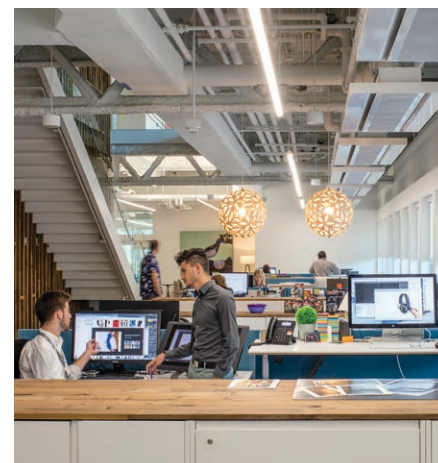


Improving every life

Growing our business
by enabling action
and impact on some
of humanity's greatest
challenges.

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On the cover

In 2019, the 3M Industrial Mineral Products Division California site installed solar cells containing 3M™ EPE Film. For information on our renewable energy efforts in 2019, please see [“Flipping the switch on renewable energy.”](#) For information on our technologies in the renewable energy market, see [“Leveraging light for innovative solar energy solutions.”](#) And for information on our Industrial Mineral Products California site, see the [Site spotlight](#).

A message from Mike Roman



3M is a long-time leader in Sustainability.

We started our groundbreaking Pollution Prevention Pays program back in 1975 — preventing over two million tons of pollution to date — and we are continuously working to build on our leadership. Over the last two decades, for example, as 3M’s revenues have doubled, we have reduced our greenhouse gas emissions by nearly 70%, and moved 35% of our manufacturing sites to zero waste. At the same time, we’ve intensified our focus on creating a range of innovative solutions that help our customers be more sustainable — from glass bubbles that enable lower vehicle weight and improved fuel economy, to films that make homes, businesses, and electronics more energy efficient. I’m pleased that last year alone, 3M Science helped our customers avoid 17 million metric tons of emissions, which is the equivalent of taking more than three million cars off the road.¹

The COVID-19 pandemic underscores the critical role that science and the business community have in solving global challenges.

As a science-based company, our highest priorities have been the safety of our employees and the safety of the public, which includes supporting our heroic health care workers and first responders with vital products and supplies.

I am tremendously proud of how our 96,000 employees have stepped up with urgency to advance solutions for all of our stakeholders — from communities around the globe and the health care teams that serve them, to our customers, employees, investors and business partners.

This shared global experience further deepens our commitment to continue advancing science and Sustainability, which includes our three priority areas:

- **Science for Circular:** Design solutions that do more with less material, advancing a global circular economy
- **Science for Climate:** Innovate to decarbonize industry, accelerate climate solutions and improve our own environmental footprint
- **Science for Community:** Create a more positive world through science and inspire people to join us

In 2019, we took several big actions as part of this new framework.

Starting last year, we are formally embedding Sustainability into every 3M product, meaning that each new product must help solve an environmental or social challenge. Several new products — such as our 3M™ Smog-reducing Granules and Scotch-Brite™ sponges with scrubbing fibers made of all recycled material — reflect this value.

Additionally, we moved our St. Paul headquarters to 100% renewable electricity, while committing to move our entire global operations across 70 countries to renewable electricity by 2050. And we took several other actions to accelerate our Sustainability leadership — from partnering with Clean Air Asia to create more livable cities, to establishing a new goal to provide 300,000 hours of skills-based volunteerism by 2025.

We also continue to advance the knowledge and importance of science itself.

We’re finding new and more exciting ways to support STEM education, and you’ll see examples throughout this report. We have appointed one of our top engineers, Dr. Jayshree Seth, to be 3M’s first-ever Chief Science Advocate.

And we continue to partner with Nobel Media to support science. In 2019, we hosted events with Nobel Laureates and students in Asia, Europe, and Latin America.

Our commitment to Sustainability includes active management of PFAS (per- and polyfluoroalkyl substances) related issues. As with everything, we are guided by the principles of sound science, corporate responsibility, and transparency, and are committed to being part of the solution. I encourage you to visit our PFAS Stewardship website to learn more about the actions we are taking.

The climate, environmental, and public health challenges the world faces may seem daunting, but they are not insurmountable —

especially if tackled with a collaborative, purpose-driven, and science-based approach. In addition to our ongoing support for the UN Global Compact, as CEO of 3M, I commit to doing our part and partnering with others to make this a decade of action — for the sake of our business and the greater good.

— **Mike Roman**
3M Chairman of the Board and Chief Executive Officer

¹U.S. Environmental Protection Agency <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>

Over the last few decades, 3M has reduced our greenhouse gas emissions by

68%

Since 1975, **2M tons** of pollution have been prevented by our Pollution Prevention Pays program.

In 2019, 3M technologies helped our customers avoid **17M metric tons of emissions** the equivalent of taking **3M+** cars off the road.

A message from

Gayle Schueller



2019 was a year of Sustainability action and commitments from 3M.

We began directing our efforts to align with the Strategic Sustainability Framework announced in November 2018, advancing our core pillars — Science for Circular, Science for Climate, and Science for Community. We also implemented a new requirement, announced in December 2018, that every product entering 3M’s new product commercialization process must have a Sustainability Value Commitment (SVC), demonstrating how it drives impact for the greater good.

These foundational elements provided an invigorating start to a year filled with new commitments, engagements, partnerships, and progress toward our 2025 Sustainability Goals. I am pleased to share some of the highlights, as well as our commitment to further action in the months and years ahead.

To advance Science for Circular,

we moved 35.4% of our manufacturing sites to zero waste to landfill status, gained membership in the Ellen MacArthur Foundation CE100, and established Circular Economy Working Groups within 3M to increase the use of renewable and recycled materials. We built upon 3M’s history of creating sustainable solutions and collaborating with our customers to help them reach their own Sustainability goals, launching products such as [3M™ Thinsulate™ 100% Recycled Featherless Insulation](#), which mimics the warmth and performance of down through tiny fibers made from post-consumer recycled plastic.

To advance Science for Climate,

we continued to improve our own energy footprint. In February, CEO Mike Roman committed to moving our entire global operations to 100% renewable electricity by 2050 through membership in the RE100 and doubled our interim target to 50% by 2025 (having already achieved our goal of 25%). Shortly after, we flipped the switch to 100% renewable sources of electricity at our global headquarters. We expanded upon one of our most innovative climate solutions to date — 3M™ Smog-reducing and Cool Roofing Granules — with a commercial application, allowing buildings of all types to fight air pollution and rising temperatures. Externally, 3M had strong executive participation and the opportunity to share best practices with global climate leaders at the United Nations Climate Action Summit and Climate Week in New York City as well as COP25 in Madrid.

To advance Science for Community,

we unveiled an additional 2025 Sustainability Goal. Through the expansion of 3M Impact, our skills-based employee volunteer program, we committed to 300,000 work hours of service across the globe. This program builds upon existing philanthropic and social Sustainability programs supporting the workforce of the future — both in science, technology, engineering and mathematics (STEM) disciplines, as well as skilled trades. 3M products are improving lives around the world, whether it’s increasing physician productivity with our M*Modal® Fluency Direct™ speech recognition system or responding to the global crisis by rapidly ramping production of personal protective equipment, such as the 3M™ 8210 (N95) and 3M™ 8511 (N95) respirators, aiding the fight against wildfires and the global outbreak of the COVID-19 pandemic. According to the World Health Organization¹, more than seven million people die prematurely each year due to air pollution. Because most of the world’s 50 most polluted cities are in Asia, we formed a new partnership with the international non-governmental organization Clean Air Asia, which will leverage 3M’s expertise to improve air quality and the lives of people in New Delhi and metro Manila.

I am proud that Sustainability remains at the heart of 3M.

It anchors purpose-driven innovation in our products, manufacturing processes, and new technologies — and we’re always trying to do more. We know that together with our employees, customers, partners, government, and communities, we can collaborate to solve shared global challenges and achieve the future vision we seek. As always, I look forward to sharing our progress at 3M and partnering with others to improve lives around the world.

