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# ESG Report 2023



We protect and  
beautify the world™

# ESG Report 2023



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# Sustainability





# To our stakeholders

To our valued stakeholders,

2023 marked a year of continued progress, as we remain laser focused on positioning PPG for growth. Our more than 50,000 PPG people throughout the world made it happen for our customers every day, delivered record sales and earnings, and drove \$150 million of incremental sales in the first year of our enterprise growth strategy.

Sustainability and productivity remain critical components to our growth. More than ever, various stakeholders are looking to companies like PPG to take a leadership position in sustainability — providing products and solutions that enhance productivity and drive sustainability throughout the value chain. Delivering these innovations is a core pillar that will enable a stronger, growth-focused PPG moving forward.

Helping our customers meet their sustainability goals provides an enormous opportunity, and we are uniquely positioned to be their partner of choice. More than 44% of our sales came from [sustainably advantaged products](#) in 2023, and we anticipate customer demand for sustainable choices to continue to increase. For example, our Architectural Coatings business in Europe identified a significant opportunity to meet market demand for products with sustainability benefits.

We introduced low fossil carbon paints in the PPG brands SEIGNEURIE™ PANTEX™ and GUITTET™ ODYSSEÉ™, providing mass market access to these bio-based paints without compromising on affordability or performance. These competitively positioned products have been widely embraced by trade professionals and consumers. This is just one example within this report of how PPG is leveraging sustainability as a competitive advantage.



While we innovate sustainably advantaged products and processes for our customers, we also recognize the need to drive environmental excellence in our operations and through our supply chain. In 2023, we became the first U.S.-based coatings manufacturer to receive validation from the Science Based Targets initiative (SBTi) for our 2030 scope 1, 2 and 3 greenhouse gas emissions reduction targets. We recognize this commitment to reducing greenhouse gas emissions across the value chain will take great collaboration with our suppliers and with our customers and we have started that work. As part of these targets, PPG also announced broader 2030 sustainability goals, which focus on driving sales of sustainably advantaged products while reducing environmental impacts and improving social impacts for our stakeholders.





Our approach to sustainability also includes investing in communities where we live and work. In 2023, PPG and the PPG Foundation donated more than \$17.5 million to support educational programming and community sustainability around the world. We work with more than 450 nonprofit and community organizations, across nearly 40 countries. In a particularly exciting milestone, we completed our 500th COLORFUL COMMUNITIES® project since the program's inception in 2015, bringing color and brightness to public spaces around the world.

None of this would have been possible without PPG people who deliver on our purpose every day: We protect and beautify the world®. We're committed to maintaining our inclusive and equitable culture and ensuring that each of our employees have the right resources and development opportunities to contribute to our success in a meaningful way.

The progress described in this report is a direct reflection of our teams' commitment to environmental stewardship, product innovation and continuous improvement of our business practices. Thank you for your continued collaboration, partnership and interest in PPG.

**Tim Knavish**

**PPG chairman and chief executive officer**



# To our stakeholders

To our valued stakeholders,

Focusing on sustainability in its broadest sense is core to PPG's purpose - We protect and beautify the world®. From supporting social wellbeing, to contributing to the circular economy, and developing products and processes that help mitigate climate change and solve our customers' biggest challenges, PPG's sustainability commitments contribute to the positive impact we achieve through our purpose, and ultimately support the long-term growth of our organization.

Through transparent disclosure, we evaluate our performance and set the stage for continuous improvement. Over the last year, we renewed our commitment to sustainability by setting new 2030 goals, including greenhouse gas emissions reduction targets that have been validated by the Science Based Targets initiative (SBTi). This year's report continues our ongoing journey of accountability toward these goals, and I am pleased by the progress we have been able to show in the pages that follow.

Our 2030 goals push us into new areas and seek to demonstrate our global leadership. Recognizing the importance of collaborating with partners to reduce environmental impacts beyond our operations, our 2030 goals include our first scope 3 emissions reduction target. This science-based target aligns to the expectations of the Paris Agreement and commits us to the difficult but important task of reducing emissions across our value chain. Our aim is to reduce greenhouse gas emissions related to the extraction and production of input materials, and the application, use and end-of-life treatment of PPG products. To this end, we are collaborating with suppliers and customers to reduce their emissions, and we are developing new product and service innovations that meet our customers' emissions reduction ambitions.

In addition to environmental progress, we remain proud of our evolution in social and governance areas, including continued progress on our signature *Colorful Communities* program and further integration of sustainability into global grantmaking. In addition, our commitment to driving a diverse, equitable and inclusive culture at PPG is unwavering because we know that diverse teams perform better.

We have a long history of enabling the success of our customers, delivering industry-leading innovations, acting ethically and responsibly, and mitigating the environmental impacts of our operations. We believe the inputs to this year's report continue that strong history.

Thank you for your continued collaboration and interest in our progress, and for reading our 2023 ESG Report.

**Diane Kappas**

**PPG vice president, global sustainability**



# About PPG

## We Protect and Beautify the World®.

At PPG, our vision is to be the first-choice partner to meet our customers' evolving needs for innovative paints, coatings and specialty materials. Our global team of more than 50,000 innovators, achievers and partners are united by the single belief that our paints, coatings and specialty materials enrich lives. Together, we protect and beautify the world. Learn more at [PPG.com](https://www.ppg.com).





# How we create value

## Our purpose

### We Protect and Beautify the World

PPG is a global team of approximately 50,000 innovators, achievers and partners united by the single belief that our paints, coatings and specialty materials enrich lives. Together, we *protect and beautify the world*.

### Our Vision

Our vision is to be the first-choice partner to meet customers' evolving needs for innovative paints, coatings and surface solutions.

### 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 - everyday

## Our focus and our targets



### Value Creation

We deliver financial results and reward our shareholders.

**2-4%**  
annual organic sales growth

**8-12%**  
annual adjusted EPS growth through 2026

**~\$1B**  
free cash flow per year



### Customers

We develop industry-leading sustainable solutions for high-impact opportunities.

**50%**  
of sales from sustainably advantaged products by 2030



### Environment

We reduce PPG's and our customers' operational impact through innovation and partnership, developing solutions that help preserve natural resources.

**50%**  
reduction in scope 1 and 2 GHG emissions

**15%**  
reduction in water intensity in water scarce communities

**30%**  
reduction in scope 3 GHG emissions

**5%**  
annual improvement in spill and release rate

**100%** process waste sent to reuse, recycle, and recovery

**25%**  
reduction in waste intensity

2030 targets with 2019 baseline



### Our People

We believe fostering a safe, ethical, inclusive and fulfilling work culture is essential for our business, guided by aspirational targets.

**100%**  
of employees go home safely each day

**34-36%**  
representation of non-frontline, global female professionals by 2025

**50%**  
employee participation in DE&I capacity-building by 2025

**45-55%**  
increased headcount of non-frontline, U.S.-based Black, Latino and Asian professionals by 2025



### Suppliers

We foster partnerships across the supply chain to monitor and help improve social and environmental outcomes.

**100%**  
of key suppliers assessed to sustainability and social responsibility criteria by 2030



### Communities

We empower our employees with the resources to strengthen connections to the communities we call home.

**\$15MM**  
in *Colorful Communities* funding by 2030

**\$20MM**  
by 2025 to advance racial equity in the U.S.

All supported by strong corporate governance

## Our sustainability impact



Sustainability is integral to how we innovate, operate and go to market, and core to the value we provide to our customers and communities.



### Mitigating climate change

We develop products and processes that reduce waste, water use, emissions and energy consumption for our customers and our own operations. We collaborate throughout our supply chain to reduce GHG emissions and invest in renewable energy sources that help mitigate climate change.



### Contributing to the circular economy

Our paints and coatings help assets last longer, reducing the cost and natural resources needed to replace them. We continuously improve our processes and incorporate recycled materials in our products and packaging to reduce their end of life impacts.



### Supporting social well-being

We sustain our people and surrounding communities, supporting over 50,000 jobs across 70 countries and working with over 17,000 suppliers. We create diverse workplaces and an inclusive culture, and work to ensure our employees return home safely every day.



### Promoting vibrant communities

We create vibrant communities where we live and work through our products, employee volunteerism and charitable giving. We promote responsible business practices at PPG and in our supply chain, and deliver substantial returns and annual dividends for our shareholders.

# Recognition and awards

## We do better today than yesterday, every day.

In recognition of our leadership in environmental, social and governance practices, we receive recognition from a variety of external organizations each year. We believe in showcasing these acknowledgments of our efforts and will continue to enhance our approach as expectations from our stakeholders evolve.

### PPG company rankings

No. 2 in the Chemicals Industry on the 2024 FORTUNE® World's Most Admired companies list, our 16th consecutive year on the list  
 No. 232 on the Fortune 500  
 No. 81 on IndustryWeek's U.S. 500  
 No. 307 on Newsweek Magazine's America's Most Responsible Companies  
 No. 14 in the chemicals category on JUST Capital's list of America's Most JUST Companies  
 No. 633 on the FORBES® Global 2000  
 No. 1 on Coatings World's Top 100 Companies List

### ESG ratings and rankings

AA rating from MSCI ESG, and recognized as a leader in the specialty chemicals industry  
 90% rating on the CPA Zicklin Index of Corporate Political Disclosure and Accountability, recognized as a "Trendsetter"

## Employer awards

2023 Gallup Exceptional Workplace Award for employee engagement  
 100% on the Human Rights Campaign Foundation's 2023 Corporate Equality Index  
 Newsweek Magazine awards:
 

- America's Most Responsible Companies 2024
- America's Greatest Workplaces 2023
- America's Greatest Workplaces for Women 2023
- America's Greatest Workplaces for Diversity 2024

 Best Place to Work for Disability Inclusion by the DISABILITY EQUALITY INDEX®  
 2023 Forbes America's Best Employers  
 Forbes America's Best Employers for Veterans  
 Best Places to Work in IT 2024 by Foundry's Computerworld

## ESG recognition

EcoVadis gold rating 2023  
 Public Company Board of the Year by the National Association of Corporate Directors (NACD) Three Rivers Chapter  
 FTSE4Good Index Series for fifth consecutive year  
 Corporate Knights Clean 200 2024  
 No. 43 on Barron's 100 Most Sustainable Companies  
 Corporate Social Responsibility and Young Leader of the Year from the British Coatings Federation Awards 2023  
 Home Depot 2023 Innovation award: Supplier Diversity Tier II Partner of the Year

## Product and process awards

2023 R&D® 100 award for PPG Polyurea Gelcoat, finalist for PPG PITT-THERM™ 909 spray-on insulation coating  
 GLIDDEN MAX FLEX™ exterior fabric spray paint by PPG named a winner in Good Housekeeping's 2023 Home Renovations Awards  
 2023 Awards for Excellence from the Ohio Chemistry Technology Council (OCTC) awarded to five PPG projects for environment, health and safety excellence  
 GLIDDEN® floor paint and concrete stain product line featuring COOL SURFACE TECHNOLOGY™ formulation was named a 2023 Innovation Award winner – second runner up at The Home Depot's 2023 Innovation Awards



# Priority issues

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

## Our priority issues

Our formal prioritization assessment identifies the ESG risks, opportunities and impacts that are essential considerations for developing and executing PPG's strategy and reporting.

Our most recent assessment was completed in 2022. The 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. Throughout 2024, we are working to update our assessment in line with current best practice, including implementation guidance for the materiality assessment published by EFRAG.

Our ESG approach focuses on managing the stakeholder impacts and financial effects related to these ESG issues. Each issue is addressed through comprehensive policies, action plans and risk management procedures. We also used the issues identified by this assessment as inputs when developing our 2030 goals.

## ESG issue (in no particular order)

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Addressing chemical-related social and environmental impacts, real and perceived

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Upholding human rights in PPG's supply chain

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Fostering a diverse, equitable and inclusive workforce

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Managing interactions with water as a shared resource

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Ensuring safe work environments and promoting employee wellbeing

---

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

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## Prioritization assessment process

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

Engagement with each of PPG's stakeholder categories is an important part of our strategy, and helps ensure we're prioritizing the right issues. See the [stakeholder engagement section](#) for information on the variety of ways that we engage throughout our value chain.

## 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, customers' evolving needs, 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 addressing important issues, including corporate governance and ethics, data privacy, and regulatory compliance and maintaining a productive relationship with our workforce and labor unions. Learn more in the [governance section](#).



# Stakeholder engagement overview

We actively engage with internal and external stakeholders to understand the most important issues impacting our company, industry and the communities where we operate. Maintaining a regular and transparent dialogue with our stakeholders helps us better integrate stakeholder priorities into our strategy.

PPG recognizes that embedding stakeholder interests in our strategy and business model is essential to how we create value. Our proactive engagement strategy shapes the way we assess priority ESG impacts, risks and opportunities and enables us to focus on programs and initiatives that deliver positive impacts across PPG's stakeholder groups.

We consider any individual or entity who can affect or be affected by our actions, objectives and policies to be a PPG stakeholder. Key stakeholder groups include:

- Employees
- Customers
- Suppliers
- Investors and analysts
- Government
- Philanthropies, nonprofits and nongovernmental institutions
- Residents of communities where PPG operates

Each of our locations, businesses and functions are expected to engage its stakeholders effectively and on an ongoing basis. While our approach to stakeholder engagement varies, activities are tailored to establish and maintain productive relationships with our stakeholders. Typical engagement activities include proactive ESG investor outreach, attending forums, industry gatherings, trade shows, and hosting open house and community events. To amplify our reach, we also attend online events, share updates on social media, and engage in various marketing activities, as examples. We maintain open lines of communication for our stakeholders to contact us through various means, such as PPG.com, over the phone and through our various social media accounts.

Learn more about our key stakeholder engagement activities and key topics raised in 2023 in the [stakeholder engagement](#) table.



# 2023 progress summary

In early 2023, we publicly announced PPG's 2030 sustainability targets, a set of ambitious goals that build on our previously reported sustainability progress and align with our corporate growth strategy. These 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).

Topic	Target (all goals are by 2030 with a 2019 baseline, unless otherwise noted)	2023 progress
<a href="#">Sustainably advantaged products</a>	<b>50%</b> of sales from sustainably advantaged products	<b>44%</b> of sales from sustainably advantaged products
<a href="#">Waste</a>	<b>25%</b> reduction in waste intensity	<b>7%</b> increase in waste intensity
	Drive to <b>100%</b> process waste to reuse, recycle and recovery	<b>45%</b> of process waste sent to reuse, recycle and recovery
	<b>5%</b> annual improvement in spills and release rate at our facilities	<b>21%</b> increase in spills and release rate
<a href="#">Water</a>	<b>15%</b> reduction in water intensity at priority sites in water stressed communities	<b>13%</b> reduction in water intensity at priority sites
<a href="#">Energy and GHG emissions</a>	<b>50%</b> 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	<b>10%</b> reduction in scope 1 and 2 GHG emissions
	<b>30%</b> 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	<b>12%</b> reduction in scope 3 GHG emissions, reflective of reporting categories 1, 10 and 12
<a href="#">Supplier sustainability</a>	<b>100%</b> of key suppliers are assessed to sustainability and social responsibility criteria	<b>97%</b> of key suppliers assessed to sustainability and social responsibility criteria



Topic	Target (all goals are by 2030 with a 2019 baseline, unless otherwise noted)	2023 progress
<a href="#">Diversity, equity and inclusion</a>	<p><b>34-36%</b> representation of non-frontline, global female professionals by 2025</p> <p><b>45-55%</b> increase in headcount of Black, Latino and Asian professionals across non-frontline, U.S.-based employee population by 2025</p> <p><b>50%</b> global employee resource network and DE&amp;I capability-building participation by 2025</p>	<p><b>32%</b> representation of non-frontline, global female professionals</p> <p><b>42%</b> increase in non-frontline headcount for U.S. Black professionals  <b>44%</b> increase in non-frontline headcount for U.S. Latino professionals  <b>26%</b> increase in non-frontline headcount for U.S. Asian professionals</p> <p><b>42%</b> global employee resource network and DE&amp;I capability-building participation</p>
<a href="#">Communities</a>	<p>Invest <b>\$20 million</b> by 2025 to advance racial equity in the U.S. by funding educational pathways for Black communities and people of color</p> <p><b>\$5 million</b> additional commitment to <i>Colorful Communities</i> projects globally, with all projects incorporating an element of sustainability, increasing the total investment to <b>\$15 million</b> since 2015</p>	<p><b>\$18.1 million</b> donated by end of 2023, <b>89%</b> of committed funding</p> <p><b>\$13.8 million</b> invested through the <i>Colorful Communities</i> initiative</p>
<a href="#">Safety and health</a>	<p><b>100%</b> of employees go home safely each day. On our way, drive at least <b>5%</b> annual improvement in injury and illness rate</p>	<p><b>0%</b> annual improvement in injury and illness rate</p>

# Financial



# Financial overview

We have been creating value for our customers, employees and shareholders for more than 140 years.



2023 was a record financial year for PPG. Higher selling prices, moderating input costs, structural cost savings and favorable foreign-currency translation all contributed to significant improvements. Highlights from the year include:

- record net sales
- record operating cash flow
- record adjusted EPS, increasing 27% since the previous year

As we reached these milestones, we have continued our long history of rewarding shareholders with our 124th consecutive year of dividend payments, including 52 consecutive years of dividend increases.

In addition to our record financial performance, we implemented many strategic initiatives that will underpin our continued success. A key initiative throughout 2023 was a review of our portfolio, which led to the divestitures of our European and Australian Traffic Solutions businesses. This process also prompted a review of [strategic alternatives for our silica products business](#) which is ongoing and expected to be complete in 2024. In early 2024, we also announced a review of [strategic alternatives for our architectural coatings business](#) in the U.S. and Canada.

Learn more about our performance in the [2023 Annual Report](#) and [investor relations website](#).



