

2016 Sustainability Report

Executive Summary



Read the full report at sustainability.ppg.com.



We protect and beautify the world™



To Our Stakeholders,

PPG had another successful year in 2016 financially and strategically. We continued to strengthen our paint, coatings and specialty materials businesses around the world while maintaining our focus on sustainable operations.

Highlights of our 2016 sustainability performance include:

- Achieving 31 percent of sales from sustainable products, an increase of 55 percent since 2012;
- Reducing our energy intensity by 17 percent, greenhouse gas (GHG) emissions intensity by 14 percent, waste disposal intensity by 8 percent and water usage intensity by 9 percent;
- Achieving our waste disposal intensity and GHG emissions intensity goals four years ahead of the 2020 target, with respective reductions of 11 percent and 29 percent since 2012;
- Eliminating 21 percent of the very small number of remaining non-consumer products that contain lead. We remain on track to meet our goal of eliminating lead in remaining non-consumer formulations by 2020;
- Having 70 percent of our facilities meet the requirements of the PPG Community Engagement Framework; and
- Creating the PPG Supplier Sustainability Award to recognize suppliers that help us meet our sustainability goals and demonstrate industry-leading sustainability and safety cultures.

Our employees continued to enhance and strengthen our sustainable operations. During the year, we recognized nearly 200 projects through our internal sustainability awards initiative. These projects, which we estimate saved more than \$20 million, helped us reduce our energy consumption, waste, water use and emissions.

Our continued commitment to innovation is intertwined with sustainability and covers a wide range of products and services that provide environmental, safety and other benefits to our customers. Our products contribute to lighter, more fuel-efficient vehicles, airplanes and ships, and they help our customers reduce their energy consumption, conserve water and reduce waste.

As we continue our 10-year commitment to the COLORFUL COMMUNITIES™ program, we plan on bringing our paint brushes, our passion and our colorful commitment to the entire PPG footprint, helping create brighter surfaces and brighter futures for the communities we call home.

In 2016, PPG volunteers led more than 40 *Colorful Communities* projects in 20 countries to bring color and vitality to schools, hospitals and community organizations through the use of PPG paints and coatings. We've made measurable progress toward covering PPG's entire global footprint with improvement projects since the initiative began in 2015, completing nearly 60 projects and positively impacting more than 1.8 million people.

We are proud of the progress we have made on our sustainability journey but also recognize that we have more to do. I encourage you to learn more by reading our full 2016 Sustainability Report and our 2016 Community Engagement Report, available at ppg.com.

We have a goal of achieving above-market organic growth in each business and region by solving our customers' most pressing problems while improving productivity in their operations. We continue to leverage

our scale while presenting "One PPG" to delight customers with our superior products and service.

PPG remains in a position of strength as we ended the year with nearly \$1.9 billion of cash and short-term investments providing us with financial flexibility going forward. We continue to believe that coatings remains a consolidating industry and our acquisition pipeline remains active across geographies and end use markets. And of course, share repurchases will remain an important element of our capital allocation strategy.

In the coming year, we will be faced with an evolving economic and regulatory environment. Despite this, we expect improved momentum in overall global economic growth with gradually improving growth rates in developed regions, and continuing but uneven growth in emerging regions. The timeline for growth improvement, however, remains uncertain. We continue to carefully manage costs and identify opportunities to simplify and streamline business processes.

As I tell my colleagues around the world, PPG is a great company with talented employees and excellent businesses. I strongly believe our best years are ahead of us.

Thank you for your continued interest in PPG.

Michael H. McGarry
Chairman and
Chief Executive Officer

2016 Sustainability Progress



31% OF **SALES**
FROM **SUSTAINABLE**
PRODUCTS & PROCESSES



11%
TOTAL
**WASTE
DISPOSAL**
INTENSITY
REDUCTION¹



29%
**GREENHOUSE
GAS EMISSION**
INTENSITY REDUCTION¹



36%
ENERGY
INTENSITY
REDUCTION¹



11%
**SPILLS &
RELEASES RATE**
IMPROVEMENT²



21%
**WATER
USAGE**
INTENSITY
REDUCTION¹



0.31 **INJURY &
ILLNESS**
RATE IN 2016
THE **LOWEST** IN
PPG'S HISTORY



73%

OF REPORTING
LOCATIONS WITH
50+ EMPLOYEES
HAD A **WELLNESS
PROGRAM**
IN 2016



70%

OF FACILITIES MET
**PPG COMMUNITY
ENGAGEMENT
FRAMEWORK**
REQUIREMENTS IN 2016

¹ Since 2012
² Compared to 2015



We protect and
beautify the world™



Sustainability at PPG

Vision

We are committed to delivering lasting value for shareholders and customers by operating with integrity, working safely, respecting the contributions of our people, preserving the environment and supporting the communities where we operate.

