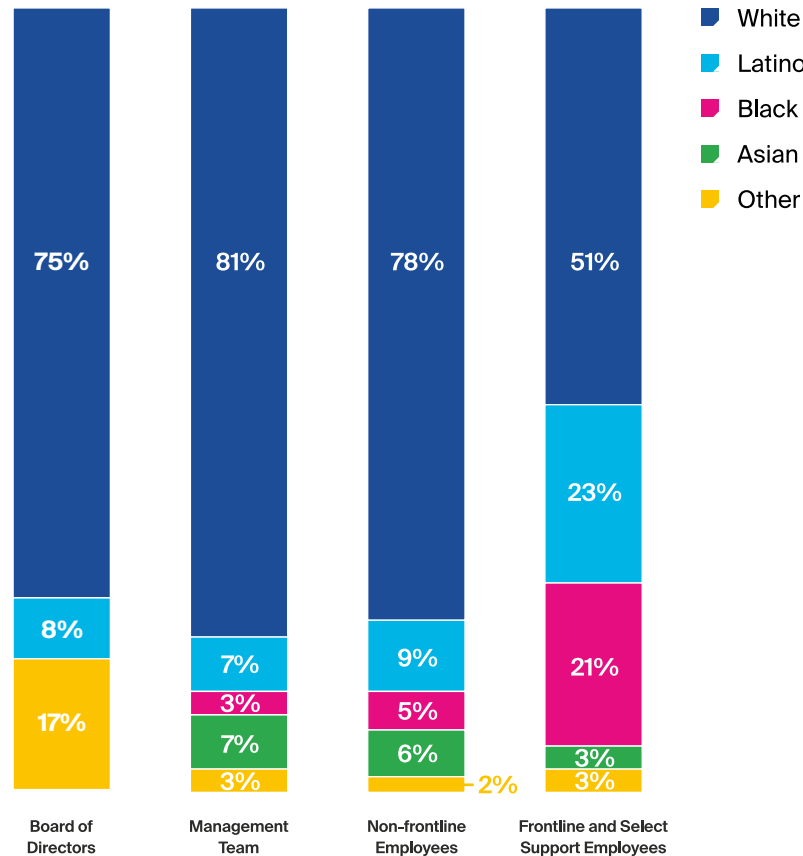
Our DE&I strategy was developed using a data-driven approach, and we will continue to rely on data to understand our performance and progress over time. Our actions work toward achieving a comprehensive set of aspirational goals, and we continue to evolve to address gaps and capture emerging opportunities.

This data does not include all employees who joined our company through recent acquisitions. Numbers may vary in past and future reports as we continue to integrate new employees into our human resource systems and as employees continue to provide or update their self-identification status. Additional fields have been added for U.S. employees to self-identify their gender identify and sexual orientation in 2022.



2022 U.S. Employee Race and Ethnicity Representation

Percent



“Other” category includes employees who are two or more races, Native Hawaiian or Pacific Islander and Native American or Native Alaskan.

Frontline and select support employees encompass a wide range of critical operational roles. These include plant and manufacturing employees, store employees, custodial employees, clerks, assistants, customer service representatives, electricians, technicians, drivers, color matchers, among others.

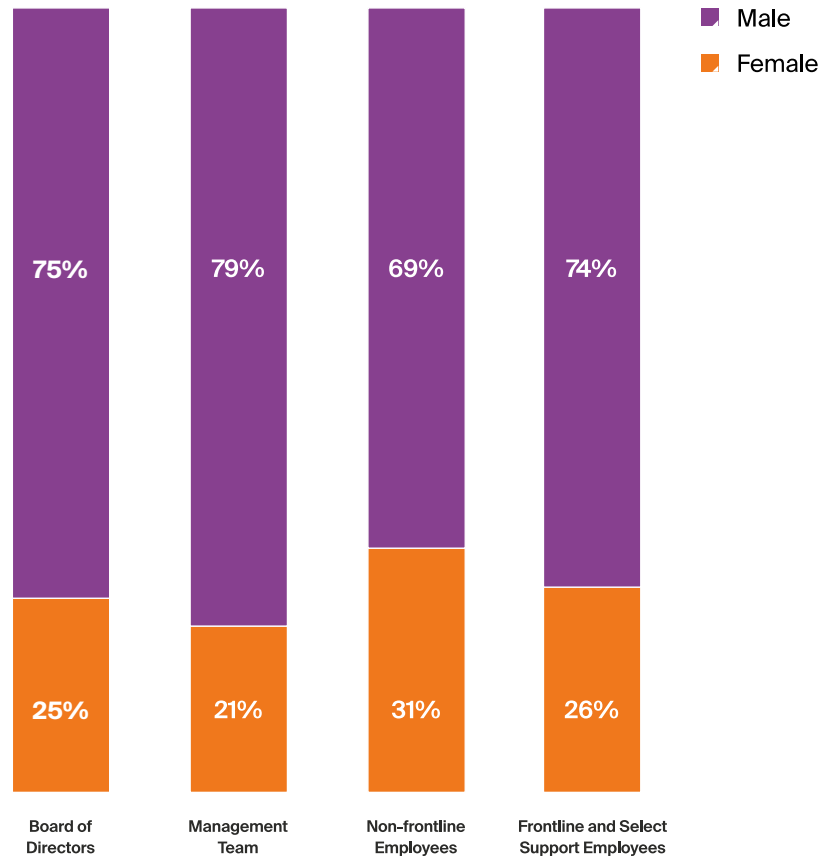
Non-frontline employees cover a variety of roles, including chemists, engineers, corporate function employees, managers, directors, executives, among others.

Management team comprises employees who are vice presidents and above.



2022 Total Global Gender Representation

As of December 31, 2022



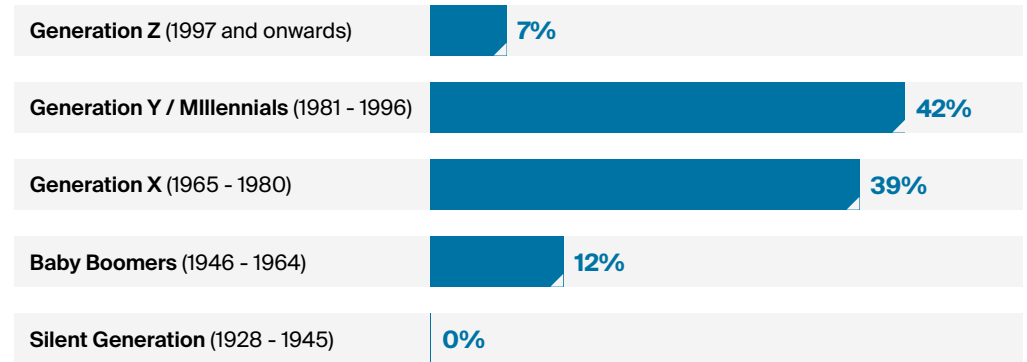
2022 U.S. Non-Frontline Black, Latino and Asian Employee Headcount Changes

As of December 31, 2022



2022 Total Global Generational Overview

As of December 31, 2022



U.S. EEO-1 Reporting

While we do not use the Federal Employer Information Report EEO-1 to guide our progress, our [2020](#) and [2021](#) U.S. EEO-1 reports are available on PPG.com.



Our approach to diversity, equity and inclusion

Our DE&I efforts are guided by our DE&I Vision Statement:

At PPG, we aim to champion all employees, empowering them to show up as their authentic selves, and allowing everyone to reach their full potential. We know that diverse teams perform better – period. Providing equitable experiences for all our people results in better engagement, increased business performance and more opportunities for all. We will continue to elevate and celebrate underrepresented communities while combating intolerance in all forms, both inside and outside of our workplaces. We do so with a spirit of humility, authenticity and vulnerability. We may not always get it right, but we aim to do better today than yesterday – every day.

Our DE&I Strategy

Serving as both a roadmap and means to measure our performance, our DE&I commitments and strategy extend across our colleagues, value chain and communities.

We approach DE&I as we do any other business opportunity. We leveraged a data-driven approach to develop our strategy, analyzing company data to better understand demographic and cultural gaps and opportunities across our workforce. We benchmark against best-in-class processes, programs and partnerships to help accelerate our impact. Our holistic DE&I strategy ties directly to the commitments detailed earlier in this report.

Colleagues

We work to embed DE&I throughout every aspect of PPG.

- Continue updating our DE&I scorecard and embed accountability mechanisms to drive results. We assign people managers and employees throughout PPG DE&I responsibilities and measure progress against key performance indicators over time.
- Enhance our recruiting processes with a DE&I lens, including scaling our diverse-slates process globally for non-frontline roles.
- Foster partnerships with external organizations that will diversify our talent pool.
- Nurture a DE&I ambassador group composed of senior leaders who serve as change agents for our strategic business units and functions.
- Build and execute a strategy to grow DE&I capabilities for all employees globally. Learn more about how we develop DE&I capabilities in our employees in the [Learning and Leadership Development](#) section.
- Grow and elevate our ERNs to support career development and provide business value.
- Build and launch site-activation kits to allow our frontline employees to participate in global ERN events.
- Develop and deploy a mentoring circle program for our ERN members.
- Scale a sponsorship program for women, Black, Latino and Asian non-frontline top talent to build a more diverse leadership pipeline.

- Engage in regular global employee self-identification campaigns to validate employee representation data, identify gaps and inform future tactics.
- Develop and share DE&I data and an impact summary internally and externally on an annual basis.



Customers and Suppliers

We combat intolerance in all forms while we elevate and celebrate underrepresented communities throughout our value chain.

- Further embed DE&I into our environmental, social and governance and stakeholder engagement strategies.
- Share and collaborate with our suppliers and customers on our respective DE&I journeys, including our ERN events to celebrate diversity and respective community outreach efforts.
- Review and enhance our Supplier Diversity Program on a regular basis.



Communities

We work with a wide variety of stakeholders to advance racial equity in the U.S.

- Execute a community engagement strategy to advance racial equity by helping to address the race and gender gaps in science, technology, engineering and mathematics (STEM) education and career paths. Learn more about how we support our [communities](#) and neighbors.
- Continue our global *Colorful Communities* program to unite the power of our paint products and our employee volunteers to brighten neighborhoods and transform the way people think and feel about their surroundings and experiences. See more on how we transform diverse [communities](#) around the world.
- Leverage PPG's Risk and Reputation Committee (RRC), a cross-functional team that convenes to proactively address external events that intersect with PPG's commitment to DE&I. The RRC uses a data-driven approach to assess options for PPG to act and respond to, with the support of PPG leadership.



DE&I Governance and Leadership

Our DE&I efforts are championed by our president and chief executive officer and have full and complete support from our Board of Directors and Operating Committee. We report our DE&I progress and metrics to the PPG Board of Directors at least once per year. Our global head of DE&I is responsible for designing, leading and executing our global DE&I vision and strategy and leveraging data-driven insights to accelerate our agenda. This position is supported by our DE&I team, which reflects the diversity in gender, race, age, ethnicity, religion, sexual orientation and more that we aim to achieve across our workforce. We hold biannual DE&I scorecard discussions with each of our strategic business units and functions to identify trends and develop solutions to address any gaps. Our most senior business leaders are held accountable to initiating real, demonstrated progress, and their results are a consideration in their year-end performance evaluations.

Our 26 DE&I Ambassadors act as change agents across the company. Ambassadors are members of our strategic business unit and function leadership teams. They are charged with helping to embed a sense of belonging for all throughout PPG, and encourage participation in optional DE&I efforts throughout the company. Ambassadors and human resource business partners are provided with scorecards and metrics on a regular basis to evaluate current performance and continue to drive DE&I efforts in their organizations.



DE&I Programming

We host a range of programs for our employees that support the implementation of our DE&I strategy. We host active listening sessions, global town halls and regular surveys to learn how to better support our employees and create a more inclusive organization.

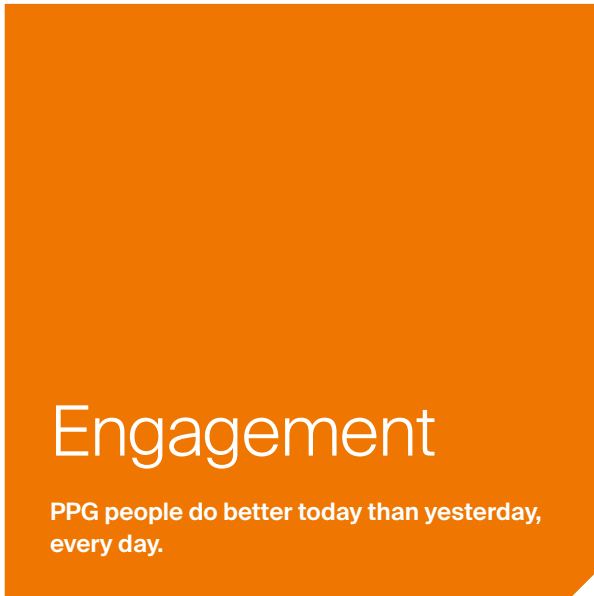
We offer ongoing training on unconscious bias for employees, with a primary focus on management. The program supports our inclusion efforts and helps employees learn and unlearn social stereotypes that are formed outside of their own conscious awareness.

We also provide DE&I Listen and Learn toolkits on an ongoing basis to support leaders and managers in having authentic conversations around bias, discrimination and inclusion. These conversations support a culture of belonging in our teams. Our vice presidents and above host sessions quarterly within their respective business units and functions.

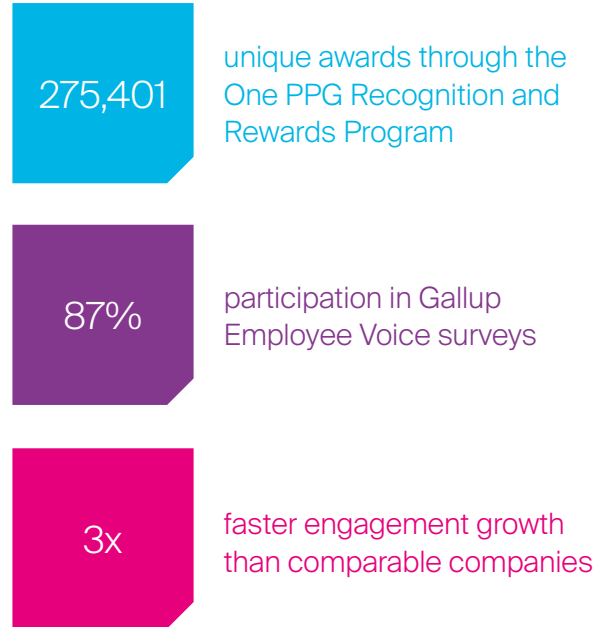
Our eight global employee resource networks (ERNs) are a cornerstone of our DE&I strategy. They provide employees of diverse backgrounds with a greater voice and more pathways for connection and understanding. Members can participate in ERN events or lead efforts to drive career advancement, foster empathy through personal storytelling, organize volunteer events in their local communities or offer solutions on PPG's business challenges. Just as important, they provide an opportunity for all our employees to step up as allies, gain cultural dexterity, and build and strengthen relationships. Our ERNs also aim to harness our employees' creativity and innovation to drive business value. Membership and participation in the ERNs are open to all employees in all countries and at all levels. Members are offered opportunities to participate in ERN events or lead efforts to drive career advancement, foster empathy through personal storytelling, organize volunteer events in their local communities or offer solutions on PPG's business challenges.

We recognize that the expectations of our employees and other stakeholders are constantly evolving. As we work toward meeting the near-term DE&I goals we have set for our colleagues, value chain and communities, we are committed to continuously improving our approach to making PPG a more diverse, equitable and inclusive company.





Our engagement highlights in 2022



We know that engaged employees produce better business outcomes and we view employee engagement as an important element that is directly tied to our overall success. Through the guiding principles of The PPG Way, we create a company where everyone can thrive, deliver and grow.

One way that we measure engagement is through our Employee Voice surveys. Employees are encouraged to voice their opinions through these regular surveys, which solicit feedback on a wide range of topics including employee well-being, safety, and diversity, equity and inclusion.

Our Employee Voice surveys are administered by Gallup, an organization that helps companies define, measure and improve employee engagement. We began measuring engagement through Gallup in 2014. Since then, PPG has continued to strengthen our enterprise engagement approach, as proven by the introduction of The PPG Way and The PPG Way to Lead, greater manager accountability for engagement, and a stronger focus on diversity, equity and inclusion.

Our 2022 Employee Voice Survey had record participation, with 87% of employees voicing their opinions. Our participation rate was higher than the average Gallup Benchmark. We also achieved our highest ever engagement score, aligning PPG's engagement growth rate with the top 25% of Gallup's clients.

As validation of the efforts we have made to measure employee engagement and act on the results, PPG was recognized with a 2023 Gallup Exceptional Workplace Award. This award is designed to celebrate organizations that position the engagement of their people at the center of their business strategy and weave that commitment throughout their organizational culture.

The productivity, motivation and engagement of our workforce has direct impact on PPG's financial performance.



In addition to our engagement surveys, we have a constant pulse on our employees' needs, listening and learning from our employees during town halls and leadership roundtables where senior leaders discuss and answer employees' top questions.

Based on our surveys and other employee feedback, we recognize that our people value flexibility in their working environment, now, more than ever. We offer opportunities for remote and hybrid work where possible, and continued to optimize hybrid and flexible working arrangements in 2022. Noting that many of our employees in production, distribution and retail are location-bound, we also piloted programs in 2022 to offer flexibility in scheduling and working hours for these employees.

In 2022, we introduced the PPG Way to Lead – our new leadership competency model, which connects our leadership behaviors to our values. The PPG Way to Lead is a science-based model with specific behaviors that employees at all levels can use to become better leaders. In 2022, we introduced the new leadership index as part of our engagement survey to track how we are growing our leadership skills. Learn more about our approach to developing leadership capabilities in the [Learning and Leadership Development](#) section.

We also expanded our One PPG Recognition and Rewards platform beyond The PPG Way and milestone achievements, such as birthdays and PPG anniversaries, and incorporated The PPG Way to Lead. This global recognition program allows employees to recognize their colleagues with a simple thank you and rewards points that employees can redeem for gift cards or other items. Nominations are tied to The PPG Way tenants or The PPG Way to Lead competencies to show how an employee is living our core values.

Despite these successes, PPG was not immune to the retention issues that many companies and industries have been experiencing. Our voluntary turnover rate remained higher than pre-pandemic levels.

Turnover remained highest among our frontline employees in retail and manufacturing - environments that were most impacted by the pandemic. These employee groups are less likely to benefit from flexible work arrangements because of the nature of their positions, which means that they may face challenges balancing personal and home care responsibilities.

Recognizing these challenges, over the past year we looked at segments of the workforce who have been most impacted by the current economic environment, launching a global analysis of the wages of these segments. By the end of 2023, we will have reviewed the wages of our frontline workers globally. Additionally, we evolved our onboarding program to quickly prepare new hires for success. We continue to monitor our employee turnover and look for opportunities to improve the employee experience.

Turnover Rate Percent			
	Overall	Voluntary	Involuntary
2019	18.16	13.02	5.14
2020	17.61	11.74	5.87
2021	20.00	15.20	4.80
2022	22.80	17.40	5.40





Our approach to employee engagement

Culture: The PPG Way

The PPG Way aims to enable, empower and encourage each employee to embrace our company culture. The six core tenets of the PPG way embody a culture of ownership, empowerment, and inclusiveness. They serve as a cultural roadmap for all employees as we strive to achieve our purpose of protecting and beautifying the world. The PPG Way was launched in 2019, and has consistently guided our efforts since its introduction.

We have an ongoing focus on the six tenets of The PPG Way throughout the organization through training that helps inspire and align our people. We recognize the critical influence that leadership has on culture, and emphasize that our people leaders should embody The PPG Way. We also translate our culture into concrete leadership skills and behaviors through the [PPG Way to Lead](#).

The PPG Way

Every single day at PPG:

We partner with customers to create mutual value.

We are insightful, dedicated and proactive. We have intimate knowledge of the market and our customers. We focus on practical solutions that make a difference.

We are “One PPG” to the world.

We are better and stronger together. We leverage our scale to reach new markets and introduce innovative technologies as we differentiate and disrupt our markets.

We trust our people every day, in every way.

We enable and empower our people to make the right decisions. We are inclusive, transparent and respectful. Our feedback is clear and actionable.

We make it happen.

We have a passion for winning. We achieve. We deliver with discipline and integrity. We bring our best energy to our work. We decide and act intelligently and quickly.

We run it like we own it.

We respect one another by being responsible and accountable. We always act in the best interest of our company, customers, shareholders and our communities.

We do better today than yesterday – every day.

We continuously learn. We develop our people to grow our businesses.



Listening to our people

We believe that a highly engaged workforce is best created and sustained through candid and continuous dialogue. Our listening strategy includes a variety of methods to collect company-wide feedback throughout the year, including regular surveys. We use an annual Gallup Employee Voice survey and a brief, annual pulse survey to understand trends within the organization and measure individual performance of our people leaders. Results are shared with team leaders with key insights to continue to improve employee engagement.