# Strategic milestones

## Key achievements and investments in 2023.

<b>April</b>	<ul style="list-style-type: none"> <li>- Announced <a href="#">\$15 million expansion</a> of powder coatings plant in Brazil.</li> <li>- Announced that GLIDDEN® paint by PPG will be the <a href="#">primary paint brand at Walmart</a>.</li> </ul>
<b>May</b>	<ul style="list-style-type: none"> <li>- Announced <a href="#">2030 sustainability goals</a>, including decarbonization targets validated by the Science Based Targets initiative (SBTi).</li> <li>- Two leading U.S. homebuilders, <a href="#">Fischer Homes</a> and <a href="#">Brightland Homes</a>, selected PPG as their exclusive paint providers.</li> <li>- Announced a <a href="#">\$44 million investment to boost powder coating production</a> across five manufacturing facilities in the U.S. and Latin America.</li> <li>- Universal Display Corporation and PPG opened a new organic light-emitting diode (OLED) <a href="#">manufacturing site in Shannon, Ireland</a>.</li> </ul>
<b>June</b>	<ul style="list-style-type: none"> <li>- Announced <a href="#">agreement with NRG Energy Inc.</a> to reduce PPG's total greenhouse gas emissions by more than 9,400 metrics tons annually.</li> <li>- Announced a new aerospace <a href="#">e-coat system partnership with Satys</a> in Dugny, France.</li> <li>- Opened a new <a href="#">Color Creation Lab</a> with Chery Automobile in Wuhu, China, after 20 years of collaboration.</li> <li>- Opened a new <a href="#">\$30 million battery pack application center</a> in Tianjin, China, to support the development of new electric vehicle technologies.</li> </ul>
<b>July</b>	<ul style="list-style-type: none"> <li>- Approved the company's <a href="#">500th consecutive dividend payment</a> to shareholders.</li> </ul>
<b>August</b>	<ul style="list-style-type: none"> <li>- Celebrated our 140th anniversary by opening a new <a href="#">customer and employee experience center</a> at the global headquarters in Pittsburgh.</li> <li>- Announced \$2.6 million investment in <a href="#">center of excellence at the Quattordio, Italy</a>, site to increase the efficiency of color development and application.</li> </ul>
<b>September</b>	<ul style="list-style-type: none"> <li>- PPG Board of Directors elected Tim Knavish <a href="#">chairman of the Board and CEO</a>.</li> <li>- Marked <a href="#">500th Colorful Communities</a> project with a makeover at the Carnegie Science Center in Pittsburgh.</li> <li>- Completed <a href="#">\$2.7 million expansion of powder coatings factory</a> in Sumaré, Brazil, to increase production capacity by 40%.</li> </ul>
<b>October</b>	<ul style="list-style-type: none"> <li>- Divested Traffic Solutions operations in <a href="#">Australia and New Zealand</a>.</li> </ul>
<b>December</b>	<ul style="list-style-type: none"> <li>- Opened <a href="#">\$17 million aerospace application support center</a> in Toulouse, France.</li> </ul>

# Products



# Products overview

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

Our approach to developing safe and sustainably advantaged products is built upon more than 140 years 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](https://www.ppg.com)

## 2030 target

**50%** of sales from sustainably advantaged products

## 2023 progress

**44%** of sales from sustainably advantaged products



# Sustainably advantaged products

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

PPG has been providing customers with innovative paints, coatings and specialty materials for more than 140 years. We're continuing to partner with our customers to develop new products and find new uses for our existing products to help meet their greatest challenges.

**Learn more about our approach, including our sustainably advantaged product methodology, on [PPG.com](https://www.ppg.com)**

## Sustainably advantaged product sales

As % of total sales



In 2023, we made significant advances in our approach to developing products that are both commercially viable and sustainably advantaged. Sustainably advantaged products are identified using PPG's internal methodology that validates product attributes and their contribution towards the UN Sustainable Development Goals.

We are on track to meet our 2030 goal, with 44% of sales coming from sustainably advantaged products in 2023. The increase in sales was driven by a combination of customer interest in more sustainable solutions, adding TIKKURILA® products into our scoring process, and a more thorough review of existing product data. Our sustainability team has now evaluated 180,000 PPG products against our sustainably advantaged product methodology.

One of our most impactful changes in 2023 was improving the way that we track sustainably advantaged products in our development pipeline. We added additional touchpoints in the R&D process, reviewing each product multiple times as it passes development milestones. Evaluating innovative, differentiated technology more frequently ensures that we are developing a sustainably advantaged product portfolio that fits our customers' needs and helps us invest resources in developing the right products. We also continually monitor to ensure that a percentage of our R&D pipeline meets our sustainably advantaged product methodology. This helps our researchers focus their efforts on products that align with our enterprise growth strategy and meet our customers' sustainability needs.





## Shifting our product portfolio to meet customer demand

Consumers' expectations of sustainability and product performance are increasing, and companies like PPG must innovate to meet increased demands, with a focus on minimizing resource use through circular practices. There is increasing demand for products that use fewer natural resources and produce less waste.

Our architectural coatings business in Europe identified a significant opportunity to meet market demand for products with sustainability benefits. With the introduction of paints with lower environmental impacts in the European market, including low fossil carbon paints in the *Seigneurie Pantex* and *Guittet Odyssée* PPG brands, we have provided mass market access to low-carbon, bio-based paints without compromising on affordability or performance. These competitively positioned products have been widely embraced by trade professionals and end consumers, demonstrating PPG's industry leadership in driving towards a more sustainable future.



## PPG Advanced Surface Technologies: painting with films

In May 2023, PPG introduced PPG Advanced Surface Technologies, a new joint venture formed with entrotech, Inc. The joint venture is aimed at providing paint and clear film solutions for automotive and industrial customers. Paint films are multilayer applications that include a protective film wrapping and at least one layer of paint. This technology is currently used for automotive applications and has potential applications across a range of industrial end-uses.

Films have a range of customer benefits. Notably, the product is less complicated to apply than conventional automotive coatings. Paint films offer a consistent finish without the need for a paint booth. Films produce less volatile organic compounds (VOCs) overall, and do not produce hazardous waste during application so there is less need for protective equipment and safety training. Films have a less energy-intensive curing process, which streamlines the application and reduces customer energy costs. These combined benefits make paint films attractive for customers.

## Waterborne paint partnership with HP

PPG's customers are facing growing demands to reduce their environmental impacts across their operations. We are collaborating closely with our customers to incorporate sustainably advantaged solutions from the early design phase of their product lifecycles.

After anticipating a series of regulatory changes, our global account team approached HP, a leading consumer electronics brand, on a product innovation that replaces traditional solvent-based coatings with waterborne alternatives. Waterborne coatings can have lower environmental and human health impacts for the workers that apply our products, without compromising on quality. Placing sustainability at the heart of our value proposition allowed PPG to secure a preferred supplier position and collaborate closely with the team at HP on product strategy.

In 2023, sales of our waterborne coatings increased 30% and overall sales to HP also grew significantly. Understanding HP's needs and advancing sustainably advantaged products allowed PPG to partner with HP to deliver lower impact coatings for their products. To listen to a conversation between PPG and HP about the innovation, [click here](#).



## Helping reduce plastic waste with COMEX® TOP™ Impertop S

The Comex brand by PPG is contributing to plastic circularity through its TOP line of products that leverage both circularity and provide sustainable advantages. In 2023, the company launched one of several offerings in the lineup, *TOP* Impertop S, a new asphalt waterproofing product that is reinforced with recycled polyethylene from plastic bags. The product is intended for application on roofs to provide waterproofing. Our Comex team has already recycled more than 42 tons of plastic in Impertop S.



## Sustainable packaging for DYRUP™ paint by PPG

Packaging is a key component of a product's environmental footprint. As part of our efforts to reduce packaging waste, *Dyrup* paint by PPG, sold in the Scandinavian region, has introduced new "bag-in-a-box" packaging made from 75% recyclable and biodegradable materials for its *Dyrup* Wall Extra Covering paint. The packaging is made from 100% Forest Stewardship Council (FSC)-certified paper and cardboard, which ensures that the materials come from responsible forestry and forest conservation suppliers worldwide. The new packaging uses 81% less plastic and was designed to make shipping and handling the paints easier than conventional packaging.

In addition to its sustainable properties, the *Dyrup* bag-in-box is easy to use and minimizes product dry-out. The handling and smart tapping function make the application of *Dyrup* Wall Extra Covering paint simple and hassle-free. The bag-in-box concept has been recognized for its practicality, manageability and environmental benefits by ScanStar, a competition that has been held annually since 1969 by the Scandinavian Packaging Association.



## An EPIC customer solution

We collaborate closely with customers to ensure our products meet their performance expectations while delivering real-world sustainability benefits.

One example is the PPG ENVIROPRIME™ EPIC300 line of electrocoat products, which cure at a lower temperature and require less process time than conventional electrocoat products. These features are especially valuable to manufacturers that produce electric vehicles, which require heavier metal supports, resulting in longer required coating cure times. Regardless of whether the model is electric or a traditional combustion engine, PPG *Enviroprime* products help automotive customers use less energy and produce fewer greenhouse gas emissions while improving the quality of their finished goods.



# Research partnerships

## We believe in advancing sustainability through collaboration.

We partner with a range of public and private entities to advance sustainable initiatives and technologies. Many of our research projects relate to the intersection of our products and environmental impact. Projects include investigating the use of renewable and bio-based materials, improving recyclability and reusability and removing potentially harmful substances. Our commitment to responsible research and development applies to all legacy and recently acquired product lines.

## High performance coatings to combat corrosion

We are working with the Department of Defense (DOD) to develop coatings materials that are more durable and resistant to corrosion. The goal of this project is to develop coating materials that reduce process times and significantly improve performance, thereby reducing the need for rework and repair operations. These coatings will benefit the public by protecting vital infrastructure, safeguarding workers from exposure to organic solvents and reducing maintenance costs related to corrosion, which costs the DOD an estimated \$20 billion each year. Additionally, the proposed materials are expected to reduce hazardous waste and associated waste disposal costs.

In the initial phase of the project, we developed a novel pretreatment technique that significantly reduces process steps and simplifies the application process. Conventional primers are then applied over this treatment. This process enables our customers to apply spray coatings in a wider set of locations including manufacturing facilities, depots or even in the field. Moving forward, we will develop and test a spray treatment that further reduces process times without the use of organic solvents. To make this effort more viable for both commercial and DOD needs, we will assess available commercial materials and compare their performance to identify the optimal materials for this novel technology. This work was funded by the National Center for Manufacturing Sciences (NCMS).

## Reducing environmental and occupational health impacts

Through our ongoing research partnership with the U.S. Army Combat Capabilities Development Command Army Research Laboratory, we are working to develop enhanced polymer coatings and materials that provide superior protection to military assets with reduced environmental and occupational health impacts. These goals are aligned with PPG's commitment to develop and commercialize products that are safe to use, produce less waste and avoid hazardous materials. In 2023, we collaborated with the Army Research Laboratory on research into environmentally enhanced chemical agent resistant coatings (CARC), technologies to reduce or eliminate the use of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs), and coatings that reduce surface contamination by minimizing the use of hazardous materials.





## Fostering collaboration across the industry

Our teams presented and participated in a variety of conferences throughout 2023, such as the CARES Conference, American Coatings Association and Green Chemistry & Engineering. PPG participates in conferences, industry associations and related meetings to learn about ongoing research and share our progress in developing more sustainable practices. Our participation helps PPG people stay informed of the newest developments in the industry while also giving PPG employees opportunities to explore innovative new collaborations with other industry leaders to solve sustainability challenges.

Beyond our research partnerships, PPG engages broadly with industry associations and other stakeholders around the world. Learn more in the [stakeholder engagement](#) section. We also work closely with our customers to develop innovative new products that address their greatest challenges. Learn more in the [sustainably advantaged products](#) section.

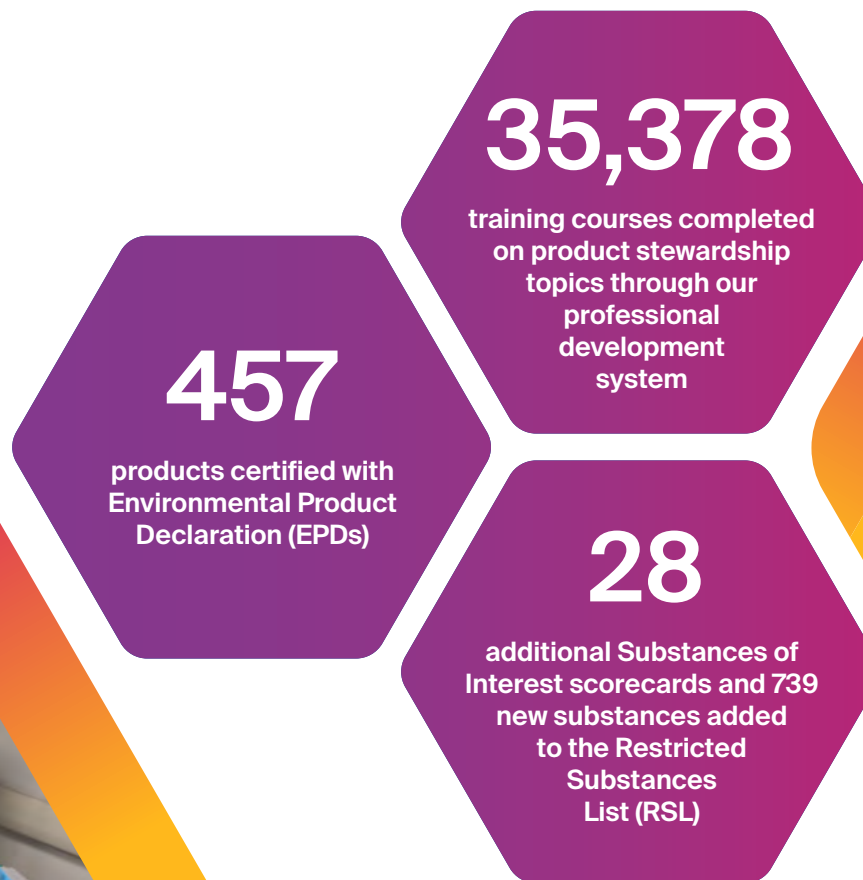
**For more information about our how we approach research partnerships visit [PPG.com](https://www.ppg.com)**



# Product stewardship

**We are committed to minimizing adverse human health and environmental impacts at every stage of the product life cycle.**

Our product stewardship function provides an ever-expanding set of tools and informational resources to help PPG scientists and customers responsibly design, manufacture and use our products. Over the past year, we have continued to develop our product stewardship processes, systems and tools.



## EPD process certification

In 2023, we received third-party certification of our Environmental Product Declaration (EPD) process by the only qualified certification body in the U.S. By standardizing our process, PPG is able to increase product transparency for our customers and publish a higher volume of EPDs at a rate three times faster than the previous process.

## Product-specific carbon footprint information

The PPG Product Sustainability Center of Excellence (COE) developed an internal cradle-to-PPG gate Product Carbon Footprint (PCF) tool. The PCF tool enables product managers and developers to quickly access and evaluate carbon emissions associated with a product's raw material composition, the production and processing of those materials, inbound transportation and manufacturing. Product developers can leverage this improved visibility to design products with lower carbon footprints. PPG's PCFs are based on industry average emissions data that we will continue to refine to be more precise over time. As a complement to this new capability, we developed an automated workflow that generates PCF declaration for customers, allowing PPG to reduce response times and fulfill more customer PCF requests.

## Food contact compliance

Our Food Contact COE acquired a new tool to evaluate regulatory compliance in food contact (FC) coating formulations used in cookware and bakeware applications. The tool enables PPG to streamline and automate the process for FC regulatory compliance checks. It also features a robust data collection engine that powers our FC regulatory database by continuously monitoring new and evolving FC regulatory changes globally. This technology represents a significant upgrade from our previous system.



## Tracking global emerging issues

Last year, we launched an 'Emerging Issues' portal as part of an ongoing effort to identify, track and monitor emerging global issues including proposed regulations, societal trends and evolving customer expectations. The portal also helps us anticipate regulatory changes so that we can capitalize on business opportunities and comply with new requirements. Our product stewardship team analyzes issues as they arise to determine their risk and potential impact on PPG. When issues are determined to be high priority, 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 maintain compliance or explore new business concepts.



## Managing evolving regulations

As a global business, we track evolving regulatory activity around the world and evaluate potential impacts on our operations. We take a proactive approach, assessing potential regulatory impacts and developing appropriate action plans while regulations are developing. In cases where PPG expects to face significant impacts, we form cross functional interest groups to track developments and ensure we are well positioned to remain in compliance.

We work with government agencies to promote sensible, evidence- and risk-based legislation that will protect consumers while still allowing PPG to produce innovative, [sustainably advantaged products](#). Through stakeholder engagement activities and participation in industry associations, our government affairs team maintains open lines of communication with regulators and politicians to educate them about the paint and coatings industry.

Learn more about our engagement strategy, including with government agencies, in our [stakeholder engagement](#) section.



## Product Stewardship Management System

Our Product Stewardship Management System (PSMS) was updated in 2023 to align with our One PPG approach to product stewardship. Focused on reducing complexity and standardizing requirements across business units, this realigned system allows our product stewardship team to provide guidance at each phase of the product lifecycle. The updated system provides clear, consolidated and consistent guidance on our product stewardship practices and clarifies our company-wide responsibility to minimize our products' environmental impacts. These efforts help safeguard PPG's reputation and protect the health, safety and wellbeing of PPG employees, customers and the communities where we operate.

## Substance of Interest scorecards

Over the course of 2023, we created 28 additional Substance of Interest Scorecards, which track hazards and regulatory requirements. At the end of the year, our product stewardship organization had a total of 208 scorecards tracking 283 substances. In 2023, carbon footprint information was added to the SOI scorecards, providing additional data to our formulators and chemists.



## Restricted Substances List

PPG's Restricted Substances List (RSL) is applied to all PPG products globally, even in areas of the world where there are no chemical regulation programs, which means that our RSL program goes beyond regulatory compliance. 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 which cover 193 substances. In 2023, based on recommendations from our product stewardship organization, PPG's Sustainability Committee approved the addition of 739 new substances to the RSL. PPG's RSL now includes 1,875 substances that are restricted for all uses, and 403 substances that are restricted for specific uses, such as consumer products. Of the 739 substances that were added to the RSL in 2023, 725 of these substances are perfluoroalkyl substances (PFAS) included in ChemSec's Substitute It Now (SIN) List, the Stockholm Convention and the US EPA's PFAS listings. These substances, to the extent utilized at all, will be phased out of existing products and they will not be used in new product development globally moving forward. Perfluorooctanoic acid (PFOA) and other long-chain PFAS substances were added to PPG's RSL in 2019.

## United Nations Globally Harmonized System for Classification and Labeling

We assess 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 in 2023, 28% were not classified with hazards under UN GHS category 1 or 2. We consciously choose lower hazards, especially in architectural coatings products due to their heavy use in consumer, commercial and residential projects.