— **Gayle Schueller**
Vice President and
Chief Sustainability Officer

¹World Health Organization. https://www.who.int/health-topics/air-pollution#tab=tab_1

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3M at a glance

Our Vision

3M Technology Advancing Every Company

3M Products Enhancing Every Home

3M Innovation Improving Every Life

 Sales in **~200** countries


 **50+** customer centers around the world

 **\$1.9 billion** in R&D spend

 One of **30** companies on the Dow Jones Industrial Index

 **>120,000** patents

 More than **800** brands

 **100+** straight years of dividends

 **\$32.1*** billion in sales

 **96,000** employees globally

 **51** Technology Platforms applied across four business groups

 **>200** sites

 Over **55,000** products

Our four business groups

Safety & Industrial



\$11.6B

2019 sales

Our markets

Abrasives	\$1.41B
Automotive aftermarket	\$1.24B
Closure and masking	\$1.11B
Electrical markets	\$1.20B
Industrial adhesives and tapes	\$2.74B
Personal safety	\$3.51B
Roofing granules	\$0.37B

Transportation & Electronics



\$9.60B

2019 sales

Our markets

Advanced materials	\$1.25B
Automotive and aerospace	\$1.94B
Commercial solutions	\$1.76B
Electronics	\$3.71B
Transportation safety	\$0.95B

Health Care



\$7.43B

2019 sales

Our markets

Drug delivery	\$0.41B
Food safety	\$0.34B
Health information systems	\$1.18B
Medical solutions	\$3.41B
Oral care	\$1.32B
Separation and purification sciences	\$0.79B

Consumer



\$5.09B

2019 sales

Our markets

Consumer health care	\$0.38B
Home care	\$0.99B
Home improvement	\$2.31B
Stationery and office supplies	\$1.37B

*In addition to our four business groups, \$32.1B includes elimination of dual credit, and corporate and unallocated business segments.

Collaborating for a circular economy

by joining the Ellen MacArthur Foundation CE100

In 2005, Ellen MacArthur became the fastest person to sail single-handedly around the globe.

The 71-day, 27,000-mile journey required scrupulous planning, since what she took with her on the sailboat had to last for the entire race. “We managed it down to the last drop of diesel and the last packet of food,” she said in a 2015 TED Talk. The experience gave her a very real understanding of what it meant to have a finite set of resources. “Suddenly, I connected the dots. Our global economy is no different. It’s entirely dependent on finite materials we only have once in the history of humanity,” she said.

For more than 150 years, our economy has been linear. We take products out of the ground, make something, and dispose of it once we are finished with it. A linear economy uses things up and creates waste, and it is not sustainable long-term — our natural resources are dwindling and won’t last forever.

Ellen wanted to change this, so she left the sport of solo sailing and shifted her focus to creating a more “circular” economy — where resources and power are recirculated and regenerated, rather than used and thrown out. Set on finding a new way to design, make, and use things within the boundaries of our planet, the Ellen MacArthur Foundation was created in 2010 with three guiding principles:

1. Design out waste and pollution
2. Keep products and materials in use
3. Regenerate natural systems

In 2019, 3M joined the Ellen MacArthur Foundation’s Circular Economy 100 (CE100), the world’s leading circular economy network, which brings together businesses, innovators, cities, governments, and universities committed to working together to learn, share knowledge, and build new approaches.

Joining the CE100 is part of 3M’s strategic focus on Science for Circular, with the ambition to design solutions that do more with less material, advancing a global circular economy.

“We are delighted to welcome 3M, another major U.S. brand taking a leadership position on circular economy,” says Joe Murphy, the CE100 lead for the Ellen MacArthur Foundation. “We look forward to 3M contributing to our diverse and dynamic community to achieve faster, greater success than any individual organization could alone.”

Circularity at 3M

Two new products that demonstrate how 3M scientists innovate to create products that promote a circular economy are:

- [Scotch-Brite® Heavy Duty Scrub Sponges](#), sold in the United States, made with 100% recycled scrubbing fibers
- [3M™ Thinsulate™ 100% Recycled Featherless Insulation](#), made from 100% recycled plastic bottles



Photo credit: GreenBiz Group

Within its supply chains, 3M also continually looks for ways to recover, reuse, and recycle byproducts and other surplus materials.

3M’s Health Care Service Group helps extend the life of about 150,000 devices each year globally, which keeps electronic waste out of landfills.

3M is also moving to more recycled and renewable materials in its product and package designs.

We have removed PVC from more than 500 SKUs in an effort to improve the recyclability of our packaging. We have also joined the How2Recycle® program and have labeled close to 300 consumer products with recycling instructions.

We created Lava™ Zirconia all-ceramic dental restorations in 2001. While the original system included a single-patient block of zirconia mounted in

plastic “frames” to protect the product during shipping and enable robotic handling of the material, the latest advancement helps dentists and dental labs make the most of their evolving milling technology, providing them with options that reduce the number of steps and materials required to produce crowns and bridges.

Through careful control of raw materials and a wide range of zirconia processing equipment now available to dental labs, the latest advancement of the product, Lava™ Plus Zirconia, can be reliably shipped in a new multi-patient disc format. This new format allows for multiple restorations to be milled from a single zirconia disc, eliminating the need for the surrounding plastic frame. In addition, there is no need for a porcelain overlay or the steps required to make one. And if a dentist starts with a digital impression, the lab will work with that file, avoiding the need to generate a gypsum-based model otherwise required for lab work. Labs and dentists can go model-free, with less material left behind at the dental lab.

Reducing paper instruction inserts is projected to save

86 
tons of paper annually.

We collaborated with NIOSH (National Institute for Occupational Safety and Health) to reduce paper instruction inserts for respirator cartridges. Customers said our respirator packages came with too much paper and felt the required inserts were not adding meaningful clarity. NIOSH listened to the feedback, re-evaluated its requirements, and is authorizing changes to reduce the number of paper inserts. 3M’s first-wave implementation of this change is projected to save 86 tons of paper annually. It is a great example of helping customers meet their Sustainability goals while maintaining performance and health and safety standards.

Embedding Sustainability into every new product

3M launches hundreds of new products each year, spanning nearly every industry.

Beginning in 2019, each 3M product entering the new product commercialization process will include a Sustainability Value Commitment that demonstrates how it drives impact for the greater good.

This new, formal requirement embeds Sustainability into the pipeline that produces 3M's diverse global products. Historically, about one-third of 3M's annual sales come from products created in the past five years, so the impact will expand greatly with each successive year.

Beyond impacting 3M's own operations, another primary reason for the goal is to help customers achieve their Sustainability goals. This new product goal creates even more opportunities to collaborate with customers on solutions that improve lives around the world.

Examples of 3M's Sustainability Value Commitment for new products include reusability, recyclability, energy savings, waste reduction, water savings, responsible sourcing, and the use of renewable materials appropriate to the specific product, from the beginning to the end of each product's life cycle.

This commitment can also include products with a core purpose of helping to solve an environmental or social challenge, such as improving air quality, reducing greenhouse gas emissions, and improving worker and patient safety in health care and industrial settings. 3M will measure the progress and impact of this commitment and report on it annually.

"Sustainability has always been at the core of 3M — but we're looking to do more," said Chief Technology Officer John Banovetz, when he announced the new product requirement. "We are proud to formalize our commitment to this next step in innovating for a sustainable future."

Requiring Sustainability Value Commitments in all new products entering the new product commercialization process builds on 3M's history of creating products that emphasize reuse, recycling, and reduced resource use for 3M's operations and for their customers. Those products are wide-ranging, including energy-saving window films, materials that help in lightweighting vehicles, and water and waste-reducing cleaning solutions.

Products that incorporate the new 2019 requirement span all 3M business groups.

A few examples include:

- The [Post-it® Flex Write Surface](#) is a whiteboard surface that can be written on with permanent markers. To remove the marker, just spray it with water and wipe it off. Regular dry erase markers also work on this surface and can simply be erased. Post-it Flex Write Surfaces can be used to refurbish poorly performing dry erase boards and chalkboards, which reduces landfill additions. The adhesive on the product contains at least 60% plant-based material. The lightweight rolls weigh 9% of what a leading whiteboard of the same size weighs, which reduces the transportation footprint and decreases customer shipping costs. The liner, core, and box are also recyclable. Permanent markers can be removed from the surface with water instead of solvent

- The [3M™ Molecular Detection System](#) is a rapid molecular method with ready-to-use pre-dispensed reagents, a single protocol for all pathogens, and the ability to test for multiple types of pathogens simultaneously. When used with the [3M™ Molecular Detection Assay 2 — Salmonella](#), the system is the primary *Salmonella* testing method of the USDA Food Safety Inspection Service and has been validated and certified by numerous international and regional organizations.