Employee Voice survey results are also used to score our managers' performance using a variety of metrics, including a leadership accountability index and an inclusion index. Internal research has shown that the factors measured by these indices have direct impacts on employee engagement. Results of the leadership accountability index and inclusion index are incorporated into people managers' annual performance reviews to ensure accountability.



Recognition

We understand that recognition is an important contributor to employee engagement. To recognize employees for the impact of their contributions, we have a range of formal awards programs focused on excellence in sales, sustainability, health, wellness and other core areas.

Our formal employee recognition program, the One PPG Recognition & Rewards Program, allows employees to show their appreciation for their colleagues. Employees receive either a simple thank you message or rewards points that can be redeemed for gift cards and other items.

Attraction and retention

We take a holistic view of employee attraction and retention, recognizing that engagement, benefits, compensation, working environment, growth opportunities, diversity, equity, inclusion and more influence the decision-making of prospective and current employees. PPG leverages many forms of recruitment, including working with external agencies, to attract talent. We offer competitive and attractive compensation packages and work to understand the hiring landscape to remain competitive in our search for talent.

Turnover rate is another measure that we consider alongside the results of our engagement surveys. We work to understand the causes of voluntary turnover and remedy issues where they arise.



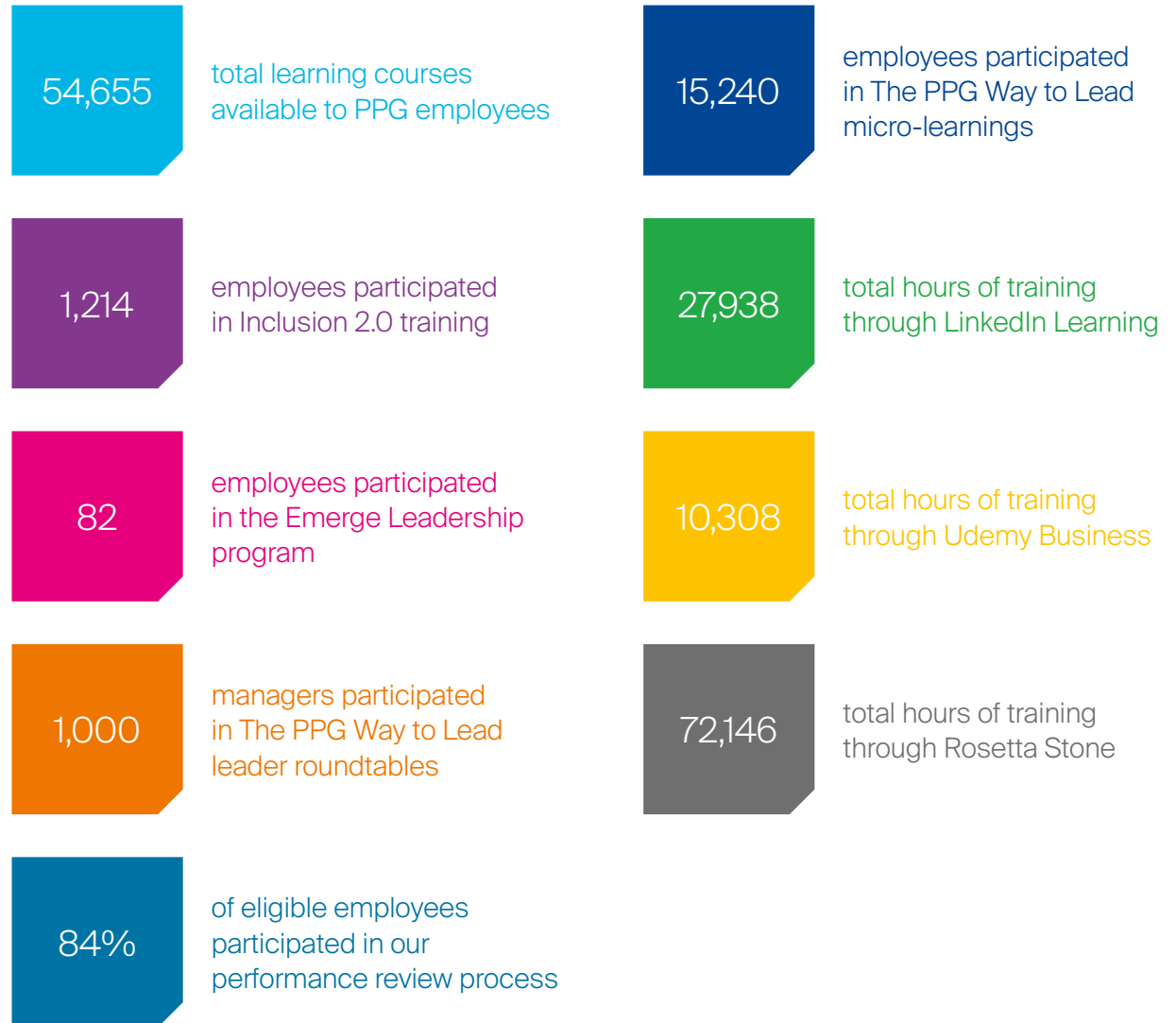


Learning and Leadership Development

Our people are our most important competitive advantage.

When we provide opportunities for our people to develop their capabilities and advance their careers, we increase employee engagement and fulfillment with their work. Furthermore, our ability to increase our global footprint, grow organically and create breakthrough innovations is built on the diverse knowledge, skills and commitment of our people living The PPG Way.

Our learning and leadership development highlights in 2022





The PPG Way to Lead

Our training and development programs aim to instill The PPG Way throughout our workforce (learn more about The PPG Way [here](#)). We introduced The PPG Way to Lead in 2022, which establishes a consistent understanding of leadership knowledge, skills, and abilities that applies to every PPG employee. We introduced this framework to provide additional clarity and consistent guidance for what great leadership looks like at PPG. The PPG Way to Lead defines six core competencies for all employees and three additional competencies for people leaders. Developing these competencies result in increased retention, stronger engagement, better business performance and helps our employees grow their careers.

The PPG Way to Lead

The PPG Way



We partner with customers to create mutual value.



We are “One PPG” to the world.



We trust our people every day, in every way.



We make it happen.



We run it like we own it.



We do better today than yesterday – every day.

The PPG Way To Lead

- Focuses on customers
- Collaborates
- Empowers others
- Delivers results
- Takes accountability
- Shows agile learning

Leader Competencies

- Sets direction
- Develops diverse talent
- Builds effective teams





As part of the launch, we made resources available to all employees so they could understand how The PPG Way to Lead applies to their role and professional development at each level of the company, including:

- Releasing a series of micro-learning modules to explain each competency in The PPG Way to Lead
- Facilitating sessions with managers and senior leadership to explain how they bring The PPG Way to Lead to life in their role
- Mapping existing training programs in the Learning Management System (LMS) to the nine competencies of The PPG Way to Lead
- Creating the Global Learning Curriculum, an easy-to-access and -navigate resource that houses all learning and development programs offered to our people

We also laid the groundwork for the core competencies defined in The PPG Way to Lead to be fully integrated into our annual goal setting. This helps ensure that employee advancement and career development aligns with the focus areas of The PPG Way to Lead, and keeps our people engaged.

We focus on offering our people a mix of new experiences, open platform mentoring & structured coaching. We have been upgrading systems to new ways of learning by adopting just-in-time materials & learning on-the-go tools. A few of our learning and leadership development highlights in 2022 include:

- **Inclusion 2.0:** We launched our hybrid inclusion workshop, Inclusion 2.0. The program combines a self-paced virtual course with live discussions sessions via Microsoft Teams that provide an open and safe environment for participants to understand each other's lived experiences. Inclusion 2.0 is open to all PPG employees, and helps build awareness of our conscious and unconscious biases.
- **Leader as a Coach:** We launched a program entitled Leader as a Coach to develop coaching capabilities in our senior people leaders. The three-month program equips our managers with techniques that help drive employee performance and engagement with a collaborative, coaching leadership style. Participants in the program learn how to develop trust with their teams, improve their coaching skills, increase their confidence as leaders, and ultimately drive better business performance.
- **LinkedIn Learning and Udemy Learning:** We integrated courses offered through LinkedIn Learning and Udemy Business into the LMS. This enables employees to search for development topics through the LMS and automatically have external digital resources populated from vetted external vendors.

- **Engagement Training:** We developed three engagement trainings aimed at increasing people engagement scores. These included an all-employee training on accountability, and a manager's primer and toolkit for engagement.
- **Sustainability Learning:** We released three Sustainability 101 video modules, which are available to all employees through the LMS, to help them better understand core sustainability, decarbonization and climate change concepts. The videos were viewed more than 2,000 times. In early 2023, we also introduced 36 learning audiocasts that cover topics ranging from mass balance to biodiversity.





Our approach to learning and leadership development

Learning and skill development

We continuously invest in learning and skill development initiatives to ensure our employees are properly trained, productive and engaged at every stage of their careers. Our global learning strategy, built on The PPG Way and The PPG Way to Lead, is focused on delivering training to the right people, at the right place and at the right time. We leverage our Performance Management process to ensure our employees get to discuss with their managers and document their growth goals every year. This allows them to explore new projects, leverage existing programs, tools and resources to develop individual needs and interests, and in turn develop organization-wide capabilities.

Our ongoing offerings include a range of virtual facilitator-led workshops, self-paced external learning platforms and Evolve, our LMS available through Workday.

When employees complete a course across these platforms, we ask them to respond to a brief survey on their experience. We calculate net promoter scores (NPS) based on these survey results and review any programs that fall short of our expectations. We also hold focus groups with program participants to understand the strengths and weaknesses of our programs. These feedback mechanisms give our dedicated training team an indication of how we can improve our suite of training modules over time.

Some highlights of our ongoing internal training programs include:

- **DE&I capability building:** As part of our efforts to drive diversity, equity and inclusion throughout PPG, we offer training through our LMS as well as facilitated, interactive workshops on unconscious bias to our people managers and employees. Our virtual prerequisite is offered in 10 languages and in-person sessions are offered in 11 languages to ensure that they are widely accessible to our staff. The training focuses on understanding the harmful prejudices that stem from the tendency to organize social worlds by categorizing groups and people.
- **Developing sales capabilities:** We offer a suite of virtual training modules and virtual instructor-led sessions based on our best-in-class sales training programs. Anyone in our sales organization can take Selling Skills to learn how to develop rapport with clients, close sales and retain customers. Managers are encouraged to take courses on Professional Sales Coaching, which helps them develop their teams. This year, to drive One PPG sales excellence and profitable growth, we implemented The Selling Machine People Cog. This allowed us to provide our sales organization with a full lifecycle development process to effectively hire, develop and reward all sales employees against a consistent framework.

- **Supporting professional development:** We offer all of our employees access to virtual Career Growth Workshops to support their professional development. The workshops guide employees through the process of creating a career development plan and preparing for effective conversations with management about their professional growth. We also provide training to our people managers to ensure they understand how to support their teams, including best practices for empowering their staff and giving useful feedback.

We supplement our internally managed training by providing access to external learning platforms. Examples of the resources available to our employees include:

- **LinkedIn Learning:** LinkedIn Learning is one of the world's largest online learning platforms featuring topic-specific content created by leading experts. Courses offered cover many aspects of professional and personal development, ranging from time management and leadership skills to training on specific software, such as Microsoft Excel.
- **Rosetta Stone:** Rosetta Stone is a series of best in-class language programs that we use to offer PPG employees eLearning and live tutorials in 24 languages. Many of our employees in Latin America, Europe and the Middle East use Rosetta Stone to take English language classes, which helps foster global collaboration across PPG.
- **Udemy Learning:** Udemy offers courses that cover a range of topics including development, IT, design, leadership, sustainability and marketing. The platform includes personalized learning and actionable insights to help participants stay engaged and reach their educational goals.



Leadership development

When filling leadership positions, we balance internal promotions and external hiring to leverage the skills already present across the enterprise while bringing new talent and diverse ideas into the company. We provide development opportunities across PPG so our people can grow into effective leaders and advance in their careers.

Our approach to leadership development focuses on experience, exposure and education. We offer a wide array of development opportunities that include performance and learning plans, extensive on-the-job training, ongoing formal and informal feedback, structured development programs, peer learning opportunities, coaching and mentoring.



Highlights of our structured leadership development programs include:

- **Essentials of Leadership:** Our frontline leadership program, Essentials of Leadership (EOL), focuses on developing leaders and managers across the organization. EOL provides new leaders with the right mindset, skills, and tools to lead more effectively, which ultimately builds engagement from participants and their teams. The program is delivered in six modules by virtual or in-person sessions. EOL's structured curriculum ensures global alignment and consistent guidance for developing managers and supervisors.
- **Emerge:** The Emerge Leadership Program helps guide our future executives through an 11-12 month program. Participants are nominated for participation based on exemplary performance in a people leadership role and having potential to grow into a larger scale role. The program is a series of four facilitated sessions focused on peer coaching, mentorship from PPG's leadership team and networking skills. Participants are given opportunities to practically apply their insights to real business challenges and learn from their peers.
- **Leader as a Coach:** The Leader as a Coach program aims to develop coaching capabilities in our senior people leaders. Over three months, participants in the program learn how to develop trust with their teams, improve their coaching skills, increase their confidence as leaders and ultimately drive better business performance.

- **Online mentoring and coaching:** Any employee at PPG can access our online One PPG Mentoring program. The program aims to support insightful, respectful connections across PPG. Prospective mentors take a mandatory series of e-learning courses that determine if they are qualified to act as a mentor, and then set up a profile with their qualifications. Employees interested in signing up as mentees can search through these profiles to select the right mentor to support their personal development.



Safety and Health

The most important PPG core value is the safety and health of all employees.

We seek to ensure that our employees and contractors watch out for one another and return home safely each and every day.

Our safety and health highlights in 2022

Goal: To ensure progress against our goal of zero injuries, we strive to achieve an improvement of at least **5%** per year in our injury and illness rate.

Achieved an annual I&I reduction rate of **0.7%** compared to the 2017 baseline



As a result of our continued focus on safety and health, we experienced no fatalities of PPG employees or PPG supervised contractors in 2022.

Despite improvements at individual sites, our overall PPG illness and injury (I&I) rate increased in 2022 from 0.26 to 0.30. The increase was primarily driven by a few legacy sites and our recent acquisitions. These acquisitions include sites with higher injury and illness rates than the PPG average. We begin measuring PPG I&I rates from the date of acquisition, and do not recalculate our baseline to include new sites. As we implement our EHS management system at the recently acquired sites, we expect injury and illness rates to decrease in line with the rest of our business. As an example, following PPG's acquisition of COMEX® in 2014, we saw a 95% reduction in their I&I rate.

In 2022, we had 0.18 Tier I and 0.09 Tier II process safety incidents per one million hours worked. Around 48% of the 2022 incidents were primarily caused by human error, which we resolved by making procedural and system changes. A little over 25% of the incidents resulted from malfunctioning equipment while around 19% of incidents were caused by improperly designed equipment. These incidents were resolved by modifying inspection programs, reviewing equipment design, and repairing or replacing inadequate equipment.



We have expanded our approach to measuring the EHS culture at every PPG site over the past year. We added a safety index to our Gallup pulse surveys in 2022, which measures engagement of our employees in EHS processes. We are using this information, in combination with progress in advancing leading safety indicator performance measured at each of our sites, to create an EHS culture maturity index. Each of our sites will be assigned a score that shows how much progress they have made in implementing the PPG EHS management system and how well they are fostering an EHS culture. We are planning to roll out the index in 2023.

Other key highlights from our work in 2022 include:

- **Industrial hygiene:** In 2022, we completed an upgrade to our industrial hygiene software across all of our sites. The new system helps PPG more efficiently manage potential environmental hazards to which PPG employees and contractors could be exposed through their work.
- **Human and Organizational Performance (HOP) Program:** We launched our HOP program at 20 additional sites in 2022. The HOP program is aimed at reducing manufacturing process errors, which may result in impacts on product quality or staff injuries. While many HOP principles are used at our sites globally, at year's end, more than 45 sites globally executed a full HOP implementation to teach employees how to predict, prevent and identify system improvement opportunities that could otherwise result in errors. Approximately 13,600 employees were engaged in the HOP implementations.

- **Injury prevention:** We re-launched several injury prevention training programs in 2022 that had been impacted by the COVID-19 pandemic, including behind-the-wheel driver safety training for new employees, classroom training in large groups and rapid improvement workshops aimed at improving adherence to the implementation of our EHS management system. We also launched an enhanced, multimedia training program to help our store employees avoid strains and sprains.
- **Smart driving:** We started to test a new mobile phone application in the U.S. that uses a cell phone's built-in accelerometer to measure factors of unsafe driving such as hard braking, fast acceleration, hard turns and more. The application provides PPG drivers with constructive feedback after each trip to help them drive more safely.
- **Safety and Health Awards:** We presented PPG Safety and Health Awards to 39 sites in 2022 as part of our overall Sustainability Awards program. Safety and Health awards are given to our facilities that achieve excellent safety and health performance through the implementation of our EHS management system. The award criteria include both overall performance scores and leading indicators which illustrate that all elements of the PPG EHS management system are implemented well.

- **PPG Ergo Cup Awards:** Out of 229 global nominations, our Architectural Coatings team earned the 2022 PPG Ergo Cup Award for the development of a 5-gallon pail lift assist system. The simple device helps to address significant ergonomic risks associated with moving 5-gallon paint pails – which typically weight approximately 50 pounds – by reducing stress and strain on the back and shoulders. Historically, these types of injuries have contributed to the leading cause of injuries throughout our global operation. Following its development, the system has been installed in 40 stores in the U.S. and Canada with plans to expand to all sites.





Multi-year data highlights

Global health and safety performance						
Employees and supervised workers						
	Fatalities		PPG Injury and Illness Rate	Total Recordable Incident Rate	Lost Workday Rate	Occupational Disease Rate
	Number	Rate				
2022	0	0	0.30	1.45	0.59	0.40
2021	0	0	0.26	1.14	0.82	0.17
2020	0	0	0.26	0.99	0.37	0.12
2019	0	0	0.32	1.29	0.47	0.15
2018	1	0.0019	0.27	1.25	0.85	0.09

The fatality rate is the number of fatalities multiplied by 200,000 and divided by the number of work hours. A PPG injury and illness (I&I) is defined as an injury or illness that is significant enough that it is unlikely to go unreported, regardless of the reporting culture in the region or site. PPG I&Is include fatalities, fractures, surgeries, hospitalizations, 30 or more days of lost work and other similar criteria. The PPG I&I rate is the number of injuries and illnesses that meet this definition multiplied by 200,000 and divided by the number of work hours. Total recordable incident rate is the number of Occupational Safety and Health Administration (OSHA) recordable injuries multiplied by 200,000 and divided by the number of work hours. Lost workday rate is the number of injuries and illness that resulted in days away from work or restricted activity multiplied by 200,000 and divided by the number of work hours. Occupational disease rate is the number of illnesses multiplied by 200,000 and divided by the number of work hours.

Process safety performance				
Per million hours worked				
	Number of tier one incidents	Tier one incidents per million hours worked	Process safety total incident rate	Process safety incident severity rate
2022	21	0.18	0.27	1.19
2021	5	0.04	0.06	0.09
2020	13	0.02	0.07	0.07

Process safety total incident rate is the number of incidents multiplied by 1,000,000 and divided by the total annual hours worked by employees, contractors and subcontractors. Process safety incident severity rate is the total severity score for all process safety incidents multiplied by 1,000,000 and divided by the total annual hours worked by employees, contractors and subcontractors.