**For more detailed information about our ongoing approach to product stewardship, visit [PPG.com](https://www.ppg.com)**



# Environment



# Environment overview

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



**Target** (all targets are by 2030 with a 2019 baseline, unless otherwise noted)

**2023 progress**

**25%** reduction in waste intensity

**7%** increase in waste intensity

Drive to **100%** process waste to reuse, recycle and recovery

**45%** process waste to reuse, recycle and recovery

**5%** annual improvement in spills and release rate at our facilities

**21%** increase in spills and release rate

**15%** reduction in water intensity at priority sites in water stressed communities

**13%** reduction in water intensity at priority sites

**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

**10%** reduction in GHG emissions from our own operations (scope 1 and 2 emissions)

**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

**12%** reduction in GHG emissions in our value chain (scope 3 emissions), reflective of reporting categories 1, 10 and 12

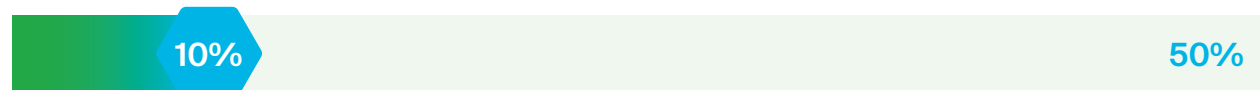


# Energy and emissions

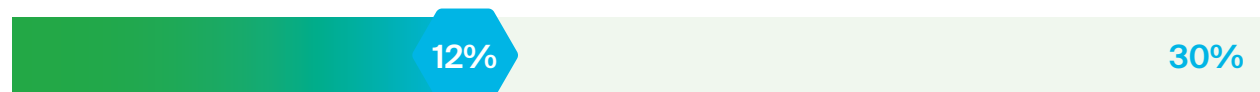
**PPG is committed to reducing our contribution to global climate change.**

We work to reduce greenhouse gas emissions (GHG) across our operations and value chain through initiatives to minimize energy usage, improve energy efficiency, and increase the energy that we source from renewable power generation. Our emissions reduction efforts are focused on aligning PPG with a 1.5-degrees C future, ensuring that our efforts support the global response to climate change while lowering operating costs and maximizing resource efficiency.

## Scope 1 and 2 GHG emissions reduction



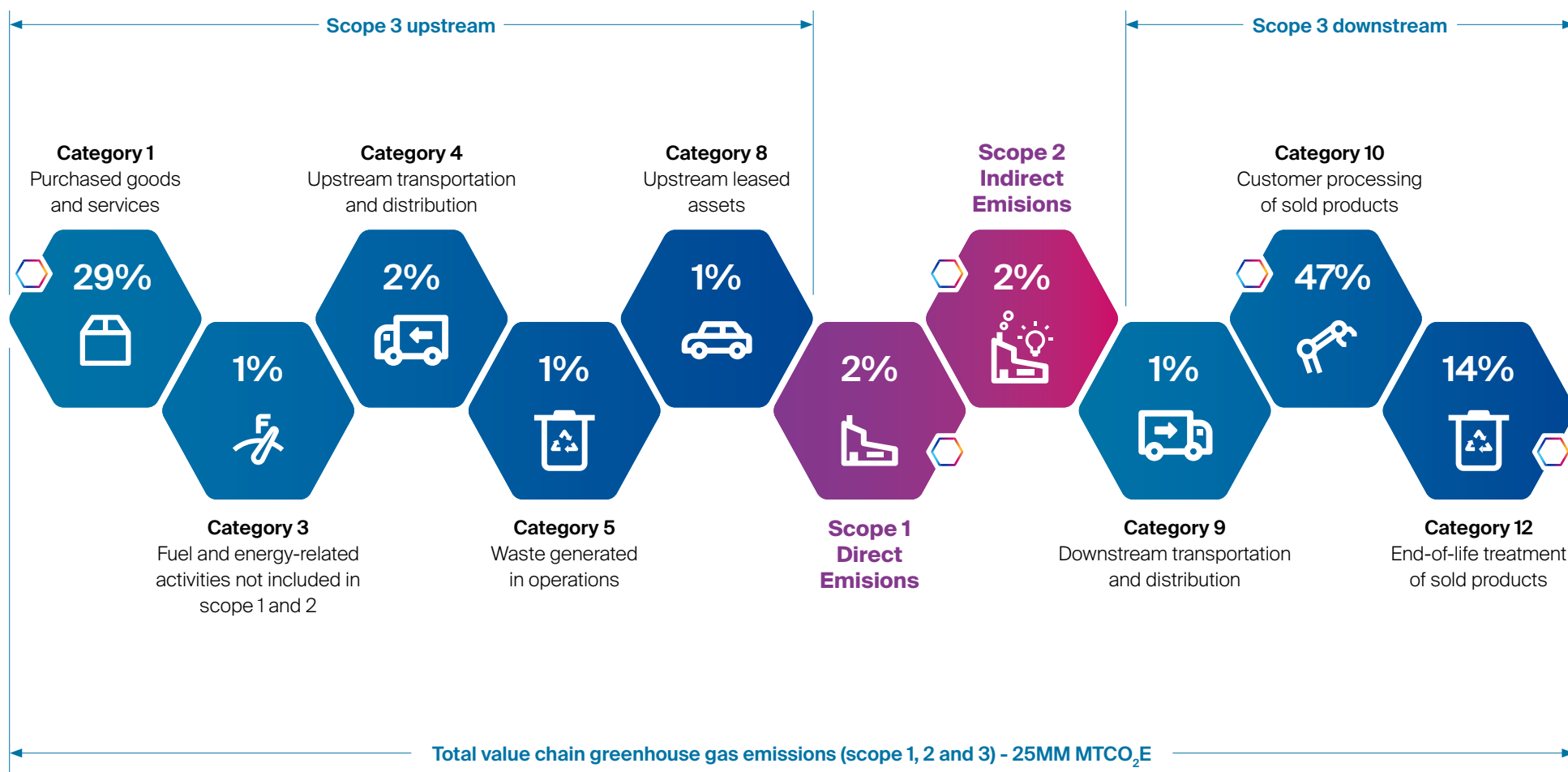
## Scope 3 GHG emissions reduction





## PPG GHG Emissions for 2019 Baseline Year

○ Reduction focus



In 2023, we achieved a 10% reduction in absolute direct (scope 1) and indirect (scope 2) GHG emissions from the 2019 baseline. These reductions represent meaningful progress against our company-wide 2030 goal of achieving a 50% reduction in GHG emissions from our own operations (scope 1 and 2 emissions). This target has been validated by the Science Based Targets initiative (SBTi) and aligns PPG's operations with a 1.5 degrees C future. The reduction is primarily due to the greening of the grid, power purchase agreements, and purchasing renewable energy credits.

Following an extensive review of our value chain to identify and measure scope 3 emissions, we also established our first value chain GHG emissions reduction target in 2023. Scope 3 emissions refer to all other indirect emissions an organization is connected to through its upstream and downstream business activities.



## Science-based GHG reduction targets

The Science Based Targets initiative (SBTi) is a global body enabling businesses to set ambitious emissions reductions targets in line with the latest climate science. The SBTi defines and promotes best practice in science-based target setting, offers resources and guidance to reduce barriers to adoption, and independently assesses and approves companies' targets.

In 2023, PPG became the first U.S.-based coatings manufacturer to have science-based greenhouse gas emissions targets validated by the SBTi. Our targets, which cover scope 1, 2 and 3 emissions, align our emissions reduction activities with the goals of the Paris Agreement.

Learn more about science-based targets and our commitments on the [SBTi target dashboard](#).

By 2030, we are committed to reducing our absolute scope 3 emissions by 30% from a 2019 baseline across the following categories, as defined by GHG Protocol's Corporate Value Chain (scope 3) Standard:

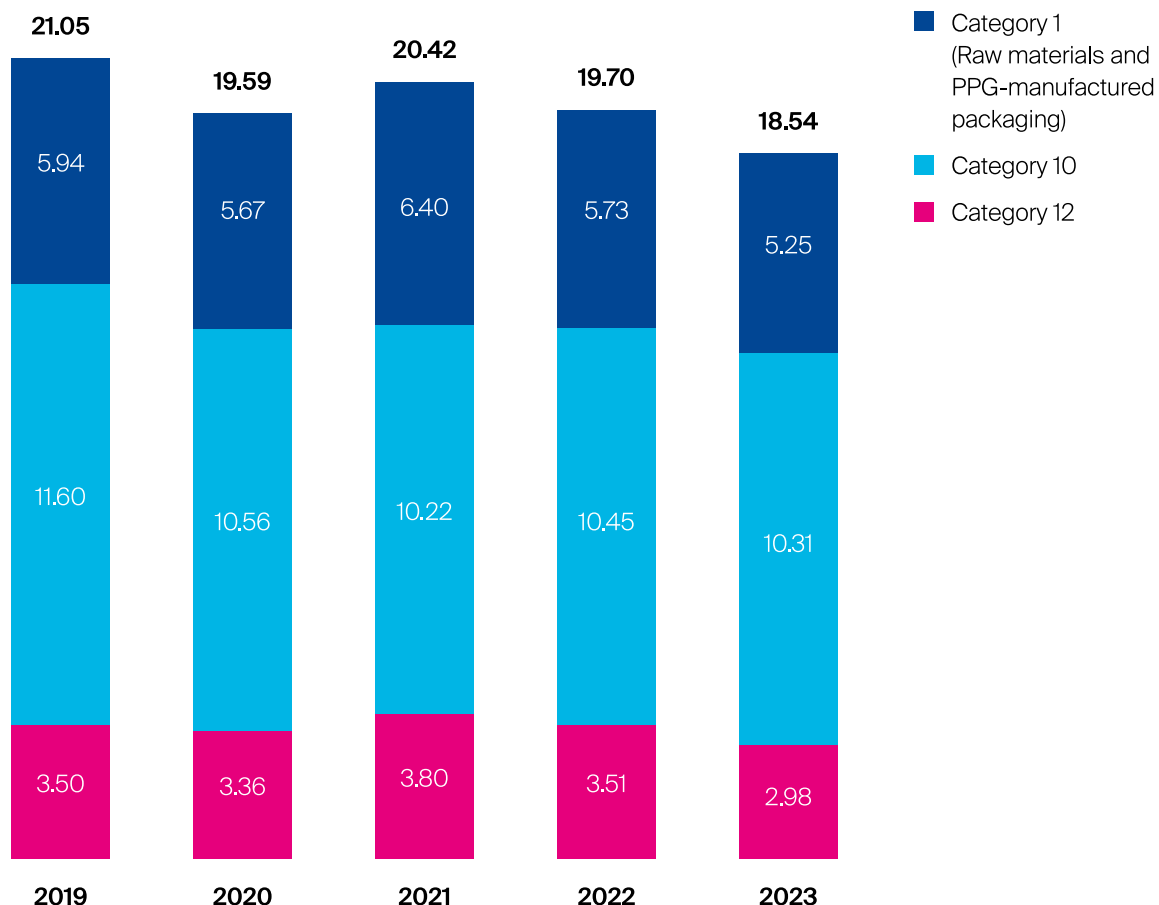
- Category 1: Purchased goods and services, including raw materials and PPG-manufactured packaging
- Category 10: Customer processing of sold products
- Category 12: End-of-life treatment of sold products

We selected these three categories because they account for more than 80% of our scope 3 emissions and we are positioned to influence reductions in these areas. Our category 1 and 12 emissions are calculated based on the actual substance breakdown of our purchased raw materials and their quantity, instead of the spend based method. PPG has modeled its tens of thousands of raw material substances using literature or database data to improve the accuracy of category 1 and 12 carbon emissions, compared to the spend based method.

In 2023, we saw a 12% reduction in our scope 3 emissions against our baseline year of 2019. The reduction was primarily due to improved data, grid greening benefits across the value chain and volumes.

### Scope 3 greenhouse gas emissions

Million metric tons of carbon dioxide equivalent



## Reducing direct and indirect (scope 1 and 2) GHG emissions

Reducing GHG emissions from our own operations is our most direct and impactful means of contributing to the low carbon transition. Addressing our scope 1 and 2 emissions also helps establish PPG's commitment to decarbonization and sets the stage for future partnerships to reduce GHG emissions across our value chain. To meet our 2030 goals, PPG partnered with NextEra Energy to develop a decarbonization roadmap to achieve a 50% GHG emissions reduction in our scope 1 and 2 emissions footprint by 2030. The roadmap includes PPG energy efficiency investments in our manufacturing facilities and increased use of renewable energy to replace our current sources of electrical energy supply. PPG's largest emissions sources come from the U.S. and Europe, representing 82% of our total 2023 emissions footprint. The key components of the renewable energy roadmap include on-site and off-site renewable energy installations and the purchase of renewable energy via power purchase agreements.



## Steam system improvement in Shenyang, China

Engineers across PPG are continuously seeking out process improvements to drive energy efficiency and reduce our operational emissions (scope 1 and 2). At our Shenyang facility in China, the operations team identified inefficiencies in our existing steam system. The team installed a new heat recovery system to re-route clean hot water, which was previously being discharged to the local sewer system, back into the water tank. They also installed a high precision steam regulating valve to improve the overall efficiency of our steam system.

These adjustments are projected to save 5,000 metric tons of steam each year, which helps avoid more than 800 MT in operational GHG emissions and achieve meaningful cost savings. The upgraded system also avoids approximately 10,000 m<sup>3</sup> of water withdrawals annually. Moving forward, we plan to replicate this heat recovery process at facilities with similar steam systems.



## Investing in renewable energy generation in Texas

Renewable Energy Certificates (RECs) are legal instruments that account for renewable electricity generation. Renewable energy generated by renewable sources is put into the electric grid, and RECs are awarded to the renewable energy facility. These RECs are then sold to fund the continued operation of the facility. The owner of the REC has the exclusive right to claim that purchased electricity comes from renewable sources, as well as any associated scope 2 emissions reductions.

In June of 2023, we entered into an agreement with Direct Energy to purchase RECs generated by a wind facility located in Crockett County, Texas. The agreement will help reduce emissions associated with the annual power usage of four PPG paints and coatings manufacturing facilities and 62 PPG PAINTS™ stores in Texas. The RECs cover approximately 126,000 megawatt hours (MWh) of renewable energy, which will help reduce PPG's scope 2 emissions by more than 9,400 metric tons each year.



In 2023, the global engineering group identified PPG's largest energy saving opportunities at our global manufacturing sites and began installing energy monitors to better assess energy efficiency to identify opportunities to reduce usage at sites. We are taking a two-pronged approach to reducing energy use that includes process improvement and the adoption of new technologies such as combined heat and power units. In Europe, the five PPG facilities that use the most energy adopted rigorous energy management requirements in line with ISO 50001 standards to help systematize the identification of energy wasteful processes and drive down energy consumption.

As we identify the need to replace process and utility equipment that is inefficient and is at its useful life, we are upgrading and retrofitting to more energy efficient assets. In one example, our Oak Creek, Wisconsin, site replaced traditional incandescent and fluorescent light bulbs with energy efficient LEDs in 2023. The change will save approximately 4,400 MWhs annually. Initiatives such as this one support our goal to continuously improve energy efficiency and, as a direct result, reduce GHG emissions across our operations.

We also expanded our renewable energy sourcing efforts over the past year. In 2023, 31% of our purchased electricity was generated by renewable sources. Thus far, we have completed on-site solar installations at our Oak Creek, Wisconsin; Valencia, Spain; and Bucharest, Romania, sites. Many of our Texas sites and *PPG Paints* stores in Ohio have active power purchase agreements (PPAs). We continued to work with partners to evaluate onsite renewable opportunities and to secure renewable electricity through PPAs, which guarantee a renewable electricity supply for years into the future, while allowing us to lock in a fixed rate for electricity.

**Lloyd's Register Quality Assurance provided limited assurance on our scope 1 and scope 2 GHG data.**

[View the assurance report](#)

### Reducing emissions across our value chain (scope 3)

We recognize our ability to influence the reduction of GHG emissions that extend beyond the footprint of our own operations. For that reason, PPG is committed to collaborating with our customers and suppliers to advance their own GHG emissions reduction goals and limit our collective impact. In 2023, we announced the validation of our science-based targets by SBTi to reduce our absolute scope 3 emissions by 30% from a 2019 baseline by 2030. Our value chain emissions goal applies to three categories: purchased goods and services (category 1), processing of sold products (category 10), and end-of-life treatment of sold products (category 12). We have identified the primary levers of scope 3 reductions to be customer innovations that lower energy use, circular solutions, value chain energy transition and solvent emissions.



## Purchased goods and services

Our operations depend on the use of raw material inputs that generate GHG emissions from upstream production activities. In an effort to address these upstream impacts, we established a new global ESG procurement manager position in 2023, dedicated to supporting PPG's supplier base through education and engagement. This new position collaborates with our global procurement team to engage suppliers in defining lower carbon feedstocks and raw materials, setting expectations for supplier GHG emissions reductions of their operations, aligned to our target of 30% by 2030, and tracking and monitoring supply chain due diligence activities.

In the last year, PPG initiated a process to monitor decarbonization performance of our largest suppliers in addition to monitoring other key environmental and social performance metrics. We constructed our scope 3 emissions footprint using industry average data and are actively assembling more accurate emissions data from our largest raw material suppliers. We will continue to gather the most accurate data available over time. We track scope 3 emissions related to our spending, follow emissions by supplier and region, evaluate supplier performance and put action plans in place. We also recognize the importance of developing strategic supplier relationships with partners who share our commitment to sustainability. In the past year, we engaged with our top 20 suppliers to lay out our expectations and discuss pathways for achieving traceable reductions to our scope 3 emissions. Once engaged, suppliers submit proposals for emissions reduction projects, not limited to direct greenhouse gas intensity reduction, which PPG reviews for feasibility and potential impact. We use an internal platform to intake supplier proposals, track progress across our supplier base and understand the sustainability benefits attributed to those specific projects. PPG is focused on evaluating alternative, lower carbon feedstocks and expanding knowledge of hot spots of process emissions up the value chain to determine where actions can be taken to meet our scope 3 emissions reduction target.



Beyond partnering with our suppliers and customers, we continue to embed circular economy principles across our operations. By limiting waste, reusing materials and extending product life cycles we are reducing both our value chain GHG emissions and raw material costs. Learn more in the [supplier sustainability](#) and [waste](#) sections.



## Energy efficient manufacturing in Tepotzotlán, Mexico

PPG is focused on integrating circular economy principles across our manufacturing processes to reduce waste and use raw material more efficiently. At PPG's facility in Tepotzotlán, Mexico, the operations team identified an opportunity to update our traditional production model to one that uses fewer materials and reduces process time.

Historically, architectural paints have been manufactured by measuring a series of dry ingredients and mixing them with a liquid solvent. Our team developed an innovative production process that significantly lowered production time and the energy used in mixing paints. At the same time, the process reduced waste, and reduced the amount of raw materials needed in the formulas, without impacting the performance of the products. In total, the process is expected to reduce our scope 1, 2 and 3 GHG emission by more than 5,000 MT annually.

### Customer processing of sold products

In 2023, we modeled the emissions intensity of applying and curing different PPG products at our customer sites. With this information, we are partnering with customers to promote the use of existing products that require less energy to apply and cure and develop new products that improve this further. These efforts will reduce our customers' GHG emissions, reduce PPG's downstream scope 3 emissions and position PPG to better meet the opportunities resulting from climate change economic transitions. Learn more in the [sustainably advantaged products](#) section.