The 3M Molecular Detection System reduces energy and water use, waste generation, and greenhouse gas emissions relative to traditional *Salmonella* culture methods because the result is obtained via a streamlined test for a unique *Salmonella* genetic sequence, without the need for multi-staged cultural and biochemical tests performed individually in Petri dishes and test tubes. This simplified molecular method uses fewer consumable materials and less energy in order to screen out negative samples



- [3M™ Natural Pozzolans](#), an SCM (supplementary cementitious material) used in the making of concrete, has an impactful Sustainability Value Commitment. This product helps reduce CO₂ emissions as a 1:1 replacement of cement in concrete, a very large global source of CO₂ emissions (from cement's calcining step). It is estimated that each ton of SCM used to displace cement reduces CO₂ emissions by 0.75 tons
- [3M™ Envision™ Print Wrap Films](#) are made in part with bio-based materials and are made without PVC, phthalates, or halogens. 3M Envision Print Wrap Film 480mC has earned the prestigious GREENGUARD™ Gold Certification, awarded to products passing strict testing standards for low emissions of volatile organic compounds into indoor environments

Parka partnership makes history

by introducing 3M Thinsulate 100% Recycled Featherless Insulation

In November 2019, Minneapolis-based outerwear brand Askov Finlayson, known for its celebration of winter and the hashtag #KeepTheNorthCold, introduced what they are calling the world's first climate positive winter parka —

which they say is made from “radically sustainable materials created by a climate positive business.”

The Winter Parka, as it is aptly named, is the first product to feature the new 3M™ Thinsulate™ 100% Recycled Featherless Insulation, which became available in September 2019. The featherless insulation is made from recycled plastic bottles — and is an example of 3M's commitment to using science to advance the circular economy, part of which involves designing solutions that keep products in use instead of creating waste.

“All the fibers are post-consumer 100% recycled polyester with high performance,” explains 3M's Lead Specialist Application Engineer Ken Cox. “It's the kind alternative to natural down.”

When Askov Finlayson decided to create a climate positive parka, the look and design were critical. “We had the environmental/Sustainability focus on it from the get-go, but part of being sustainable is having a design that you will want to wear year after year, and made in a way that's going to last year after year,” says Askov Finlayson Marketing Director Laura Smith.

Connecting all the elements — design, performance, and Sustainability — became their focus. As they began looking at insulation, the options were either down or a synthetic product. They were interested in synthetic insulation because of its performance benefits and leading Sustainability innovation.

“Spending time with polar explorer Will Steger and looking at his old outerwear gave us inspiration,” says Devin O'Brien, Askov Finlayson's Vice President of Marketing.

“Every parka of his had a 3M Thinsulate patch on it. 3M was a partner of his, and we thought, ‘3M has really invested in this — maybe they can do it with us.’”

The Askov Finlayson team set up an informational meeting with 3M, during which they learned about the 3M Thinsulate 100% Recycled Featherless Insulation. It was an exciting option, but would it perform up to Askov's requirements? They began testing it, and according to Smith, “it kept passing every test we could put in front of it.”

When washed, many other insulation options tend to ball up and clump together — but 3M's didn't, even after 10 washes. Because of this, Askov was able to design the structure of the jacket so the finished product feels like down — a huge win from a design standpoint.

“Our entire design team, with decades of collective technical apparel experience, has never seen a synthetic product that feels as close to down as the 3M Thinsulate 100% Recycled Featherless,” says O'Brien.

“We sampled our parka in down and synthetic fibers from a few sources, and we had a hard time telling the 3M product apart from natural down.”

The new featherless insulation had not yet been released to the market, but since the quantity the Askov team needed was small in the scheme of 3M production, they were able to get the product ahead of time. They launched in November 2019 with 3,000 parkas, each using about 17 recycled plastic bottles worth of insulation,* with a plan to expand production for next season. According to Askov Finlayson founder Eric Dayton, “The fact that this partnership came together, and the technology was already being developed here, is something that is hugely valuable to us. I love that it's a local partnership between two companies in Minnesota,” he says.


Getting from 75% to 100% recycled

The new 3M Thinsulate 100% Recycled Featherless Insulation is 3M's latest step in creating filling that uses recycled content. Two years ago, 3M launched a 75% recycled product using a two-fiber blend. “Marmot was one of the earliest adopters of the 75% recycled product and one of the stronger voices wanting to move in that direction,” says Cox. Marmot and other outerwear companies are evaluating the new 100% recycled product for their 2020/2021 product lines.

“It was a little bit of a hurdle to get to 100% and the high performance we wanted,” says Cox, who worked with a broad team in both China and the United States to bring the featherless insulation to market.

“But our understanding of recycled fibers and how we would use them and blend them into our products has improved. We had the internal tools. It's the onward march of science.”

3M Thinsulate 100% Recycled Featherless Insulation has received the OEKO-TEX® Standard 100 Class I Certificate, is bluesign® approved and is certified to the Global Recycled Standard (GRS) by Control Union Certifications, which verifies recycled material and tracks it from the source to the final product.

Each parka uses
~17 
recycled plastic bottles
worth of insulation.*

*Calculation is based on a 20-gram plastic bottle and the average 3M Thinsulate 100% Recycled Featherless Insulation usage for The Winter Parka from Askov Finlayson (Male and Female fit, size S to XL).



Flipping the switch on renewable energy

On March 1, the 409-acre campus at 3M's global headquarters flipped the switch to become powered by 100% renewable electricity.

This was the first step in a commitment to move to 100% renewable electricity in all its facilities around the world, beginning with its own headquarters in St. Paul, Minnesota.

As part of this commitment, 3M joined RE100, a global corporate leadership initiative led by The Climate Group in partnership with CDP (formerly known as Carbon Disclosure Project), that brings together influential businesses committed to sourcing 100% renewable electricity. 3M has set an interim target to obtain at least 50% of its total electricity from renewables by 2025 and 100% by 2050.

Committing to wind and solar power sources is part of 3M's strategic focus on Science for Climate, with the aspiration to innovate to decarbonize industry, accelerate global climate solutions and improve the company's environmental footprint. The commitment will help decrease greenhouse gases produced by 3M, already down 68% since 2002.

"By joining RE100 and switching to 100% renewable electricity globally, 3M is building Sustainability into its business growth strategy and showing that the two go hand in hand," says Helen Clarkson, CEO of The Climate Group. "Seeing such a large manufacturer commit to 'go all in' on renewables to produce sustainable new products is an encouraging step forward."

With this commitment, 3M has become the largest company in partner Xcel Energy's Midwest service area of nine states to move to 100% renewable electricity. The majority of the power for 3M's headquarters will be supplied by Xcel wind farms located near Pipestone, Minnesota.

Since 2002, greenhouse gases produced by 3M have decreased by

68% 

Photo credit: Lumos Solar



New solar farm powers 3M Industrial Mineral Products Division (IMPD) site

In sunny California, a new solar farm installed on a hill above 3M's IMPD site provides 20% of the plant's total electricity.

The 1-megawatt solar system will produce 2.6 million kilowatt-hours of electricity each year — enough to supply power to about 750 homes.

The site will also sell back excess power to the grid during peak times.

The 70-year-old plant manufactures roofing granules, including the award-winning 3M™ Smog-reducing Granules and 3M™ Cool Roofing Granules that help reduce pollution and improve public health.

"Although a lot has changed over the past 70 years, one thing that remains consistent is 3M IMPD California's commitment to advancing Sustainability and continually improving our operations and products," says Site Manager Angie Byars.

The solar farm is helping advance 3M's goal of providing 50% of the company's electricity from renewable sources by 2025.

Solar panel installation at 3M Canada headquarters

Also contributing to 3M's Science for Climate goals is a 10-kilowatt solar panel that was installed on the rooftop of 3M Canada's headquarters in London, Ontario. The system went live in spring 2019 and generated 12,000 kilowatt-hours by the end of the year.

This energy generation helped the 50-acre site progress toward its goal of reducing energy use by 3% per year.

"The solar panels at our headquarters are a tangible symbol of our Sustainability culture," says 3M Canada Sustainability Director Richard Chartrand. "In addition to generating renewable energy, they serve as a daily reminder to 3M employees of the company's global commitment. Canada's solar panel installation is one of the steps we're taking to engage employees in Sustainability every day."

While 3M converts its operations to wind and solar power, the company continues to support the global renewable energy sector by producing solutions for customers that improve the reliability and efficiency of renewable energy, including solar and wind.

In 2019 alone, 3M's products helped customers avoid more than 17 million metric tons of greenhouse gas emissions.