2022 health and safety performance by region
Employees and supervised workers

	Fatalities	PPG Injury and Illness Rate	Total Recordable Incident Rate	Lost Workday Rate	Occupational Disease Rate
Asia Pacific	0	0.18	0.90	0.60	0.38
Europe, Middle East and Africa	0	0.18	0.91	0.70	0.11
Latin America	0	0.05	0.74	0.05	0.50
North America	0	0.64	2.66	0.81	0.62
Global	0	0.30	1.45	0.59	0.40

2022 contractor health and safety performance by region

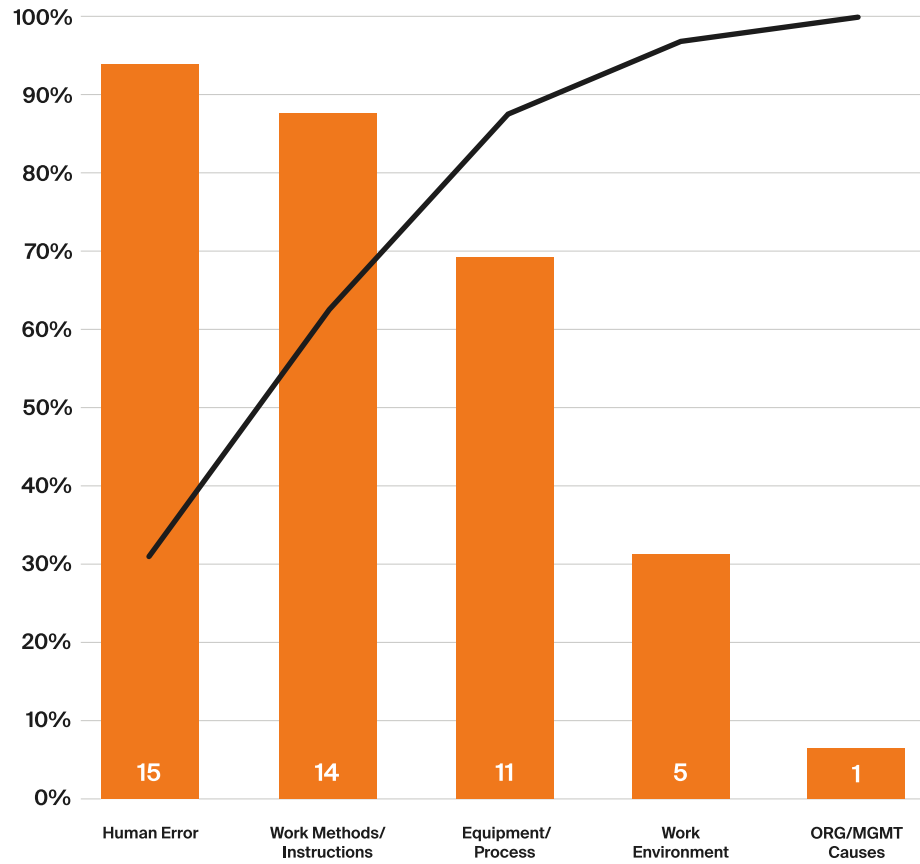
	Fatalities	PPG Injury and Illness Rate	Total Recordable Incident Rate	Lost Workday Rate	Occupational Disease Rate
Asia Pacific	1	0.20	0.60	0.30	0.10
Europe, Middle East and Africa	0	0.39	0.91	0.26	0.00
Latin America	0	0.97	2.13	0.39	0.00
North America	0	1.14	2.67	0.00	0.00
Global	1	0.51	1.21	0.27	0.04

Fatality was a non PPG supervised contractor.





Root Cause Pareto Chart for PSM Tier I & II Incidents in 2022



Please see the [data index](#) section for a list of our process safety incidents in 2022.



Our approach to safety and health

EHS Management System

We implement our EHS policy globally using the PPG EHS management system, which was developed in accordance with Coatings Care, Responsible Care and ISO standards. The system addresses all personnel, including contractors who work at PPG-owned and operated facilities, as well as PPG employees working in third-party facilities. Our 12 EHS elements form the cornerstone of the management system and contain underlying principles and defined requirements.

We hold an ISO 14001 integrated global certificate, which covers 58 sites. Many of our sites are also certified to the standard for their location-level management systems.

Our EHS management system requires all locations to evaluate compliance with PPG and other requirements through assigned self-assessment tools and the completion of risk assessments, including job safety analyses, process hazard analyses and chemical risk assessments. These assessments must be conducted by experienced personnel, including experts outside of PPG, when appropriate.

Our EHS management system also establishes a clear expectation that all employees actively participate in the implementation of the EHS management system and be engaged in the EHS implementation process, through interactions such as peer-to-peer observations and membership in focus teams that are dedicated to implementing or improving aspects of the EHS management system.

We use a global electronic data management system for all EHS incidents. This EHS data system includes a suite of modules to streamline the collection, tracking and dissemination of information related to life-critical requirements.





Process Safety

PPG's global EHS management system includes elements of process safety management. This approach provides a consistent set of requirements to all facilities globally in addition to any applicable regulatory requirements.

When process safety incidents occur, the PPG team works to contain any impact to the surrounding environment and thoroughly investigates the incident to determine the root cause. The team ensures corrective actions are applied systematically in response to each incident, which may include redesigning processes, modifying maintenance methods, working with our suppliers to improve equipment, or standardizing procedures and training employees to utilize HOP principles. We analyze incidents across the business each year to identify common causes. The analysis is used to identify improved methods and training to enhance our performance.

We recognize the importance of training our workforce to strengthen our culture of safety and health, and drive risk recognition and accountability at all levels of the organization. Plant managers and operations directors globally are trained to recognize the importance of a strong process safety culture and understand and abide by PPG's requirements for process safety. Through training courses, managers also assess the process safety culture of their sites. Our training courses offer pre-work and interactive in-class activities to understand regulatory standards, process safety management requirements and recognition elements, and tools to sustain a healthy process safety culture.

Preventing injury and illness

PPG tracks injuries and illnesses according to PPG's internal standard and according to U.S. Occupational Safety and Health Administration (OSHA) requirements. We also initiated tracking incidents according to the ASTM E2920-19 record-keeping standard, which allows PPG to easily benchmark performance against peer companies. While our injury and illness rate is relatively low compared to the majority of companies we have benchmarked, we do have opportunities for improvement, specifically in the areas of slips, trips, falls and ergonomics.

Our EHS data system provides the tools to identify, report, record and investigate incidents, analyze root causes and trends, correct deficiencies and share and adopt relevant lessons learned.

Historically, motor vehicle accidents are one of our injury risks with highest severity. PPG offers driver safety training and education programs in every country in which we operate to ensure our team members have the tools and resources to effectively manage this risk. Training includes driving coaching for new employees, classroom training in large groups and rapid improvement workshops. We also ensure that all company vehicles have excellent crash ratings, and we invest in advanced safety features such as collision-avoidance systems and backup cameras. Learn more in the [Transportation](#) section.

Strains and sprains are a frequent injury occurrence among our employees. In addition to regular training and monthly knowledge sharing sessions, PPG has held an annual ERGO CUP® competition since 2004 which recognizes initiatives that minimize or eliminate ergonomic risks in our operations. Projects are

submitted from all business units and functions across PPG. Winners are determined from each business unit, and an annual, global winner is selected. Top entries compete in a national ERGO CUP® competition presented by the Institute of Industrial and System Engineers.

Safety 365, which is PPG's safety awareness initiative, continues to empower our employees to keep safety as an important focus every day and to speak up if they see something that could be made safer. The program centers around a monthly safety theme that is supplemented with weekly tips, which are reviewed at all levels of the organization for application regardless of location or activity.

In addition, we are working to implement Human and Organization Performance (HOP) tools at our locations. HOP tools teach employees how to predict, prevent, and manage errors that could result in injury, including:

- A focus on high-risk tasks with a pre-task brief
- Stop and seek help as a tool when one is unsure of an activity in which they are to engage
- Three-part communication to increase effectiveness
- Procedure writing enhancements and step-by-step procedure adherence
- Verbalize, point and touch as a tool to be used in conjunction with Walk-the-Line processes aimed at reducing spills and releases

A HOP maturity matrix has been developed and will be incorporated into PPG's standardized site scorecard in 2023. This scorecard includes both leading and lagging EHS indicators, and each site must use a risk prioritization tool annually to rank 80 EHS aspects and incorporate the top aspects into the following year's site work plan.



COVID-19 Response

PPG has enacted enhanced protocols to manage our business in the constantly evolving environment created by COVID-19. We implemented proven, safe operating processes based on local community data, and have provided ongoing guidance to facilities and employees across the organization to ensure they are compliant with local guidance. Across our operations, we have implemented best practice hygiene techniques, altered our processes to enable social distancing, and launched systems to track employees affected by COVID-19. Where possible, we have introduced tools and policies that enable our people to work more flexibly, including working remotely and staggering shifts and breaks.

PPG products continue to play an essential role in a variety of industries' pandemic responses. Our paints, coatings and specialty materials help create life-critical products for the healthcare, defense, food and beverage, hygiene, agriculture, energy, public works and electronics industries, among others.

Industrial Hygiene

PPG protects the health of all employees and supervised contractors through our comprehensive industrial hygiene program, which has been in place for more than 50 years. The program centers on the anticipation, recognition, evaluation and control of long-term (chronic) and acute occupational health risks.

PPG employs credentialed toxicologists and industrial hygienists to oversee all aspects of our global program, and we continually improve it as knowledge of potential hazards and risk-control processes evolve. We use formal processes to identify potential occupational health hazards by reviewing and analyzing information provided by suppliers of raw materials used in our manufacturing processes, as well as publicly available scientific literature. We also regularly review changes to published exposure limits from suppliers, governmental bodies and organizations, such as the American Conference of Governmental Industrial Hygienists (ACGIH), to determine the basis for assessing exposure to chemical substances. We use exposure-limit changes and risk assessments of process tasks to define annual exposure monitoring plans for each manufacturing location.

PPG's manufacturing facilities are required to assess exposures to a defined list of substances and tasks where potential health risks are presented. We evaluate the results of these assessments to identify the need for improvements in manufacturing processes, facilities, training, personal protective equipment and medical surveillance.

PPG also works to eliminate substances of concern from our products and processes. Additional information can be found in the [Product Stewardship](#) section. Our internal industrial hygiene laboratory analyzes air monitoring samples and is accredited by the American Industrial Hygiene Association (AIHA). We also use contract laboratories accredited by AIHA or applicable national governmental bodies. We maintain exposure measurement results in a centralized data management system used by our operations teams globally. This system tracks compliance with the annual sampling plans, results relative to applicable exposure limits and implementation of any corrective actions necessary to reduce exposures.





Integrating acquisitions

When new facilities or companies join PPG through an acquisition, PPG's EHS and Product Stewardship teams deploy a due diligence and integration process, viewed as a best practices, to ensure alignment with and adoption of PPG EHS standards and PPG's EHS management system. Prior to the purchase of an acquisition, the PPG team begins a regimented, four-phase due diligence and integration process to evaluate the acquired company's EHS and product stewardship compliance practices as well as their EHS maturity. We conduct an initial assessment within 60 days of an acquisition and provide scores to the site teams to help prioritize gaps between their performance and the expectations defined by the PPG EHS management system.

From the initial assessment and after the purchase, a detailed action plan is developed to address any deficiencies to PPG's EHS management system and related programs. The implementation of the action plan generally spans 24 months, with priority placed on regulatory compliance and key risk management topics. At the end of the 24-month period, the acquired operations undergo a corporate EHS audit to validate the integration plan effectiveness and verify compliance with any identified regulatory gaps. After the first audit, new operations are incorporated into the corporate audit cycle based on their risk profile and EHS and product stewardship metrics performance. As part of the acquisition integration and ongoing corporate audit process, we identify and monitor the need for capital expenditures to improve compliance and reduce risks.

PPG maintains an oversight audit plan conducted as part of our Corporate Compliance Assurance Program. Each of these efforts promotes a continuous improvement process to protect employees, our communities, customers and the environment and to achieve mature EHS performance levels.

EHS Governance and Oversight

To ensure the requirements in the PPG EHS management system remain effective in protecting our employees and the communities in which we operate and to ensure they comply with current regulations while incorporating evolving best practices from our facilities, we have established more than 70 topic teams. Each team focuses on a specific requirement, with an expectation for the team to meet at least two times per year. An internal subject matter expert leads each topic team, which comprises permanent members from each region to maintain engagement with the site subject matter champions. Ad hoc members are added to develop and provide additional subject matter expertise.

The PPG EHS management system requires each of our locations to have an active EHS leadership team that provides oversight, governs decisions and drives continuous improvement regarding the implementation of the EHS management system and other PPG and legal requirements. This team is expected to be led by top management, such as business leaders and the plant manager, and have cross-functional membership that includes the location's leadership team, department representation and hourly employees. Ultimately, this team meets either on a monthly or quarterly basis to shape necessary plans and take required actions to realize our EHS policies and principles.

Our internal organizational structure includes EHS directors in all four major regions in which PPG operates. This organization ensures that our EHS approach is consistent across our operations. The regional directors, key business EHS directors and global center of excellence directors are charged to continuously advance PPG's EHS expertise and implement our global EHS management system consistently and efficiently. These directors report to our vice president of EHS, who has ultimate oversight.

Key leading and lagging indicators of our EHS performance are distributed throughout PPG using a Power BI dashboard. The Operating Committee, Sustainability and Innovation Committee of the PPG Board of Directors, and the PPG Board of Directors regularly reviews EHS data.

Customer Health and Safety

PPG's commitment to health and safety extends to our customers. Our products are not only manufactured safely in our facilities, but also transported, used and disposed of safely by our customers. Safe use and disposal instructions and [safety data sheets](#) are available for all products. Our product stewardship and technical experts are also available to provide consultation on safe product use and disposal. We also have longstanding partnerships with organizations focused on circularity and waste reduction. To learn more, visit our [Product Stewardship](#) section.



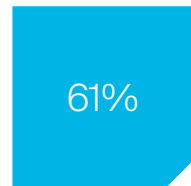
Wellness

PPG is committed to fostering a global culture of health.

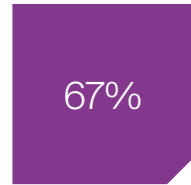
We are advancing our vision of creating a global culture of health, enabling our employees and their families to prioritize mental and physical well-being through a range of health and wellness activities.

Our wellness highlights in 2022

Goal: Employ active wellness programs at 100% of our facilities globally by 2025.



61% of PPG locations globally have active wellness programs.



67% of locations with active wellness programs achieved the highest level, diamond, on their Wellness Scorecard



26 languages in which monthly global wellness newsletters are available

One of PPG’s wellness priorities for 2022 was to better connect PPG as a global team, including EHS, medical and HR representatives from each region globally. This was done by updating the PPG Culture of Health Strategy, which defines our vision, goals, roles and responsibilities, and directives on how to achieve them. Our global wellness team also piloted an ergonomics stretching challenge in each region, which was well received.

PPG also worked to ensure that the wellness programs offered meet the unique needs of each individual location. We considered the number of employees at each site and the nature of the business activities being undertaken. Based on this information, we worked to tailor the wellness programs offered based on the unique conditions at each site. Our larger sites with more than 50 employees continue to be evaluated using our Wellness Scorecard, while our smallest sites, primarily company-owned stores, may have only a small number of employees and require a more customized evaluation.





Mental health support in Australia

Mental health is a key component of overall health and well-being. In addition to supporting our employees' mental health, PPG seeks opportunities to leverage its reach and its products to support wellness initiatives in the community.

Having recognized mental health as a significant issue for the Australian road transport, warehousing and logistics industries, an outreach program called "Healthy Heads in Trucks & Sheds" (HHTS) is aiming to tackle it head on. HHTS provides mental health resources and information to truck drivers, warehousing, and distribution center staff across the country. Launching a new outreach program in 2022, the HHTS Roadshow aimed to increase awareness and ensure their resources were reaching their target audiences. PPG's Automotive Refinish business in Australia and New Zealand and longstanding customer Fleetmark Group worked together to support the project. Fleetmark played a key role in creating branding for the HHTS Roadshow Truck, while PPG provided the automotive refinish products required to paint it.

The HHTS Roadshow attended a series of 24 industry events across Australia in 2022, where it offered mental health support resources and promoted education materials tailored to the needs of the heavy vehicle and supply chain sector.

For more information go to www.healthyheads.org.au



Our approach to wellness

PPG's approach to wellness is based on Four Wellness Absolutes – nutrition, exercise, health screenings and mindfulness/stress management – which research identifies as key to overall well-being. Every wellness program and tool we offer addresses one or more of these absolutes. Empowering people at each of our locations to determine the best wellness initiatives based on employee needs, sharing their successes globally, and recognizing their achievements all support our culture of wellness.

Wellness tools

PPG's Wellness Culture of Health Catalog and Program Strategy is a collection of wellness programs offered at our sites around the world. The catalog allows our employees to share successful ideas and describe how best to implement them and features sections for each of the Four Wellness Absolutes. Program examples include the hydration challenge (nutrition), stretching sessions (exercise), know your numbers (health screenings) and massage therapy (mindfulness/stress management).

A critical component of wellness is mental health. PPG values work-life balance and desires to support our team members as they navigate their varied work and home responsibilities. To meet the evolving needs of our employees, we offer mental health initiatives, including our Employee Assistance Program (EAP) resources and well-being materials to support employees and their families. Furthermore, our Employee Resource Networks (ERNs) regularly use wellness tools to provide programming and other resources to their members. For more information on ERNs, see the [Diversity, Equity and Inclusion](#) section.



Wellness Scorecard and awards

PPG’s sites can register their wellness activities and track progress over time using a Wellness Scorecard. Sites receive a score based on the wellness programs offered and employee participation in wellness programs. Each location has the opportunity to earn points for programs in which their site participates. At the end of each year, awards are given based on the wellness level achieved by each site, according to the following range:

- Bronze (300 points)**
- Silver (600 points)**
- Gold (900 points)**
- Diamond (1,200 points)**

Eligible programs align with our Four Wellness Absolutes, and include weight-loss challenges, health screenings, fitness classes and better sleep programs.

We recognize high-performing sites with our annual Wellness Awards, part of PPG’s global Sustainability Awards program. Wellness Awards are given based on the number of points a site earns on the Wellness Scorecard in each calendar year. Many regions also offer locally tailored awards, which can include gifts or other recognition for wellness activities.

Wellness program governance

The Global Wellness Council and the Wellness subcommittee of our corporate Sustainability Committee sets the overall strategy and tracks our progress globally. The Global Wellness Council is a team of enthusiastic employee volunteers that meets monthly to develop wellness resources, share leadership responsibilities and integrate wellness throughout the company.

Our manager, occupational health and wellness, oversees the implementation of the company’s global wellness programs. They work closely with our PPG Benefits and Total Worker Rewards teams to create programming and raise awareness for initiatives aimed at improving the health and well-being of our employees.

PPG recognizes the importance of delivering wellness programs and services in a way that allows everyone at PPG to participate in our global culture of health. Each of our sites is encouraged to maintain a wellness committee, program and champion to communicate our wellness messages and implement the various global, regional and local programs. We also maintain a dedicated email address that offers support for wellness programs to any PPG employee.

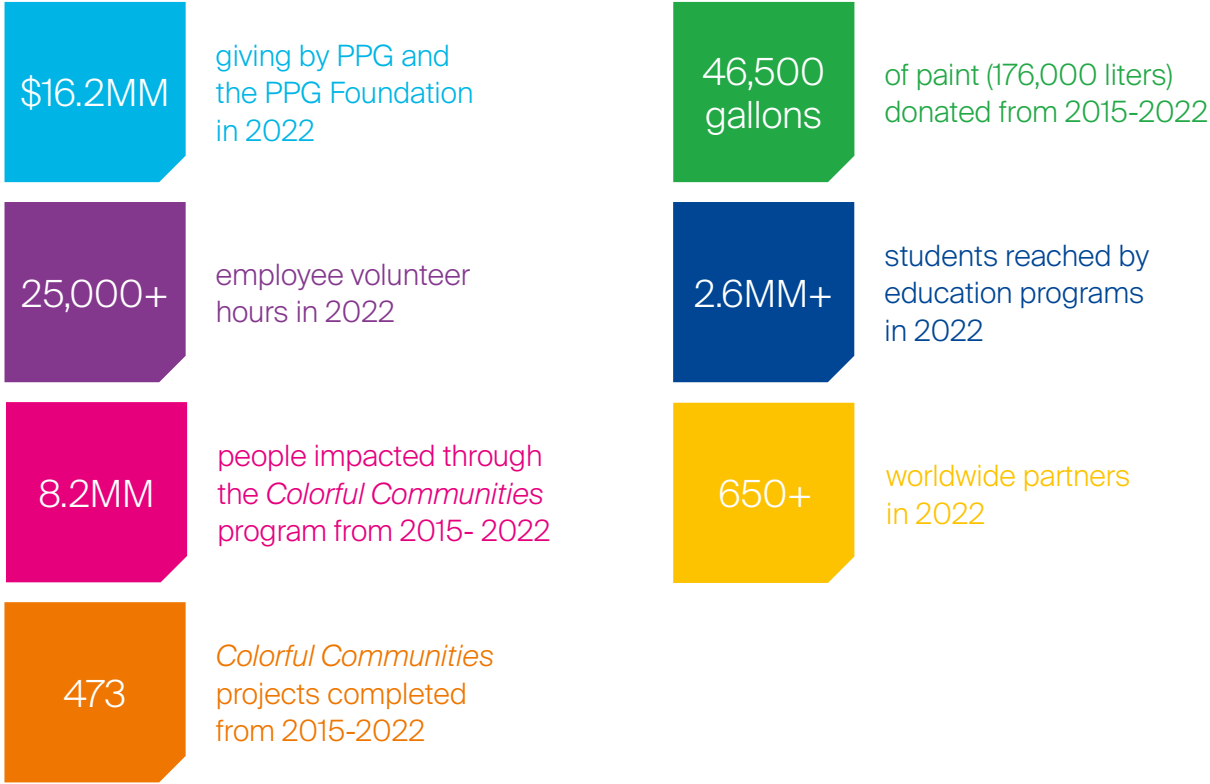




Community Engagement

We bring color and brightness to our neighbors and communities around the world.

Our community engagement highlights in 2022



Our community engagement highlights in 2022
 Our purpose to **Protect and Beautify the World** guides our actions to serve our communities and neighbors. PPG and the PPG Foundation collaborate with our global colleagues, community partners and other stakeholders to help our communities thrive.