For PPG paints and coatings that require electricity in the application and curing processes, the emissions intensity of our sold products is also impacted by our customers' energy mix. We have already seen improvements in our downstream scope 3 emissions based on the greening of the energy grid, and expect to see continued organic reductions in our scope 3 emissions as the energy mix shifts to renewables. Our ability to work with our customers to advance less energy intensive curing approaches such as electron beam curing vs. UV curing will also have a favorable impact on lowering GHG emissions.



## End-of-life treatment of sold products

Downstream scope 3 GHG emissions associated with end-of-life treatment are largely a function of the chemical composition of our products. While the reformulation and removal of carbon intensive raw materials in formulations offers opportunities for significant GHG emissions reductions, we must continue to meet customer expectations and not compromise product performance including protective properties. In some of our product formulations, we have already started to replace fossil fuel derivatives with bio-based materials. Resins made from renewable resources such as sugars, natural oils, and starch from corn and agricultural waste offer more sustainable alternatives without compromising the quality and performance of the final product. By removing fossil fuel derivatives wherever possible, the end-of-life emissions of our products can be significantly reduced. Moving forward, we will continue to partner with our customers to develop and test new technologies that make our products more durable and limit end-of-life GHG emissions.

## Other air emissions

While we do not report hazardous air pollutants (HAPs) on a global level, we do track those emissions at our U.S. facilities. In 2023, our U.S. operations emitted 252 metric tons of HAPs. As we reformulate products to enhance their environmental performance, our emissions of hazardous air pollutants should decrease over time. Learn more in the [product stewardship](#) section.

**For more detailed information about our approach to reducing energy use across our operations, visit [PPG.com](https://www.ppg.com)**

**For more information about our ongoing approach to managing our GHG emissions, visit [PPG.com](https://www.ppg.com)**



## Multi-year data highlights

### Greenhouse gas emissions

Million metric tons of carbon dioxide equivalents

	2019	2020	2021	2022	2023
Direct (scope 1)	0.44	0.36	0.44	0.43	0.42
Indirect (scope 2)	0.62	0.54	0.53	0.54	0.53
Value chain (scope 3)*	21.04	19.59	20.42	19.7	18.54
<b>Total (scope 1 and 2)</b>	<b>1.05</b>	<b>0.90</b>	<b>0.97</b>	<b>0.97</b>	<b>0.94</b>

Data changes from prior reporting reflect updated data and adjustments for acquired and divested locations from the 2019 baseline onward.

\* Categories: purchased goods and services (category 1), processing of sold products (category 10), and end-of-life treatment of sold products (category 12).

### Greenhouse gas emissions intensity

Metric tons of emissions per metric ton of production

	2019	2020	2021	2022	2023
Direct (scope 1)	0.10	0.08	0.10	0.10	0.11
Indirect (scope 2)	0.13	0.13	0.12	0.13	0.13
<b>Total</b>	<b>0.23</b>	<b>0.21</b>	<b>0.22</b>	<b>0.23</b>	<b>0.24</b>

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 2019 baseline onward. Total may not equal the sum of direct and indirect due to rounding.

## Air emissions

Metric tons

	2019	2020	2021	2022	2023
Particulates	269	325	291	302	176
Volatile organic compounds	2,673	1,909	3,908	1,983	3,117
Nitrogen oxides	1,178	996	938	1,572	706
Sulfur dioxide	76	59	53	48	55

Data changes from prior reporting reflect updated data and adjustments for acquired and divested locations.

## Air emissions intensity

Metric tons of emissions per 1,000 metric tons of production

	2019	2020	2021	2022	2023
Particulates	0.06	0.08	0.07	0.07	0.14
Volatile organic compounds	0.58	0.45	0.89	0.47	0.81
Nitrogen oxides	0.26	0.23	0.21	0.38	0.56
Sulfur dioxide	0.02	0.01	0.01	0.01	0.02

Data changes from prior reporting reflect updated data and adjustments for acquired and divested locations.

## Energy intensity

Gigajoules per metric ton of production

	2019	2020	2021	2022	2023
Total	2.93	2.58	2.91	3.04	3.15
Direct	1.69	1.46	1.74	1.78	1.81
Indirect	1.23	1.12	1.18	1.26	1.34

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.

## Energy consumption

Million gigajoules

	2019	2020	2021	2022	2023
Total	13.40	11.03	12.82	12.71	12.41
Direct	7.75	6.26	7.63	7.45	7.13
Indirect	5.56	4.78	5.19	5.26	5.28

Total may not equal the sum due to rounding.

Direct energy consumption is the amount of primary energy we combust onsite. 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 2019 baseline onward.



## Energy consumption by source

Million gigajoules/percent of total energy consumption

	2019		2020		2021		2022		2023	
Source	Million gigajoules	Percent	Million gigajoules	Percent	Million gigajoules	Percent	Million gigajoules	Percent	Million gigajoules	Percent
Nonrenewable fuels purchased and consumed	7.75	58	6.26	57	7.63	60	7.45	59	7.13	57
Nonrenewable electricity purchased	2.90	22	2.63	24	2.81	22	2.65	21	2.43	20
Steam/heating/cooling and other nonrenewable energy purchased	2.04	15	1.45	13	1.58	12	1.83	14	1.75	14
Total renewable energy purchased or generated	0.71	5	0.69	6	0.80	6	0.78	6	1.10	9
Total non renewable energy sold	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Total nonrenewable energy consumption	12.69	95	10.34	94	12.02	94	11.93	94	11.31	91

## Energy

Millions of dollars

2019	2020	2021	2022	2023
125	125	117	263	203

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

# Climate-related risks and opportunities

**We take a systemic approach to managing climate risks, and look for opportunities to support the transition to a low-carbon future throughout our operations.**

## Addressing the transition to a low-carbon economy

The global transition to a low-carbon economy presents risks and opportunities for PPG. Transition risks and opportunities include those related to technology, market changes, reputational impacts, as well as regulations and policy changes. In 2023, we advanced our approach to managing transition risk by validating our scope 1, 2 and 3 greenhouse gas (GHG) emissions targets with the Science Based Targets initiative (SBTi). We're committed to reducing our GHG emissions in line with the goals of the Paris Agreement and have aligned our scope 1 and 2 greenhouse gas emissions approach to the reductions necessary to limit global warming to 1.5 degrees C above pre-industrial levels, and aligned our scope 3 approach to a well below 2 degrees C future. Learn more about our science-based targets in the [energy and emissions](#) section.

## Managing physical risk at PPG facilities

PPG has a rigorous approach to managing physical climate risk across our facilities. We proactively undertake climate change scenario analysis, climate risk modeling and strategic planning based on guidance from the Task Force on Climate-related Financial Disclosures (TCFD). In 2023, we continued to expand our understanding of the physical climate risks that threaten to impact in our operations. Guided by the outcomes of our most recent climate risk assessment, we are implementing infrastructure improvements to mitigate physical risks at those sites that are most threatened by climate change. Learn more about PPG's [climate risk management](#) activities on our website.

## Meeting market opportunities

PPG customers and users of our products are increasingly aware of the climate impacts associated with their purchases. We have seen growth in the demand for low impact products across our businesses – from homeowners who want low-volatile organic compound (VOC) and water-based paints to supporting automakers at the forefront of the transition to electric vehicles. Throughout the year, we continued to foster partnerships with our customers and work together to develop new, more sustainably advantaged products.

We also have a clear process that allows the sustainability team to work alongside PPG's businesses to identify market opportunities related to climate change impacts. Learn more in our [research partnerships](#) and [sustainably advantaged products](#) sections.

## Tracking climate-related regulations around the world

In 2023, countries where we operate continued to advance climate-related laws and regulations. We have been tracking these developments through our corporate risk management process, including those regulations related to the EU Green Deal. We will continue to monitor emerging legislation that could impact our activities in the future.



## Understanding nature-related risks and opportunities

According to the World Economic Forum's Global Risk Report 2024, biodiversity loss and ecosystem collapse are some of the most severe global risks facing humanity over the next ten years. As we innovate new sustainably advantaged products, we see opportunities to meet this moment by developing bio-based and nature-positive products and services.

In 2023, our sustainability team worked with an external consultant to conduct a nature-related screening exercise. The exercise aimed to develop an integrated understanding of the many ways that we depend on and impact natural systems, identify any of our activities that have higher risk of impacting natural systems, and to review our management of nature-related impacts.

PPG relies on natural capital across every aspect of our global business. We transform raw materials into high performing paints and coatings, and rely on a range of ecosystem services for everything from access to clean water to flood mitigation around our facilities. We already have an advanced management approach for many of our impacts on nature.

We have a sophisticated understanding of the chemicals we use, and take responsibility for minimizing the environmental impacts from our products. As discussed elsewhere in this document, we track and report on a range of environmental metrics including water use, waste generation and management, energy use and greenhouse gas emissions. The nature-related screen only helps us further develop our approach to managing nature-related risks, impacts and opportunities.

We will continue to advance our understanding of nature-related risks and opportunities over time and will evaluate the evolving work of standard setters to provide guidance going forward.

**For more detailed information about our ongoing approach to climate-related risks and opportunities, visit [PPG.com](https://www.ppg.com)**

**To learn more about how PPG is addressing climate change, see our Task Force on Climate-related Financial Disclosure (TCFD) index on [PPG.com](https://www.ppg.com)**



# Water

## Reduce water intensity at priority sites



**We recognize that water is a finite, shared resource and we minimize water use in 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 most significant impact on water availability in local communities comes from our facilities located in water stressed communities. When setting our 2030 water goal, we chose to prioritize water efficiency measures in areas with high water scarcity risk rather than reducing our overall water intensity.

We focused our efforts in 2023 on 26 PPG facilities that were identified for high water use and proximity to water stressed regions. We invested in submeters to measure the water used for different production processes rather than relying on facility-level water meters. These submeters helped us to identify the most water-intensive production processes so we could develop strategies to reduce our usage. The detailed view of our water usage also helped identify water lines in need of repair or replacement, which helped reduce water waste.

Combined, these strategies have helped reduce the amount of water that we use in water stressed communities by 13% from a 2019 baseline. We are continuing to broaden our focus, evaluating more of our facilities in water stressed areas and building on our progress to date. Given our rapid progress toward meeting the 2030 goal, we are exploring the possibility of setting a more ambitious water reduction target in the future.





## Zero Discharge Project

During our production processes, some paint gets left behind in the tanks and pipes we use to mix and package our products. We clean out the system with water to keep it running properly and avoid cross contamination between batches. Historically, we have sent pretreated wash water to a municipal water treatment facility to be further cleaned and then released back into the local water system. The Zero Discharge Project is an ongoing initiative which aims to reuse wash water and reduce raw material waste. In 2023 alone, we were able to reuse approximately 16 million pounds of water in our U.S. and Canada architectural coatings business, an increase of 615,000 pounds, or 4%, over the previous year.

Reuse of wash water may be limited by a range of factors, including local legislation that limits certain material use and physical constraints on the amount of water that can be stored for reuse at our production facilities. In 2023, we implemented an optimization process to consider these factors and expand the reuse of wash water and recovery of raw materials from the Zero Discharge Project. We expect that this process will enable us to reuse as much as 10% more water in 2024.

For more detailed information about our ongoing approach to water management, visit [PPG.com](https://www.ppg.com)



## Leak detection in Caivano, Italy

As climate change increases the frequency and severity of droughts, many countries have responded by instituting water rationing measures. We focus our investments to ensure we're abiding by local regulation and using water efficiently, particularly in water stressed areas.

The PPG site in Caivano, Italy, responded to local water stress by installing water monitoring systems to identify leaks in the facility. The operations team found underground leaks in the sanitary water system and fire water storage tank which had previously gone unnoticed. By repairing the leaks and stopping water losses, we reduced monthly water use at the site by more than 60%. The repairs are projected to reduce water use at the site by 210,000 m<sup>3</sup> per year and save PPG more than €200,000.

The operations team at our Caivano site continues to reduce the amount of water withdrawn from the municipal water supply through a combination of repairs, refurbishments and process improvements. The long-term goal for the Caivano site is to reduce water use by 90% from a 2022 baseline.



## Multi-year data highlights

### Water intensity

Cubic meters per metric ton of production

	2019	2020	2021	2022	2023
Water intensity for priority sites in water stressed areas	1.26	1.32	1.30	1.38	1.09

Data changes from prior reporting reflect adjustments for acquired and divested locations from the 2019 baseline onward.

### Water consumption - all sources

Million cubic meters

	2019	2020	2021	2022	2023
Withdrawn	18.73	15.28	17.72	17.73	14.86
Discharged	13.87	13.29	14.38	14.64	12.39
Net consumption (withdrawn minus discharged)	4.86	1.99	3.35	3.09	2.47

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.

### 2023 water withdrawn - all sources

Million cubic meters

Source	Amount withdrawn
Surface water	4.16
Groundwater	1.62
Seawater	0
Produced water	0
Third-party water	5.07

### 2023 freshwater consumption

Million cubic meters

Source	Amount withdrawn
Municipal water withdrawn	5.07
Fresh surface water withdrawn	4.16
Fresh groundwater withdrawn	1.62
Water discharged	12.39
Net freshwater consumption	1.54

## Water usage in water stressed regions

	2019	2020	2021	2022	2023
Total water withdrawn in water stressed regions	1.68	1.63	1.71	1.58	1.28
Percent of water withdrawn	9%	11%	10%	9%	9%
Percent of total consumed	20%	53%	29%	28%	27%

Included facilities are in North America, South America, Europe, Australia and Asia. Data changes from prior reporting reflect adjustments for acquired and divested locations and updated water scarcity analysis.

## Water non-compliances

	2019	2020	2021	2022	2023
Number	6	7	6	10	5

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.

# Waste

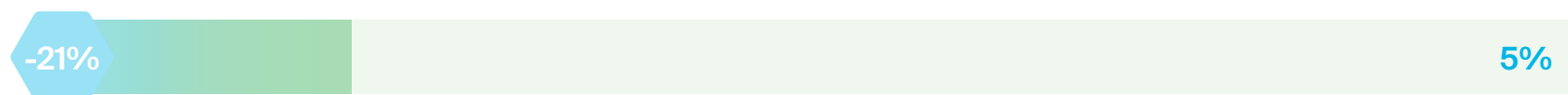
## Reduction of total waste intensity



## Increase process waste to reuse, recycle and recovery



## Annual improvement in spills and releases



### PPG recognizes the importance of moving toward a circular economy.

Beyond the environmental benefits, reducing waste and increasing resource efficiency helps lower our costs and supports our continued success. We consider circularity in our product design, use raw materials as efficiently as possible, minimize operational waste and promote reuse and recycling throughout our value chain.

Our waste intensity in 2023 increased by 7% compared to the 2019 baseline. 45% of process waste was either reused, recycled or recovered. While operating sites have continued to implement waste reduction measures, we expect that progress toward our waste goals will not be linear. Extensive cleaning and maintenance processes, which are completed at some of our larger facilities every 2-3 years, result in increased waste output and we expect variability in our waste intensity as a result.



## Transforming retail displays with *Tikkurila*

PPG's *Tikkurila* brand recently sought to renew its retail store presence with a new display concept that emphasized sustainability. The team piloted the new display concept in select stores in Finland over the course of 2023.

When designing the display concept, the goal was to develop a model using high quality, durable materials that could be used in stores for many years. The new and improved displays consist of 89% renewable materials, and use 100% recovered wood. The display concept also provides value to consumers. It features an interactive lighting system that lets consumers see how their paint will look in different settings, helping them make more accurate color choices.

This new concept helps minimize *Tikkurila's* waste, while also highlighting its status as a premium Nordic brand. The concept was designed for all countries where *Tikkurila* is available. The updated displays will be made available across all major stores in Finland over the next three years.



## Reducing waste in our operations

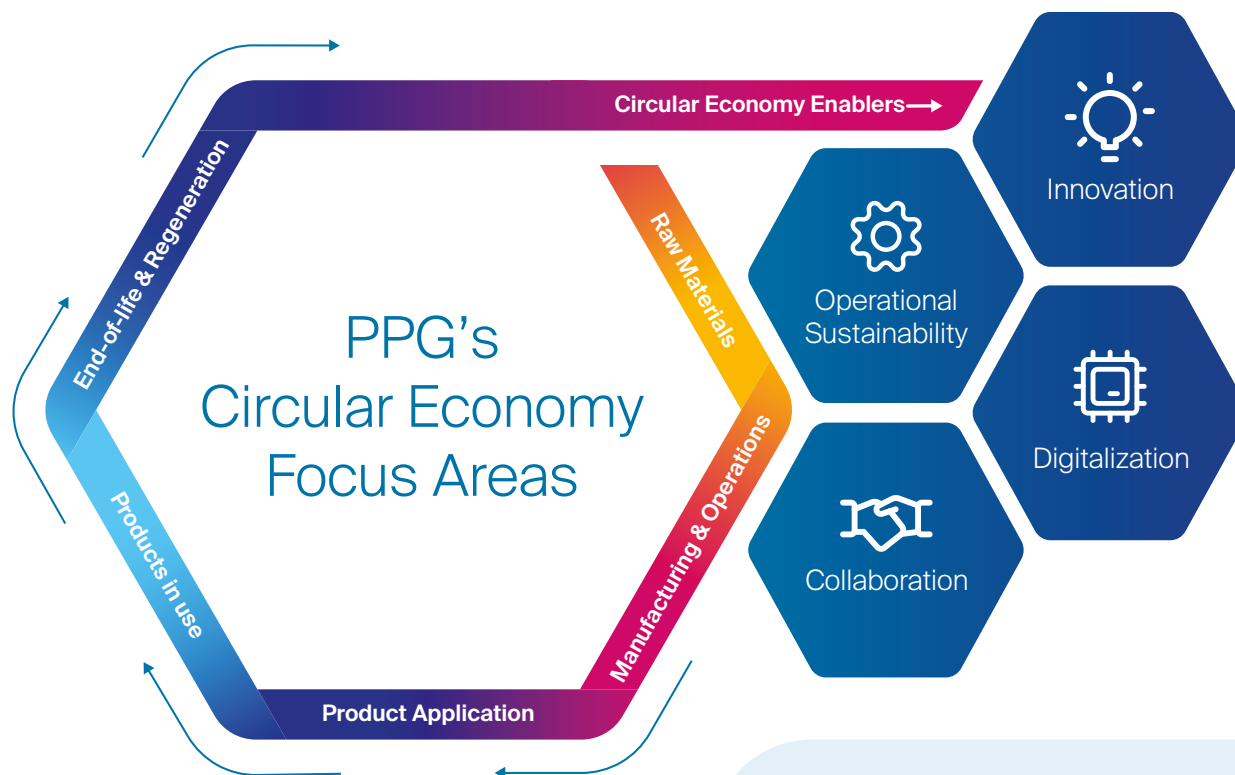
When setting our 2030 targets, we changed our approach to measuring waste intensity to prioritize the reuse and repurposing of materials in our production processes. We now include any materials sent offsite for recycling in our waste intensity metric. This shift acknowledges that recycling is less efficient than waste elimination, repurposing and reuse and ensures that we're incentivizing desired behavior across our manufacturing and operations functions. Reusing materials that would have otherwise been recycled helps reduce our yield loss and ultimately improves profitability.