"We are continuing to step up our leadership toward a more sustainable future — in our own operations and in solutions for customers," says 3M CEO Mike Roman.

Cooler trains^o

thanks to a new 3M coating

It's a hot summer day, and you have to get to work. You squeeze onto the crowded train. It isn't air-conditioned. Outside, the temperature approaches 90°F (32°C). Inside the train, it's about five to seven degrees hotter.

In India and other countries in Southeast Asia, this is reality. The outdoor temperatures are summer-like year-round, and the train cars can get very hot; in fact, North India reported four casualties¹ due to the stifling heat on trains without air-conditioning during a two-week heat wave in 2019.



By reducing the heat that penetrates the cabin, it reduces the power consumption needed for air conditioning the trains by more than 20%.²



A 3M product is helping to reduce the temperature in these trains by as much as 15%.

3M™ Scotchkote™ RG 700 Solar Heat Reflective Coating is a coating that reflects heat from the sun without absorbing it, effectively reducing the temperature inside trains and other enclosed structures like luxury buses, industrial sheds, and outdoor enclosures with electronic components.

The Indian government's railway department partnered with 3M to add the coating to the roofs of passenger trains in order to reduce the temperature inside and increase passenger comfort. By the end of 2019, Scotchkote RG 700 had been applied to more than 100 non-air-conditioned train cars, or coaches, with 150 more planned. The priority has been to apply the coating to non-air-conditioned trains, but even trains with air conditioning get hot — and can benefit from Scotchkote RG 700. By reducing the heat that penetrates the cabin, it reduces the power consumption needed for air-conditioning the trains by more than 20%.²

How does it work?

A special pigmented formulation reflects solar radiation and reduces the temperature of the metal on which it's coated. The chemistry of this durable water-based paint formulation allows for outdoor application, with an expected life of 10 years.³

3M India scientists began developing Scotchkote RG 700 in 2016. By 2018, small batches were being produced and tested. In January 2019, they started producing it for widespread commercial use.

The water-based product is low-VOC, making it the first of its kind in India.

Next up are similar projects in Singapore and Germany. That's a lot of cool customers.

¹The Independent. <https://www.independent.co.uk/news/world/asia/india-heatwave-train-deaths-weather-temperature-hindu-pilgrimage-jhansi-a8954736.html>

²Based on a joint exercise conducted and data collected by 3M and Indian railways inside air-conditioned (AC) coaches.

³This is the expected life based on artificial accelerated weathering results, which corresponds to 10+ years of expected life.

Leveraging light^o

for innovative solar energy solutions



Innovative solar solutions

Although solar modules don't have a lot of components, and many of them are commoditized, plenty of high-value needs still exist, especially around the better use of light. The team has commercialized several products to meet these needs, including the following:

Light Redirecting Film (LRF)

In a typical solar module, up to 15% of the exposed area is non-active, which means that light striking those parts cannot be converted into electricity. Thin wires called tabbing ribbons cover some of the cell material, reducing the power output. Also, the space between individual solar cells represents an additional non-active surface. 3M created a product called 3M™ Light Redirecting Film (LRF) that captures this previously wasted light. LRF is a reflective mirror film that is placed over the tabbing ribbons and between cells to reflect light from non-active areas of solar modules onto the parts of the cells that do produce energy, increasing the energy output by approximately 4%.²

The technology used to create LRF was adapted from a product called 3M™ Brightness Enhancement Film, used in LCD monitors.

"This was a great example of the 3M product innovation model," says Strommen. 3M leveraged that technology and applied it to a new industry with very different needs in terms of durability. Instead of having the film tucked away inside an LCD monitor where it is mostly protected from the elements, it needed to be used outdoors under intense light, high moisture levels, and wide temperature swings. This presented the team with a whole new set of challenges, but "we are really good at light management, and really good at making weatherable films, so this was a natural fit for 3M's capabilities," Strommen says.

Currently, over 300 million solar modules are produced each year industry-wide, and 3M Light Redirecting Film is used in about one-sixth of them. "LRF is three years in, and it's already making an impact by reducing the cost of solar energy," says Strommen. "It's not speculative. 3M is making a real difference."

LRF increases energy output by approximately

4%² 

Ultra Barrier Solar Film

Most solar modules have a glass layer, are inflexible, and fairly heavy. 3M™ Ultra Barrier Solar Film (UBF) acts as a replacement for the glass layer — it is flexible, lightweight, durable, and can even be rolled up. It is a solar solution for anywhere flexibility is needed. UBF is the result of a decade of transparent barrier technology that is protected by more than 40 patents. It is also a solution for buildings that can't handle the heavy load of typical solar panels and can work on curved surfaces — one 3M customer has even used the film on headsets, where the power generated by the flexible photovoltaic cell means the headsets may never need to be plugged in or charged. The future possibilities are exciting to consider.

Solar Radiative Film

A newer, up-and-coming 3M solar energy product is called 3M™ Solar Radiative Film. This film is for customers needing more energy-efficient cooling systems, such as those used for grocery store refrigeration, building air conditioning, and data center cooling. The innovative film is actually cooler than the ambient air temperature. This non-intuitive property is achieved by reflecting nearly all incoming light from the sun, while at the same time radiating energy to the sky. When used in sky-facing panels that are in contact with a closed fluid loop, the film has the potential to efficiently remove heat from cooling systems, which can result in significant energy savings.³

3M will continue to leverage its Light Management Technology Platform to provide innovative solutions that reduce the cost and increase the reliability of solar energy systems. And light management is just one of [51 Technology Platforms](#) that 3M combines and uses every day as the company continuously innovates to drive toward a future of clean, inexpensive, reliable, and ubiquitous energy.

¹Demonstrated during internal and customer testing. Some testing is available publicly, such as https://www.energy.gov/sites/prod/files/2014/01/17/pvnrw13_ps5_3m_nachtigal.pdf.

²3M and customer data shows an approximately 2% gain from LRF over tabbing ribbons and a 2.3% gain from LRF between cells. These numbers are conservative and change based on module design.

³Based on current field trial data.



Taking inventory of greenhouse gas emissions

As a company rooted in scientific exploration and the belief that every problem has a solution, in 2019, 3M embarked on a journey to calculate downstream Scope 3 greenhouse gas (GHG) emissions.

“I cannot stress enough how leading edge this is,” says Sustainability expert Lisa Grice, Executive Director, North America, Anthesis Group. “In my experience, I am not aware of another company with as broad a portfolio that has done this. 3M is breaking new ground and showing other companies it can be done.”

The World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) GHG Protocol Corporate Accounting and Reporting Standard, used by more than 90% of Fortune 500 companies, is an international accounting tool that helps businesses understand, measure, and manage their GHG emissions. The GHG Protocol separates emissions into three categories:

Scope 1 — All **direct emissions** from sources that are owned or controlled by a company. Examples include a company’s facilities and owned vehicles.

Scope 2 — All **indirect emissions** from the generation of energy purchased by the company. Examples include purchased electricity, heating, and cooling.

Scope 3 — All **other indirect emissions**, not included in Scope 2, from sources that are not owned or controlled by the company but are related to the company’s activity — for example, the energy used by a consumer who buys and plugs in a Filtrete™ Room Air Purifier.

Since 2002, 3M’s EHS (Environment, Health and Safety) Laboratory has calculated the company’s Scope 1 and Scope 2 emissions on an annual basis, and 3M has reduced its overall Scope 1 and 2 emissions by 68.1% while growing our business.

What makes Scope 3 different?

Scope 1 and Scope 2 GHG emissions are difficult to calculate for a diverse, highly technical manufacturing company with more than 200 facilities in over 70 countries.

Scope 3 emissions, as defined by the Corporate Value Chain (Scope 3) Accounting and Reporting Standard, are even more difficult to calculate because of the sheer number of 3M’s products and diverse product portfolio.

It took three years to create the Scope 3 Accounting and Reporting Standard, and 3M was one of the companies that road tested it before it was released by the GHG Protocol in 2011.

Scope 3 includes 15 separate categories of emission sources, both upstream and downstream of operations, and, as explained on the GHG Protocol website, “allows companies to assess their entire value chain emissions impact and identify where to focus reduction activities.”

“We looked at Scope 3 [in 2011], and it was too daunting for us to even contemplate,” says EHS Laboratory Manager Brian Mader, “but in 2012, we were able to start calculating some of those categories.”

The lab calculated Scope 3 categories one through eight and category 13, but due to the complexity of 3M’s multiple businesses and 55,000 products, categories nine through 12 were not evaluated (and categories 14 and 15 do not apply to 3M’s structure).