In 2022, our efforts represented a continued focus on advancing education, delivering community sustainability and encouraging PPG employee volunteerism. Visit the [Communities](#) section of the PPG website for more information about how we are creating vibrant communities around the world.

Education

PPG has long been committed to supporting education in the communities where we are active. Diversity, equity and inclusion is integrated into all that we do as we aim to accelerate pathways for diversity in STEM fields. Our goal is to build the next generation of diverse and innovative science, technology, engineering and math (STEM) leaders by inspiring learning and cultivating careers for students of all ages. In 2022, we reached more than 2.6 million students across the education programs that we support.



Highlights in 2022 across our education priority area include:



Science center support: Science centers play a vital role in fostering a love of STEM by providing opportunities for hands-on learning. We collaborate with science centers around the world, supporting color-related exhibits, special science exhibitions and the development of on-site chemistry labs. This year, we supported the opening of two new labs with science center partners, including the [PPG STEM Lab](#) at the Discovery World Museum in Milwaukee, Wisconsin, and the [PPG STEAM Studio](#) at the Museum of Discovery in Little Rock, Arkansas.



Advancing diversity in STEM: In support of our mission to inspire more women to work in STEM-related fields, we worked with nonprofit Casa Hacker to launch a new program in Sumaré, Brazil called Girls in Tech. This program offers high school girls an opportunity to participate in after school classes on a range of technology-related subjects, including computer programming, robotics and 3D printing. At the University of Wisconsin-Madison, we supported the Bridge to the [Chemistry Doctorate Program](#) which aims to increase the number of students from historically underrepresented groups who complete a Ph.D. degree in chemistry.



Hands-on learning: PPG partnered with Centrum JongerenCommunicatie Chemie (C3), a Dutch education nonprofit, to launch an [online platform](#) that supports young students with chemistry and life sciences and inspires future school and career choices in STEM. PPG also supported the development of another C3 project in which students create their own paint factory online, making choices in categories such as raw materials, energy, packaging and transportation that help them learn about sustainability.

Community Sustainability

As an employer and a community partner, we play a role in protecting the communities of which we are part. PPG helps meet essential needs, deliver disaster relief, support equal opportunities, and brighten community spaces through our *Colorful Communities* program.

Highlights across our community sustainability efforts in 2022 include:



Colorful Communities: PPG’s *Colorful Communities* program unites the power of innovative PPG paint, our employee volunteers and monetary commitments to brighten neighborhoods and make a positive impact. Our employees completed 87 *Colorful Communities* projects this year, bringing the total number of projects completed to 473 since the program’s inception in 2015. Over the summer, we focused on transforming classrooms into colorful and engaging environments as a way to inspire students and staff as they returned to learning spaces after the challenges presented by the COVID-19 pandemic. This effort, our New Paint For a New Start campaign, took place in July and reached 36 schools around the world, impacting more than 23,000 students and teachers.

- At Ciudad de Brasilia school in Santiago, Chile, more than 115 volunteers helped 550 students by painting the walls of the school’s courtyard and corridors, including a nature-themed mural made from a student’s drawing.
- At TEDA No.1 Kindergarten in Tianjin, China, PPG volunteers created engaging spaces for students to learn and grow and revitalized the building’s exterior after it faced damage due to weathering.



Delivering disaster relief: In response to the war in Ukraine, we made a commitment to support Ukrainian refugees, with a focus on humanitarian relief and longer-term recovery support. PPG invested more than \$830,000 to support a variety of relief organizations that impacted refugees mainly in the Ukraine, Poland, the Czech Republic, Slovakia, Hungary and Romania. These funds provided direct relief and also helped schools, charities and government entities expand their educational infrastructure and provide additional after-school care as families integrate into their new communities. Our people have also made use of PPG Employee Volunteer Grants (EVGs) to secure funds for more than 35 charities and governmental entities where they volunteered their time. The funding has helped organizations provide food, shelter, necessities, medical care, counseling, job placement and other services. In addition, dozens of local material collections were organized in our locations in more than 10 countries and more than 30 sites participated.

Equal opportunity communities: We support social justice efforts that provide access to opportunities across our communities, and work closely with our Employee Resource Networks to identify organizations that meet the needs of historically excluded populations. This year, we continued our relationships with the NAACP Legal Defense Fund, Chinese for Affirmative Action, Tegan and Sara Foundation, Center for Policing Equity and Equal Justice Initiative, among others.

Employee Engagement

We aim to activate the talent and time of our global network of employees to make a difference where they live, work and play. We encourage our employees to support causes that they believe in, and inspire them to improve the lives of others in their communities.

Some highlights from our employee engagement program include:

Applying our unique skills: PPG employees brought their expertise to bear, including by participating in career panels, mentoring opportunities and volunteering in classrooms to foster a love of STEM. As an example, in Texas, 35 PPG employee volunteers from Aerospace and Architectural Coatings joined partner STREAM Global Innovations for a full day of interactive engineering-related activities at Sam Rayburn STEAM Academy Elementary School. In Brazil, more than 70 employees volunteered with long-standing partner Junior Achievement to help prepare 1,400 students for the workforce by sharing insights on STEM career paths and workplace ethics.

Amplifying our employee efforts: We support PPG employees who are making a positive impact in their community by maximizing their impacts. In 2022, we provided more than \$825,000 in matching gifts grants, including donations to 19 partner organizations selected by employees to be a part of our Charity Partner Program in EMEA. [Learn more](#) about other employee programs here.



In 2017, we set a goal for 100% of sites to meet the Community Engagement Framework requirements by 2025, which are outlined later in this section. Over the years, PPG sites around the world have consistently improved how they have engaged with their communities, and increasing numbers have met the requirements of the Community Engagement Framework (70% in 2022). We believe that our people are well positioned to build on this strong foundation without necessarily following the structure of the Framework. As such, we will continue to encourage adherence to the Framework and provide tools and resources to help sites accomplish their community engagement activities, but we will no longer report on this goal.

For more detail on these programs and many others, visit our [PPG Community website](#).



Data highlights

2022 Giving by Priority Area	
Education	\$9,100,000
Community Sustainability	\$6,100,000
Employee Engagement	\$930,000

2022 Community Investments	
Community engagement-related marketing	\$345,000
Colorful Communities program	\$2,500,000
Business unit contributions	\$2,000,000
Global giving grants	\$2,500,000
PPG Foundation	\$8,500,000
Product donations	\$295,000
Employee volunteer hours	25,000

Our approach to community engagement



Community Engagement Strategy

We contribute to communities around the world through the unique talents of our employees and financial contributions from PPG and the PPG Foundation. We align our giving and community engagement resources in powerful ways across three priority areas where we can make the greatest impact:

- Education
- Community sustainability
- Employee engagement

[We help students](#) connect with science-related inspiration and advanced learning, providing support at various points of their education continuum. Our funding aims to advance opportunities for STEM learning through engaging, hands-on programming for young students and via vehicles for higher learning.

In all that we do, we integrate and uphold our values of diversity, equity and inclusion. Together with our community partners, employees and investments, we work to support underrepresented groups around the world. Our community engagement support helps elevate Black communities and people of color, veterans, women, LGBTQ+ populations, economically disadvantaged individuals and families, older adults and people with special abilities. We have committed to provide \$20 million by 2025 to advance racial equity in the U.S., and are committed to activating our community engagement and grant opportunities through a DE&I lens.

Our [Colorful Communities](#) initiative is the centerpiece of our community sustainability efforts. This global program brings PPG paint and volunteers together to transform community spaces in need of a refresh.

Since the *Colorful Communities* program launched in 2015, PPG employees have positively impacted more than 8.2 million people and completed 473 projects in nearly 50 countries. Our [research report](#) in 2020, “Exploring the Impact of Color on Classrooms” found that painting classrooms with colors intended to enhance learning can improve classroom experiences and engagement for both students and teachers. As a result, we have focused our efforts to ensure our expertise is supporting positive educational outcomes for students around the world.



Within [employee engagement](#), we provide a wide variety of structured volunteer events, funding opportunities, and systems to support our people and nonprofit partners. We provide matching gifts for our employee donations and additional funding to eligible organizations through our Matching Gifts and GIVE volunteer grant programs. Eligible employees can also access eight hours of paid time off for volunteering per calendar year.



Community Engagement Framework

The PPG Community Engagement Framework sets out priority actions for community engagement that our facilities and sites are expected to implement. These actions are designed to develop and maintain relationships with key community constituents, governmental agencies and charitable organizations, as well as encourage employee involvement in our local communities. The framework serves as both a policy document and practical resource for site leaders.

PPG sites are assigned one of four program levels based on their size, type of operations and potential impacts on their local communities. During the year, a site is asked to fulfill certain community engagement actions that align with its corresponding level. For each action, the framework provides suggestions for implementation and resources to assist with execution. Historically, we have surveyed our sites annually to measure the degree to which they implemented the items associated with each program level.

Community Engagement Governance

Our global community engagement strategy is overseen by the executive director of the PPG Foundation and global corporate social responsibility. The executive director also leads grantmaking efforts in the U.S. through the PPG Foundation, with support from internal foundation agents who are based in local communities. Global giving is directed by regional communications leaders in EMEA, Latin America and Asia Pacific. They are supported by local, in-country staff who execute the activities.

The foundation is governed by a board of directors, and global giving is governed by a committee comprised of PPG's CEO and leaders from the legal, human resources, finance and science and technology functions and a business unit leader. Local giving is overseen by PPG leaders in each region, and supported by local, in-country staff.



Governance



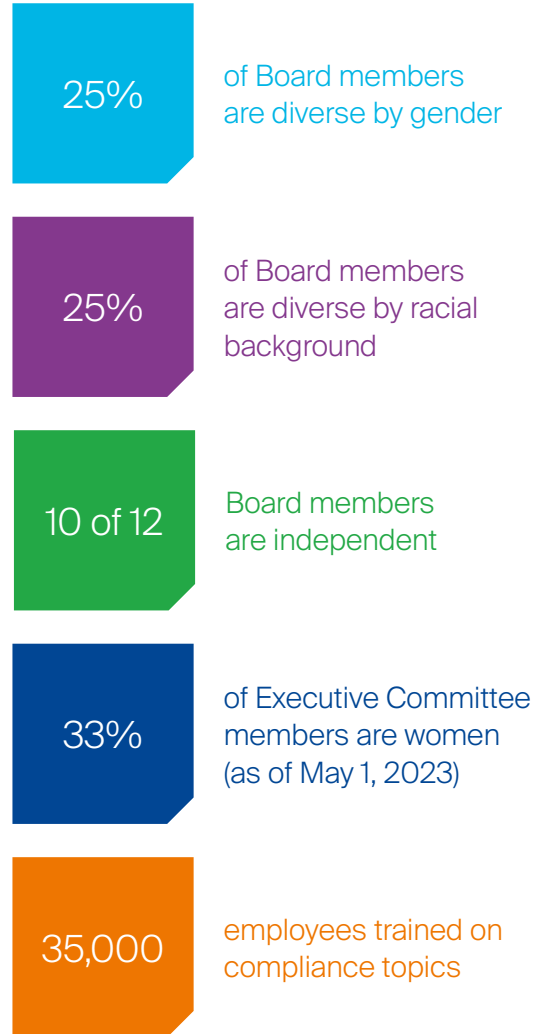


Governance Overview

We have an unwavering commitment to strong corporate governance, ethics and compliance.

At PPG, we hold ourselves to a high standard of integrity and professional conduct. This means not only ensuring compliance with the law, rules and regulations, but also upholding our values, code of ethics and voluntary commitments.

Our governance progress in 2022






We review and update our policies regularly to ensure they support us in meeting our high standards of integrity and professional conduct. Key policy updates and other governance developments in 2022 include:

- Board composition, refreshment:** At our 2022 Annual Meeting, shareholders approved a Board-sponsored proposal to amend PPG's Articles of Incorporation to provide for the annual election of all directors. The Board is currently comprised of 12 members, divided into three classes. Terms of the classes are staggered, with one class standing for election each year. Pursuant to our amended Articles of Incorporation, all directors will be elected annually beginning at PPG's 2025 Annual Meeting.
- Refreshed Code of Ethics:** Our refreshed Code of Ethics was adopted by our Board effective May 1, 2022. The updated Code is easier for our employees to understand and navigate. The updated document is available on our [website](#).
- Data privacy policies:** We restructured the governance of data privacy to ensure that we're the best possible stewards of sensitive information. The Audit committee is now responsible for overseeing PPG's global data privacy policies and initiatives, and receives updates on progress at least annually.
- IP Protection Executive Committee:** We established a new management committee to ensure our intellectual property is being appropriately safeguarded.



Governance: Board oversight of ESG

 Environmental
  Social
  Governance



Sustainability and Innovation Committee

- Employee health and safety
- Environmental programs
- Product stewardship
- Remediation activities
- Sustainability programs and performance
- Climate change risks and opportunities



Nominating and Governance Committee



- Corporate governance oversight
- Recommending new directors and executive officers
- Government affairs and political activities
- Shareholder engagement
- ESG program governance



Human Capital Management and Compensation Committee

- Culture and purpose
- Employee engagement
- Employee development
- Executive compensation
- Pay equity

Audit Committee



- Enterprise risk management
- Cybersecurity
- Data privacy



Multi-year data highlights

Investigations by Region			
	2020	2021	2022
Asia Pacific	56	83	94
Europe, Middle East and Africa	72	74	83
Latin America	120	124	131
United States and Canada	335	376	403
Total	583	657	711

Disciplinary Actions			
	2020	2021	2022
Warning	165	200	216
Counseling	155	119	N/A
Financial	6	7	10
Suspension	11	3	11
Termination	119	127	173

A single allegation may be made against multiple individuals and could result in multiple disciplinary actions. The 2022 data include only investigations closed as of Jan. 31, 2023.

We no longer report counseling as a disciplinary action resulting from an investigation. This reflects an ongoing evolution in our approach to disciplinary action. We are continuing to offer counseling whenever it is warranted, but favor written disciplinary actions in instances of substantiated allegations.

Substantiation Rate (Percent)		
	PPG	Benchmark
2022	62	52
2021	56	45

Benchmarks represent comparisons to other manufacturing companies with 50,000+ employees. Data for 2022 are as of Jan. 31, 2023.

Anonymous Reports (Percent)		
	PPG	Benchmark
2022	37	47
2021	36	47

Benchmarks represent comparisons to other manufacturing companies with 50,000+ employees. Data for 2022 are as of Jan. 31, 2023.

Case Intake Method		
	Helpline	Proxy
2022	352	359
2021	326	331
2020	318	275
2019	282	268

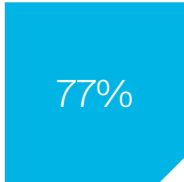
In 2022, we opened 711 investigations encompassing 1,034 allegations of employee misconduct. Of the allegations closed as of year's end, 62% were substantiated and resulted in 410 disciplinary actions.

50% of these reports came through the PPG Ethics Helpline in the form of phone or internet submissions. We received the remainder through internal sources, including direct communications to the compliance department, human resources and management.

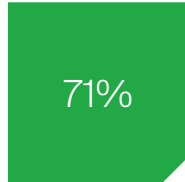
In addition, we have implemented processes to better track post-investigation corrective actions, including piloting a survey to seek feedback from people who reported an issue that was substantiated. The survey's intent is to focus on understanding reporters' satisfaction with the handling of the investigation process. Specifically, the survey seeks to understand if the reporters felt that they were treated with respect in the process and that their concerns were handled in a professional and timely manner.



We received 62 responses to this survey in 2022. Of the responses we received:



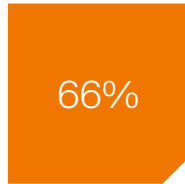
of survey participants felt that their investigation was completed in a fair, unbiased and confidential manner



of respondents said they were satisfied with the timeliness of the investigation



of survey respondents said that they were treated with respect throughout the investigation



of respondents said they would recommend the Helpline to a colleague

Our governance approach

Corporate Governance

PPG is governed by a Board of Directors in accordance with our [Corporate Governance Guidelines](#). As of December 31, 2022, the PPG Board of Directors was made up of 12 members. PPG's Board is actively engaged in developing our strategy and overseeing its execution, including major business and organizational initiatives, capital allocation priorities and potential business development opportunities. The Board uses its experience in manufacturing, global business, science and technology, and marketing to oversee the execution of our strategy and capital allocation and works with senior management to guide our strategy.

2022 APAC Compliance Knowledge Contest

In 2022, we redoubled our efforts to reach all PPG employees with ethics and compliance training and encouraged regional and site-level initiatives to build compliance culture. This enables managers to tailor initiatives to their unique context and helps us identify initiatives that we can scale across our global footprint.

The PPG China operations department and the Asia Pacific compliance department worked together to launch a knowledge contest for our operational employees, who may not have regular access to electronic training resources. The contest began with a knowledge sharing campaign that included distributing informational posters, reviewing materials during daily and weekly meetings, email outreach and promotions through Yammer and WeChat.

The contest encouraged employees to commit PPG's strict compliance requirements to memory, and rewarded the highest scoring participants with small gifts. More than 1,400 employees participated across the region, 94% of the total number of eligible employees. A total of 288 participants advanced to the final stage of the contest and earned a prize.

“Compliance is always the foundation of our corporate culture and the long-term success of the company.”

James Dai,
PPG compliance director, Asia Pacific



Managing risk and compliance

The Executive Risk Committee (ERC), comprising the Executive Committee and the director of corporate audit services, leads our enterprise risk management processes, including our annual risk assessment. While the Audit Committee has primary responsibility for overseeing enterprise risk management, our entire Board is actively involved in risk management for PPG by engaging periodically with company officers and other employees as appropriate.

The Audit Committee of the Board is also responsible for overseeing ethics and compliance. We maintain an executive-level Global Ethics and Compliance Committee chaired by our CEO, as well as regional committees chaired by our regional business leaders.

Our compliance office is headed by our chief compliance officer (CCO), who reports to our senior vice president and general counsel. The CCO also reports to the Audit Committee two times per year. Employees in our global compliance office oversee general ethics and compliance matters, investigations, export compliance, data privacy, corporate security, ethics and compliance training and more. They are supported by hundreds of employees worldwide who help implement specific codes, policies and initiatives.

We conduct a global legal and compliance risk assessment every two years. The most recent assessment occurred in late 2021. We survey more than 200 country, regional and global leaders representing all our functions and business units regarding 44 legal and compliance risks across nine risk categories. We execute risk mitigation plans for the top ten residual risks by region identified by these assessments. The nine risk categories that we considered in our most recent risk assessment are:

- Anti-corruption
- Corporate compliance and culture
- Safety and protection of assets
- Export practices
- Proprietary information
- Employee relations
- Records management/retention
- Data privacy
- Third-party management

Codes and policies

[The PPG Global Code of Ethics](#), which is available in 32 languages, sets forth the principles that apply to all employees – everywhere and in every circumstance. Supplementing the code are specific policies and procedures that include our Global Export Control Policy, Gifts, Sponsorships and Charitable Contributions Policy, [Anti-Corruption Policy](#), Due Diligence Procedure for Third Party Intermediaries, Social Media Policy and Denied Country Policy.

Training and communications

Our employees have access to online trainings in multiple languages through our Learning Management System. These trainings cover, among other topics, anti-corruption, competition law, conflicts of interest, export compliance and the PPG Global Code of Ethics. We also deliver in-person training in every region, with particular focus in higher-risk regions and for higher-risk topics.

Our ethics intranet site provides information on training resources, policies and procedures as well as a mechanism for reporting ethics and compliance concerns. We also communicate with all employees on ethics and compliance topics throughout the year via:

- Virtual meetings highlighting ethics and compliance topics
- Manager toolkits including presentation materials and discussion points
- Topic-specific flyers and materials distributed to U.S. manufacturing locations
- Discussion guides designed to help managers lead conversations on ethics and compliance topics.



Reporting and investigations

[The PPG Ethics Helpline](#) is available for all employees and third parties, including customers and suppliers, to ask ethics and compliance questions or to report a concern anonymously. The helpline is managed by an independent, third-party firm with multilingual representatives who are trained to listen carefully, ask questions and document the situation accurately and anonymously.

Individuals also can contact several management resources, including our human resources staff or chief compliance officer (CCO), to report concerns. It is against PPG policy to retaliate against anyone for making a good-faith report of a violation of law or the PPG Global Code of Ethics.

Our compliance office handles all reported issues, with each taken seriously and appropriately addressed. Each case is assessed by an appropriately assigned functional or regional investigator or team. Investigators review and preserve relevant documentation, conduct interviews, communicate relevant findings, prepare a final report, and identify and ensure the completion of any appropriate corrective actions. Disciplinary actions are the responsibility of the human resources team in conjunction with legal, compliance and the business.

Although the complexity of any allegation may necessitate an extensive investigation, our goal is to close the investigation and case report in a timely manner. The person who reports the issue through the helpline is given a case number to anonymously check the status of their report throughout the process. To encourage involvement and promote transparency, we provide data on reported ethics concerns to our employees throughout the year.

We track post-investigation corrective actions, including by surveying people who reported substantiated issues. Surveys focus on understanding the reporter's satisfaction with the handling of their concern to ensure that respondents are treated with respect and that concerns are handled in a professional and timely manner.