While we encourage reuse and repurposing where possible, we also recognize that recycling plays an important role in keeping waste out of landfills. Our goal to drive 100% of process waste to reuse, recycle and recovery supports continuous improvements in the percentage of our waste that is diverted from landfills and other disposal facilities.

## Advancing our circularity approach

PPG supports the circular economy by focusing on every stage of our products' life cycle. We reviewed opportunities to reduce waste from the sourcing of raw materials, through the manufacturing process, to the application and usage of products, and their end-of-life. Throughout 2023, we worked to formalize our circularity approach by understanding how PPG is already contributing to the circular economy and developing a formal circular economy strategy to guide future efforts.

As part of this operational review of our contributions to the circular economy, we identified a need for more granular waste data. We're working with 25 PPG sites that generate the most waste, developing detailed waste inventories and using root cause analysis to identify opportunities to reduce sources of waste. This effort is aligned to our 2030 ambition to reduce our waste intensity by 25% vs. a 2019 baseline.



## Spills and releases

The median spill in 2023 was 4,802 pounds, with 100% of spills contained onsite. We had six substantial spills during the year, which totaled 16,677 gallons (59,431 liters). Many of these spills have been attributed to issues with mechanical integrity or work instruction practices.

PPG facilities employ management practices to prevent spills and releases, including employee engagement activities, training, spill elimination assessments, operational improvements, self-assessments and best practice sharing.

To reduce the likelihood of spills and releases from mechanical integrity issues, PPG's operations team recently launched initiatives around the use of digital tools and maintenance standard work processes. Digital sensors and in-line monitoring tools are being implemented to predict equipment failure and address these prior to an incident. We are also standardizing maintenance processes across our sites. As part of these initiatives, our team is moving to more proactive maintenance practices. We are already seeing the benefits at locations that these initiatives have been implemented and continue to closely track our performance over time.

We are also engaging PPG employees by leveraging Job Safety Analysis (JSA), a systematic process designed to identify potential hazards and develop improved work practices for carrying out a specific task or job operation. This is one of several tools within our EHS Management System that help address causal factors, such as equipment, process, or people interactions, to prevent future occurrence of spills and releases.

**For more detailed information about our ongoing approach to waste management and circularity, visit [PPG.com](https://www.ppg.com)**



## Paint circularity with GDB International

As a high-volume paint supplier, fluctuations in customer demand or production volume inevitably cause a portion of our raw materials or paint products to go unused. For more than 20 years, we have partnered with GDB International to help keep these unused materials from going to waste. GDB is a leader in paint recycling that facilitates a sustainable 'cycle' in the paint supply chain by recovering, recycling, and reusing surplus materials, and is also the partner to the ACA PAINTCARE™ program.

GDB takes materials including pigments, resins, solvents, frozen paint, and even waste/wash water that PPG is unable to recover on site. The company sorts, recovers, and repackages any unused products with their private branding. Over the course of our 20+ year partnership, GDB has processed and recycled more than 3,000 truckloads of PPG product, including 10.1 million gallons of paint across all PPG brands.

## Multi-year data highlights

### Waste disposal

Thousand metric tons

	2019	2020	2021	2022	2023
Waste generated	194.62	164.39	170.15	188.17	179.19
Total waste intensity <i>metric tons per 100 metric tons of production</i>	4.25	3.84	3.87	4.50	4.55
Disposed	112.49	89.68	90.18	116.70	99.12
Disposal intensity <i>metric tons per 100 metric tons of production</i>	2.46	2.10	2.05	2.79	2.52
Waste Recycled	82.13	74.71	79.97	71.47	80.07

Disposed waste does not include waste that is recycled, reclaimed or incinerated for energy recovery. Waste generated includes all waste from manufacturing and R&D locations generated as a consequence of the activities involved in the production of our products and services. Data changes from prior reporting reflect adjustments for acquired and divested locations.

### Waste generated/recycled

		2019	2020	2021	2022	2023
Non-hazardous waste	Generated <i>thousand metric tons</i>	81.96	70.69	74.03	100.56	81.05
	Recycled <i>percent</i>	35	37	38	25	34
	Disposed <i>thousand metric tons</i>	52.90	44.40	46.26	75.30	53.29
Hazardous waste	Generated <i>thousand metric tons</i>	112.66	93.70	96.12	87.61	98.14
	Recycled <i>percent</i>	47	52	54	53	53
	Disposed <i>thousand metric tons</i>	59.59	45.28	43.91	41.40	45.83

Disposed waste includes waste that is sent off site for landfill, incineration without energy recovery and physical/chemical treatment. 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.

### Spills and releases rate

Per 1,000 employees

2019	2020	2021	2022	2023
1.25	1.24	1.28	1.50	1.59



# Transportation

**Each day, PPG products are transported by land, sea and air around the world.**

Internal experts, mandatory practices and effective processes help ensure our products make it to their destinations safely and minimize the environmental impact of transportation.

## Our transportation highlights in 2023

In 2023, our teams reported 276 incidents via a U.S. DOT 5800 incident report or PPG transportation incident report, representing less than 0.03% of total shipments. Our incident report numbers are relatively stable compared to 2022, reflecting our mature approach to transportation safety. Nine of these incidents 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, four occurred outside the U.S. and five were within the U.S.

## Reducing transportation emissions

To reduce the emissions associated with moving our products, we continue to work with our suppliers to optimize shipping patterns, adopt alternative fuel sources, consolidate shipments, and shift to low emissions transport modes. In Europe, we integrated sustainability-related criteria into our freight tender process for the first time. Our EU transportation management team meets with sustainability experts at our top carriers to identify opportunities to curb emissions and ensure suppliers have future-proof plans for meeting their sustainability targets. Suppliers with lower-emission programs that align with PPG's decarbonization strategy are given priority in our freight tender process.

PPG is actively considering ways to decarbonize transport, but is limited by aspects of the market that require further development. In some instances, there may not be cost-effective methods available to reduce the emissions associated with moving our products. For example, while the range on electric vehicles has improved, there are many routes where the range of electric trucks is still too limited. These issues can also be compounded in cold weather and when hauling heavy loads.

We utilize a range of tools to track emissions associated with moving our products, including a dashboard for tracking supplier emissions by mode of transportation. Using the dashboard allows us to identify how factors such as distance, transport mode and fill rate of vehicles impact transportation-related emissions. These insights empower our centralized operations team to identify improvement opportunities and select carriers that are taking meaningful action to reduce emissions.

As the capacity and availability of low emissions technologies continue to ramp up, we are working in parallel to avoid excess emissions from air freight – our most emissions-intensive form of transport. In 2023, we established new approval flows for expedited shipping, which require director-level sign off on all air shipments.

Looking ahead, we are exploring external partnerships to develop a track and trace system that will provide greater visibility into transport emissions at the carrier and route level.

## Multi-year data highlights

	2019	2020	2021	2022	2023
Total number of incidents reported	293	255	561	288	276
Number of significant incidents	20	12	16	12	9

**For more detailed information about our ongoing approach to transportation, visit [PPG.com](https://www.ppg.com)**



## Switching to a more efficient shipping model

While electric vehicle infrastructure is not yet sufficiently advanced to replace conventional trucks in most places, we are focused on reducing transport miles and increasing shipping efficiency in the short term. In the past, we relied on a dedicated fleet of trucks that were managed by a third-party provider. The dedicated fleet was not always the closest option to the pickup or drop off site which meant that PPG was paying for drivers to transport an empty vehicle. In 2022 alone, the fleet drove more than 700,000 “empty miles,” costing PPG more than \$1.15 million.

Last year, our procurement team chose to switch to a flat-rate, carrier agnostic transportation model. This new system allows PPG to select the closest carriers, reducing empty miles. Once the driver delivers they are free to find another load nearby and PPG is not responsible for paying them to get home. The change has eliminated spending on “empty miles,” while also reducing our annual GHG emissions by approximately 1,000 tons of CO<sub>2</sub>e.

# People



# People overview

## PPG people make it happen.

At PPG, we aim to champion all employees, encouraging them to be their authentic selves and empowering everyone to reach their full potential. 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: We protect and beautify the world.



## Diversity, equity and inclusion

Aspirational goals	Progress since 2021
<b>34-36%</b> representation of non-frontline, global female professionals by 2025	<b>32%</b> representation of non-frontline, global female professionals
<b>45-55%</b> increase in headcount of Black, Latino and Asian professionals across non-frontline, U.S.-based employee population by 2025	<b>42%</b> increase in non-frontline headcount for U.S. Black professionals <b>44%</b> increase in non-frontline headcount for U.S. Latino professionals <b>26%</b> increase in non-frontline headcount for U.S. Asian professionals
<b>50%</b> global employee resource network and DE&I capability-building participation by 2025	<b>42%</b> global employee resource network and DE&I capability-building participation

## Safety and health

2030 target	Progress since 2019
<b>100%</b> of employees go home safely each day. On our way, drive at least <b>5%</b> annual improvement in injury and illness rate	<b>0%</b> annual improvement in injury and illness rate



## Multi-year data

### Number of employees

2019	2020	2021	2022	2023
47,600	46,900	49,300	52,000	50,000

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

### 2023 employees by region

	Asia Pacific	Europe, Middle East and Africa	Latin America	U.S. and Canada	Total
Female	1,804	5,440	2,281	5,279	14,804
Male	5,554	11,899	6,410	13,343	37,206
Non-binary	0	0	0	18	18
Not specified	0	50	1	0	51
<b>Total</b>	<b>7,358</b>	<b>17,389</b>	<b>8,692</b>	<b>18,640</b>	<b>52,079</b>

Numbers are as of Dec. 31, 2023.

### 2023 employees by employee type

	Full-time	Part-time
Female	14,016	788
Male	36,591	615
Non-binary	17	1
Not specified	51	0
<b>Total</b>	<b>50,675</b>	<b>1,404</b>

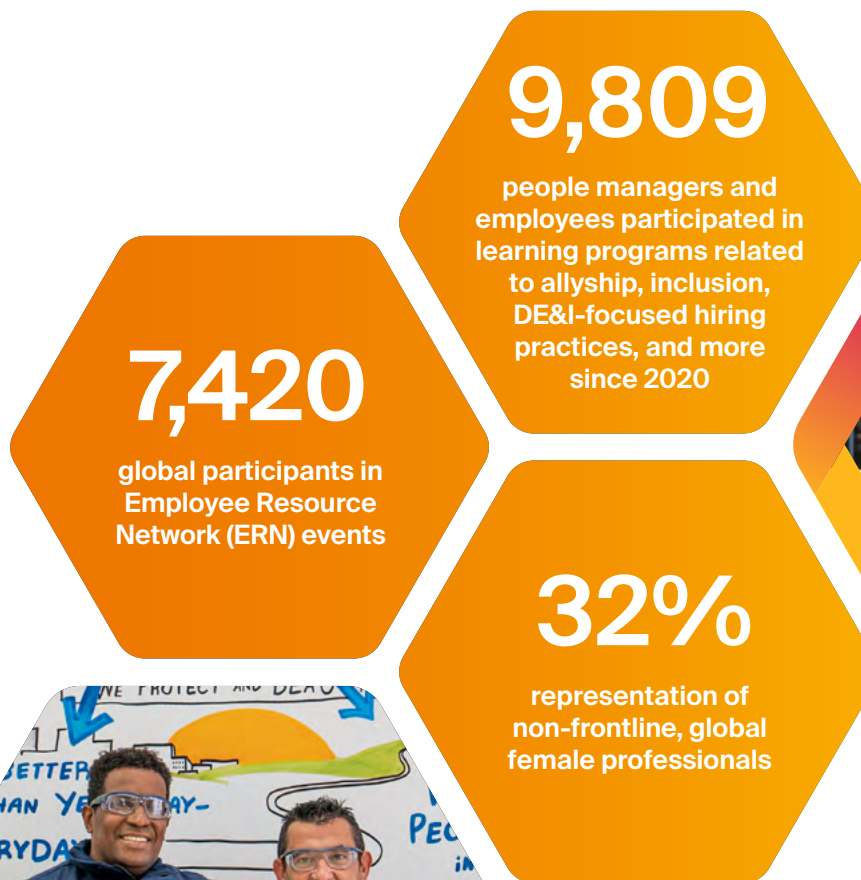
Numbers are as of Dec. 31, 2023.

# Diversity, equity and inclusion

**A diverse workforce and an inclusive culture are fundamental for promoting employee wellbeing and strong company performance.**

## Our DE&I Vision Statement

At PPG, we aim to champion all employees, regardless of race, ethnicity, gender, age, physical and mental disability, military or veteran status, sexual orientation, gender identity or expression, and/or other diverse backgrounds; empowering them to show up as their authentic selves. We know that diverse teams perform better – period. Providing equitable experiences for our people results in better engagement, increased business performance and more opportunities for all. In partnership with our employee resource networks, we will continue to elevate and celebrate underrepresented communities. We will 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.



One of PPG's greatest strengths is the diversity of our people. Simply put – diverse teams perform better. We consistently seek out new ways to amplify the voices of underrepresented employees and help all of our people bring their best selves to work.

#### Representation of non-frontline, global female professionals



#### Increase in non-frontline U.S. headcount for Black professionals



#### Increase in non-frontline U.S. headcount for Latino professionals



#### Increase in non-frontline U.S. headcount for Asian professionals



#### Global employee resource network and DE&I capability-building participation



In 2023, we continued to cultivate a sense of belonging for all of our employees. Our dedicated DE&I team works in collaboration with our HR and business professionals to empower PPG people to make a difference, both in their careers and in representing their unique identities. In addition to the internal work to increase headcount of underrepresented groups and execute DE&I capability-building programming, we have committed to advance racial equity in the U.S. by funding educational pathways for Black communities and people of color. Learn more about our funding commitment and progress to date in the [community engagement](#) section.

#### Listen & Learn sessions

We continued creating a culture of dignity, respect, empathy and understanding with one of our flagship programs, DE&I Listen & Learn sessions. These sessions are hosted by senior leaders who share personal anecdotes and perspectives on a variety of DE&I topics, and offer an outlet for employees to ask questions and share their lived experiences. The goal of the program is to foster a safe forum for conversations around inclusion. We held a total of 35 DE&I Listen & Learn sessions in 2023, with more than 2,100 PPG employees joining at least one session since 2021.

## DE&I learning journeys

In 2023, PPG launched DE&I learning journeys through our learning management system. Learning journeys are detailed training programs, available to everyone at PPG, which help build DE&I capabilities across the company. The training programs cover topics such as inclusion, allyship and belonging.

Learn more about our approach to DE&I on [PPG.com](https://www.ppg.com)



## Lunar New Year and International Women's Day

Last year, our Asian Employee Network (AEN) and Women's Leadership Network (WLN) collaborated to organize a digital 'fireside chat' to celebrate the Lunar New Year and International Women's Day. More than 1,100 PPG employees tuned in for an in-depth conversation with Deborah Liu, CEO of Ancestry.com and author of "Take Back Your Power: 10 New Rules for Women at Work."

The AEN and WLN provided each of their members with a copy of Liu's book prior to the chat, stimulating questions and discussions on topics including advice on promotions, dealing with parental guilt, finding balance and leading a team. During the event, Liu shared impactful insights on leadership, overcoming obstacles and the lessons she learned through her career as a woman of color in Silicon Valley.

Cross-ERN events like this provide PPG people with opportunities to build connections across groups, learn from colleagues with different backgrounds or experiences and embrace a wide range of perspectives.



## Employee Resource Networks

PPG's Employee Resource Networks (ERNs) act as a catalyst for our diverse employees across the world to realize their full potential. The ERNs empower employees to shape their careers, strengthen their communities, and positively impact PPG's business strategies – all while celebrating their diverse culture, background and experiences. The eight ERNs operate in more than 60 countries and had more than 8,538 members in 2023.



## Highlights from the past year are included below.

**The Black Employee Network (BEN)** 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. In addition to events recognizing Martin Luther King, Jr. Day and Black History Month, last year BEN chapters across the United States volunteered to read Dr. Bernice King's book "It Starts With Me" at local elementary schools. The network donated a total of 500 books to U.S. students. In an effort to foster a more inclusive and culturally aware workplace, BEN leadership also engaged employees at key sites in a meaningful exploration of African American and Black culture, reaching over 1,000 people. The program, designed to be both informative and interactive, included a series of workshops, guest speaker sessions and cultural events.

**The Young Professional Network (YPN)**, recently renamed to the Cross-Generational Network (xGEN), aims to create connections across each generation, forge stronger and more collaborative working relationships and leverage unique perspectives to innovate and energize our work environment. Our goal is to use the collective wisdom of all generations to create a positive impact on our organization, our community and the world. In 2023, the YPN championed Career Development Month and celebrated International

Friendship Day, spotlighting the importance of workplace connections and coaching employees to learn new skills to achieve personal goals, including career progression. Through global webcasts and other experiences, YPN brought forward over 1,400 employees to foster a connection-centric workplace culture that promotes productivity and camaraderie across diverse backgrounds and ages.

**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. In 2023, the ERN celebrated key milestones, including bringing more than 1,100 employees together to celebrate PRIDE, Transgender Awareness Week and Transgender Day of Remembrance. Guest speakers included Dame Inga Beale, who discussed how to create an inclusive workplace and the importance of LGBTQ+ representation in corporate settings. The ERN also held an event in partnership with Dow Chemical, that gave attendees the opportunity to learn how to best support transgender employees and learn about their lived experiences. The events and ongoing discussions helped unpack misconceptions, educate and ensure the community feels supported within PPG and beyond.





**The Latino Employee Network (LEN)** spearheads initiatives to celebrate and share Latino culture and help break down obstacles faced by the community. In 2023, the network celebrated Spanish Language Day (Día É) by providing resources and encouraging participation in discussions and activities to highlight multilingualism and cultural diversity. Nearly forty employees took advantage of LEN's Spanish Language program, complete with resources and Spanish speaking mentors to help those interested in improving their language skills. Throughout the year, the ERN held events with guest speakers that included Dr. Robert Rodriguez, President of DRR Advisors, Melanie Healey, PPG board member and Marvin Mendoza, global head DE&I, reaching more than 800 employees. These events covered topics such as the current state of Latino leadership and the Latino workforce, stories of leadership as a Latino and how to foster a more inclusive workplace environment at PPG.