In 2019, the EHS Laboratory took on the formidable task of calculating categories nine through 12 (9: Transportation and distribution; 10: Processing of sold products; 11: Use of sold products; 12: End-of-life treatment of sold products).



Photo credit: ©FAO/Alessia Pierdomenico

“We weren’t required to do any of this,” says Mader.

“The standard we follow called out an exemption for complex companies like 3M.” And yet they felt it was not only the right thing to do, it was also necessary in order to take the next steps toward reaching 3M’s corporate Sustainability goals.

3M has had GHG reduction goals since 2007. To continue its industry-leading efforts to reduce its own GHG emissions, they wanted to create a goal in line with the level of decarbonization required to keep global temperature increases below 1.5°C compared to pre-industrial temperatures, in alignment with the Intergovernmental Panel on Climate Change (IPCC).

As Mader explains it, there can only be a finite amount of GHGs in the atmosphere before the global temperature rises more than 1.5°C. With this detailed science-based analysis, 3M will be able to look at where they are today and will then create a plan to do their part to keep the level of GHGs below this critical value.

How they did it

The first step in 3M’s current Scope 3 work was compiling the SKU data for all 55,000 3M products as well as the quantity of each SKU sold and the size or mass of the product. Next, they distilled the 55,000 down to those with a material Scope 3 GHG footprint and identified 300 fundamental categories based on the composition and use of each product. Emission factors were then determined for each product category.

From there, based on data collected, they worked to calculate the emissions for each of the Scope 3 categories.

“The internal 3M collaboration was invaluable,” Grice says. “The fact that 3M was able to get all the right people to collaborate and gather all the data needed was impressive.”

By the end of 2019, 3M developed methodologies to calculate Scope 3 categories nine through 12. Due to these new extensive calculations, quality assurance processes are being developed in 2020. Results of these efforts will be published in the 2021 Sustainability Report.

3M reduced overall Scope 1 and 2 emissions by

68%

Goal setting

Once 3M has the data, the next step is to evaluate pathways toward its goal by determining what makes sense for 3M as a company and what they can achieve as far as reducing their carbon footprint. 3M’s global Sustainability team, including Chief Sustainability Officer Gayle Schueller, will work with the different 3M business groups to identify top priorities and opportunities to advance 3M’s actions on Science for Climate.

In addition to 3M’s focus on Science for Climate, the calculations will help inform 3M’s activities around Science for Circular — especially the Scope 3 category 12, which includes the emissions associated with end-of-life treatment of sold products.

Working to combat antimicrobial resistance

Since the introduction of penicillin in the 1940s, resistance to antibiotics has been a known occurrence but was considered a minor problem.

However, in recent years, as the development of new antibiotics has decreased and the use of antimicrobials has increased, a surge of drug-resistant infections is visible across the globe and is now defined in broader terms as antimicrobial resistance. The World Health Organization (WHO) estimated in a 2019 report that at least 700,000 people die each year due to drug-resistant diseases, and by 2030 antimicrobial resistance could force up to 24 million people into extreme poverty.¹

In 2015, member states of the United Nations (UN) unanimously adopted Sustainable Development Goals (SDGs) to “end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030.” As one of the SDG’s 17 interrelated goals, the UN added this focus on health care access: “Ensure healthy lives and promote well-being for all at all ages.” In 2016, for only the fourth time in the history of the UN, a high-level meeting focused on health care was convened.



Photo courtesy of Foreign Policy

The topic of this historic UN meeting was the growing global antimicrobial resistance problem.

Since 2016, the member states of the UN and the WHO have been working together to address the problem of antimicrobial resistance, looking at multiple approaches to and acknowledging the interconnected nature of the problem across the food chain, health care, and environmental health systems.

They identified two key controlling strategies: properly dispensing antibiotics in order to reduce their use and preventing infections before they occur to reduce the need for antimicrobials in the first place.

For the 3M Medical Solutions Division, preventing health care-associated infections has been a primary pillar for many years. This, coupled with 3M’s focus on Science for Community, made it a natural fit for 3M to sponsor the kickoff event on antimicrobial resistance held during the UN General Assembly in September 2019. The event, moderated by Foreign Policy Magazine, was led by Todd Fruchterman, M.D., Ph.D., Vice President & General Manager, 3M Medical Solutions Division;

and Victor Miranda, M.D., MBA, Health Care Compliance and Clinical Research Director, 3M Health Care Business Group; and was attended by WHO officials, several ministers of health, vice ministers, chief medical officers, UN delegates, and advisors from various countries and regions including the United States, United Kingdom, Latin America, European Union, Africa, and Asia. The open dialogue among the participants focused on promoting national health strategies to emphasize infection prevention and control and to undertake pilot projects that will demonstrate the value of releasing of resources that can be applied to increasing access to care.

“One of the simplest and most impactful steps [to reduce antimicrobial resistance] is the use of proven infection prevention and control practices,”

said Dr. Fruchterman during the meeting. “By reducing healthcare-acquired infections, the need for antibiotic use is reduced, therefore dampening the emergence of antimicrobial-resistant organisms. The resources saved by eliminating infections can then be released and targeted toward expanding health coverage consistent with national priorities,” he added.

3M’s Medical Solutions Division and Health Care Business Group have a relentless focus on a future world with zero complications. The company is partnering with other organizations to help improve patient outcomes, using its passion for patient-centered science to create differentiated, efficacious solutions. By tackling these challenges with creativity, curiosity, and empathy, 3M will make a difference for patients and health systems across the globe. This is 3M Science. Applied to Life.™ This is 3M Sustainability in action.

¹World Health Organization, *Interagency Coordination Group on Antimicrobial Resistance. Report to the Secretary-General of the United Nations. (April 2019). No Time to Wait: Securing the future from drug-resistant infections.* https://www.who.int/antimicrobial-resistance/interagency-coordination-group/IACG_final_report_EN.pdf?ua=1



Helping close the skills gap^o

Over the next 10 years, skilled trade jobs are expected to increase faster than the national average of all jobs.¹

Meanwhile, the industry is experiencing a skills gap in manufacturing and other trade jobs: A recent survey found that 45% of employers are having difficulty filling skilled jobs.²

3M recruits, hires, and relies on the best skilled trade workers worldwide, but many of these manufacturing jobs are highly technical and require specialized training.

As part of the company's focus on Science for Community, 3M is helping to create a diverse pipeline of well-trained science, technology, engineering, and mathematics (STEM) graduates, including those with advanced manufacturing and vocational skills. Not only is it good for the workers, but it's also good business for 3M.

Manufacturing and Academic Partnerships (MAP)

When a business is set in a rural area, the pool of potential employees can be small, and the pool of qualified employees even smaller. Many of 3M's manufacturing plants in the United States are in rural areas, and when the talent pool began shrinking several years ago, the company took action by creating 3M Manufacturing and Academic Partnerships (MAP), designed to fill 3M's talent pipeline by providing students with the opportunity to discover meaningful careers in advanced manufacturing.

MAP takes a holistic approach to bridging the skills gap by working with schools to provide grants for equipment and curriculum, professional development for instructors, scholarships for students, and involving 3M employees as mentors.

This strategy dovetails with 3M's Vision for improving every life and also supports 3M's strategic Sustainability focus on Science for Community.

By the end of 2019, the MAP initiative included 13 mechatronic hubs in seven states, partnering with:

- 11 post-secondary schools (technical colleges)
- 39 high schools
- 3 middle schools

3M's investment of more than \$2.5 million has resulted in:

- 51 educators trained
- 3,130 students reached
- 65 scholarships in mechatronics and advanced manufacturing

Best of all, 3M has hired five graduates as System Multi-Skilled Technicians, so far, who participated in MAP programs. This number will increase in the near future as these high school students graduate from 3M's partner technical colleges.

The program continues to grow with plans to increase scholarship funding and other investments in the coming years, including expanding MAP to prepare students and give them the tools necessary to succeed in the new economy ("Industry 4.0") with a focus on smart manufacturing.

SkillsUSA

SkillsUSA is a professional leadership organization for high school and trade school students that prepares them to thrive in skilled careers by focusing on technical, personal, and workplace skills. Participants also have the opportunity to take part in skills competitions and demonstrate mastery in their skill area, such as in manufacturing, construction, transportation, health care, and many more sectors.