Additionally, our “Speak Up Challenge” provides a high-level review of our ethics and compliance investigations in the prior period, offers an in-depth look at a specific ethics or compliance issue and encourages employees to report concerns. Past topics have included diversity, equity and inclusion, unprofessional behavior, workplace violence, sexual harassment, and the value in speaking up/ investigation process.

We conduct two virtual roundtables each year with our businesses and functions to review the status of the business' and functions' ethics and compliance training, ethics investigations, PPG Ethics helpline activity and third-party due diligence program.





Sustainability governance

Our Sustainability organization is responsible for developing our corporate sustainability strategy and working alongside our businesses and functions to execute that strategy. The organization is led by the vice president of global sustainability, and collaborates with teams across PPG to drive our environmental, social and governance (ESG) efforts, including reducing the environmental impact of operations, mitigating climate change impacts, identifying opportunities to increase sales of sustainably advantaged products and growing PPG's positive impact on communities in which it operates. The sustainability organization is assisted by our management-level Sustainability Committee, which assists with creating action plans and ESG policies.

The vice president of global sustainability serves as the risk owner for ESG, and is responsible for:

- Working with other risk owners and across the organization to facilitate and drive action on the top-tier ESG risks
- Defining and monitoring appropriate leading and lagging indicators associated with these risks
- Bringing other insights that might be considered relevant to the ERC for holistic, integrated management of ESG risk across PPG

PPG's programs, initiatives and activities in the areas of environment, health, safety, technology and sustainability are overseen by The Sustainability and Innovation Committee of the Board, with support from other Board-level committees depending on the issues and risks involved. The Board engages with management on ESG strategy, climate change risks and opportunities, and has oversight of the tracking of our sustainability progress. The vice president of global sustainability reports progress to the Sustainability and Innovation Committee three times per year, and the full Board of Directors once per year.

To learn more about governance of our diversity, equity and inclusion (DE&I) efforts, visit the [DE&I section](#).



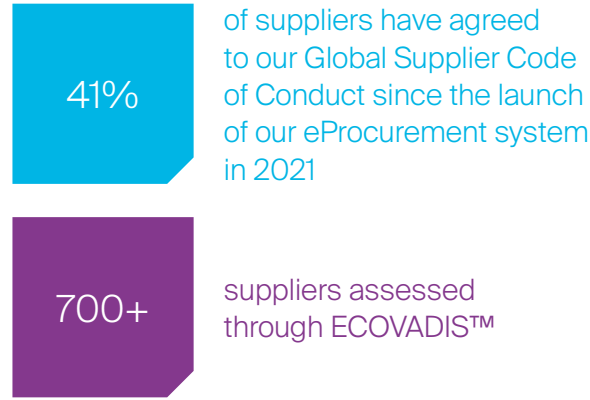


Human Rights

We respect the dignity and human rights of all people.

As stated in our [Global Code of Ethics](#), we are committed to compliance with all laws pertaining to freedom of association, privacy, collective bargaining, immigration, working time, wages and hours in our operations throughout the world. We also uphold laws prohibiting forced, compulsory and child labor, human trafficking and employment discrimination..

Our human rights highlights in 2022



We engage with *EcoVadis*, a leading business sustainability ratings company, to help understand our supplier performance and approach to managing labor and human rights in their operations. The average score of PPG suppliers in 2022 was above *EcoVadis*' market average score.

One of our focus areas in 2022 was incorporating suppliers from our 2021 acquisition of Tikkurila into our systems and processes. We have been working to merge Tikkurila's supplier platform with *EcoVadis*, which helps promote consistency in how we measure and manage supplier performance. At the end of 2022, 60% of rated Tikkurila suppliers had been consolidated into PPG's *EcoVadis* platform, and we reached 100% in early 2023. Learn more in the [Supplier Sustainability](#) section.

Our approach to human rights in our operations

We understand that upholding human rights extends beyond avoiding oppression through issues such as modern slavery or unsafe working conditions, and have a comprehensive strategy to protect human rights throughout our operations. Key components of our strategy are outlined throughout this report, including:

Diversity, equity and inclusion: We are committed to valuing differences among us in experience, perspective, background, race, age, national origin, religion, sex, sexual orientation, gender identity and/or expression, culture, interests, geography and style. We strive for a collaborative environment in which everyone is embraced for their differences and has the chance to succeed. Learn more in the [Diversity, Equity and Inclusion](#) section.

Equal opportunity: We base employment decisions on job qualifications and merit, which include education, experience, skills, ability and performance. We give equal employment opportunity to – and will not discriminate against – individuals on the basis of any status protected by applicable laws.

Safety and health: A key PPG value is ensuring our people return home safely each day. We are actively working toward a goal of zero injuries by engaging with our employees to improve our operating practices around the world, investing in a safe work environment and running our business with sound operating practices. Learn more in the [Safety and Health](#) section.



Community support: Our commitment extends into the communities where we operate. We dedicate financial contributions, apply our products and use the power of our employee volunteers to address the needs of our local communities and transform lives. Learn more in the [Community Engagement](#) section.

Environmental impact: We are also committed to preserving and protecting the environment in which we operate at all our locations around the world. Minimizing the footprint of our operations is an ongoing focus, and our locations are guided by our sustainability goals. Learn more in the [Environmental Overview](#) section.

Product stewardship: Our vigorous product stewardship program aims to minimize the human health and environmental impacts of our products throughout their entire life cycle and to eliminate substances of concern from our products. We have standards and processes in place to help ensure our products are developed, used and disposed of safely. Learn more in the [Product Stewardship](#) section.

Our approach to human rights in the value chain

We expect all of our contractors, suppliers and other business partners to respect and uphold our commitment to human rights in their operations. Our suppliers are a core focus of our human rights due-diligence process. We evaluate their commitment and adherence to human rights through our supplier onboarding process, assessments of our high-risk suppliers globally and annual audits of selected suppliers.

Policies

Our [Global Supplier Code of Conduct](#) clarifies our expectations in the areas of business integrity, labor practices, employee health and safety, and environmental management. Specific requirements relating to human rights include:

- Treating employees fairly, including with respect to wages, working hours and benefits
- Prohibiting all forms of forced or compulsory labor
- Prohibiting the use of child labor
- Respecting employees' right to freedom of association and collective bargaining, consistent with local laws
- Providing safe and healthy working conditions
- Complying with all applicable environmental laws and regulations, and having processes in place to sustainably manage waste, air emissions, energy consumption and water
- Delivering products and services that meet applicable quality, health and safety standards

Our [Supplier Sustainability Policy](#) builds upon our Global Supplier Code of Conduct by establishing expectations for sustainability within our supply chain. This policy reinforces our expectations that our suppliers, as well as their subcontractors, will comply with applicable laws and adhere to internationally recognized environmental, social and corporate governance standards. Each supplier must evaluate and maintain sustainable processes and raw material sources throughout their supply chain. We encourage our suppliers to innovate and develop products that require less material and energy to produce.

Additional information about the steps we have taken to ensure human rights are respected in our own operations and our supply chain also can be found in our California [Transparency in Supply Chains Act Statement](#) and [Modern Slavery and Human Trafficking Statement](#).

We incorporate the supply base of any of our recent acquisitions into our vendor management processes. Our standard acquisition integration process includes having suppliers attest to the Supplier Sustainability Policy and ethics standards. This approach ensures that all PPG suppliers understand and meet our expectations.



Supplier engagement and management

Suppliers use our global eProcurement (ePro) platform's supplier portal to do business with PPG. This includes completing an electronic acknowledgement of our Global Supplier Code of Conduct and [Supplier Sustainability Policy](#) and indicating compliance with [data privacy laws](#) as they pertain to any relationship with PPG.

We engage with [EcoVadis](#) to leverage assessment processes, tools, resources and insights to drive sustainability standards and practices throughout our global supply chain. Key assessment areas include labor and human rights, which cover employee health and safety, working conditions, child labor, forced labor, human trafficking, diversity, discrimination and harassment. [EcoVadis](#) sustainability intelligence provides broad-scale supply chain risk screening and mapping, supplier sustainability metric scorecards with actionable ratings, and audit and improvement management capabilities. This information helps us align our suppliers' practices with PPG's sustainability commitments.

See the [Supplier Sustainability](#) section for additional details on how we address human rights as part of our procurement process.

Industry collaboration

Many human rights risks stem from industry-wide challenges. We participate in many industry collaborations to support a collective approach to upholding human rights around the world.

We are a founding member of the [RESPONSIBLE MICA INITIATIVE](#)[®] (RMI), which aims to mobilize the supply chain to eradicate child labor in India's mica mines through traceability efforts and community building activities. RMI's holistic approach focuses on three program pillars:

- Mica supply chain mapping and implementing workplace standards for mica collection and processing
- Community empowerment, including improving educational resources and alternative means of livelihood, in villages that provide the mica workforce
- Legal frameworks for the mica sector, including advocacy for laws and regulations that support workers and operators of mica mines, processors and exporters

We participate in a range of other industry associations and initiatives that support human rights. Learn more in the [Stakeholder Engagement](#) section.

Ensuring Supplier Compliance

We expect suppliers to immediately report any suspected violations of our Global Supplier Code of Conduct through the [PPG Ethics Helpline](#) or other specified channels. In the event of any non-compliant activity or violation of the Code, the supplier may be required to provide a detailed corrective action plan to address the deficiency. We reserve the right to terminate our relationship with any supplier that cannot demonstrate compliance with the Code.

Employees, suppliers and other third parties can anonymously report suspected human rights violations within our operations and those of our suppliers through the PPG Ethics Helpline. The helpline is managed by an independent, third-party firm, and we investigate each allegation thoroughly and fairly.

Additional information on the helpline and our expectations for a high standard of integrity and professional conduct for employees and business partners can be found in the [Governance Overview](#) section.



Supplier Sustainability

We select suppliers that share our sustainability commitment and support continued improvement throughout our value chain.

Our supplier sustainability highlights in 2022



In 2022, we spent over \$10 billion with more than 17,000 suppliers globally on raw materials, indirect products and services, and the transportation of goods.

In addition to our work to improve the efficiency of our own operations, we work to understand the environmental and social impacts of our value chain and reduce the negative impacts of our suppliers.

Over the last year, we continued to increase our understanding of suppliers' sustainability performance and capabilities.

We launched a new internal Supplier Sustainability Tracker in 2022, which helps identify ongoing sustainability programs and initiatives that support improvements in supplier performance. Our Chief Procurement Officer shares the most impactful programs identified through the tracker at quarterly town hall meetings to increase awareness of leading practices and identify opportunities to enhance the capabilities of other suppliers.

We continued to expand the use of *EcoVadis*, a leading third-party ratings organization, to evaluate our suppliers' sustainability practices. As of the end of 2022, over 700 of our suppliers have responded to surveys and been rated by *EcoVadis*.

In early 2023, our work has been focused on onboarding suppliers from recent acquisitions to ensure that our supplier management is consistent across PPG. We have been working to merge Tikkurila's supplier platform with *EcoVadis*, which helps promote consistency in how we measure and manage supplier performance. At the end of 2022, 60% of Tikkurila suppliers had been consolidated into PPG's *EcoVadis* platform, and we reached 100% in early 2023.



Our *EcoVadis* Program will continue to cover PPG's top-spend suppliers. In addition, we plan to extend the scope of the program to suppliers that may pose high risk, including country/geographical and industry risks. Together with the *EcoVadis* team, we are working to implement a tool for quick supplier risk assessment.

Beyond the *EcoVadis* evaluations, we have shifted the focus of our internal supplier evaluations to review our most critical and highest risk suppliers. We identify suppliers for more in-depth review based on country- and industry-specific risks.

Through 2022, we worked with a third party to promote growth in our Supplier Diversity Program in the U.S. Our partner helped us to identify an additional 3% of diverse spend through existing suppliers, and sourcing of potential new suppliers that meet the diverse supplier criteria.

Excellent Supplier Awards

We recognize suppliers for performance that consistently exceeds our requirements with the Excellent Supplier Awards, our highest-level recognition for vendors. Our procurement, business and functional teams evaluate nominated suppliers for their quality, delivery reliability, accurate documentation, innovation, responsiveness, commercial value, compliance, service and sustainability. Suppliers are ultimately recognized for performance in one of three categories: competitive advantage & value, sustainability and supplier diversity. There were eleven awardees in 2022.



Supply Chain Traceability partnership with Porsche

Traceability is critical to confirming claims that products are sourced and manufactured with minimal social and environmental harm. PPG is working closely with partners to enhance the accessibility of detailed information about production processes throughout the supply chain.

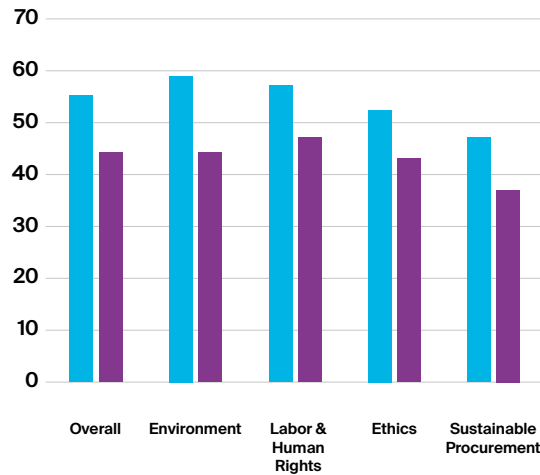
In one such partnership, PPG is the sole coatings company working with Porsche on a project managed by Circularise, a transparency and traceability start-up that uses blockchain to track and share information across complex supply chains. Circularise enables the secure sharing of information related to carbon emissions, lifecycle analyses, health & safety, human rights, transportation information and more. The company's use of blockchain is important because it allows participants to share verifiable data without the threat of exposing proprietary information about their product composition or processes.

Circularise's solution is built on Ethereum blockchain, which uses the proof of stake method of validation. Proof of stake is less energy intensive than proof of work, which is the method employed by some other blockchain applications.



Data highlights

Average EcoVadis score of suppliers



■ PPG Supplier Average Score

■ EcoVadis Average Score

Supplier sustainability audits by region

Supplier sustainability audits by region		
	On-site audits	Remote audits
Europe, Middle East and Africa	26	1
U.S. and Canada	27	170
Asia Pacific	7	1
Latin America	17	29

These audit results are in line with previous years and met PPG's expectations.

Our approach to supplier sustainability

We expect our suppliers and their subcontractors to fully comply with all applicable laws and to adhere to internationally recognized environmental, social and governance standards. We also expect our suppliers to minimize the negative environmental impacts from their operations and products, and to continuously improve their performance. Our Global Code of Ethics, [Supplier Sustainability Policy](#) and [Global Supplier Code of Conduct](#) clearly state our expectations for every supplier.

Globally, we work to comply with evolving regulations that impact our operations, and expect the same from our suppliers. These regulations include the Modern Slavery Act of 2015 in the UK; General Data Protection Regulation (GDPR) in the EU; Registration, Evaluation, and Restriction of Chemicals (REACH) in the EU; and other third-party due-diligence screenings for compliance purposes.

We are constantly working to improve our supplier sustainability programs. We benchmark our performance against peers, improve our reporting and program visibility, consistently expand our programs and provide training to our staff. We also create long-term plans on joint-sustainability initiatives with third-party organizations to drive future change.

Visibility across the supply chain

Our procurement and sourcing teams use a standard eProcurement (ePro) platform where all global suppliers are registered. Within ePro, suppliers can acknowledge our Global Supplier Code of Conduct, Sustainability Policy, and confirm compliance with data privacy laws as they pertain to any relationship with PPG. Across our operations in the United States and Canada (USCA) and Europe, Middle East and Africa (EMEA) regions, we also use ePro for procure to pay (P2P). We intend to extend ePro P2P into our operations in Latin America and Asia Pacific in the future.



We maintain an internal global spend visibility database to help identify and manage potential high-risk suppliers throughout the supply chain. We assess both our critical raw material, indirect, and logistics suppliers, and high-risk suppliers throughout the value chain. Critical suppliers are identified based on our total procurement spend, while high-risk suppliers may be identified based on geographic position, industry and other factors. We evaluate and monitor more than 1,000 suppliers based on these criteria each year to gauge current or potential risks present in our value chain.

PPG works with EcoVadis, a leading third-party ratings organization that assesses responsible practices of more than 60,000 companies worldwide, to evaluate the sustainability of suppliers across our supply base. EcoVadis evaluates suppliers across four key segments:

- **Environment:** Energy consumption, product use, customer health and safety, and biodiversity
- **Labor and human rights:** Employee health and safety, working conditions, child labor, forced labor, human trafficking, diversity, discrimination and harassment
- **Ethics:** Corruption and anticompetitive practices
- **Sustainable procurement:** Supplier environmental and social practices

Suppliers receive an *EcoVadis* scorecard which provides an overall corporate social responsibility performance rating, and allows them to benchmark their performance against peers in the same industry. Our procurement organization uses these insights to make sourcing decisions and drive improved supplier performance.

We collaborate with external partners to incentivize broader systemic action in particularly high-risk geographic areas and industries. As an example, we are founding members of the Responsible Mica Initiative, which aims to enable a responsible and sustainable mica supply chain in India. Learn more in the [Human Rights](#) section.



Monitoring supplier performance

Our Procurement organization works across our departments, regions and businesses to identify, assess and audit potential and existing suppliers on an ad-hoc or scheduled basis.

Suppliers are selected for audits based on an assessment which may include factors such as business impact, supply chain risk, product category, supplier development, quality requirements and sustainability performance. We evaluate suppliers on criteria which may include:

- Product and process reviews
- Production process: formulations, packaging and shipping
- Financial stability
- Quality systems: key controls, inspection and testing, abnormality reporting and continuous improvement
- Human rights and regulatory performance
- Environmental, health and safety performance
- Contamination prevention
- Other: training, industry-specific certifications, sustainability processes and contingency plans

Suppliers that perform well are moved to or maintained in PPG's approved supplier pool. Low scoring suppliers may be placed on a performance improvement plan and face temporary suspension or discontinuation of business, depending on the audit findings.



Supplier diversity

Our [Supplier Diversity](#) program aims to increase opportunities for diverse suppliers, and ultimately drive PPG spend to qualified diverse suppliers. Our company and communities benefit when we provide equal opportunities for diverse suppliers to compete for our business.

Our Supplier Diversity program supports this effort by working across four focus areas:

- **Data and technology:** Building data systems and capabilities within PPG to identify qualified suppliers
- **Operational program elements:** Ensuring that qualified suppliers are included in sourcing projects and supported as needed
- **Resources to drive results:** Facilitating leadership and buyer awareness, support and collaboration
- **Effective outreach:** Reaching out to qualified suppliers, putting on events, and raising awareness of the program internally and externally



The diverse supplier program applies to the USCA region of PPG, primarily in the United States. The program is supported by our Procurement Center of Excellence, which helps identify tools, suppliers and best practices to share across the program participants. To be considered for the Supplier Diversity program, suppliers must meet requirements laid out by certifying entities and government agencies. Qualifying suppliers include U.S. owned and privately held businesses that are owned by veterans, minorities, members of the lesbian, gay, bisexual, transgender and queer (LGBTQ+) community, people with disabilities and women.

Engaging with suppliers

Each year, we also recognize suppliers whose performance consistently exceeds our expectations with our Excellent Supplier Awards. Suppliers are nominated based on quantitative and qualitative criteria, including commercial value, innovation, service, sustainability, quality and compliance. Awards are given to outstanding suppliers across our suppliers, logistics providers and energy providers.

In addition to helping suppliers evaluate and improve their sustainability performance, we seek their help in improving our own. We are increasingly gathering detailed information on the sustainable attributes of the raw materials used in our formulations. We identify products that contain bio-based materials, recycled content and are lower toxicity chemicals. Discussions with our largest suppliers regarding areas of collaboration on sustainable raw materials will continue to increase as we look to improve the sustainability of our products. Expanding the information available to our procurement teams helps us manage the environmental and social impacts of our procurement decisions. Other examples of supplier engagement include asking suppliers to provide more environmentally conscious products, recycling packaging used to ship materials to our facilities and offering more fuel-efficient transportation services.

Learn more in the [Stakeholder Engagement](#) section.



Responsible Minerals Sourcing

PPG is committed to ethical business conduct and responsible sourcing.

PPG is committed to ethical business conduct and responsible sourcing. We work diligently with our global supply chain partners to ensure our products do not incorporate conflict minerals, cobalt, mica, and silicon from entities that directly or indirectly finance conflict or may be linked to human rights abuses in an attempt to support the development of economy in certain high-risk areas.

Many of the raw materials we use that contain conflict minerals pass through a variety of intermediaries before reaching our company. We do not purchase directly from the smelters or the producers of the minerals in our raw materials. Therefore, we must rely on our suppliers to identify the sources of the minerals in our raw materials and to declare the conflict mineral status of their products, as stated in our [Responsible Minerals Sourcing Policy](#).