**The Abilities First Employee (AFN) Resource Network** provides individuals with disabilities with opportunities to fully utilize their self-determination by providing an inclusive environment, experience and educational platform enabling all to meet their unique and full potential. In 2023, the AFN hit a milestone of over 1,100 members, the first of our newest ERNs to reach this accomplishment. The network highlighted

Global Accessibility Awareness Day as one of their flagship events to raise awareness around accessibility and educate employees on how to create a more inclusive environment at work. Members of Microsoft's accessibility team joined the global webcast to provide a live demonstration of the variety of digital accessibility features within Microsoft Office, Outlook and Teams, as well as give an overview of common accessibility issues to look out for, such as low contrast text, empty links or missing image alt text.

**The Women's Leadership Network (WLN)** fosters an appreciation of the value of women in the workplace and creates an inclusive work environment that attracts, retains and advances women. In 2023, WLN successfully curated a series of enriching experiences that celebrated the role of women in our workplace, reaching an audience of over 3,700 employees. These events honored the achievements of women and fostered a supportive community that uplifts and inspires members. The WLN also celebrated Women's Health Month, dedicated to promoting physical, mental and emotional wellbeing among women. The month featured discussion groups, webinars and tribute trees to raise awareness for breast cancer.

**The Asian Employee Network (AEN)** 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 2023, AEN crafted enriching membership experiences that celebrated Asian culture and the insights of PPG's senior Asian leaders, alongside notable guest speakers, like Cecilia Lui, founder of ILIA Connect, and Bernice Chao, co-author of *The Visibility Mindset*, who shared their experiences and strategies for the Asian American community and allies on overcoming barriers and finding success in global workplaces. These events captivated over 2,400 employees, highlighting the vibrancy of Asian heritage and the influence of leaders within the industry.

**The Veterans Employee Network (VERN)** aims to provide veterans with support and networking opportunities, such as mentoring, community outreach, career development and cultural awareness activities. PPG's veterans appeared on "[Military Makeover with Montel](#)," highlighting PPG's commitment to active military personnel globally, with the feature being viewed over 83,000 times. In addition, PPG honored veterans in the community by sharing their stories as part of a global webcast as well as collecting donations for veterans in key PPG locations.



## Data highlights

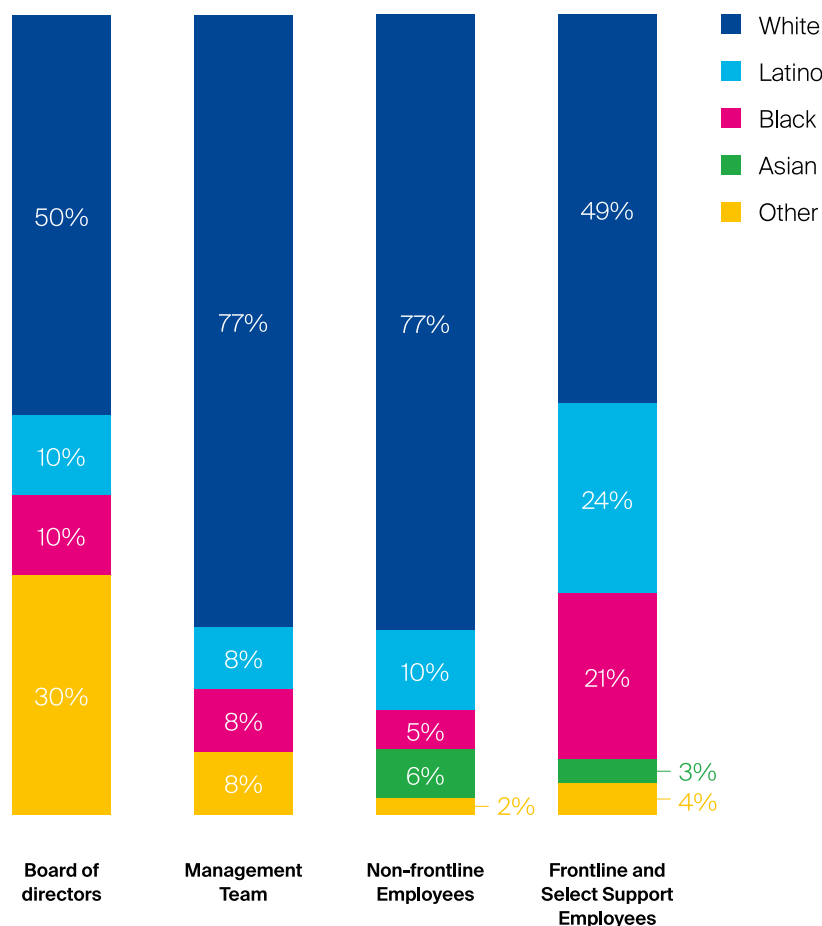
We track performance and progress against PPG's DE&I strategy using a data-driven approach. Our actions work toward achieving a comprehensive set of aspirational goals, and we continue to evolve to address gaps and capture emerging opportunities. This data does not include all employees who joined our 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.

## U.S. EEO-1 Reporting

While we do not use the Federal Employer Information Report EEO-1 to guide our progress, our [2022 U.S. EEO-1 report](#) is available.

## 2023 U.S. Employee Race and Ethnicity Representation

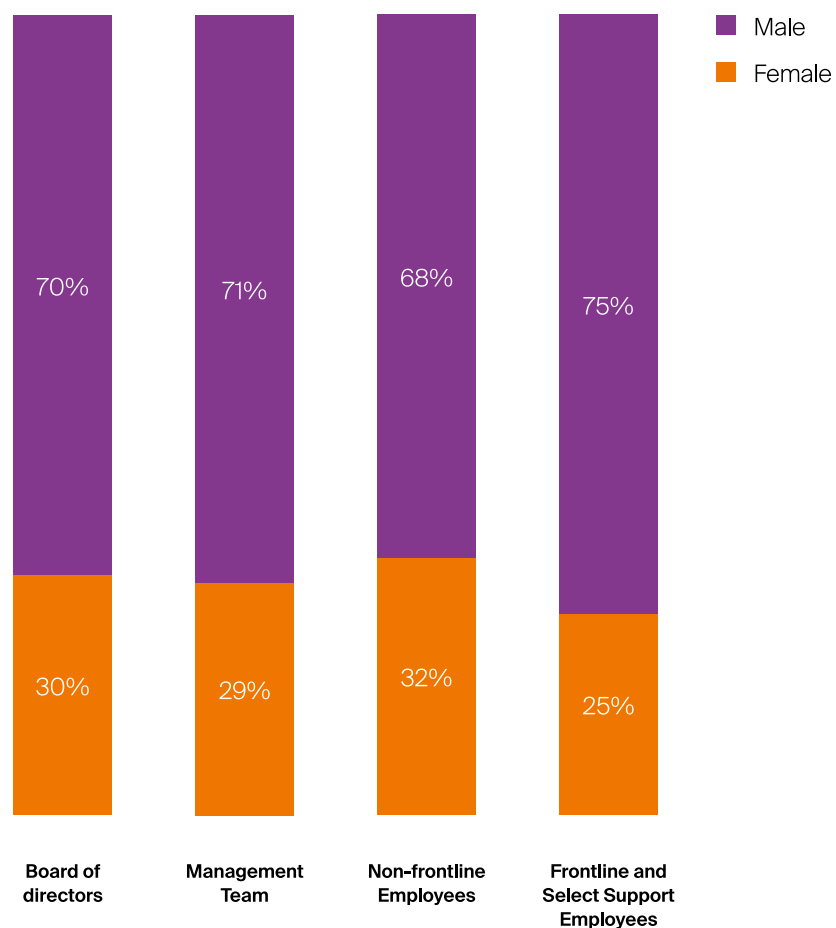
Percent



Total may not equal the sum due to rounding. "Other" category includes employees who are two or more races, Native Hawaiian or Pacific Islander and Native American or Native Alaskan, as well as employees who did not self-identify their race. 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.

## 2023 Total Global Gender Representation

As of December 31, 2023



Total may not equal the sum due to rounding.

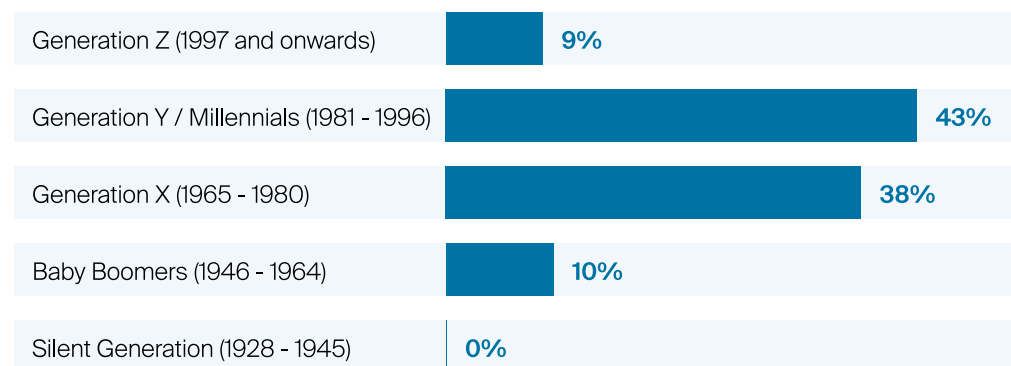
## 2023 U.S. Non-Frontline Black, Latino and Asian Employee Headcount Changes

As of December 31, 2023 compared to prior year



## 2023 Total Global Generational Overview

As of December 31, 2023





# Engagement

**PPG people do better today than yesterday, every day.**

The productivity, motivation and engagement of our workforce directly affects PPG's financial performance. Through the guiding principles of The PPG Way, we create a company where everyone can thrive, deliver and grow.





## Listening to employees

Our 2023 Employee Voice survey results, powered by Gallup, showed a higher level of employee engagement than any year prior. We also saw record employee participation, with 89% of PPG employees responding. PPG's employee engagement score has improved across every category that Gallup measures, and our overall score increased at a rate 30% higher than the industry average.

A key aspect of our employee engagement strategy is to focus on improving personal connections between people leaders and their teams. Throughout 2023, we encouraged management across the company to have more frequent, quality conversations with their direct reports, by providing additional training on how to facilitate these conversations. We also encouraged actionable, ongoing performance feedback. Together, these resources help people leaders across PPG empower their teams and ensure that our people have the opportunity to hold transparent conversations, celebrate successes and voice their concerns to management.



## Organizational alignment in Huangshan City, China

When we acquired Huangshan Huajia, a powder coating manufacturer based in Huangshan City, China, with over 600 employees in six plants in six cities, our engagement team identified the need to proactively assess cultural differences and align Huajia's culture with PPG. We engaged an external partner to objectively assess the cultural differences between Huajia and PPG using a blend of interviews and cultural diagnostics. We then involved business leaders at both Huajia and PPG in a series of culture and engagement workshops with action plans cascaded.

In our 2023 engagement surveys, we found that this approach led to one of the highest year one results for an acquired company. Employees at Huajia had higher engagement levels than PPG's overall score, as indicated through record survey participation. In 2024, we are continuing engagement training and are developing action plans with leaders at Huajia to further increase engagement. We are replicating this model for other acquisitions as we work to drive employee engagement across PPG.

## Recognition

We recognize the achievements of our team members through the One PPG Recognition and Rewards Program. Through the program, employees receive a thank you or congratulatory message and reward points that can be redeemed for gift cards, travel or other items. Recipients can be nominated by their peers or leadership for living our core values, aligned with The PPG Way and The PPG Way to Lead. The program also recognizes certain milestone achievements, such as birthdays and PPG anniversaries. In 2023, we gave more than 300,000 unique awards to PPG people.

## Leadership development and accountability

2023 marked the first full year that we aligned our engagement activities to The PPG Way to Lead, our leadership competency model. We used specific metrics from the Employee Voice survey to create PPG's leadership index, an evaluation rubric to track how people across the company are growing their leadership skills. The leadership index has already helped us identify opportunities to enhance leader performance across the organization. After our 2023 Employee Voice survey, we worked with select leaders on techniques to enhance team engagement. In some cases, we reviewed individual responsibilities and shifted leaders into new positions that better align with their unique skill sets.

## Employee retention and turnover

In 2023, turnover across PPG remained higher than pre-pandemic levels. A closer look at these numbers revealed that we continued to experience elevated turnover across our frontline employee population, or those working in a manufacturing or retail environment. We are seeking to reverse this trend through targeted engagement measures with frontline employees. As part of our annual process, our talent acquisition and total rewards team conducted a complete compensation review of our frontline workforce to ensure our employee value proposition is in line with the rest of the market. The team also worked with frontline leaders to help create a more positive, caring and growth-oriented environment for our people. We are already seeing improvements in engagement across all six categories measured by Gallup and are working to build on this momentum in 2024.

**For more detailed information about our ongoing approach to employee engagement, visit [PPG.com](https://www.ppg.com)**

## Turnover Rate

Percent

	2019	2020	2021	2022	2023
Overall	18.16	17.61	20.00	22.80	20.90
Voluntary	13.02	11.74	17.40	17.40	15.00
Involuntary	5.14	5.87	5.40	5.40	5.90



# Learning and leadership development

**Our people are our most important competitive advantage.**

We help people develop and succeed at every level of their careers through extensive resources and capability-building.



**80%**

of eligible employees completed The PPG Way to Lead assessments to confirm career development, up 27% year-over-year

**73%**

of eligible employees participated in the performance review process

**53,000**

PPG Way to Lead recognition awards have been given since the initiative's launch



## PPG Way to Lead

The PPG Way to Lead is a research-based behavioral competency model based on The PPG Way. The model identifies specific behaviors that employees at all levels of the organization can use to become better leaders. 2023 marked the first full year that the PPG Way to Lead was implemented across the company, and we have continued to align our training and developmental resources with the core competencies defined in the model.

We are continuing to actively develop competency pathways, with the goal of providing more structured educational curricula across each of the nine competencies covered in The PPG Way to Lead.



## Sustainability learning modules

Environmental and social issues impact every job at PPG, but we don't expect that everyone comes to their role as an expert. To help drive sustainability awareness, capability and accountability among our employees, we launched three new sustainability-focused modules on our learning management system in 2023. Each of these modules is available in 10 languages to ensure that they are accessible by the majority of our workforce.

The interactive modules focus on explaining the costs and impacts of climate change, the sources of global greenhouse gas emissions, and the ways that emissions are categorized into scope 1, 2 and 3. These topics were selected based on PPG employee feedback to provide the most useful information possible. The learning modules supplement existing materials that we make available to all PPG employees, including an internal sustainability website with resources and our 36-part sustainability audio series. As we continue on our sustainability journey, we will be regularly updating and expanding on these modules.

### We Live & Lead 'The PPG Way'

#### 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



## One PPG Mentoring

A focus of our leadership development efforts over the past year was the expansion of One PPG Mentoring, our online mentoring and coaching program. One PPG Mentoring aims to support insightful, respectful connections across PPG by pairing employees with qualified mentors to support their professional development. In 2023, we significantly expanded participation in the mentoring platform, as proven by almost doubling available mentors and having over 150 active mentorships.



## Improving access to PPG training programs

In 2023, we focused on improving the accessibility and utilization of our learning programs. The Learning and Development (L&D) team centralized our training programs on an internal site and promoted the platform across PPG to increase participation. We have also taken significant steps to ensure our training programs are accessible and inclusive of the diverse needs of PPG employees. The L&D team have reviewed our training offerings to ensure programs are available in multiple languages and that images and diagrams have high-quality, alternative text. We have also improved our eLearning modules to better support those with visual impairments, including enhancements to color contrast and screen reader interaction. Together, these changes help ensure that everyone at PPG can access the resources they need to succeed and grow in their careers.

## Updating how we measure progress

In 2023, we evaluated and adjusted the way that we measure the success of our training programs. In the past, PPG relied on scores that measured user loyalty, satisfaction, and enthusiasm. While this ensured that PPG employees were satisfied with the training they received, it provided a limited understanding of the lasting benefits that programs provided. Going forward, we are using the Phillips return on investment (ROI) Model, which is a methodology and process that allows human resources teams to tie the costs of training programs to actual results. The Phillips ROI Model considers a combination of participant reaction, actual learning outcomes, behavioral changes, and cost of administration to understand the effectiveness and ROI of our training programs.

To support the continued growth of our programs, we also recognize the need to invest in our Learning and Development Center of Excellence. In 2024 and beyond, we are investing in capabilities to support the continued advancement of people throughout PPG.

**For more detailed information about our ongoing approach to Learning and Leadership Development, visit [PPG.com](https://www.ppg.com)**

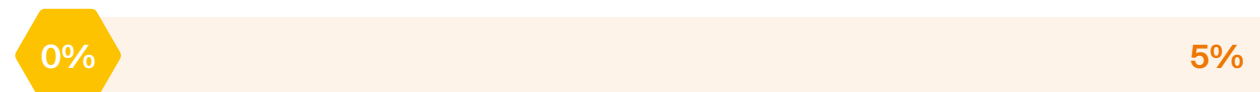


# Safety and health

**The most important PPG value is the safety and health of our employees.**

We work every day to keep our people healthy and ensure that everyone goes home safely. As a result of our continued focus on safety and health, we experienced no fatalities of PPG employees or PPG supervised contractors related to PPG operations in 2023. The overall PPG illness and injury (I&I) rate remained flat in 2023 compared to 2022. While the overall rate remained flat, we did achieve a decrease in the number and severity of the most significant injuries, due in large part to our focus on serious injuries and fatalities. We had 0.51 Tier I and 0.27 Tier II process safety incidents per one million hours worked. The highest I&I rates were recorded at recently acquired sites. As we implement our global, standardized EHS management system at these sites we expect injury and illness rates to decrease in line with the rest of our business.

## Annual improvement in injury and illness rate



193

PPG ERGO CUP®  
submissions

43

sites audited for  
compliance with EHS  
management system,  
other PPG requirements  
and government  
regulations

60

sites covered by ISO  
14001 integrated global  
certificate



## The 2023 PPG Ergo Cup

Each year since 2004, PPG has held an internal ERGO CUP® competition to share new inventions and innovations that minimize or eliminate ergonomic risks for our people. The winner of the 2023 Ergo Cup competition was the Aerospace Sylmar team, who developed a new grind and polish sandpaper changeout process for their facility. Their submission was selected as the winner from almost 200 entries for eliminating a substantial safety risk while delivering significant cost savings.

Prior to this project, the sandpaper changeout process required an operator to sit in a crouched position below a sanding wheel, pull off the existing sandpaper and scrape the leftover adhesive off the sanding wheel with a sharp-edged tool. To improve the safety of this ergonomically difficult task, the Sylmar team began using Velcro instead of adhesive to apply the sandpaper to the wheel. The time spent changing sandpaper using the Velcro was reduced from three hours to just five minutes, and is projected to save the Sylmar facility approximately 720 hours of machine downtime per year.