3M was the lead sponsor for the 2019 SkillsUSA national team, which faced off against young people from 70 countries at the WorldSkills™ competition in Kazan, Russia. The 22 WorldSkills USA team members competed in categories like auto body repair, cybersecurity, mechanical engineering, web design, welding, and more. As the global sponsor of the WorldSkills USA team, 3M was thrilled to bring the entire team to 3M's headquarters in St. Paul, Minnesota, to help them prepare for the international competition and celebrate their commitment to represent the United States overseas.

"3M and WorldSkills USA share a commitment to addressing the shortage of qualified skilled workers across many industries," says Mojdeh Poul, Executive Vice President, Health Care Business Group. "As a global, science-based company, we recognize that STEM skills are the foundation for many trades. This sponsorship is about inspiring the next generation of skilled workers and supporting their efforts in Kazan."

3M's investment of \$2.5M+ resulted in:

51  **educators trained**

3,130  **students reached**

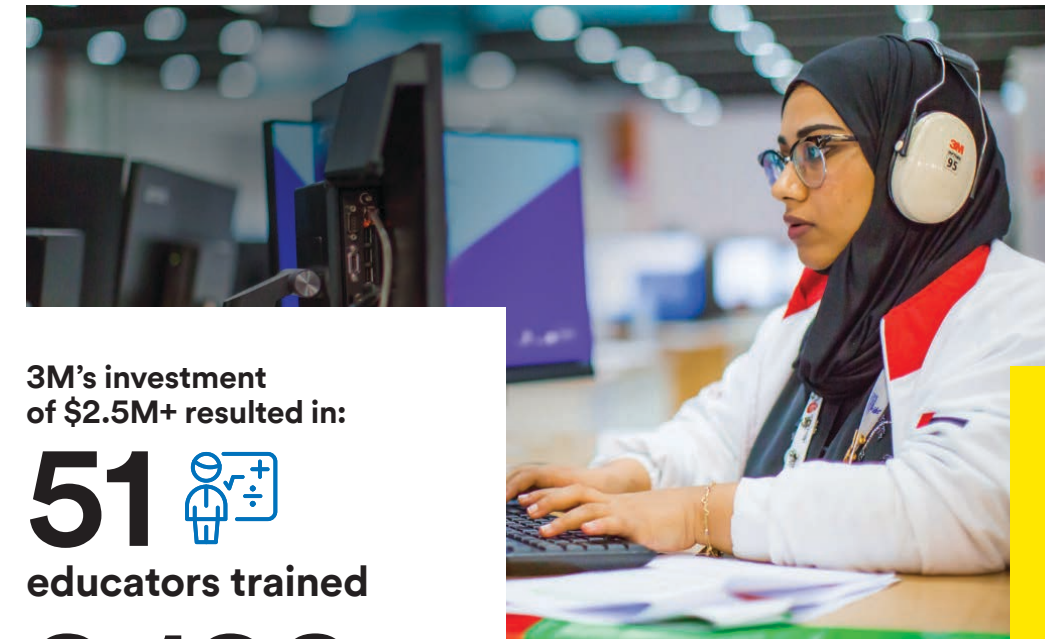
65  **scholarships**

National Coalition of Certification Centers (NC3)

3M has partnered with National Coalition of Certification Centers (NC3) to establish national skills standards, provide certifications, and sponsor Train-the-Trainer events. These hands-on development opportunities are designed for community college, technical college, and high school instructors.

Led by expert master instructors, the events last one to five days depending on the topic and help instructors become experts in the newest certifications, allowing them to bring their knowledge back to their classrooms.

Students then benefit from having additional knowledge and marketable skills that prepare them for future careers.



In 2019, 3M and Festo Didactic North America started a new NC3 "Introduction to Mechatronics" certification for high school participants in the MAP program, allowing students to earn this credential to prepare them for careers in advanced manufacturing.

3M also has certifications in several other areas:

3M Worker Health and Safety Awareness Program

- Respiratory hazards
- Hearing hazards
- Head, eye, and face hazards

3M™ VentureClad™ Tape Program

- Jacketing, sealing, and insulating solutions for HVAC systems

Several other certifications are planned for introduction later in 2020. 3M is also proud to support NC3 with product donations, classroom kits, and other materials to help support the success of educators and students.

¹U.S. Bureau of Labor Statistics: <https://www.bls.gov/ooh/construction-and-extraction/home.htm>

²Manpower group survey: <https://www.manpowergroup.com/media-center/news-releases/talent-shortages-at-record-high-45-of-employers-around-the-world-report-difficulty-filling-rolestalent-shortages-at-record-high-45-of-employers-around-the-world-report-difficulty-filling-roles>



Making an impact around the world

How many problems can be solved in 300,000 hours?

3M is going to find out because the company has expanded its 2025 Sustainability Goals with a new commitment: provide 300,000 work hours of skills-based volunteerism by 3M employees to improve lives and help solve society's toughest challenges.

"NGOs, universities, and social enterprises around the world face resource constraints to address the environmental and social challenges in their communities," says Gayle Schueller, 3M Vice President and Chief Sustainability Officer. "With this new goal, we're empowering our employees to give back beyond 3M products and technologies, as well as traditional volunteerism, by leveraging their professional skills to help organizations reach their goals."

To reach 300,000 hours, the company is expanding 3M Impact, its skills-based service program where employees lend their business skills, experience, and energy to make a difference in global communities, while also developing leadership, problem-solving, and interpersonal communication skills.

"This new commitment will make 3M Impact the fastest-growing skills-based global pro bono program," says Gavin Cepelak, Senior Vice President, Global Pro Bono at PYXERA Global, the advisory firm 3M partners with to facilitate the diverse 3M Impact projects.

Strong from the start

3M Impact got its start in 2017 when 3M sent 50 global employees to three countries (Malaysia, Vietnam, and Indonesia) to work on-site with local nonprofit organizations for two weeks.


In its second year, 2018, 3M Impact launched 3M Impact Local in both St. Paul, Minnesota, and Mexico City, Mexico, offering volunteer opportunities for 3M employees in their own communities.

3M Impact in a Day was added in 2019. The program organized a week of half-day service hackathons connecting 100 3M employees with more than 20 local nonprofits seeking functional expertise on a specific project. Also in 2019, the global program expanded from 50 to 125 participants who traveled to nine cities around the world.

In the fall of 2019, 200 3M employees were selected for the next wave of 3M Impact Global, making up 15 cohorts in cities around the world to work side by side with nonprofits, organizations, and local municipalities.



Science for Community goal:

300k 
skills-based volunteer hours by 3M employees by 2025

Lasting relationships

Although the global and local 3M Impact projects are designed for short-term engagement, in many cases, the relationship and collaboration continue far past the project end date.

MySkills Foundation is one of the organizations that participated in 3M Impact's inaugural year. Located in Kuala Lumpur, Malaysia, MySkills is a nonprofit organization dedicated to providing second-chance opportunities for at-risk youth in the ethnic Indian community of Malaysia.

When discussing the results achieved by the 3M Impact team in 2017, MySkills CEO Devasharma Gangadaran says MySkills "was deeply impacted by the relentless effort of 3M to transform lives of youth at risk in Malaysia. We had a vision for a self-sustaining campus with numerous enterprising ventures in the future, and they helped us make it real in a short amount of time."

More than two years after the initial 3M Impact project, 3M is still involved with MySkills, providing a grant in 2018 to help them continue their life-changing programs and to help them implement the 3M Impact team recommendations. And in 2019, 56 3M Malaysia employees, including 3M Malaysia's Managing Director, volunteered at MySkills for an inspiring Volunteer Day.

The Kids in Need Foundation (KINF) is another organization that has benefited from 3M Impact after participating in the 2019 half-day hackathon, 3M Impact in a Day.

KINF is a national organization whose mission is to source free school supplies for students with the greatest need, but they were experiencing a backlog after dozens of school supply drives. During the hackathon, KINF and a half dozen 3M employees brainstormed solutions and developed recommendations to streamline donation processing. But the partnership didn't end there. The effort continued when the 3M Impact in a Day team partnered with 3M Optimized Operations employees — a rotational program for supply chain and engineering — and, as a result, reduced KINF's supply donation cycle time from two months to four days during the 112 school supply drives it conducted in 2019.

Supporting 3M's Strategic Sustainability Framework

In addition to assisting groups and organizations in need, 3M Impact volunteer opportunities all align to 3M's Strategic Sustainability Framework, advancing the company's commitments to Science for Circular, Science for Climate, and Science for Community.