Values

1. Operate safe, healthful workplaces that value diversity, promote teamwork and reward performance.
2. Conduct business and operations in an ethical and compliant manner.
3. Minimize the impact of our operations on the environment.
4. Deliver inventive products and solutions that help our customers maximize the performance of their assets, minimize environmental impact and preserve and protect the environment.
5. Partner with suppliers and customers to create value.
6. Deliver positive change in the communities where we operate.
7. Deliver a superior return on investment to our shareholders.



A new rapid-performance clearcoat for automotive refinishing reduces energy consumption without compromising the quality of the final appearance, ease of application or size of repair. Currently the fastest clearcoat available in the European market, the coating requires only five minutes to bake.

Sustainability at PPG

PPG's culture of continuous improvement in every aspect of our business underpins our approach to sustainability. Whether it's increasing the efficiency of our operations or developing our people, our improvement efforts naturally extend to many areas that impact our sustainability performance.

We have a formal structure, headed by our Sustainability Committee, to ensure continuous improvement in the sustainability of our global operations. Driving our performance are measurable sustainability goals that address our biggest challenges and opportunities. We hold our locations and businesses accountable for achieving these goals, and we are transparent in our progress against each on a global level.

2020 Goal	2016 Progress
40 percent of sales from sustainable products and processes by 2020.	31 percent
10 percent reduction in total waste disposal intensity by 2020 from a 2012 baseline.	11 percent reduction from 2012
25 percent reduction in greenhouse gas intensity by 2020 from a 2012 baseline.	29 percent reduction from 2012
On our path to eliminating spills, ensure that we achieve an improvement of at least 10 percent per year in our spills and releases rate.	11 percent improvement in 2016
Implement water management plans at priority sites.	Created and implemented a process to develop water management plans
Zero injuries. On our path to zero injuries, ensure that we achieve an improvement of at least 5 percent per year in our injury and illness rate.	Rate of 0.31 equaled prior year
Implement wellness programs at 100 percent of PPG facilities globally by 2020.	73 percent of reporting locations with 50 or more employees had a wellness program in 2016
Implement the community engagement framework globally by 2020.	70 percent of our facilities met the framework requirements in 2016
Eliminate lead from remaining non-consumer coatings formulations by 2020	Eliminated 21 percent of the remaining non-consumer products that contain lead



Minimizing Our Environmental Impact

Sustainable Products

We are committed to innovating products and processes that provide environmental and other sustainability benefits to our customers.

Our coatings, materials and technologies reduce corrosion, extending the life of our customers' products. We also help our customers reduce energy usage and emissions, protect their employees and minimize waste and water consumption through the use of our products.

In 2016, 31 percent of our total sales were derived from sustainable products and processes. Our goal is to achieve 40 percent by 2020.

Waste

The more efficient we are in using materials to make our products, the less waste we produce, the fewer resources we consume and the more money we save. That is why we first work toward absolute material utilization throughout our manufacturing processes followed by eliminating, minimizing, reusing and recycling the waste materials we do produce.

In measuring our performance, we have shifted our focus from waste sent to landfill to total waste disposal, which includes landfilled, incinerated and treated waste. Our goal is a 10 percent reduction in our total waste disposal intensity by 2020 from a 2012 baseline. In 2016, our total waste disposal intensity declined 8 percent from 2015 and 11 percent from 2012.

Our achievement of the waste goal four years ahead of the target was due, in part, to the sale our flat glass and European fiber glass businesses in 2016. We will reevaluate the goal in 2017 against our current operations.

Total Waste Disposal Intensity

Metric tons per 100 metric tons of production

	Total
2012 Baseline	4.70
2013	4.26
2014	4.87
2015	4.50
2016	4.16



Our aerospace facility in Suzhou, China, eliminated 4,800 one-gallon cans annually by using a 55-gallon drum in the coating color-matching process.

Spills and Releases

Our facilities have strong management practices in place to prevent spills and releases, and our corporate spill-elimination standard requires the establishment of a spill-elimination program at each facility.