### Incident review and reduction

The environment, health and safety (EHS) team conducts a detailed root-cause analysis for all process safety incidents. Around 47% of the 2023 incidents were primarily caused by human error, which we address through procedural and system changes. Around 28% of the incidents in 2023 resulted from malfunctioning equipment while around 19% were caused by improperly designed equipment. The team resolved these incidents by modifying inspection programs, reviewing equipment design, and repairing or replacing inadequate equipment. Our EHS team works to foster a learning culture where PPG employees are comfortable reporting elements of their job that may lead to injuries in the future. We prioritize systemic changes rather than emphasizing additional training because this approach protects everyone working in our facilities, rather than focusing on the individuals involved in an incident.

Over the course of 2023, we also worked to reduce our average response time for processing safety incidents and implementing mitigation measures. We track the percentage of follow up actions closed within 90 days. As a result of this focus, we saw significant improvement in the rate of corrective actions that we closed quickly. 93% of follow up actions were closed within 90 days in 2023.

## Focus on avoiding serious incidents

Our EHS team takes a proactive approach to minimizing the likelihood of serious incidents and fatalities (SIFs). When reviewing incidents, we prioritize our follow-up actions based on the actual and potential severity of injury. In 2023, we reviewed two actual SIF events, and more than 300 minor injuries that were classified as potential SIFs.

The EHS team tracks the implementation of our EHS management system and a wide range of leading indicators, including employee engagement at the site level. We found that facilities in the top 50% for employee engagement are less than half as likely to have spills, and similarly less likely to experience SIFs. Learn more about how we engage PPG people around the world in the [engagement section](#).

While our central EHS team was addressing the processes that led to actual and potential SIFs, we recognized an opportunity for improvement around our approach by providing additional training for regional and site managers focused on avoiding SIFs. Based on these findings, we implemented programs at the site level to ensure that everyone at PPG understands how to identify hazards that might lead to SIFs in the future.

Other activities that we undertook in 2023 to improve the health and safety of our people include:

- **ASTM International standard:** In keeping with industry best practice, we incorporated elements of the ASTM International industrial hygiene and safety standards into our practices. While we continue to measure injuries using the PPG I&I rate, incorporating elements of the ASTM standards help us to benchmark our performance against our peers. Over the course of the year, we provided training to our facility managers and implemented improvements in our incident tracking systems to record incidents that meet the ASTM standard.
- **Retrofitting fire suppression systems:** We launched a program to prioritize and phase out foam containing fire suppression systems in impacted global operations. Sites equipped with foam fire suppression systems that contained per- and polyfluoroalkyl substances (PFAS) will be upgraded with alternate replacement foams formulated to protect PPG assets.
- **Human and Organizational Performance (HOP) implementation:** We expanded the implementation of our HOP program to 30 additional sites in 2023. The HOP program is aimed at reducing manufacturing process errors, which may result in impacts on product quality or staff injuries. Employees at each site were trained on how to predict, prevent and identify system improvement opportunities that could otherwise result in errors.

- **Integration of acquisition sites:** Complete integration of sites into our EHS process takes approximately five years. The performance of acquired sites depends on a multitude of factors, including existing safety and health culture and amount of manual labor involved at the production level. We continue to focus on implementing our processes at sites that we acquired to reduce their I&I rate.

For more detailed information about our ongoing approach to safety and health, visit [PPG.com](https://www.ppg.com)



## Multi-year data highlights

### Global health and safety performance

#### Employees and supervised workers

		2019	2020	2021	2022	2023
Fatalities	Number	0	0	0	0	0
	Rate	0.00	0.00	0.00	0.00	0.00
PPG injury and illness rate		0.32	0.26	0.26	0.32	0.32
Total recordable incident rate		1.29	0.99	1.14	1.45	1.18
Lost workday rate		0.47	0.37	0.82	0.59	0.84
Occupational disease rate		0.15	0.12	0.17	0.40	0.07

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.

Data changes from prior reporting reflect updated data and adjustments for acquired and divested locations from the 2019 baseline onward.

### 2023 health and safety performance by region

#### Employees and supervised workers

Region	Fatalities	PPG injury and illness rate	Total recordable incident rate	Lost workday rate	Occupational disease rate
Asia Pacific	0	0.19	0.45	0.30	0.00
Europe, Middle East and Africa	0	0.17	0.96	0.74	0.02
Latin America	0	0.04	0.28	0.03	0.00
North America	0	0.68	2.26	1.65	0.19
Global	0	0.32	1.18	0.84	0.07

## 2023 contractor health and safety performance by region

Region	Fatalities	PPG injury and illness rate	Total recordable incident rate	Lost workday rate	Occupational disease rate
Asia Pacific	0	0.00	0.22	0.11	0.00
Europe, Middle East and Africa	0	0.00	0.96	0.55	0.00
Latin America	0	0.47	1.87	0.47	0.00
North America	0	1.05	2.45	1.05	0.00
Global	0	0.21	1.02	0.43	0.00

## Process safety performance

Per million hours worked

Region	2019	2020	2021	2022	2023
Number of tier one incidents	23	13	5	21	61
Tier one incidents per million hours worked	0.20	0.02	0.04	0.18	0.51
Process safety total incident rate	0.04	0.07	0.06	0.27	0.78
Process safety incident severity rate	0.02	0.07	0.09	1.19	0.28

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.

Please see the [data index section](#) for a list of our process safety incidents in 2023.



# Wellness

**PPG is committed to engaging our employees by fostering a global culture of health.**

## New and improved wellness program

We are advancing our vision of creating a global culture of health, enabling our employees and their families to prioritize mental and physical wellbeing through active participation in a range of health and wellness activities. In 2023, the global wellness council updated PPG's Wellness Culture Program Strategy to reflect the evolving structure and vision for our wellness program. The strategy redefines the roles and responsibilities of our wellness leaders and articulates our strategy for addressing the four wellness absolutes – nutrition, exercise, health screenings and mindfulness/stress management.

**16**  
languages in which  
monthly global  
wellness newsletters  
are available

**10**  
global wellness awards  
for innovative programs  
at PPG sites around  
the world

**138**  
high performance  
wellness programs  
recognized



In line with the new strategy, PPG launched a new wellness goal across our sites in 2023. Our team developed new program goals through a combination of extensive research and external partnerships. We engaged with companies that have leading wellness programs to understand best practices in the space and learn how we could improve the structure of our wellness program.

Recognizing that a successful wellness program requires both continuous engagement and a variety of initiatives, our new wellness goal focuses on supporting each of our sites in developing a mature wellness program. According to our internal guidance, a mature wellness program must include:

- an active site wellness team with at least two members, quarterly meetings and agendas
- a minimum of 20% overall site engagement in wellness initiatives throughout the year
- quarterly wellness initiatives in each of the four PPG wellness absolutes

To drive engagement within PPG, we have integrated the wellness programming into our environment, health and safety (EHS) management system. Each of our sites receive a score based on how well they implement programs that effectively engage employees. These scores are incorporated into their EHS scorecards and are regularly reviewed by management.



## Abilities First Network honors World Mental Health Day

PPG is committed to raising awareness around mental health challenges and taking action to nurture mental wellbeing, both at and outside of work. Last year, our Abilities First Network (AFN) shined a spotlight on the importance of mental wellbeing by celebrating World Mental Health Day on October 10.

The AFN hosted a global webcast featuring Petra Velzeboer, a renowned mental health expert and TEDx speaker. Talking openly about mental health and listening without judgement at events like this helps to break down the stigma around mental illness. Petra's presentation, 'Mental Health and a New World of Work,' covered emerging trends and offered practical advice for adapting to hybrid work and enhancing company culture and performance. Attendees were provided with information on available PPG resources, including confidential counseling services, support networks and additional programming related to mental health and wellbeing.

## Updated wellness website

To support the new strategy, PPG's global wellness council also created and launched a new internal wellness website in 2023. The website is a forum for sites to share wellness program materials and wellness updates across regions. It also acts as a centralized repository for our global Employee Assistance Program (EAP) materials and wellness resources on each of the four wellness absolutes. It includes a list of all wellness coordinators for each site, wellness newsletters that are translated into 16 languages, global EAP materials, strategy and program materials and training, ergonomic stretching videos and more. The site also includes a forum of wellness program resources that are posted by PPG corporate, regional wellness coordinators or individual sites to share best practices.

**For more detailed information about our ongoing approach to wellness, visit [PPG.com](https://www.ppg.com)**



## 2023 Wellness Awards

We recognize our highest performing sites with the annual Global Wellness Awards. We award particularly innovative and creative programs, as well as programs that engage particularly high percentages of the workforce. The global wellness team received more than 140 applications for wellness awards in 2023, and ultimately selected the 10 most impactful programs from around the world. Winning submissions included sporting competitions, customized games, on-site health screening programs and family days that extend PPG's culture of health beyond our employees. We held a global webinar in early 2024 for site wellness coordinators to share the winning initiatives. Awarding our employees' best ideas fosters our global culture of health, and helps drive engagement across the company.



# Suppliers



# Suppliers overview

We foster partnerships across the supply chain to encourage strong management of environmental and social impacts.

## 2030 target

100% of key suppliers assessed to sustainability and social responsibility criteria by 2030

## 2023 progress

97% of key suppliers assessed to sustainability and social responsibility criteria





# Human rights

## We respect the dignity and human rights of all people.

We have a comprehensive strategy to protect human rights throughout our operations, and work with suppliers to uphold human rights across our supply chain.



## Advances in our approach to respecting human rights in the value chain

In 2023, we updated our [Global Supplier Code of Conduct](#), [Supplier Sustainability Policy](#), and [Responsible Minerals Sourcing Policy](#) to more effectively communicate our expectations to uphold human rights in our supply chain. These policies are reviewed annually by our procurement Center of Excellence, and updated to ensure we stay ahead of evolving stakeholder expectations and industry best practices. Changes to each policy were reviewed by subject matter experts from across PPG and approved by the chief procurement officer.

After the policy updates were complete, each was translated into 24 languages and made available on our website. Suppliers were required to acknowledge the Supplier Code of Conduct when registering with our eProcurement system. To raise awareness of the changes, we prompted visitors to PPG.com to review the updated policies.

Beyond these policy updates, we have continued our work to uphold human rights across our value chain. We collaborate with a leading third-party ratings system to evaluate our suppliers' sustainability practices and partner with our most critical and highest risk suppliers to improve their scores. Learn more in the [supplier sustainability section](#).

## Respecting human rights in our operations

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

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 an equal chance to succeed. 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.

**For more detailed information about our approach to managing human rights in our operations and value chain, visit [PPG.com](#)**

# Supplier sustainability

## key suppliers assessed to sustainability and social responsibility criteria

97% 100%

**We carefully select suppliers that share our commitment to operating more sustainably, and work throughout our supply chain to support continued improvement.**

Approximately 96% of PPG's emissions are in the value chain, so we understand the criticality of working with supplier and customer partners. In 2023, we spent over \$9.3B with more than 18,000 suppliers globally on raw materials, indirect goods and services and transportation of goods. We have prioritized work with a selection of key suppliers that represent the majority of our upstream scope 3 emissions.

We partner with suppliers to understand their current practices and innovate products and processes that use less energy, produce less waste and avoid negative health impacts on people throughout our value chain. By the end of 2023, we assessed 820 suppliers, representing 63% of spend, against sustainability and social responsibility criteria, including 97% of PPG's key suppliers.

## Evaluating supplier practices

Our procurement team has continued to improve our approach to identifying opportunities for improvements in our supply chain. We take a risk-based approach to supply chain management and focus on the industries and geographies most likely to have issues. In 2023, we started using a new supplier monitoring tool to help us understand where environmental, social and governance risks are concentrated along our supply chain. This is the newest in a suite of tools and informational databases that we use to track our spending around the world and understand the ESG practices of PPG suppliers. This leading third-party tool helps our procurement team review our entire supply chain's performance across the categories of environmental, labor and human rights, ethics and sustainable procurement practices.

As PPG has grown through acquisition, we have inherited new suppliers that need to be onboarded to our procurement processes. We continued to onboard suppliers into a leading third-party due diligence platform to evaluate suppliers' sustainability practices. In early 2023, we completed the process of integrating Tikkurila suppliers into our vendor management platform, marking the completion of one of our largest integration efforts to date. As of the end of 2023, 820 PPG suppliers have responded to surveys and received ratings from our third-party platform.



## Recognizing responsible vendors

Every year, we recognize suppliers for responsible business practices that exceed our expectations with the Excellent Supplier Awards. There were eleven award recipients in 2023. Our procurement, business and functional teams evaluated and awarded suppliers for competitive advantage and value, as well as sustainability and supplier diversity.

## Bringing sustainability expertise into our procurement team

As our focus on sustainable supply chain management continues to grow, we have added headcount within PPG to support our suppliers and help build capacity internally. In 2023, we created a new global ESG procurement manager position, responsible for collaborating with our global procurement team to engage and educate suppliers on defining lower carbon feedstocks and raw materials, setting expectations for supplier GHG emissions reductions aligned to our target, and tracking and monitoring supply chain due diligence activities.

**For more detailed information about our approach to supplier sustainability, visit [PPG.com](https://www.ppg.com)**



## Data highlights

### Average EcoVadis score of suppliers

	PPG supplier average score	EcoVadis average score
Overall	58%	46%
Environment	62%	46%
Labor and human rights	59%	48%
Ethics	55%	44%
Sustainable procurement	51%	38%

### Supplier sustainability audits by region

Region	Onsite audits	Remote audits
Europe, Middle East and Africa	38	21
U.S. and Canada	53	200+
Asia Pacific	48	1
Latin America	30	14





# Responsible minerals sourcing

**PPG is committed to ethical business conduct and responsible sourcing.**

Our policies, procedures, and controls help PPG further the humanitarian goal of ending violent conflict and inhumane treatment in countries these minerals are sourced and aid in compliance with the U.S. Securities and Exchange Commission's (SEC) rule on conflict minerals.

In 2023, our procurement team revised the global [Responsible Minerals Sourcing Policy](#), formerly our Conflict Minerals Policy, to expand its scope and ensure alignment with current best practice. The updated Responsible Minerals Sourcing Policy references our [Global Supplier Code of Conduct](#), which specifies when and how PPG takes action where we find non-compliance.

Conflict minerals currently include cassiterite, columbite/tantalite, and wolframite (the most common derivatives of which are tin, tantalum and tungsten, respectively) and gold. Other minerals covered by the policy, including cobalt, mica and silicon, may also be sourced from areas where there is a risk of human rights abuses.

**To learn more, read our most current [Conflict Minerals Report](#) and read about our approach to responsible mineral sourcing on [PPG.com](#)**





# Communities



# Community engagement

With the support of funding from PPG and the PPG Foundation, our employees bring vibrant color and brightness to the communities where we live and work.

PPG and the PPG Foundation invest in building the next generation of diverse and innovative STEM (science, technology, engineering and mathematics) leaders, delivering community transformations through our *Colorful Communities* projects and activating the talent of our employees. From helping students thrive to aiding our neighbors in times of need, our community engagement activities support our company's purpose to protect and beautify the world.



## Target

## 2023 progress

**\$5 million** additional commitment to *Colorful Communities* projects globally by 2030, with all projects incorporating an element of sustainability, making the total investment **\$15 million** since 2015

**\$13.8 million** donated by end of 2023, **92%** of committed funding

**\$20 million** by 2025 to advance racial equity in the U.S. by funding educational pathways for Black communities and people of color

**\$18.1 million** donated by end of 2023, **89%** of committed funding

## Other funding commitments

### Commitment

### 2023 progress

#### NEW in 2023

**\$2 million** to support workforce development initiatives through 2025

**\$800,000** donated by end of 2023 **40%** of committed funding

#### NEW in 2023

**\$5 million** commitment by 2030 to environmental sustainability education, aligned with climate action and a more circular economy

**\$450,000** donated by end of 2023, **9%** of committed funding

In 2023, PPG Global Giving and the PPG Foundation donated more than \$17.5 million in total. More than 2,500 worldwide PPG volunteers\* contributed more than 25,000 hours of their time. We partnered with more than 450 community organizations across 40 countries, to ensure our funding and volunteer hours were put to the best possible use in communities where we live and work.

PPG and the PPG Foundation announced two new funding commitments in 2023, \$2 million to support workforce development programs through 2025 and \$5 million to support environmental sustainability education programs by 2030. These commitments reflect our focus on ensuring the future workforce has the skills and knowledge to succeed, regardless of where their career journey takes them.

Our community engagement programs are organized along three pillars:

- Education
- Community sustainability
- Employee engagement



\*Volunteers only include those from *Colorful Communities* projects.



## Community engagement around the world

PPG and the PPG Foundation aim to bring color and brightness to communities around the world. We supported hundreds of organizations across more than 40 countries in 2023. By investing in educational opportunities and transforming community assets, we help grow today's skilled workforce and develop tomorrow's innovators.

**Sumaré, Brazil:** PPG employee volunteers in Sumaré, Brazil, partnered with participants in the ["Attitude for the Planet"](#) program, a collaboration with Junior Achievement Brazil that addresses the social, economic and environmental aspects of sustainability.

**Nickerie, Suriname:** *Colorful Communities* project volunteers helped to revitalize the [OS Skroetjie primary school](#).

**Jingmen, China:** Combining PPG's *Colorful Communities* program with the Chevrolet Red Chalk teacher support program for schools in rural regions, New Paint for a New Start completed a colorful makeover at [Caochang Primary School](#). Caochang, a rural school that serves seven villages with a total population of over 13,000, is currently home to more than 470 students and educators.

**Dahej, India:** Volunteers from PPG and Asian Paints helped revitalize the [Dahej Kanyashala primary school for girls](#).

**Valladolid and Camarma de Esteruelas, Spain:** PPG supported girls' interest in science, technology, engineering and math (STEM) fields at our [Valladolid and Camarma de Esteruelas](#) automotive sites through our longstanding national partnership with [STEM Talent Girl](#).

**Vantaa, Finland:** PPG provided a grant to the [Finnish Science Centre, Heureka](#) to support STEM education and workshops for young students.

**Pretoria, South Africa:** PPG volunteers participated in a New Paint for a New Start project to refurbish more than 10 school buildings, including 33 classrooms, at the [Mamelodi Secondary School](#).

**Denver, Colorado:** PPG employees participated in a New Paint for A New Start project at the Dr. Martin Luther King, Jr. Early College. The project brought a fresh coat of paint to classrooms, hallways and offices, and was complemented by a STEM grant to support programs like state competitions and certification classes.



## Education

PPG has a longstanding commitment to support education in the communities where we operate. 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 2023, we reached more than three million students across the range of educational programming that we support.

In 2023, PPG and the PPG Foundation announced two new educational commitments: a \$2 million commitment to support workforce development initiatives through 2025 and a \$5 million commitment to support environmental education by 2030. Both of these commitments aim to support the next generation of innovators. Our workforce development commitment will introduce students to a diverse array of high-tech career paths within modern industry and provide them with educational opportunities to pursue fields such as advanced manufacturing, automotive collision repair, automotive refinishing and painting, and decorative and industrial painting. The environmental education commitment will provide students and teachers with education on a range of topics related to climate action and circularity, including recycling and reuse, clean energy, climate change, energy efficiency and more. As with all of our support for educational programming, these commitments are geared toward preparing students for future STEM careers.