The MySkills and KINF projects are aligned to 3M's Science for Community pillar. Other examples include designing a structured STEAM (science, technology, engineering, the arts, and mathematics) curriculum for students ages 7–12 in China (Science for Community), analyzing the potential for material and energy recovery through waste management in Morocco (Science for Circular), and developing a scalable business model for a sustainable transport company in Colombia (Science for Climate).

You make it real: STEM + VR

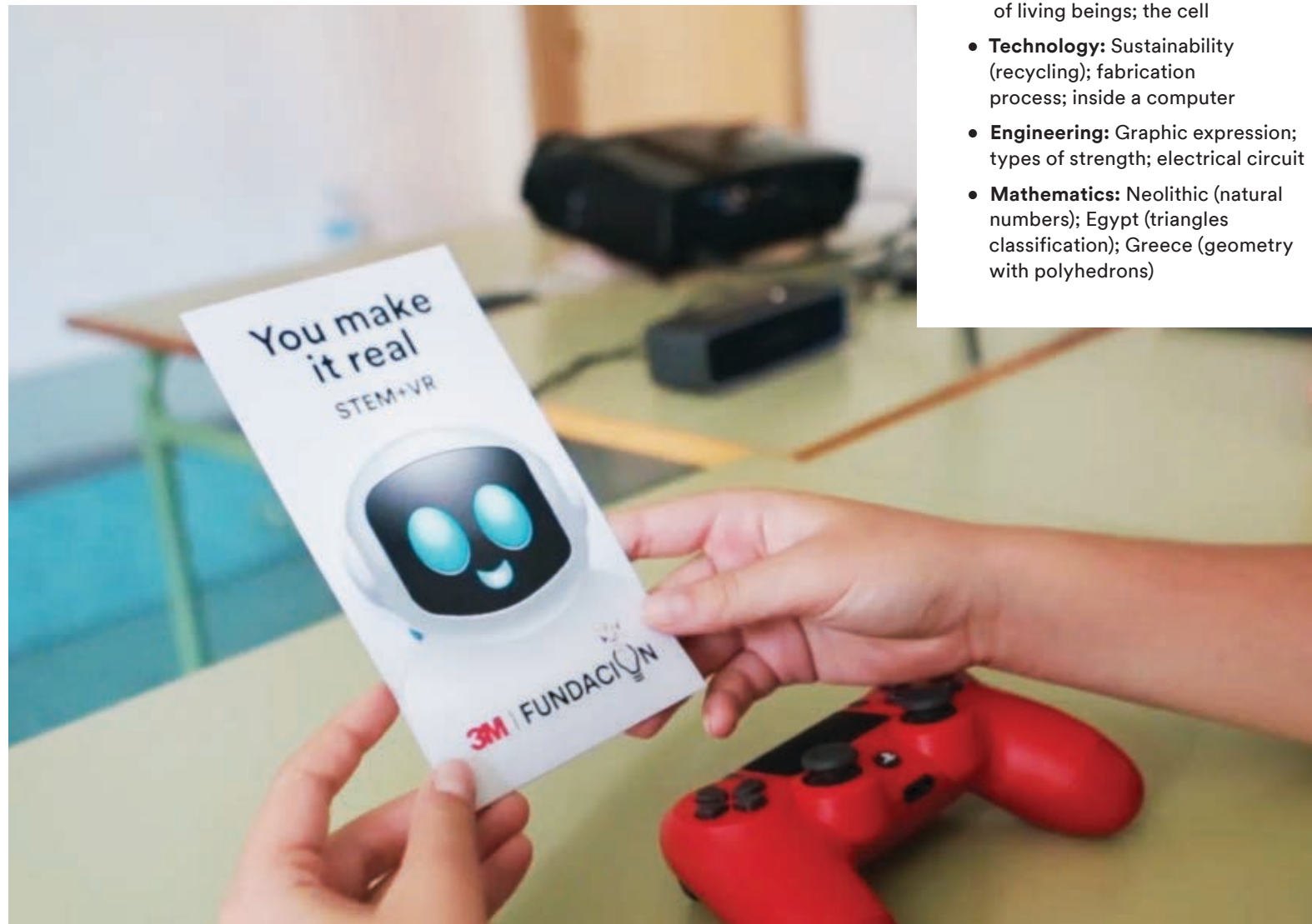
3M Spain Foundation partners with PlayStation® Spain to bring virtual reality video game to teens

A virtual reality (VR) video game in Spain is changing the way young teenagers feel about science, technology, engineering, and mathematics (STEM) subjects.

3M Spain Foundation partnered with VR company Presentys to create a multilingual VR platform on PlayStation® Spain containing the four different STEM teaching blocks. Each teaching block is divided into three separate modules in order to foster collaborative work.

The goal of the project is to encourage students to pursue STEM careers as part of 3M's strategic focus on Science for Community. Targeted to students ages 12-15, the game was activated in 60 schools (with many more on a waiting list), six summer STEM camps, and seven hospitals, reaching more than 7,000 students in 2019.

A year and a half in the making, the video game, called "[You make it real](#)," is designed to be experienced in groups of three players at a time.



Each of the four blocks (science, technology, engineering, and mathematics) is 20 minutes long and contains three modules. In each module, the kids visit different locations and scenarios, learn specific content about STEM subjects, and must solve challenges together. Each of the players gets the chance to "live" one of the modules by wearing the PlayStation® VR headset.

Topics covered include:

- **Science:** Solar system; classification of living beings; the cell
- **Technology:** Sustainability (recycling); fabrication process; inside a computer
- **Engineering:** Graphic expression; types of strength; electrical circuit
- **Mathematics:** Neolithic (natural numbers); Egypt (triangles classification); Greece (geometry with polyhedrons)

When the game begins, a robot-like guide called "Pi" (referring to the infinite decimal π) welcomes the players to the 3M Foundation virtual experience. "You will see that it is going to be very fun, but I warn you that you must be alert during our tour since you will have to solve collaborative challenges in order to continue," Pi says.

The players are then prompted to build and design their avatars for the game, choosing hair, outfits, and other features to personalize their experience. Once complete, the game begins.

The launch of "You make it real" was a huge success in Spain — 91% of the participants said they would repeat it.

"It is a more effective method for learning that kids prefer, by including games," says one of the students who tried it.



"You make it real" reached

7,000 

students in 2019

The game was initially available as a free download in Spain in the PlayStation® store and expanded to be available as a free download in 21 additional English, Spanish, French, and Portuguese-speaking countries. In 2020 it will also be available in the United States and South America.

Future plans are to use the game as an inclusion activity to help students in difficult social situations or with different abilities, as well as to continue promoting activities that focus on STEM careers for girls.

The 3M Spain Foundation is now preparing for the launch of its next big project: an inclusive video game focusing on recycling that will be presented at the beginning of 2020.

Columbia, Missouri

3M site spotlight



The 375,000-square-foot plant in Columbia, Missouri, supports 3M's Health Care Business Group and manufactures thousands of product variations that fall into multiple product groups.

Examples include [Littmann® Stethoscopes](#) (the #1 brand of stethoscope in the medical community), purification filters, and sterilized products and solutions used to help protect surgical patients from infections.

3M Columbia sits on 100 acres in the central part of the United States at the confluence of two major highway corridors, with local air and rail service. The site has over 50,000 square feet of classified clean rooms, a 16,000-square-foot high bay warehouse, and over 175,000 square feet of clean manufacturing space. “We have strong technical expertise in automated assembly, highly regulated drug and medical device manufacturing, clean-room manufacturing, specialty coatings and vapor processing, microbiology, and analytical chemistry,” says Plant Manager Jim Burkhardt.

The Columbia site is proud of its “customer first” attitude and customer support success, which are benchmarks in the industry. Internal and external quality levels are extremely high, with excellent service levels.



200 
hours volunteered
at the annual United Way
Day of Caring

Environmental performance and employee safety achievements

3M Columbia stopped shipping waste to the local landfill in September 2018 and is now officially a “zero landfill” designated site. The site accomplished this by demonstrating a strong focus on recycling, which was the first step in the process, and then ultimately leveraging a waste-to-energy facility to process what was unable to be recycled. The zero landfill efforts removed 180 tons per year of landfill waste being sent to the Columbia landfill. This accomplishment, together with continued efforts to reduce its energy footprint, enabled the site to be recognized in the city of Columbia as a 2019 winner of the Mayor’s Climate Protection Award.