We track our progress by measuring total spills and releases per 1,000 employees. In early 2016, we set a new goal to improve our spills and releases rate by at least 10 percent per year. We achieved an 11 percent improvement in the rate during 2016 and had zero significant spills.

Spills and Releases Rate

Total spills and releases per 1,000 employees

	Total
2012	2.32
2013	2.13
2014	2.08
2015	1.66
2016	1.48



A cross-functional Spill Elimination Team formed in 2016 at our architectural coatings facility in Huron, Ohio, helped reduce the number of spills by 7 percent and spill-related costs by 80 percent during the year.

Water

Our water management approach is based on a global mapping process that enables us to establish relative water risks in our portfolio and rank our sites based on water usage, scarcity risk and other factors. We update the ranking each year to reflect water usage changes and sites that are acquired or sold.

Our water goal, which we established in early 2016 following our most recent global mapping, is to implement management plans at facilities with the highest water-scarcity risk by 2020.

In 2016, we created and implemented a process to develop a water management plan at our Circleville, Ohio, facility, in the U.S. We intend to use the process to develop plans for three sites each year through 2020.



Our Houston, Texas, architectural coatings plant incorporates microbe-free white wash water into a low-cost flat paint product, saving 500,000 gallons of water annually.

Water Usage Intensity

Cubic meters per metric ton of production

	Total
2012	4.85
2013	4.39
2014	4.20
2015	4.23
2016	3.85

Energy

Although most of our manufacturing processes are not energy-intensive, we are committed to reducing our energy consumption to minimize our greenhouse gas emissions, reduce costs and create more efficient facilities.

In 2016, the sale of our energy-intensive flat glass and European fiber glass businesses and several acquisitions of coatings companies continued our trend of significantly lowering our energy intensity through shifts in our product mix.

Our energy intensity in 2016 was 4.33 million British thermal units (BTUs) per metric ton of production, a 17 percent decrease over 2015 and a 36 percent decline since 2012.

Energy Intensity

Million BTUs per metric ton of production

	Total	Direct	Indirect
2012	6.75	4.78	1.96
2013	6.15	4.35	1.80
2014	5.67	3.99	1.69
2015	5.20	3.57	1.63
2016	4.33	2.90	1.43

Direct energy consumption is the amount of primary energy we combust on site. Indirect energy refers to the energy we consume that is generated by external suppliers.



A team effort to reduce energy use at our architectural coatings facility in Søborg, Denmark, helped the site save more than 2.5 million kilowatt hours since 2012—a 20 percent reduction. A major change was shifting from a natural gas heating system to one that uses heated water from a biomass-heated power plant.

Emissions

We are reducing our greenhouse gas emissions primarily by lowering our energy consumption.

In 2016, we implemented a new goal to reduce our GHG emissions intensity by 25 percent by 2020 from a 2012 baseline. Our total GHG emissions intensity in 2016 decreased 14 percent compared to 2015 and 29 percent over the 2012 baseline.

A major factor behind the significant declines and early achievement of our 2020 goal was the sale of our energy-intensive flat glass and European fiber glass businesses in 2016.

Greenhouse Gas Emissions Intensity

Metric tons of emissions per metric ton of production

	Total	Direct	Indirect
2012 Baseline	0.52	0.29	0.24
2013	0.47	0.25	0.22
2014	0.46	0.25	0.21
2015	0.43	0.22	0.21
2016	0.37	0.18	0.19

We report greenhouse gas as carbon dioxide equivalents, which include carbon dioxide, methane and nitrous oxide.



Operating Safe and Healthful Workplaces

Health and Safety

Our top priority is to ensure our people return home safely each day.

We had zero fatalities in 2016. However, we did not achieve our goal of reducing our injury and illness rate by 5 percent per year. Our rate of 0.31 held steady from prior year and remained the lowest injury rate in our history.

In 2016, we introduced a new tool called Ergonomic Critical Rules that identifies scenarios and tasks with high risk for strains or sprains and provides low- or no-cost solutions to prevent ergonomic injuries. We released two rules during the year that covered drum manual handling and pushing and pulling.

We also began introducing human performance to four of our locations during 2016. This safety approach teaches employees how to predict, prevent and manage errors that could result in injury.