Consistent with our commitment to social responsibility and sustainability, we expect each of our suppliers to:

- Conduct due diligence on its supply chain in accordance with the Organization for Economic Co-Operation and Development's Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- Determine the source of any conflict minerals or products containing conflict minerals that are supplied to us
- Provide the conflict minerals source information that is necessary to support our due diligence and reporting obligations under the SEC's Conflict Minerals rules
- Notify us if a supplied product contains conflict minerals originating in the Democratic Republic of Congo (DRC) or surrounding countries

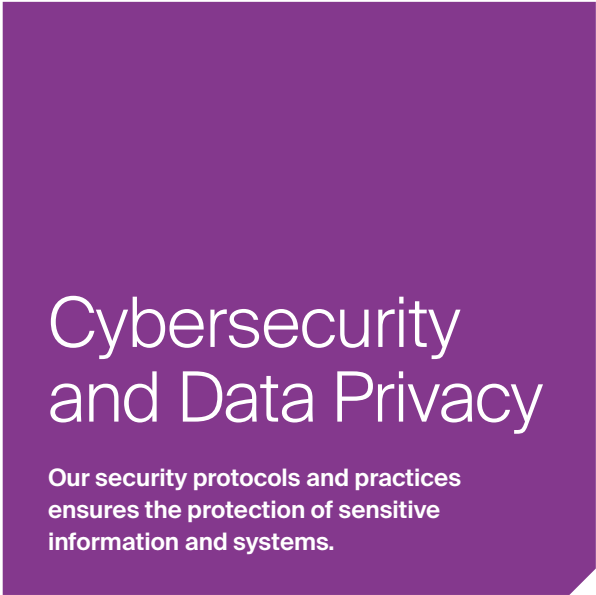
We work diligently with our global supply chain partners to reduce the negative impacts on people and communities associated with conflict minerals or other minerals sourced from areas where there is a risk of human rights abuses in the supply chain of these minerals.



We also work with the suppliers of other minerals of concern to trace the origin of these minerals in an effort to ensure that our suppliers are meeting their obligations under PPG's Supplier Code of Conduct.

Suppliers that are not able to provide adequate information about the source of any conflict minerals or other minerals of concern in the products supplied to PPG shall be evaluated by our procurement department and may be denied future PPG business.

To learn more, read our most current [Conflict Minerals Report](#).



We apply stringent cybersecurity and data privacy protocols and practices throughout our systems. Our approach ensures the protection of our information, and that of our customers and others.

Cybersecurity

PPG’s cybersecurity program is designed to protect and preserve the confidentiality, integrity and continued availability of all information that we own or is in our care. Our program is based on the U.S. National Institute for Standards and Technology (NIST) standards and other applicable industry standards.

Our cybersecurity program includes:

- a cyber incident response plan that provides controls and procedures for timely and accurate reporting of any material cybersecurity incident(s)
- easy-to-use tools for employees to report potential phishing emails
- annual security training for employees, including periodic phishing testing to ensure our employees remain vigilant and compliant with our expectations
- periodic testing of cybersecurity posture using third parties

Our vice president and chief information officer (CIO) oversees our cybersecurity program. The PPG Board of Directors’ Audit Committee, which has oversight of cybersecurity risk, receives a bi-annual report and briefing from the CIO and chief information security officer (CISO) on cybersecurity matters. In addition, the full Board receives periodic briefings from the CIO on our cybersecurity program and any other relevant cybersecurity matters.

The full Board and the Audit Committee also periodically receive updates about the results of exercises performed by advisors that provide an independent assessment of our cybersecurity program and internal response preparedness.

We maintain insurance covering certain costs that we may incur in connection with cybersecurity incidents.

Data Privacy

Our internal data privacy policies are designed to prevent unauthorized access to, and disclosure of, personal information using a range of operational and technological safeguards. Our employees also receive training on data privacy concepts to prevent any misuse of personal information. When we share personal information with third parties, we take contractual measures to ensure such information is protected and processed in accordance with applicable laws. We closely monitor evolving data privacy and data protection legislation around the world and update our policies and procedures to comply with current regulations.

We have a global data privacy manager responsible for ensuring the ongoing compliance of PPG’s data privacy and data protection policies and procedures, who reports to our chief compliance officer (CCO). The CCO oversees our data privacy program and provides regular reports to the PPG Board of Directors’ Audit Committee.

Our privacy notices and statements outline how we collect, use and protect personal information provided to PPG. When personal information is no longer required, we destroy, anonymize or dispose of it using secure methods in accordance with applicable requirements.

Learn more, access our Global Data Privacy Statement and contact us at our [privacy website](#).



Transparency





About this Report

We are committed to transparent reporting on our ESG performance.

PPG recognizes the importance of clear, accurate reporting on the ways that we manage sustainability-related risks, act on opportunities and understand the impacts of our business on all of our stakeholders. We aim to consistently advance our disclosure as we improve our approach to managing sustainability-related issues.

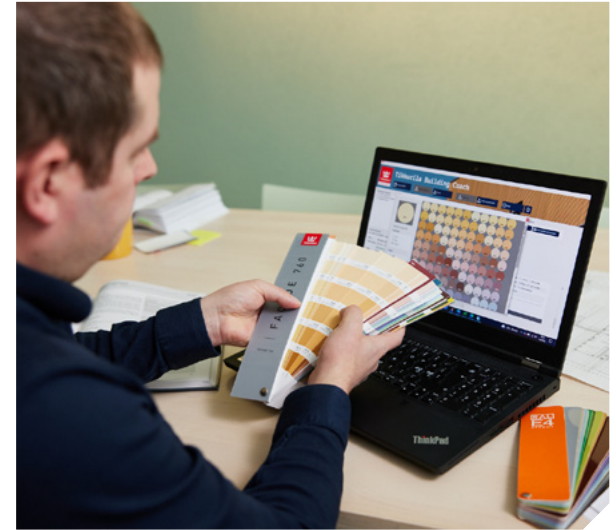
This report has been prepared in accordance with the newly updated Global Reporting Initiative (GRI) Standards, the Sustainability Accounting Standards Board (SASB) Chemical Industry Standard and the Task Force on Climate-Related Financial Disclosures (TCFD) Recommendations.

Unless otherwise noted, the information and data contained in this report cover all employees, PPG locations and joint ventures where we maintain at least 50% ownership. Monetary figures are U.S. dollars unless otherwise noted.

In 2022, we once again engaged Lloyd's Register Quality Assurance to provide limited assurance on our scope 1 and scope 2 greenhouse gas data. We are confident our internal processes provide sufficient oversight regarding the accuracy of all other information we present, and we continue to explore assurance options to provide independent verification of our disclosure as expectations evolve.

This report, inclusive of the 2022 reporting year, contains forward-looking statements that reflect our current views about our business plans, initiatives and objectives, which may change based on subsequent developments.

We encourage you to provide feedback on this report and our sustainability performance via email, a short [online survey](#) or a letter sent to PPG, One PPG Place, Pittsburgh, PA 15272, Attention: Corporate Communications.







Process Safety Incidents			
Event type	Root cause(s)	Corrective actions	Tier
Spill/release during non-bulk material movement	Human error	Training: Re-training of all affected employees	I
	Work methods/work instructions - Vague guidance, Correct methods or instructions not used	Change: Procedure/work practice change	
Spill/release during manufacturing process	Equipment/process - equipment malfunctioned	Change: Procedure/work practice change	II
		Warnings: Warning signs, lights, beacons, strobes, floor markings	
		Eliminate/engineer: Engineering or process control that IS monitored by process control circuitry, engineering or process control NOT monitored by process control circuitry	
		Other non-risk: Investigate or analyze the problem	
Spill/release during manufacturing process	Equipment/process - improperly designed	Other non-risk: Investigate or analyze the problem	II
		Repair: Repair only the equipment that failed and caused the risk	
		Eliminate/engineer: Change to equipment/machine that eliminates the risk	
Spill/release during manufacturing process	Equipment/process - improperly designed	Repair: Repair only the equipment that failed and caused the risk	I
	Work methods/work instructions - work instructions not correct	Other non-risk: Investigate or analyze the problem	
		Change: Procedure/work practice change	
		Guarding: Fence, guard, or proximity device (non-interlocked)	
		Inspection: Conformance to requirements or condition monitored via management intervention process system and/or routine inspect	



Process Safety Incidents			
Event type	Root cause(s)	Corrective actions	Tier
Spill/release caused by equipment failure/offsite environmental impact	Equipment/process - no or missed preventive maintenance	Other non-risk: Investigate or analyze the problem	I
	Work environment - general environment (hot, cold, wet, tight places, etc.)	Inspection: Checklist, inspection, or add to preventative maintenance schedule, inspect, and repair all related equipment, and add to preventative maintenance program	
	Work methods/work instructions - vague guidance	Eliminate/engineer: Hazard reduction by substitution with lower hazard	
		Repair: Repair only the equipment that failed and caused the risk	
Spill/release during manufacturing process	Human error	Inspection: Checklist, inspection, or add to preventative maintenance schedule	II
	Equipment/process - no or missed preventive maintenance	Training: Re-training of all affected employees	
Spill/release during non-bulk material movement	Human error	Change: Procedure/work practice change	I
	Work methods/work instructions - vague guidance	Intervention: Re-training of person involved	
	Work environment - congestion	Eliminate/engineer: Hazard elimination by change to process or materials	
		Other non-risk: Investigate or analyze the problem	
Spill/release caused by equipment failure/Employee injury with hospitalization and surgery	Work methods/work instructions - instructions not available, no, or inadequate training	Change: Procedure/work practice change	I
	Equipment/process - equipment malfunctioned	Warnings: Warning signs, lights, beacons, strobes, floor markings	
		Eliminate/engineer: Hazard elimination by change to process or materials	
Spill/release during manufacturing process	Equipment/process - equipment malfunctioned	Conduct reliability testing on failed equipment	II
		Other non-risk: Investigate or analyze the problem	



Process Safety Incidents			
Event type	Root cause(s)	Corrective actions	Tier
Spill/release caused by equipment failure/employee injury without hospitalization	Human error	Training: Re-training of all affected employees	I
	Work methods/work instructions - work methods not correct	Other non-risk: Ancillary action with no risk reduction capability	
		Change: Procedure/work practice change	
Spill/release during manufacturing process	Equipment/process - equipment malfunctioned, excessive wear and tear	Repair: Repair only the equipment that failed and caused the risk	II
Spill/release during manufacturing process	Work environment - congestion	Warnings: Warning signs, lights, beacons, strobes, floor markings	I
	Work methods/work instructions - no or inadequate training		
Spill/release caused by equipment failure	Human error	Training: Re-training of all affected employees	I
	Equipment/process - improperly designed, no or missed preventative maintenance	Change: Procedure/work practice change	
		Eliminate/engineer: Hazard elimination by change to process or materials, engineering or process control that IS monitored by process control circuitry	
		Inspection: Checklist, inspection, or add to preventative maintenance schedule	
Spill/release during non-bulk material movement	Work environment - mobile equipment interface	Change: Procedure/work practice change	II
Spill/release during manufacturing process	Equipment/process - equipment malfunctioned	Repair: Repair only the equipment that failed and caused the risk	II
Spill/release caused by equipment failure	Equipment/process - equipment malfunctioned, improperly designed	Eliminate/engineer: Change to equipment/machine that eliminates the risk	I
	Work methods/work instructions - Work methods not correct	Guarding: Fence, guard, or proximity device (interlocked to shut down equipment)	
		Change: Procedure/work practice change	
		Training: Re-training of all affected employees	
		Inspection: Inspect and repair all related equipment, and add to preventative maintenance program	
		Conduct hazard and operability study (HAZOP)	



Process Safety Incidents			
Event type	Root cause(s)	Corrective actions	Tier
Spill/release during manufacturing process	Equipment/process - control logic failure	Eliminate/engineer: Engineering or process control that IS monitored by process control circuitry	I
		Change: Procedure/work practice change	
		Conduct hazard and operability study (HAZOP)	
Spill/release during manufacturing process	Human error	Training: Re-training of all affected employees	I
	Equipment/process - improperly designed	Eliminate/engineer: Change to equipment/machine that eliminates the risk	
Spill/release during manufacturing process	Work methods/work instructions - vague guidance	Eliminate/engineer: Hazard elimination by change to process or materials	II
Spill/release during manufacturing process	Human error	Training: Re-training of all affected employees	I
	Work methods/work instructions - vague guidance	Other non-risk: Ancillary action with no risk reduction capability	
	Equipment/process - equipment malfunctioned	Repair: Repair only the equipment that failed and caused the risk	
Spill/release during manufacturing process	Human error	Eliminate/engineer: Hazard elimination by change to process or materials	II
		Warnings: Warning signs, lights, beacons, strobes, floor markings	
		Repair: Repair only the equipment that failed and caused the risk	
		Intervention: Re-training of person involved	
Spill/release during manufacturing process	Work methods/work instructions - vague guidance	Other non-risk: Experimental solution - results unknown	I
		Training: Re-training of all affected employees	
		Work environment - congestion	



Process Safety Incidents			
Event type	Root cause(s)	Corrective actions	Tier
Spill/release during manufacturing process	Human error	Other non-risk: Investigate or analyze the problem	II
		Intervention: Coaching/counselling of person involved	
Spill/release during manufacturing process	Work methods/work instructions - instructions not available	Inspection: Checklist, inspection, or add to preventative maintenance schedule	I
Spill/release during manufacturing process	Human error	Training: Re-training of all affected employees	I
Spill/release/chemical splash but no injury	Equipment/process - equipment malfunctioned	Repair: Repair only the equipment that failed and caused the risk	I
Spill/release/chemical splash but no injury	Human error	Change: Procedure/work practice change	II
Spill/release during manufacturing process	Human error	Other non-risk: Investigate or analyze the problem	I
	Equipment/process - improperly designed, inadequate alarms or warning system	Change: Procedure/work practice change	
	Work methods/work instructions - correct methods or instructions not used, no or inadequate training, instructions not available	Eliminate/engineer: Engineering or process control that IS monitored by process control circuitry	
	Organizational/management causes - workplace organizational conditions	Training: Re-training of all affected employees	
Spill/release during manufacturing process	Human error	Intervention: Discipline of person involved	I
Spill/release during manufacturing process	Human error	Inspection: Checklist, inspection, or add to preventative maintenance schedule	I



Multi-year data highlights	2018	2019	2020	2021	2022
Economic					
Net sales (millions)	\$15,374	\$15,146	\$13,834	\$16,802	\$17,652
Net income from continuing operations (millions)	\$1,323	\$1,243	\$1,056	\$1,420	\$1,028
Adjusted earnings per diluted share from continuing operations ¹	\$5.92	\$6.22	\$6.12	\$6.77	\$6.05
Dividends per share	\$1.86	\$1.98	\$2.10	\$2.26	\$2.42
Environmental²					
Percent of sales from sustainably advantaged products	32%	33%	35%	38%	39%
Total waste disposed (thousand metric tons)	144.89	112.49	89.68	90.18	116.70
Waste disposal intensity (metric tons per 100 metric tons of production)	3.02	2.46	2.10	2.05	2.79
Hazardous waste generated (thousand metric tons)	117	113	94	96	88
Recycled or recovered hazardous waste (percent)	50%	47%	52%	54%	53%
Non-hazardous waste generated (thousand metric tons)	116	82	71	74	101
Recycled or recovered non-hazardous waste (percent)	25%	35%	37%	38%	25%
Water withdrawn (million cubic meters)	19.15	18.73	15.28	17.72	17.73
Net water consumption (million cubic meters)	4.58	4.58	1.99	3.35	3.09
Water intensity (cubic meters per metric ton of production)	3.99	4.09	3.57	4.03	4.24
Energy consumption (million gigajoules)	14.24	13.45	11.12	12.92	12.71
Total energy intensity (gigajoules per metric ton of production)	2.96	2.94	2.60	2.94	3.04
Direct energy intensity (gigajoules per metric ton of production)	1.74	1.70	1.48	1.75	1.77
Indirect energy intensity (gigajoules per metric ton of production)	1.22	1.23	1.13	1.19	1.27
Total greenhouse gas emissions (million metric tons of carbon dioxide equivalents)	1.03	0.96	0.80	0.87	0.87
Total greenhouse gas emissions intensity (metric tons of emissions per metric ton of production)	0.21	0.21	0.19	0.20	0.21
Direct (scope 1) greenhouse gas emissions intensity (metric tons of emissions per metric ton of production)	0.09	0.09	0.08	0.09	0.09



Multi-year data highlights	2018	2019	2020	2021	2022
Indirect (scope 2) greenhouse gas emissions intensity (metric tons of emissions per metric ton of production)	0.13	0.12	0.11	0.11	0.11
Spills and releases rate (total spills and releases per 1,000 employees)	1.32	1.25	1.24	1.28	1.50
Social					
Total employees (average)	47,300	47,600	46,900	49,300	52,000
Fatalities	1	0	0	0	0
PPG injury and illness rate	0.27	0.32	0.26	0.26	0.30
Sites implementing a wellness program (percent) (from 2018-2021 we reported percent of sites with 50 or more employees)	58%	70%	70%	90%	61%
Charitable contributions (millions)	\$9.1	\$11.8	\$13.0	\$13.3	\$16.2
Sites implementing the PPG Community Engagement Framework (percent)	70%	65%	80%	80%	70%
Employee volunteer hours ³	24,802	36,000	3,587	11,750	25,000

¹ Beginning in 2021, the Company reports adjusted earnings per diluted share excluding amortization expense relating to intangible assets from completed acquisitions. Adjusted earnings per diluted share for 2020 has been recast to exclude acquisition-related amortization expense. For detailed information regarding these adjustments, see the Regulation G Reconciliation in Item 7 of our 2022 Form 10-K.

² Environmental data changes from prior reporting reflect adjustments for acquired and divested locations from the 2017 baseline onward. Energy data also include adjustments for closed locations.

³ Volunteer hours for 2018 are for our *Colorful Communities* program only. Data for 2019-2022 is for the *Colorful Communities* program and Charity Partner program in Europe, Middle East and Africa.





GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
General Disclosures					
GRI 2: General Disclosures 2022	2-1 Organizational Details	About PPG	2022 Annual Report & Form 10-K		
	2-2 Entities included in the organization's sustainability reporting	About PPG	2022 Annual Report & Form 10-K (pages 3-9) Worldwide Operations		
	2-3 Reporting period, frequency and contact point	About This Report		PPG's 2022 ESG Report covers all of the entities included in its consolidated financial reporting.	
	2-4 Restatements of information			Indicated, when necessary, throughout the report.	
	2-5 External assurance	Emissions	GHG Assurance		
	2-6 Activities, value chain and other business relationships	About PPG Products Overview Supplier Sustainability	2022 Annual Report & Form 10-K (pages 3-9)		
	2-7 Employees	People Overview			
	2-8 Workers who are not employees				This information is not available, PPG does not track data on workers who are not employees at a global level.
	2-9 Governance structure and composition	Governance Overview	Board of Directors 2023 Proxy Statement (page 11-12) Corporate Governance Guidelines		
	2-10 Nomination and selection of the highest governance body		Nominating and Governance Committee		
	2-11 Chair of the highest governance body		Board of Directors		
	2-12 Role of the highest governance body in overseeing the management of impacts		Sustainability and Innovation Committee		



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
General Disclosures					
GRI 2: General Disclosures 2022	2-13 Delegation of responsibility for managing impacts	Governance Overview			
	2-14 Role of the highest governance body in sustainability reporting			Our ESG Report is reviewed by our Board of Directors.	
	2-15 Conflicts of interest		Corporate Governance Guidelines Global Code of Ethics		
	2-16 Communication of critical concerns	Governance			
	2-17 Collective knowledge of the highest governance body	Governance Overview		Our Sustainability Committee's work is reviewed by our Board of Directors' Sustainability and Innovation Committee. The Sustainability Committee establishes policies, programs and procedures, including metrics, to help us better understand and address sustainability in our business practices in order to remain a leader in the business segments in which we participate.	
	2-18 Evaluation of the performance of the highest governance body		Corporate Governance Guidelines		
	2-19 Remuneration policies		2023 Proxy Statement (pages 36-75)		
	2-20 Process to determine remuneration		Human Capital Management and Compensation Committee		
	2-21 Annual total compensation ratio		2023 Proxy Statement (page 71)		



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission	
General Disclosures						
GRI 2: General Disclosures 2022	2-22 Statement on sustainable development strategy	To Our Stakeholders Sustainability Vision, Values, Approach				
	2-23 Policy commitments	Governance Human Rights Environment Overview				
		Safety and Health Product Stewardship	Global Code of Ethics Code of Ethics for Senior Financial Officers Global Anti-Corruption Policy			
	2-24 Embedding policy commitments	Supplier Sustainability Human Rights Environment Governance Overview				
		Safety and Health Product Stewardship	Global Code of Ethics			
	2-25 Processes to remediate negative impacts		Global Code of Ethics			
	2-26 Mechanisms for seeking advice and raising concerns		PPG Ethics Helpline	Stakeholders and other interested parties may send communications to the Board, the independent directors (individually or as a group) or the lead director in writing by sending them in care of our corporate secretary at PPG, Inc., One PPG Place, Pittsburgh, Pennsylvania 15272.		
	2-27 Compliance with laws and regulations	Waste, Spills and Releases Water, Water Non-Compliances	2022 PPG Annual Report & Form 10-K, Legal, Regulatory, Item 3. Legal Proceedings (page 13) Environmental Matters (page 61-63)			



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
General Disclosures					
GRI 2: General Disclosures 2022	2-28 Membership associations	Stakeholder Engagement			
	2-29 Approach to stakeholder engagement	Stakeholder Engagement			
	2-30 Collective bargaining agreements		2022 PPG Annual Report & Form 10-K, Human Capital (page 7)		
Material Topics					
GRI 3: Material Topics 2022	3-1 Process to determine material topics	Priority issues			
	3-2 List of material topics	Priority issues		Our global prioritization assessment identified priority issues from a stakeholder and financial impact perspective. For the purpose of reporting to the GRI, material topics have been designated based on those with the most significant impacts on the economy, environment, and people, including impacts on their human rights.	
Decarbonizing PPG operations, supply chain, and customer emissions					
GRI 3: Material Topics 2021	3-3 Management of material topics	Energy Emissions Climate-related risks and opportunities			
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	Climate-related risks and opportunities			
GRI 302: Energy 2016	302-2 Energy consumption outside of the organization	Energy			



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
Decarbonizing PPG operations, supply chain, and customer emissions					
GRI 302: Energy 2016	302-2 Energy consumption outside of the organization				This information is not available, PPG is unable to estimate energy consumption outside of the organization. PPG is working to understand electricity use in our upstream and downstream value chain.
	303-3 Energy intensity	Energy			
	302-4 Reduction of energy consumption	Energy			
	302-5 Reductions in energy requirements of products and services				This information is not aggregated at the company level. We calculate the contribution to energy reduction of individual products, but have not been able to calculate the overall contribution of PPG products and services.
GRI 305: Emissions 2016	305-1 Direct (scope 1) GHG emissions	Emissions	GHG Assurance		
	305-2 Energy indirect (scope 2) GHG emissions	Emissions	GHG Assurance		
	305-3 Other indirect (scope 3) GHG emissions				This information is not available, due to gaps in our understanding of GHG emissions in our value chain. We are working with our suppliers and customers to complete our scope 3 GHG inventory, and intend to report our indirect emissions in our next ESG report, which will be published in 2024.