## STEM education with ScienceFest

PPG and the PPG Foundation are focused on inspiring and supporting young people with an interest in STEM. In 2023, PPG partnered with VědaFest, or ScienceFest, the largest open-air science event in Czechia.

During the event, PPG sought to inspire young minds through interactive experiments, hands-on activities and demonstrations. Visitors had the opportunity to participate in experiments to explore water repellency, create color-changing fabrics, develop “blue” photos using a cyanotype process, test out glowing solutions and more. Czech artist Klaudie Svrckova captured these experiences on canvas using PRIMALEX™ paints by PPG, which were then donated to the House of Children and Youth of the Capital Prague.

With PPG's support, the festival delivered educational inspiration to hundreds of student participants. By supporting educational events like ScienceFest, PPG is helping to develop the next generation of STEM innovators. Learn more about the educational programming we support on our [community engagement page](#).



## Educators NEED energy education

In the fall of 2023, PPG and the PPG Foundation teamed up with National Energy Education Development (NEED) to host a series of Energy Education Workshops. NEED's mission is to promote an energy conscious and educated society by creating effective networks of students, educators, business, government and community leaders.

The goal of the Energy Education Workshops was to create starting points and classroom inspirations for STEM careers that can help to address climate change and protect our environment. PPG employees and leadership volunteered their time to participate, providing an overview of sustainability and renewable energy practices at PPG. The workshops equipped approximately 60 teachers with hands on training, activities, and tools to take back to their classrooms in Pittsburgh and Cleveland.

This partnership between NEED and the PPG Foundation aligns with PPG's commitment to invest \$5 million by 2030 in educational programming related to environmental sustainability. Learn more about the educational programs we support on our [Communities website](#).



Our \$20 million commitment to advance racial equity in the U.S. also centers around education. We are focused on funding educational pathways for Black communities and people of color to help support equity in STEM fields. To that end, we have made 89% progress and are on track to meet our commitment ahead of schedule. Funding has supported a wide variety of educational programs, including *Colorful Communities* projects in diverse communities, social justice partnerships, and other programs identified by PPG employees and community partners. Learn more about our work to advance racial equity in the [diversity, equity and inclusion](#) section.



## STREAM Global Innovations partnership

Particularly in under-resourced communities, many young people face systemic barriers that limit their exposure to professional mentorship and career opportunities. PPG is committed to supporting education and career development in our communities around the world.

In 2023, PPG continued our longstanding partnership with S.T.R.E.A.M.™ Global Innovations (STREAM), a global non-profit focused on connecting the dots between education and career access in under-resourced communities. PPG and STREAM co-hosted events at local schools, where PPG volunteers interacted directly with students – bringing professional experience and innovation into the classroom. Beyond these events, members of PPG's Black Employee Network and Latino Employee Network connected directly with student groups.

Over the course of the year, we reached more than 2,700 students and almost 100 teachers and school staff through this partnership. We're continuing to develop our partnership, with events already planned around the country for 2024.





## Celebrating 500 *Colorful Communities* Projects

In October 2023, we celebrated the completion of our [500th \*Colorful Communities\*](#) project – a colorful and transformational makeover at Carnegie Science Center in PPG's hometown of Pittsburgh. More than 80 volunteers marked the milestone by creating science-themed murals and applying fresh paint and color in learning spaces around the center.

Over the course of the 500 projects completed since 2015, PPG employee volunteers have reached diverse communities and important spaces in need of bright and colorful transformations, positively impacting more than 9.2 million people in 50 countries. Since its inception, the program has:

- Used nearly 52,500 gallons of paint to create spaces where students are encouraged to learn and thrive, patients and their families feel hope and support, and communities are inspired
- Completed projects at more than 40 community centers and nearly 30 hospitals or healthcare facilities
- Reached students in more than 140 educational spaces to provide environments where young learners feel engaged and supported
- Used PPG expertise to elevate the positive impact that color can have on a space
- Empowered nearly 25,000 volunteers to spend over 160,000 hours revitalizing important spaces



### Community sustainability

The *Colorful Communities* program, PPG's signature initiative for supporting communities, aims to protect and beautify the neighborhoods where PPG operates around the world. We bring together committed volunteers and PPG paint to bring colorful transformations to schools, hospitals, and other community spaces. Our employees completed 60 *Colorful Communities* projects in 2023, bringing the total number of projects completed to more than 500 since the program's inception in 2015.

A central component of the *Colorful Communities* program is our New Paint for a New Start initiative, which focuses on using color to create engaging environments for students to learn and grow. During the months of June, July and August 2023, the New Paint for a New Start initiative transformed 27 schools and impacted more than 12,200 students and educators.

## Employee engagement

We strive to activate the talent and time of our global network of employees to make a difference where they live, work and play. PPG employees use their time, talents and financial resources to support causes they believe in. In 2023, our people brought their expertise to bear for a total of 25,000 volunteer hours, including by participating in career panels, mentoring opportunities, and volunteering in classrooms to foster a love of STEM.

**For more detailed information about our ongoing approach to community engagement, visit [PPG.com](https://www.ppg.com)**

**Learn more about PPG's community engagement activities and read the most recent updates at [PPG.com](https://www.ppg.com)**



## Community sustainability and disaster relief

In 2023, PPG and the PPG Foundation donated more than \$6.2 million to community sustainability and disaster relief efforts. These donations go to organizations like the Red Cross, as well as local government agencies dedicated to helping those impacted by disasters or humanitarian crises.

In Emilia-Romagna, Italy, PPG contributed a [disaster relief grant](#) and matched employee donations to recovery efforts following catastrophic flooding that affected more than 50,000 people across 100 towns and cities. PPG supported similar disaster relief projects in Turkey, Slovenia and Morocco over the course of the year.

Image Copyright  
Regione Emilia-Romagna A.I.C.G.





## 2023 Data highlights

### Giving by Priority Area

	2023
Education	\$10.3 million
Community Sustainability	\$6.2 million
Employee Engagement	\$966,000

### 2023 Community Investments

	2023
Community engagement-related marketing	\$379,500
<i>Colorful Communities</i> program	\$2,600,000
Business unit contributions	\$1,928,000
Global giving grants	\$2,616,000
PPG Foundation	\$9,494,000
Product donations	\$495,500
Employee volunteer hours	25,000



# Transparency



# Governance overview

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

## Corporate governance

At PPG, we hold ourselves to high standards of integrity and professional conduct. This means going beyond ensuring compliance with laws, rules and regulations, and upholding our values, code of ethics and voluntary commitments. 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 2023 include:

- **CEO transition:** The Board oversaw and managed the successful transition to our new chairman and CEO, Tim Knavish. The selection process included an extensive review of potential candidates, in-depth interviews and consultation with outside experts to determine the best path for the selection process.

- **New financial policies:** The Board approved new stand-alone policies for compensation recovery and insider trading. Developing these new policies reflects our comprehensive approach to governance and facilitates more transparent Board oversight. The Human Capital Management and Compensation Committee is now responsible for overseeing these policies and will receive updates on progress as necessary.
- **Board composition:** The composition of our Board continues to evolve as directors retire and new members join, bringing fresh perspectives and expertise. Last year, we added one new director and had two directors retire. In addition, one director retired in February 2024. This ongoing Board refreshment process allows PPG to respond more nimbly to the external environment by drawing on the diverse perspectives and backgrounds of our members. The Board is currently comprised of 10 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.



## Sustainability governance

We have a centralized sustainability organization responsible for developing our corporate sustainability strategy and working across the business to execute that strategy. 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, global sustainability reported progress to the Sustainability and Innovation Committee three times in 2023, and the full Board of Directors once.

## Compliance with our Code of Conduct

In 2023, we opened 858 investigations encompassing 1,228 allegations of employee misconduct. Of the allegations closed as of year's end, 58% were substantiated and resulted in 418 disciplinary actions. 54% 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.

Enhancing employee awareness of our incident reporting mechanisms was a focus area in 2023. We launched an internal communications campaign to promote the availability of these channels and encourage employees to 'Speak Up.' To better reach frontline employees who don't work at a computer, we hosted live engagements with line managers and employees at our manufacturing and distribution facilities. Across the company, we distributed wallet cards and posters with QR codes linking to our incident reporting channels and Global Code of Ethics.

## 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.

Through our Anti-Corruption Policy, PPG prohibits bribery and corruption in all of its business dealings in all countries. The policy applies to all transactions between PPG and every other party, regardless of whether it is between PPG and a private entity or PPG and a government official.

At PPG, we have accomplished strong results in 2023 through upholding processes, onboarding and awareness to anti-corruption and bribery. We will continue the work with suppliers to ensure they meet our anti-corruption standards and policies, among other activities.

**For links to PPG's Global Code of Ethics, as well as other public policies, see the Policies page on [PPG.com](https://www.ppg.com)**





## Investigations by Region

	2021	2022	2023
Asia Pacific	80	93	81
Europe, Middle East and Africa	74	83	102
Latin America	123	131	183
United States and Canada	381	403	492
<b>Total</b>	<b>658</b>	<b>710</b>	<b>858</b>

## Disciplinary Actions

	2021	2022	2023
Warning	200	216	204
Financial	7	10	7
Termination	127	173	207

A single allegation may be made against multiple individuals and could result in multiple disciplinary actions. The 2023 data include only investigations closed as of Jan. 31, 2024.

We no longer report suspension as a disciplinary action, as they only occur in certain countries where the labor law recognizes this option. Often, suspensions are employed as an interim solution during the pendency of an investigation until the matter is resolved.

## Substantiation Rate

Percent

	2022	2023
PPG	61%	58%
Benchmark	52%	46%

Benchmarks represent comparisons to other manufacturing companies with 50,000+ employees. Data for 2023 are as of Jan. 31, 2024.

## Anonymous Reporting Rate

	2022	2023
PPG	37%	42%
Benchmark	47%	49%

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

## Case Intake Method

	2020	2021	2022	2023
Helpline	318	323	352	466
Proxy	273	336	359	392

# Cybersecurity and data privacy

## We apply industry standard cybersecurity and data privacy protocols and practices throughout PPG.

PPG's cybersecurity program protects and preserves the confidentiality, integrity and continued availability of our networks, systems and information. We follow the U.S. National Institute for Standards and Technology (NIST) and other applicable industry frameworks. We implement physical, organizational and technological safeguards to protect information about our customers, employees and suppliers.

Our 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 receive comprehensive training on data privacy concepts to prevent misuse of personal information.

## Cybersecurity and data privacy governance improvements

We regularly assess and measure against industry practices to identify opportunities to improve people, processes and technology used to identify, prevent, detect, respond and recover from cybersecurity incidents. A key focus in 2023 was strengthening corporate governance over data privacy along with continued investment in cybersecurity at PPG. We established an executive council to oversee the management of our information technology (IT) and cybersecurity programs. Ensuring that our leadership has a clear understanding of cybersecurity risks and strategies also helps us appropriately allocate resources to address these issues.

The data privacy and compliance organization have a close collaboration and frequent touchpoints. The effort comprises members from our IT and compliance teams, and their goal is to foster collaboration between these two key functions. The functions meet regularly and review IT-related compliance risks and ensure we remain current with regulatory requirements as they evolve. In the data privacy area, we formed a Global Data Privacy Council with members representing key stakeholders from departments handling personal information or supporting relevant systems and processes. The council oversees all data privacy compliance activities at a global level.

Progress in addressing cybersecurity and data privacy issues is crucial for maintaining trust with PPG's stakeholders. We will continue to monitor digital threats and adapt our approach to safeguarding confidential information.



## Reducing emissions from data centers

Data centers are important enablers of PPG's operations, as they allow for the electronic storage, processing and dissemination of data and applications. Physical data centers are energy intensive and rely on continuous and reliable electricity. As part of our efforts to reduce energy use across the company, we have been transitioning our data to cloud service providers, such as AWS and Azure. These cloud providers are more than three times as energy efficient when compared with our internally managed physical data centers.

As of the end of 2023, 72% of our IT operations are managed through the cloud. We were able to shut down four out of eight physical data centers, which reduced our annual energy consumption by an estimated 940 mWh. This transition also reduced our greenhouse gas emissions by 471 metric tons of CO<sub>2</sub> equivalent, comparable to 112 gasoline-powered passenger vehicles driven for one year.

Learn more about our standing approach to cybersecurity and data privacy on [PPG.com](https://www.ppg.com)

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



# About this report

## We are committed to transparent reporting on our sustainability and environmental, social and governance (ESG) approach and performance.

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

This report has been prepared in accordance with the [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. The sustainability approach described in this report supports progress against the United Nations [Sustainable Development Goals](#) (SDGs). Relevant indices are available on PPG.com.

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.

This report, inclusive of the 2023 reporting year, includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding our sustainability; suppliers; culture; diversity, equity and inclusion; community engagement; and related goals, commitments and strategies. These statements involve risks and uncertainties. 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, including due to the risks and uncertainties that are discussed in our most recently filed periodic reports on Form 10-K and Form 10-Q, current reports on Form 8-K and subsequent filings. We assume no obligation to update any forward-looking statements or information, which speak as of the date of this report.

In 2023, we again engaged Lloyd's Register Quality Assurance to provide limited assurance on our scope 1 and scope 2 greenhouse gas emissions 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.

We encourage 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.

PPG Coatings Denmark A/S's Statutory Report on Social Responsibility, cf. Section 99a of the Danish Financial Statements Act.





# Data index

## Multi-year data highlights

	2019	2020	2021	2022	2023
Economic					
Net sales (millions)	\$15,146	\$13,834	\$16,802	\$17,652	\$18,200
Adjusted earnings per diluted share from continuing operations <sup>1</sup>	\$6.22	\$6.12	\$6.77	\$6.05	\$7.67
Dividends per share	\$1.86	\$1.98	\$2.26	\$2.42	\$2.54
Environmental <sup>2</sup>					
Percent of sales from sustainably advantaged products	33%	35%	38%	39%	44%
Total waste disposed (thousand metric tons)	112.49	89.68	90.18	116.70	99.12
Total waste (thousand metric tons)	194.62	164.39	170.148	188.173	179.189
Total waste intensity (metric tons per 100 metric tons of production)	4.25	3.84	3.87	4.50	4.55
Total process recovery waste (percent)	42%	45%	47%	38%	45%
Hazardous waste generated (thousand metric tons)	112.66	93.70	96.12	87.61	98.14
Recycled or recovered hazardous waste (percent)	47%	52%	54%	53%	53%
Hazardous waste disposed (thousand metric tons)	59.59	45.28	43.91	41.40	45.83
Non-hazardous waste generated (thousand metric tons)	8.20	7.07	7.40	10.06	8.11
Recycled or recovered non-hazardous waste (percent)	35%	37%	38%	25%	34%
Non-hazardous waste disposed (thousand metric tons)	52.90	44.40	46.26	75.30	53.29

<sup>1</sup> 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. Refer to the Regulation G Reconciliation in Item 7 of the respective Form 10-K for reconciliation of reported earnings per diluted share from continuing operations to adjusted earnings per diluted share from continuing operations.

<sup>2</sup> Environmental data changes from prior reporting reflect adjustments for acquired and divested locations from the 2019 baseline onward. Energy data also include adjustments for closed locations.

	2019	2020	2021	2022	2023
<b>Environmental<sup>2</sup></b>					
Water withdrawn (million cubic meters)	18.73	15.28	17.72	17.73	14.86
Water discharged (million cubic meters)	13.87	13.29	14.38	14.64	12.39
Net water consumption (million cubic meters)	4.86	1.99	3.35	3.09	2.47
Water intensity at priority water sites (cubic meters per metric ton of production)	1.26	1.32	1.30	1.38	1.09
Energy consumption (million gigajoules)	13.40	11.03	12.82	12.71	12.41
Total energy intensity (gigajoules per metric ton of production)	2.93	2.58	2.91	3.04	3.15
Direct energy intensity (gigajoules per metric ton of production)	1.69	1.46	1.74	1.78	1.81
Indirect energy intensity (gigajoules per metric ton of production)	1.23	1.12	1.18	1.26	1.43
Scope 1 and 2 total greenhouse gas emissions (million metric tons of CO <sub>2</sub> e)	1.05	0.90	0.97	0.97	0.94
Scope 1 and 2 total greenhouse gas emissions intensity (metric tons of CO <sub>2</sub> e per metric ton of production)	0.23	0.21	0.22	0.23	0.24
Direct (scope 1) greenhouse gas emissions (million metric tons of CO <sub>2</sub> e)	0.44	0.36	0.44	0.43	0.42
Indirect (scope 2) greenhouse gas emissions (million metric tons of CO <sub>2</sub> e)	0.62	0.54	0.53	0.54	0.53
Value Chain (scope 3) greenhouse gas emissions (million metric tons of CO <sub>2</sub> e), reflective of reporting categories 1, 10 and 12	21.05	19.59	20.42	19.7	18.54
Purchased goods and services (category 1)	5.94	5.67	6.4	5.73	5.25
Processing of sold products (category 10)	11.6	10.56	10.22	10.45	10.31
End-of-life treatment of sold products (category 12)	3.5	3.36	3.8	3.51	2.98
Spills and releases rate (total spills and releases per 1,000 employees)	1.25	1.24	1.28	1.50	1.59

<sup>2</sup> Environmental data changes from prior reporting reflect adjustments for acquired and divested locations from the 2019 baseline onward.  
 Energy data also include adjustments for closed locations.

	2019	2020	2021	2022	2023
Social					
Total employees	47,600	46,900	49,300	52,000	50,000
Fatalities	0	0	0	0	0
PPG injury and illness rate	0.32	0.26	0.26	0.32	0.32
Charitable contributions (millions)	\$11.80	\$13.00	\$13.30	\$16.20	\$17.50
Employee volunteer hours	36,000	3,587	11,750	25,000	25,000



# Previous reports

[2022 ESG Report](#)

[2021 ESG Report Executive Summary](#)

[2021 Diversity, Equity and Inclusion Report](#)

[2020 Sustainability Report Executive Summary](#)

[2019 Sustainability Report Executive Summary](#)

[2018 Sustainability Report Executive Summary](#)

[2017 Sustainability Report Executive Summary](#)

[2016 Sustainability Report Executive Summary](#)

[2015 Sustainability Report Executive Summary](#)

[2014 Sustainability Report Executive Summary](#)

[2013 Sustainability Report](#)

[2012 Sustainability Report](#)

[2011 Sustainability Report](#)

[2010 Sustainability Report](#)

[2009 Sustainability Report](#)

[2008 Sustainability Report](#)

# Annual Report

[Annual Report and Form 10-K](#)





# 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 potential 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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