Global Health and Safety Performance

Employees and Supervised Workers

	Fatalities	PPG Injury and Illness Rate	Total Recordable Incident Rate	Lost Workday Rate	Occupational Disease Rate
2012	1	0.42	1.78	1.33	
2013	1	0.37	1.70	1.15	
2014	0	0.35	1.86	1.35	
2015	0	0.31	1.41	0.91	
2016	0	0.31	1.47	0.98	0.07

A new data management system enabled a more comprehensive collection of occupational disease data beginning in 2016.



Employees at our protective and marine coatings facility in Itagui, Colombia, received training on road safety and prevention that included drunk-driving and motorcycle-riding simulators

Wellness

Our vision is to create a global culture of health, where our people and their families become responsible for their individual well-being through informed, active participation in health and wellness activities.

Supporting this vision is our goal to implement wellness programs at 100 percent of our facilities by 2020. In 2016, 73 percent of our reporting

locations with 50 or more employees had a wellness program.

In 2016, we launched a year-long focus on diabetes education. We employed lunch-and-learn sessions, posters and other communications to help our employees better understand the symptoms of this disease and how to prevent it. We will continue the program in 2017 with a focus on cancer.



The 177 employees from 13 U.S. locations who participated in the pilot of the March to May Challenge walked more than 65 million collective steps in three months. The Dover, Delaware, location logged the most total steps (16,330,251).



Bringing Color and Brightness to Our Communities

Every day, PPG and the PPG Foundation collaborate and engage with employees, community partners and other stakeholders to make our vision of bringing color and brightness to communities a reality. We dedicate our financial contributions, apply our products and use the power of our employee volunteers to address the needs of our local communities and transform lives.

Our locations are guided by the PPG Community Engagement Framework, which outlines appropriate programs depending upon the specific needs of each community. In 2016, 70 percent of our facilities met the requirements of the framework, up from 65 percent in 2015. Our goal is to implement the framework globally by 2020.

Our global giving totaled nearly \$9.8 million in 2016, supporting hundreds of community organizations across 25 countries.

Colorful Communities Program

An updated, more colorful park, playground and traffic school in San Juan del Rio, Mexico, is once again an important community hub. A colorful mural is giving new life to an old wall in Cieszyn, Poland. Brighter, more colorful buildings are welcoming courageous children with serious illnesses at a transformative camp in Ohio, USA. Local residents near Auckland, New Zealand, are enjoying activities in an environment reflecting the colorful traditions of the area's Maori and Pasifika people at a restored community center. Young students around the world are learning in brighter, more engaging classrooms.

These are just a few examples of how we brought color and vitality to more than 40 schools, playgrounds and other shared community spaces in 2016 through the *Colorful Communities* program. The program provides PPG volunteers, paints, coatings, specialty materials and financial contributions to brighten communities where the company operates around the world.

We donated more than 9,300 gallons (about 35,200 liters) of our paint and coatings and provided more than \$1.5 million in funding for nearly 60 projects completed since the program's launch in 2015 through 2016. Additionally,

more than 3,400 PPG and community volunteers have donated around 17,400 volunteer hours to help brighten communities by painting, repairing, cleaning and helping in other ways. The program has positively impacted more than 1.8 million people in 20 countries.

Colorful Communities Program



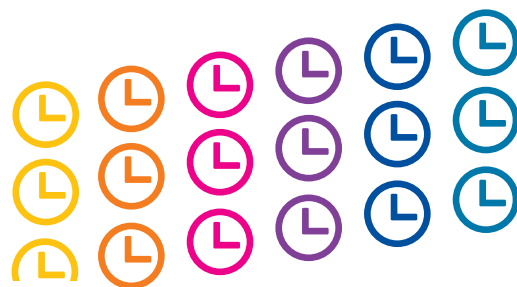
60+
PROJECTS

20
COUNTRIES



3,400
VOLUNTEERS

17,400
VOLUNTEER HOURS



\$1.5 **MILLION**
IN PPG FUNDING

1.8 **MILLION**
INDIVIDUALS
POSITIVELY
IMPACTED

9,300
GALLONS OF PAINT



Read the full report at sustainability.ppg.com.

We encourage you to provide feedback on this report and our sustainability performance via email, a short online survey or a letter.

Email: mediarelations@ppg.com
Subject: 2016 PPG Sustainability Report and Performance Feedback

Survey: surveymonkey.com/r/2016PPGSustainabilityFeedback

Letter: PPG, Corporate Communications, One PPG Place, Pittsburgh, PA 15272, USA

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