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
Decarbonizing PPG operations, supply chain, and customer emissions					
GRI 305: Emissions 2016	305-4 GHG emissions intensity	Emissions	GHG Assurance		
	305-5 Reduction of GHG emissions	Emissions			
	305-6 Emissions of ozone-depleting substances				
	305-7 Nitrogen oxides, sulfur oxides, and other significant air emissions	Emissions			
GRI 308: Supplier Environmental Assessment	308-1 New Suppliers that were screened using environmental criteria				PPG does not have a global policy for pre-screening suppliers for environmental criteria.
	308-2 Negative environmental impacts in the supply chain and actions taken	Supplier sustainability			
Managing interactions with water as a shared resource					
GRI 3: Material Topics 2021	3-3 Management of material topics	Water			
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Water			
	303-2 Management of water discharge-related impacts	Water			
	303-3 Water withdrawal	Water			



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
Managing interactions with water as a shared resource					
GRI 303: Water and Effluents 2018	303-4 Water discharge	Water			
GRI 303: Water and Effluents 2018	303-5 Water consumption	Water			
GRI 306: Effluents and Waste	306-3 Significant Spills	Waste			
Using circular economy principles to reduce impacts from materials and waste					
GRI 3: Material Topics 2021	3-3 Management of material topics	Waste			
GRI 301: Materials 2016	301-1: Materials used by weight or volume				PPG does not report data on the materials used to produce and package our products and services, as this data is confidential.
	301-2 Recycled input materials used				PPG is unable to report a figure for the total amount of recycled input materials used to manufacture our primary products and services, as this data is not aggregated at a global level.
	301-3 Reclaimed products and their packaging materials				PPG is unable to report an aggregate figure for reclaimed products and packaging materials, as this data is not aggregated at a global level.
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Waste			
	306-2 Management of significant waste-related impacts	Waste			
	306-3 Waste generated	Waste			
	306-4 Waste diverted from disposal	Waste			
	306-5 Waste directed to disposal	Waste			



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
Ensuring safe work environments and promoting employee well-being					
GRI 3: Material topics 2021	3-3 Management of material topics	Safety and Health			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Safety and Health			
	403-2 Hazard identification, risk assessment and incident investigation	Safety and Health, Preventing injury and illness Governance, Codes and Policies			
	403-2 Hazard identification, risk assessment and incident investigation	Safety and Health			
	403-3 Occupational health services	Wellness			
	403-4 Worker participation, consultation and communication on occupational health and safety	Safety and Health			
	403-5 Worker training on occupational health and safety	Safety and Health			
	403-6 Promotion of worker health	Safety and Health Wellness			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Safety and Health			
	403-8 Workers covered by an occupational health and safety management system	Safety and Health			
	403-9 Work-related injuries	Safety and Health			
403-10 Work-related ill health	Safety and Health				



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
Maintaining positive community relationships					
GRI 3: Material topics 2021	3-3 Management of material topics	Community Engagement			
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments and development programs	Community Engagement			
	413-2 Operations with significant actual and potential negative impacts on local communities	Safety and Health Product Stewardship Community Engagement		None of our operations had actual significant negative impacts on local communities during the reporting period. Our approach to managing potential negative impacts is discussed throughout this report.	
Fostering a diverse, equitable and inclusive work force					
GRI 3: Material topics 2021	3-3 Management of material topics	Diversity, Equity and Inclusion			
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Diversity, Equity and Inclusion	2023 Proxy Statement, (page 11) Diversity of Our Directors EEO-1 (United States)		
	405-2 Ratio of basic salary and remuneration of women to men				This data is not available at a global level. We are working to improve the quality of this data and intend to report against this indicator in the future.
GRI 406: Non-discrimination	406-1 Incidents of discrimination and corrective action taken	Diversity, Equity and Inclusion Governance Overview			



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
Addressing chemical-related social and environmental impacts, real and perceived					
GRI 3: Material Topics 2021	3-3 Management of material topics	Product Stewardship			
GRI 416: Customer health and safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Sustainably Advantaged Products Product Stewardship			
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services				This data is not available at a global level.
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	Product Stewardship			
	417-2 Incidents of non-compliance concerning product and service information and labeling				This data is not available at a global level.
	417-3 Incidents of non-compliance concerning marketing communications				This data is not available at a global level.
Providing ESG training and career progression pathways for our people					
GRI 3: Material Topics 2021	3-3 Management of material topics	Learning and Leadership Development			
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee				This data is tracked in a decentralized manner due to variability in training across our sites and business units, and cannot be reported at a global level.
	404-2 Programs for upgrading employee skills and transition assistance programs	Learning and Leadership Development			
	404-3 Percentage of employees receiving regular performance and career development reviews	Learning and Leadership Development			



GRI Standard/Other Source	Disclosure	2022 ESG Report Location	External Link	Additional Detail	Omission
Upholding human rights in PPG's supply chain					
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Rights Supplier Sustainability			
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Human Rights	Global Code of Ethics		
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	Human Rights			
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human Rights			
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Supplier Sustainability			
GRI 414: Supplier Social Assessment 2016	414-2 Negative social impacts in the supply chain and actions taken	Supplier Sustainability Human Rights			



SASB Index



Topic	Accounting Metric	Category	Code	Location/Response
Greenhouse Gas Emissions	Gross global scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	RT-CH-110a.1	Emissions
	Discussion of long-term and short-term strategy or plan to manage scope 1 emissions, emissions reduction targets and an analysis of performance against those targets	Discussion and Analysis	RT-CH-110a.2	Emissions
Air Quality	Air emissions of the following pollutants: (1) NOX (excluding N2O), (2) SOX, (3) volatile organic compounds (VOCs) and (4) hazardous air pollutants (HAPs)	Quantitative	RT-CH-120a.1	Emissions
Energy Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	Quantitative	RT-CH-130a.1	Energy
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with high or extremely high baseline water stress	Quantitative	RT-CH-140a.1	Water
	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Quantitative	RT-CH-140a.2	Water
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	RT-CH-140a.3	Water
Hazardous Waste Management	Amount of hazardous waste generated, percentage recycled	Quantitative	RT-CH-150a.1	Water
Community Relations	Discussion of engagement processes to manage risks and opportunities associated with community interests	Discussion and Analysis	RT-CH-210a.1	Community Engagement
Workforce Health & Safety	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	Quantitative	RT-CH-320a.1	Safety and Health
	Description of efforts to assess, monitor and reduce exposure of employees and contract workers to long-term (chronic) health risks	Discussion and Analysis	RT-CH-320a.2	Safety and Health
Product Design for Use-phase Efficiency	Revenue from products designed for use-phase resource efficiency	Quantitative	RT-CH-410a.1	Sustainably Advantaged Products



Topic	Accounting Metric	Category	Code	Location/Response
Safety & Environmental Stewardship of Chemicals	(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	Quantitative	RT-CH-410b.1	Product Stewardship
	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	Discussion and Analysis	RT-CH-410b.2	Product Stewardship
Genetically Modified Organisms	Percentage of products by revenue that contain genetically modified organisms (GMOs)	Quantitative	RT-CH-410c.1	Not applicable to PPG products.
Management of the Legal & Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Discussion and Analysis	RT-CH-530a.1	As a global manufacturer of paints, coatings and specialty materials, we operate in a business environment that includes risks. To identify these risks, we annually employ an enterprise risk assessment framework that involves PPG executives and Board members to prioritize the risks based on magnitude and likelihood of occurrence. Management is responsible for the development and execution of mitigation plans for key risks on a continuous basis. 2022 Form 10-K, Item 1A (page 9) 2023 Proxy Statement Product Stewardship Climate-Related Risks and Opportunities Stakeholder Engagement Government Affairs
Operational Safety, Emergency Preparedness & Response	Process safety incidents count (PSIC), process safety total incident rate (PSTIR) and process safety incident severity rate (PSISR)	Quantitative	RT-CH-540a.1	Safety and Health
	Number of transport incidents	Quantitative	RT-CH-540a.2	Transportation



TCFD Index



Requirement	Link or reference	Additional detail
Governance		
Governance (a) – Describe the board’s oversight of climate-related risks and opportunities	2023 Proxy statement, Framework for Board Oversight of ESG Governance Overview	Our Sustainability organization is responsible for developing our corporate sustainability strategy and working alongside our businesses and functions to execute that strategy. The organization is led by the vice president of global sustainability, and collaborates with teams across PPG to drive our environmental, social and governance (ESG) efforts, including assessing and managing climate-related risks and opportunities.
Governance (b) – Describe management’s role in assessing and managing climate-related risks and opportunities	2023 Proxy statement, Framework for Board Oversight of ESG Governance Overview Environment Overview Climate-related Risks and Opportunities Sustainably Advantaged Products Supplier Sustainability	PPG’s programs, initiatives and activities in the areas of environment, health, safety, technology and sustainability are overseen by The Sustainability and Innovation Committee of the Board, with support from other Board-level committees depending on the issues and risks involved. The Board engages with management on ESG strategy, risks and opportunities, and has oversight of the tracking of our sustainability progress.
Strategy		
Strategy (a) – Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term	Examples of climate-related risks and opportunities with associated strategies Climate-related Risks and Opportunities	Our paints, coatings and specialty materials are key enablers of the transition to a low-carbon economy. We sell a wide range of products in varied markets around the world, and the company is well positioned to take advantage of climate-related opportunities. These factors help make our business resilient, and ensure that we will be able to respond appropriately to any climate-related occurrences.
Strategy (b) – Describe the impact of climate-related risks and opportunities on the organisation’s business, strategy and financial planning	Climate-related Risks and Opportunities Sustainably Advantaged Products Supplier Sustainability	We have analyzed a range of climate scenarios and have incorporated important climate-related risks and opportunities into our growth strategy. See more detail on our scenario analysis exercise in the Climate-related risks and opportunities section.
Strategy (c) – Describe the resilience of the organisation’s strategy, taking into consideration different climate-related scenarios, including a 2 degrees C or lower scenario	Environment Overview Climate-related Risks and Opportunities	



Requirement	Link or reference	Additional detail
Risk Management		
Risk Management (a) – Describe the organisation's processes for identifying and assessing climate-related risks	Climate-related Risks and Opportunities	PPG's physical risk assessment process uses global climate models to assess the relative risk to our facilities from six climate change stressors. The assessment identifies the most at risk PPG sites for more detailed analysis and resiliency planning. Transition risks from climate change, including market impacts, are considered at the business unit level. Each of our businesses conduct a climate risk assessment to define priority risks and opportunities. This work is being integrated into the overall business strategy process.
Risk Management (b) – Describe the organisation's processes for managing climate-related risks	Environment Overview Climate-related Risks and Opportunities Supplier Sustainability	<p>Climate-related risks are managed within the respective business or function based on the outcomes of the ERM process, the results of our physical risk assessment and input from our Sustainability function. This process is overseen by the Corporate Sustainability Committee. The vice president, global sustainability serves as the risk owner for ESG within the ERM process and is responsible for working across the organization to facilitate and drive action on many of the climate-related risks that we have identified.</p> <p>Our annual Enterprise Risk Management (ERM) process separately identifies business and enterprise risks that could be related to climate change. The Enterprise Risk Committee (ERC) meets 3 times per year, and considers climate-related risk as one of many ESG-related risks. Through the standard ERM process, the ERC identifies climate-related risks, determines the company's priorities for addressing those risks, and monitors progress of addressing these risks over time. We recognize that climate-related risks are also drivers of other risks, and are working to improve our consideration of these interconnected risks in our ERM processes.</p> <p>The vice president, global sustainability is accountable for reviewing the outcomes of the ERM process with functional teams and business leadership. Specific key performance indicators are provided to businesses and functions to mitigate greenhouse gas emissions from operations and from product solutions at customer sites.</p>
Risk Management (c) – Describe how the processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management	Governance Overview	



Requirement	Link or reference	Additional detail
Metrics and Targets		
Metrics and Targets (a) – Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	Data index Environment Overview Climate-related risks and opportunities Sustainably advantaged products Supplier sustainability	Our 2025 goals have guided our work since their publication in 2017. While we continue to work toward these targets, we released our 2030 ESG targets in this report. By 2030, we aim to achieve a 50% reduction in GHG emissions from our own operations (scope 1 and 2 emissions), and a 30% reduction in GHG emissions in our value chain (scope 3 emissions). These targets are described in the 2022 Progress and Highlights section.
Metrics and Targets (b) – Disclose scope 1, scope 2, and, if appropriate, scope 3 greenhouse gas (GHG) emissions, and related risks	Emissions Climate-related risks and opportunities	
Metrics and Targets (c) – Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	2022 Progress and Highlights	



Examples of climate-related risks and associated PPG strategies	
Climate-related risk	Potential financial impact and associated strategy
Physical risks from increased severity and frequency of severe weather	<p>Damage from increasingly frequent and severe weather may lead to disruption in our supply chain, production delays and increased costs associated with remediating damage to our locations.</p> <p>PPG undertakes detailed assessments to understand likely climate-related impacts on our facilities and the surrounding infrastructure. We work with sites with the nearest-term risks to define action plans to remediate the risk. Read more in the Climate-related Risks and Opportunities section.</p>
Risk of increased government regulation and carbon pricing	<p>PPG's is exposed to a range of government regulations across our global footprint. Where governments pass carbon pricing regulations, we may be exposed to increased operating costs.</p> <p>We are working to reduce our carbon emissions across our operations by increasing energy efficiency and working with partners to increase our renewable electricity sourcing.</p>
Market risks	<p>Market demands may shift in response to regulation and changing consumer sentiment, including if PPG falls behind our competitors in our sustainable product offerings. Shifting market demands may result in reduced revenue from some of our products and services.</p> <p>PPG invests resources in research and development of new products and services in markets that support the transition to a low-carbon economy. We also work to find alternative markets for existing products by engaging with customers through regular strategic customer meetings.</p>



Examples of climate-related opportunities and associated PPG strategies	
Climate-related opportunity category	Potential financial impact and associated strategy
Resource efficiency	<p>Using fewer natural resources to produce our products saves us money, and helps reduce competition for scarce resources. We're researching ways to make our products more efficient across their lifespan and improve circularity, which also helps us meet customer expectations to reduce environmental impact across the product lifecycle.</p> <p>Learn more about our resource conservation work in the Environmental section.</p>
Energy sources	<p>Sourcing renewable energy offers opportunities to reduce our energy costs over time, and insulates us from price fluctuations of conventional energy production.</p> <p>We work with external suppliers to increase the percentage of our electricity that comes from renewable sources. We source renewable energy through a variety of means, including direct investment, PPAs, renewable energy certificates and green tariffs.</p> <p>Read our case study on purchasing renewable energy for our facility in Adrian, Michigan, in the Energy section.</p>
Products and services	<p>Creating new products with lower environmental impact and communicating the sustainable attributes of our products offers opportunities to increase our revenue.</p> <p>PPG has established processes to consider sustainability at each stage of our research and development pipeline. We also work with customers to identify their outstanding needs and help support their sustainability goals. We recognize that our customers are searching for new solutions and more sustainable products to help them reach their sustainability goals.</p> <p>Read more in the Sustainably Advantaged Products section.</p>
Markets	<p>Capturing opportunities to reach new markets allows PPG to increase revenues from our existing product portfolio.</p> <p>We develop paints and coatings that are key enablers to industries that support the transition to a low-carbon economy, including coatings for batteries that are used in electric cars and for renewable power generation. Where we identify markets that will grow to support adaptation needs, we invest time and resources in understanding how PPG paints, coatings and specialty materials can support the industry. Our customer sustainability business partners meet regularly with our customers to identify new end uses for existing PPG products, and identify needs for new innovations.</p> <p>Read more in the Sustainably Advantaged Products, Governance Overview and Product Stewardship sections.</p>
Resilience	<p>PPG works to increase our business' capacity to identify and adapt to impacts related to climate change, including those that stem from physical and transition risks. We consider climate-related risks in our enterprise risk management process and embed members of our sustainability organization throughout the business to help identify risks and opportunities.</p> <p>Read more in Governance Overview and Climate-related Risks and Opportunities sections.</p>








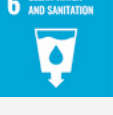
Sustainable Development Goals Index

PPG's contributions to communities and society align closely with the United Nations Sustainable Development Goals (SDGs). Our sustainability approach underpins product innovation, customer collaboration, resource efficiency and community contribution – each of which supports progress against the SDGs in some way.



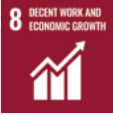


Our efforts also reflect the priorities captured in the Chemical Sector SDG Roadmap, which articulates how the sector can use its influence and innovation to support progress toward the SDGs. The roadmap is an initiative led by leading chemical companies and industry associations, convened by the World Business Council for Sustainable Development (WBCSD).

The table below shows the connections between the SDGs and our public environmental and social commitments, goals, policies and standards.








SDG	PPG interaction with the SDGs	Relevant PPG commitments, goals, policies and standards
	<p>Responsible employer: provide living wages and benefits to employees</p> <p>Investments and partnerships: strengthening and revitalizing communities and improving infrastructure</p> <p>Innovative products: support affordable and accessible shelter and other basic goods</p>	<p>Our people strategy, community programs and partnerships, and innovative sustainably advantaged products each contribute to alleviating global poverty.</p> <p>Read about our work in the People Overview, Community Engagement, and Sustainably Advantaged Products sections of this report.</p>
	<p>Improve food distribution: extend lifetimes of food and food packaging, maintain food quality and safety</p>	<p>PPG products are key enablers of safe, long term food packaging and storage.</p> <p>Read more in the Sustainably Advantaged Products section of this report.</p>
	<p>Product stewardship: increased availability of products with health and safety benefits</p> <p>Management of chemicals: safe production and distribution</p>	<p>We take responsibility for minimizing adverse human health and environmental impacts of our products at every stage of the product life cycle. We also have strict safety standards to minimize the environmental impact of our operations.</p> <p>Goal: On our path to eliminating spills, ensure that we achieve at least a 65% improvement in our spills and releases rate by 2025 from a 2017 baseline</p> <p>Learn more in the Product Stewardship and Waste sections of this report.</p>
	<p>Promote science education: fostering a love of STEM and supporting technical apprenticeships and skill building</p>	<p>PPG supports STEM education through our financial donations to educational programs and through our employee volunteer efforts in communities where we live, work and play.</p> <p>Goal: Implement the community engagement framework globally by 2025</p> <p>Read more in the Community Engagement section of this report.</p>
	<p>Supporting women's success: implementing programs and management approaches that advance gender equity</p>	<p>Through our comprehensive DE&I strategy, we are working to improve equity and inclusion within PPG and in our communities.</p> <p>Goal: 34-36% representation of non-frontline, global female professionals by 2025</p> <p>Learn more in the Diversity, Equity and Inclusion section of this report.</p>
	<p>Water management: reducing water use and ensuring responsible disposal</p>	<p>PPG ensures that water used at our facilities is treated and discharged responsibly. We are working to reduce the absolute amount of water that we use across our operations, and the water intensity that is required to produce our products.</p> <p>Goal: 20% reduction in water intensity by 2025 from a 2017 baseline</p> <p>Read more about our water management in the Water section of this report.</p>



SDG	PPG interaction with the SDGs	Relevant PPG commitments, goals, policies and standards
 	<p>Supporting production of renewable energy: creating products that support wind and solar industries Addressing issue of climate change: Energy efficiency measures and renewable energy sourcing to reduce our impact Building adaptive capacity: working with our supply chain to promote sustainable practices</p>	<p>PPG is supporting the transition to a low-carbon economy by creating new products, improving our energy sourcing and efficiency, and partnering with our suppliers to build adaptive capacity.</p> <p>Goal: Reduce energy consumption intensity by 15% by 2025 from a 2017 baseline</p> <p>Goal: Increase renewable energy to 25% of total electricity usage exclusive of greenhouse gas (GHG) reductions by 2025</p> <p>Goal: Reduce GHG emissions intensity by 15% measured in total tons discharged by 2025 from a 2017 baseline</p> <p>Read more in the Energy, Emissions, Climate-Related Risks and Opportunities, and Supplier Sustainability sections of this report.</p>
	<p>Protecting quality of life: safe production and management of chemicals for our employees and communities Upholding human rights: meeting labor standards and respecting human rights throughout our value chain</p>	<p>PPG works with EcoVadis, a leading business sustainability ratings company, to monitor compliance with labor and environmental standards in our value chain.</p> <p>Goal: Zero injuries. On our path to zero injuries, ensure that we achieve an improvement of at least 5% per year in our injury and illness (I&I) rate</p> <p>All PPG suppliers are expected to comply with our Global Supplier Code of Conduct.</p> <p>Read more in the People Overview and Human Rights sections of this report.</p>
	<p>Promote resiliency: identifying new uses and products that reduce resource use and negative environmental impacts</p>	<p>We are constantly working to identify new uses for our existing products, and create innovative new products for our customers.</p> <p>Goal: 40% of sales from sustainably advantaged products by 2025</p> <p>Learn more in the Sustainably Advantaged Products and Climate-Related Risks and Opportunities sections of this report.</p>
	<p>Advocate for equality: global policies that support fair wages, safety and ethical standards</p>	<p>PPG is focused on becoming a more diverse and equitable company, and supports DE&I efforts in our communities.</p> <p>Goal: Invest \$20 million by 2025 to advance racial equity in the U.S. by funding educational pathways for Black communities and people of color</p> <p>Goal: 34-36% representation of non-frontline, global female professionals by 2025</p> <p>Goal: 45-55% increase in headcount of Black, Latino and Asian employees across non-frontline, U.S.-based employee population by 2025</p> <p>Goal: 50% global employee resource network and DE&I capability-building participation by 2025</p> <p>Read more in the DE&I and Community Engagement sections of this report.</p>



SDG	PPG interaction with the SDGs	Relevant PPG commitments, goals, policies and standards
	<p>Supporting communities: paints and coatings protect and beautify means of transportation, buildings and other infrastructure</p>	<p>Our community engagement efforts protect and beautify community spaces and infrastructure around the world.</p> <p>Goal: Invest at least \$10 million by 2025 through the PPG <i>Colorful Communities</i> initiative</p> <p>Read more in our Products Overview and Community Engagement sections of this report.</p>
	<p>Improve efficiency of production processes: Increase our efficiency, and enable resource efficiencies for our customers in other industries</p>	<p>Efficiency of our operations is paramount for PPG, and we are always looking for resource efficiency opportunities.</p> <p>Goal: 25% reduction in total waste disposal intensity by 2025 from a 2017 baseline</p> <p>Goal: Achieve zero landfill status from process waste at 35% of PPG manufacturing and research and development locations</p> <p>Goal: 35% of PPG manufacturing and research and development locations by 2025</p> <p>Read more in the Waste and Sustainably Advantaged Products sections of this report.</p>
	<p>Product stewardship: Improving product formulations and design to avoid negative environmental impacts</p>	<p>PPG's Environment, Health and Safety Policy outlines our commitment to producing and distributing products in a responsible manner.</p> <p>Read more in the Product Stewardship section of this report.</p>
	<p>Maintaining standards of ethical business conduct: requiring compliance with PPG's high ethical standards</p>	<p>Our Global Code of Ethics sets out the ethical principles that apply to all PPG people.</p> <p>Learn more about our standards, for PPG operations and throughout our value chain, in the Governance Overview and Supplier Sustainability sections of this report.</p>
	<p>Collaboration: Working with NGOs and other stakeholders to advance our management of topics relevant to each goal</p>	<p>We work with all of our stakeholders, both to understand how we can better contribute to reaching the SDGs and to support our stakeholders in their own efforts. Learn more in the Stakeholder Engagement section of this report.</p>



Stakeholder Engagement

We actively engage with internal and external stakeholders to understand the most important issues impacting our company, industry and the communities where we operate. We consider a stakeholder to be any individual or entity who can affect or be affected by our actions, objectives and policies.

Each of our locations, businesses and functions is expected to engage its stakeholders effectively and on an ongoing basis. In this section, we explain how we establish and maintain productive relationships with our key stakeholder groups, and the key engagement topics.

PPG Engagement Strategy

Stakeholder Group: Employees

Typical engagement activities:

- Company wide CEO, business unit and site specific employee town hall meetings
- Video and email messages and informal question-and-answer sessions with leaders
- Daily intranet articles, employee magazines and regional publications
- Global employee engagement surveys and initiatives
- Training and development programs
- Human Resources Service Center
- Family-inclusive activities, such as open houses
- Employee resource networks and diversity-focused engagement events
- Connections with employees through social media channels
- Wellness programs
- Dispute-resolution programs
- Open-door programs
- Collective bargaining
- [Ethics helpline](#)
- Quality programs
- Recognition events

Stakeholder Group: Customers

Typical engagement activities:

- Ongoing relationship building
- Strategic account management interaction
- Trade shows and online events
- Connections and updates through social media channels
- Industry gatherings
- Technical and application support
- Training sessions and workshops
- Company-owned stores
- Broad distribution channels
- Customer service call centers
- Advertising and marketing communications

Stakeholder Group: Suppliers

Typical engagement activities:

- One-on-one meetings
- Connections and updates through social media channels
- Industry and trade group involvement
- [PPG Supplier Network](#)
- Corrective Action Incident Reporting quality communication
- [Supplier Sustainability Policy](#)
- [Global Supplier Code of Conduct](#)



Stakeholder Group: Investors and analysts

Typical engagement activities:

- Quarterly earnings announcements, conference calls and presentation materials
- [News releases](#) and [U.S. SEC filings](#)
- [Annual Report](#) and [overview presentations](#)
- Annual meeting of shareholders
- PPG Industry Deep Dive Presentation
- Presentations by PPG executives at financial and industry conferences
- One-on-one meetings
- [PPG Investor Center](#)
- Annual publication of detailed information about our corporate governance and executive compensation program in our [Proxy Statement](#)
- Annual ESG outreach meetings with investors
- Annual publication of ESG Report

Stakeholder Group: Government

Typical engagement activities:

- Activities reported to select federal agencies
- Visits with elected officials and agencies and international government officials
- PPG’s employee political action committee (PAC)
- [Government affairs website](#)
- Industry and trade association involvement
- Plant tours and site visits for government officials

Stakeholder Group: Philanthropies, nonprofits and nongovernmental organizations

Typical engagement activities:

- PPG *Colorful Communities* Program
- PPG Foundation grants and charitable donations
- Employee volunteering and giving programs
- Global giving programs (Asia Pacific; Europe, Middle East and Africa; and Latin America)
- China corporate social responsibility committee and program
- Canadian charitable contributions and employee programs
- Disaster response
- One-on-one meetings and site visits
- Sponsorships
- News releases and earned media coverage
- Family programs

Stakeholder Group: Residents of communities where PPG operates

Typical Engagement Activities

- PPG *Colorful Communities* program
- Charitable giving programs
- Site visits by community emergency services
- Local sponsorships
- Public education support and interaction
- Community boards
- Open houses
- Community meetings and events
- Community volunteerism
- Community steering committees
- Local media relations
- Industrial park membership
- Community advisory panels
- Hazardous waste collection events
- Chamber of commerce memberships
- State or city industrial association memberships
- Permit hearings



Key topics raised 2022

Stakeholder Group	Topics	Response
Employees	Attracting and retaining talent	We continue to invest in learning and leadership development to give our employees the knowledge and tools to be engaged at every stage of their careers. Learn more in the People Overview , Learning and Leadership Development and Engagement sections.
	Diversity, equity and inclusion (DE&I)	Our DE&I vision, structure and commitments guide our DE&I focus across the company. We continue to make progress against our goals and disclose comprehensive diversity data about our workforce. Learn more in the Diversity, equity and inclusion section.
	Safety and health	The safety and health of our employees is our most important core value. We are creating a global culture of safety and health, where our people and their families can prioritize mental and physical well-being. Learn more in the Safety and Health and Wellness sections.
Customers	Decarbonizing PPG operations, supply chain and customer emissions	While we've had an ongoing focus and goals for emission reduction in scope 1 and 2, in early 2022, we furthered our efforts and committed to setting near-term company-wide emission reductions targets through the Science Based Target initiative (SBTi). We have submitted targets to the SBTi for approval, which cover our direct (scope 1), indirect (scope 2) and value chain (scope 3) emissions. Learn more in the Emissions section.
	Sustainability across the value chain	We expect our suppliers and their subcontractors to fully comply with all applicable laws and to adhere to internationally recognized environmental, social and governance criteria. Learn more in the Supplier Sustainability section.
	Environmental impacts	<p>We take a multifaceted approach to product stewardship that covers each stage of the product lifecycle: product development, manufacturing, distribution and customer use and disposal. By the end of 2022, we had a total of 180 scorecards tracking 253 substances of interest. Our restricted substances list includes 1,147 substances that are restricted for all uses, and 390 substances that are restricted for specific uses. Learn more in the Product Stewardship section.</p> <p>We are having continued discussions with raw material suppliers to identify potential high carbon emitting raw materials, partnering with these suppliers to identify more sustainable options.</p>
Shareholders	Shareholder returns	Despite the challenges presented throughout 2022, our net sales totaled approximately \$17.7 billion. We continued our legacy of returning cash to shareholders by extending our consecutive annual dividend payments to 123 years, including raising our annual dividend payout for the 51st successive year. Learn more in the About PPG section.



Stakeholder Group	Topics	Response
Shareholders	ESG and sustainability progress	We look to our ESG and sustainability strategy to create value for PPG in the long term. We develop innovative, sustainably advantaged products and solutions that support our stakeholders in reaching their own environmental and social goals. Our progress is supported by our high standards of integrity and professional conduct. Learn more in the 2022 Progress , Product Overview , Community Engagement and Governance sections.
	Climate-related risks, building resilience in physical assets	In early 2022, we committed to setting near-term company-wide emission reductions targets through the Science Based Target initiative (SBTi) We have submitted targets to the SBTi for approval, which cover our direct (scope 1), indirect (scope 2) and value chain (scope 3) emissions. Learn more in the Emissions section. In 2021, we conducted a climate scenario analysis to evaluate transitional and physical climate-related risks and opportunities. We have continued to expand our analysis of climate-related risks over the last year. To address climate risks, we maintain systematic business continuity planning and crisis management processes. Learn more in the Climate-Related Risks and Opportunities section.
Suppliers	Continuation of operations, raw material supplies, health and safety	A number of global suppliers were impacted by the weather events in February 2021 and subsequent loss of energy supplies in Texas and other southern U.S. states. PPG continues to take an aggressive approach to securing materials and carriers to minimize the impact to our customers. Throughout the ongoing pandemic, we have enacted and adjusted protocols to protect our people, attract and retain talent and manage our business in this new environment. Learn more in the Safety and Health and People sections.
	ESG and sustainability progress	PPG works with our suppliers around the world to encourage sustainability as a core value, aligned to our high standards of integrity and professional conduct. Anything specific to scope 3 Learn more in the Supplier Sustainability section.
Communities	Giving in priority areas: Education, community sustainability, employee engagement, and diversity, equity and inclusion	We amplify the unique talents of our employees and the financial contributions from PPG and the PPG Foundation to reach our global communities – helping students connect with STEM education and advanced learning, transforming communities with bright colors and addressing evolving, essential needs around the world. Learn more in the Community Engagement section.
Government Agencies	Product stewardship	In compliance with all legal and ethical procedures, our Government Affairs team works closely with government stakeholders at the local, state, federal and international level to discuss environmental stewardship, sustainability, transportation, infrastructure, energy and environment related issues. Learn more on the following pages and in the Product Stewardship section.
	European Union Green Deal (EUGD)	The EUGD includes a broad range of policies that will help to aid in the transformation of the EU’s economy to be more modern, resource efficient and competitive, with the ultimate goal of reaching climate neutrality by 2050. PPG created its EU Green Deal Committee comprised of cross-functional experts who will evaluate and ultimately respond to forthcoming policies and regulations. The team is monitoring more than 100 policies and evaluating in detail more than 24 policies, including those on energy, circularity, the use of certain substances like biocides, chemicals of concern and more. The EUGD impacts business in the EU and its member states, but is also projected to have global impact.



Working with our stakeholders in East Point, Georgia

We take reports of potential off-site impacts from our operations very seriously, so after receiving odor reports from the community near our East Point, Georgia, Architectural Coatings facility, PPG took action. We moved quickly to understand the source of the odors and implement control measures.

A primary concern was the welfare of the community, so we commissioned a health risk assessment that enabled environmental professionals to evaluate air emissions from the facility. This risk assessment concluded that emissions from the East Point plant did not pose a concern of adverse health effects to the community or its residents. As the risk assessment was ongoing, we also worked with an external expert to study the potential causes of odors reported by the community. As part of this study, we developed a process for receiving and monitoring for community feedback, which allowed us to analyze the time and location each complaint for comparison against the plant's processes and production schedules, as well as and meteorological conditions, to fully understand the source of the odors. We kept the community updated on our findings, and hosted community roundtable discussions to ensure transparency.

Based on the outcomes of these studies, PPG invested \$500,000 in structural and process changes at the facility, which were successfully implemented in 2022. As a result, we've seen a decrease in community odor reports.



Industry and other associations

We actively work with the following industry associations by maintaining board and other leadership positions:

- American Chemistry Council (ACC)
- American Coatings Association (ACA) (Michael McGarry, PPG executive chairman and former CEO, served as Chair from April 2020 to April 2022)
- Ethics & Compliance Officers Association
- European Council of the Paint, Printing Ink and Artists' Colours Industry (CEPE) (Roald Johannsen, PPG vice president, Automotive OEM Coatings, serves as Chair until September 2024)
- Fédération des industries des peintures, encres, couleurs, colles et adhesives (FIPEC)
- The National Association of Manufacturers (NAM)

As members of these trade associations, PPG is an active participant in various environmental and sustainability committees within ACA and ACC. We report sustainability metrics for some PPG businesses to ACC on a regular basis. These metrics are used to validate ACC's sustainability metrics development effort under Responsible Care®, and to help the industry identify thematic risks or opportunities to consider.

In addition, we are an active participant in the [RESPONSIBLE CARE®](#) and [COATINGS CARE®](#) initiatives.



We also have employees that belong to and actively engage with the following associations, which help companies collaborate and share best practices across industries:

- The World 50 Sustainability 50
- The Conference Board
- Green Chemistry Council

Political Contributions

We do not make any political contributions as a company to political parties or candidates.

In the United States, our employees have formed a political action committee (PAC). Under the umbrella of this independent, voluntary, registered committee, employees collect donations to politicians, political parties and associations and make decisions as to how the funds will be used. The PAC Executive Committee has broad employee representation and approves all political contributions made on behalf of the PAC. The PAC is governed by a series of internal policies and adheres to a strict set of by-laws.

In 2022, total PAC contributions totaled \$124,600 to local, state and federal candidates for elected office representing the Republican and Democratic political parties.

Our PPG PAC contributions included those made to individual candidate political campaigns as well as other business PACs including our trade associations. There was no spending on ballot measures or referendums. The PPG PAC participates in political engagement on a case-by-case basis, guided by the key issues important to PPG PAC members. These issues include DE&I, energy and environment, infrastructure, regulatory reform, tax and budget, technology, and trade.

Political contribution receipts and disbursements are reported in detail and disclosed publicly on the U.S. [Federal Elections Commission](#) website.

A political contributions overview and more information on political activities is provided on the [PAC](#) website and our [Government Affairs](#) website.

The largest public policy advocacy issues for the PAC in 2022 included infrastructure investment, tax and trade.

Advocacy

We engage with customers, nongovernmental organizations, government agencies and other stakeholders to ensure that we understand their requirements and they, in return, understand our position and requirements for efficient and sustainable business operations. As an example, we advocate for education and availability of clean energy. In 2022, PPG was a member of the steering committee and sponsor of the Clean Energy Action Forum held in Pittsburgh – our headquarters community.

Our advocacy efforts are global and encompass regulatory matters related to environment, health, safety and product stewardship. Our Regulatory and Emerging Issues Process helps our businesses track emerging issues and identify opportunities for advocacy based on risk and financial impact. We work closely with our businesses and technical community to ensure strong two-way communications and engagement as advocacy issues develop.

The PPG Advocacy Steering Committee works to promote alignment among our businesses and to provide direction on engagement. The committee meets routinely to monitor the progress of current advocacy efforts and review new initiatives. Though there are numerous chemical specific advocacy efforts underway, the following principles are applied to keep our messaging consistent:

- Sound science
- Risk-based approach
- Practical solutions

We continue to engage with the U.S. Environmental Protection Agency (EPA) on matters related to TSCA implementation under the Lautenberg amendments, such as workplace chemicals management and risk assessment. In Europe, we are closely following the Chemical Strategy for Sustainability under the EU Green Deal to ensure we provide comments to advocate for risk-based, sustainable solutions supported by sound science. In other parts of the world, such as Latin America, we are advocating for a risk-based chemicals management strategy as countries prepare chemical inventories.



Previous Reports

2022 Annual Report & Form 10K	2021 ESG Report	2021 Diversity, Equity and Inclusion Report	2020 Sustainability Report
2019 Sustainability Report	2018 Sustainability Report	2017 Sustainability Report	2016 Sustainability Report
2015 Sustainability Report	2015 Executive Summary	2014 Sustainability Report	2014 Executive Summary
2013 Sustainability Report	2012 Sustainability Report	2011 Sustainability Report	2010 Sustainability Report





Forward-Looking Statements

This ESG Report contains forward-looking statements that reflect PPG's current views with respect to future events and financial performance. These statements involve risks and uncertainties. You can identify forward-looking statements by the fact that they do not relate strictly to current or historic facts. Forward looking statements are identified by the use of the words "aim," "believe," "expect," "anticipate," "intend," "estimate," "project," "outlook," "forecast" and other expressions that indicate future events and trends. Many factors could cause actual results to differ materially from PPG's forward-looking statements.

Many factors could cause actual events to differ materially from PPG's forward-looking statements. Such factors include statements related to the expected effects on our business of COVID-19, geopolitical events, global economic conditions, increasing price and product competition by our competitors, fluctuations in cost and availability of raw materials, energy, labor and logistics, the ability to achieve selling price increases, the ability to recover margins, customer and PPG inventory levels, our ability to maintain favorable supplier relationships and arrangements, the timing of and the realization of anticipated cost savings from restructuring initiatives, the ability to identify additional cost savings opportunities, the timing and expected benefits of our acquisitions, difficulties in integrating acquired businesses and achieving expected synergies therefrom, economic and political conditions in the markets we serve, the ability to penetrate existing, developing and emerging foreign and domestic markets, foreign exchange rates and fluctuations in such rates, fluctuations in tax rates, the impact of future legislation, the impact of environmental regulations, unexpected business disruptions, and the unpredictability of existing and possible future litigation. However, it is not possible to predict or identify all such factors. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements. While the list of factors presented here is considered representative, not such list should be considered to be a complete statement of all potential risks and uncertainties.

This ESG Report also includes forward-looking statements regarding our sustainability; safety and health; cybersecurity; culture; diversity, equity and inclusion; community engagement; and related goals, commitments and strategies.

Our actual future results, including the achievement of our targets, goals or commitments, could differ materially from our projected results as the result of changes in circumstances, assumptions not being realized, or other risks, uncertainties and factors.

Consequences of material differences in the results compared with those anticipated in the forward looking statements could include, among other things, lower sales or income, business disruption, operational problems, financial loss, reputational harm, legal liability to third parties, other factors set forth in the Risk Factors sections of our most recently filed periodic reports on Form 10-K and Form 10-Q, any of which could have a material adverse effect on PPG's consolidated financial condition, results of operations or liquidity. Any forward-looking statement speaks only as of the date on which such statement is made, and PPG undertakes no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosures we make on related subjects in our reports to the Securities and Exchange Commission.



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