Beyond its environmental achievements, the site has seen increasing engagement from its employees in driving continuous improvement, specifically in the area of safety. Many employees are active in small continuous improvement projects — successfully completing 52 projects in 2019, which doubled the number completed in 2018.

Additionally, many employees are engaged on safety teams, where they take time to focus on hazard recognition in an effort to improve the safety of the workplace for all employees.

STEM support and more

Community engagement is a priority at 3M Columbia. One specific objective is the expectation to “demonstrate a strong brand in the community, linked through engagement and education.” The site is very involved with local science, technology, engineering, and mathematics (STEM) education and is a fixture in supporting organizations throughout the community that bring education to those in need.

3M Columbia proactively connects local nonprofits with employees and grants from 3M or 3M Foundation. In the past several years, the site has directed grants toward many local organizations, including the Columbia Center for Urban Agriculture, Columbia STEM Alliance, Girls in STEM summer camp, Columbia College science, technology, engineering, the arts, and mathematics Summer Camp, and FIRST Robotics League.

Beyond grants and cash funding, 3M volunteers participate annually in the local United Way Day of Caring, spending over 200 volunteer hours helping with the event. Additionally, 3M Columbia employees regularly support the local food bank, and the site is a sponsor of the FIRST Robotics league. 3M Columbia also hosts a segment of the Leadership Columbia curriculum, enabling community leaders to engage with the plant as well as host visits from local schools, such as students from University of Missouri and teachers from Columbia Public Schools. This type of community engagement is not new — 3M Columbia has been a Partner in Education with Shepard Elementary School for 35 years.

Visit the [3M Columbia website](#) to learn more.

Kuan-Yin, Taiwan

3M site spotlight

Alpha Beta Global Tapes and Adhesives Co., Ltd. (GTA), has been a wholly owned 3M subsidiary since 2011, with two state-of-the-art manufacturing facilities located in the Kuan-Yin Industrial District on the outskirts of Taipei, Taiwan.

GTA manufactures private-label premium pressure-sensitive tapes, including acrylic packaging tapes, hot melt packaging tapes, and a variety of masking tapes for its customers.

Both GTA factories are equipped with advanced coating equipment, fully automatic warehousing, quality control labs, research and development labs, converting facilities, and conference centers.

GTA is part of 3M's Safety & Industrial Business Group's Closure & Masking Systems Division (CMSD), with almost 350 employees and sales in nearly 70 countries worldwide.

GTA has a long history of environmental performance.

The site was first registered for ISO 14001 certification in 1998 and received the certification of Certified Green Partners® in 2003. One of GTA's most notable accomplishments has been to significantly reduce its volatile organic compound (VOC) usage and emissions. Its packaging tapes are manufactured using a solvent-free process, and its masking tapes are manufactured using advanced coating equipment that can recover and reuse more than 99% of solvents. This not only exceeds regulatory requirements, but it increases profitability by reducing the quantity of solvent purchased.



GTA employees believe in working together to give back to their communities.

In 2018, employees and their families participated in a local coastline cleanup volunteer activity in partnership with the Civil Affairs Office of Xinwu District, Taoyuan.

In 2019, employees volunteered at the Reindeer Social Welfare Foundation, rebuilding the local children's home, spending time with the children, and helping meet their day-to-day needs by providing them with daily essentials.

Visit the [Alpha Beta Global Tapes and Adhesives Co., Ltd \(GTA\) website](#) to learn more.

The site was registered ISO 14001 in 1998 and received the certification of Certified Green Partners® in 2003.

Springfield, Missouri

3M site spotlight

Springfield, Missouri, may be best known as the birthplace of historic U.S. Route 66, one of the original highways in the United States.

But it's also home to 3M's Springfield plant, which manufactures a variety of adhesives, tapes, abrasives, and films. The products produced here are used to bond aircraft and automotive components; help protect people from fire; make sure boats are sealed; and assemble sporting goods and electronics — just to name a few applications.

3M Springfield is on track to save approximately **100**  tons of waste by the end of 2020.



3M's Pollution Prevention Pays (3P) program, which began in 1975, is alive and well at 3M Springfield, which had 13 3P project goals in 2019.

Most of these projects are focused on yield improvements and waste reduction at the production lines and are on track to save approximately 100 tons of waste by the end of 2020.

3M Springfield is proud of its close-knit family atmosphere, and it shows in the efforts that employees are making regarding Sustainability, both at work and at home.

In 2018, they developed a Green Team to focus on Sustainability at the site, which also encourages employees to take Sustainability home with them. The team increased recycling efforts in the production facility. In 2019, the Green Team gave away native Missouri seedling trees for employees to take home and plant.

Visit the [3M Springfield website](#) to learn more.

3M Springfield has been producing some of the world's most advanced sealants and adhesives since it opened in 1967. With 450 employees, the 450,000-square-foot site sits on 100 acres of land and supports 3M's Safety & Industrial Business Group (SIBG).

3M Springfield has been busy reducing its environmental impacts.

Multiple projects, such as replacing light fixtures with LED lighting, installing light sensors in the warehouse to eliminate lighting when no one is in the area, and identifying air leaks to reduce the running times of air compressors, have reduced energy usage at the site. 3M Springfield's Quality Department also redesigned its systems to use an energy-saving, on-demand water heater system.



IMPD California


3M site spotlight

3M has been manufacturing roofing granules in California for the asphalt roofing industry since 1948.

3M IMPD California occupies 1,300 acres of land in the Temescal Canyon, located in Riverside County, California, about 45 miles southeast of Los Angeles. The location includes an active mine site, manufacturing operations, and acres of open spaces which provide habitat for a variety of plant and animal species, including some that are endangered.

The roofing granules, shipped to customers along the West Coast in bags, trucks, and by rail, provide long-lasting, weather-resistant protection in an array of colors. The granules are dense, nonporous, UV-ray resistant, and tough enough to withstand handling. Made of a natural mineral product and coated in ceramic, the granules meet the toughest tests of time, weather, and marketplace. The rock used to make the granules is quarried at this location from a mine site that has been active for over 100 years.

In 2019, IMPD California energized a 1-MW solar array providing

20% 
of electrical power required by the plant.

Although it is one of 3M's oldest divisions (Safety & Industrial Business Group, Industrial Mineral Products Division) and facilities, and although roofing granules are one of 3M's oldest products, 3M IMPD California continues to innovate with new roofing granule products that are advancing Sustainability for 3M's customers, their customers, and, finally, the homeowner.

3M™ Cool Roofing Granules

3M™ Cool Roofing Granules are a 3M innovation and an energy-efficiency breakthrough roofing granule technology. In climates with year-round cooling needs, they can help keep a home cool with less energy consumption and lower energy costs because Cool Roofing Granules are up to four times more reflective than comparable conventional colored granules.

3M™ Smog-reducing Granules

In 2018, 3M launched 3M™ Smog-reducing Granules, which harness the power of the sun to turn roofing shingles into a pollution-fighting surface. When the sun hits the granules, the photocatalytic coating transforms the smog pollution (nitrogen oxides) into water-soluble ions that safely wash away with rain. The product has won numerous awards, including being named one of TIME magazine's Best Inventions of 2018 in the Sustainability & Social Good category.

3M™ Natural Pozzolan

3M™ Natural Pozzolan is a new product developed for the cement industry as a Supplementary Cementitious Material (SCM). By utilizing 3M Natural Pozzolan as a cement replacement, the greenhouse gas footprint of a yard of concrete is also reduced.

In addition to manufacturing sustainable products, 3M IMPD California is committed to advancing Sustainability in its operations.

3M IMPD California is certified to the ISO 14001:2015 standard, recycles 100% of process water, utilizes low NO_x natural gas burners, and in 2019, energized a 1-megawatt solar array which provides 20% of the electrical power required by the plant. In addition, all forms of the mined rock are used in 3M products or in the aggregate industry, resulting in no mineral waste generated.

3M IMPD California is very active in the local community, using 3M Foundation grants, sponsorships, board membership, and volunteerism to make a positive difference.



In 2019, through nominations from 3M IMPD California, two local nonprofits were recipients of 3M Foundation grants. Santa Rosa Environmental Plateau received the Eco Grant (\$15,000), and Corona-Norco United Way received the Community Vibrancy Grant (\$25,000).

3M IMPD California also enjoys hosting local schools on field trips and has set up learning stations in the areas of personal protective equipment, supply chain, geology, and quality testing. 3M IMPD California is also actively involved in the planning, sponsorship of, and participation in the Riverside County Women's Leadership Conference, which is a half-day conference with speakers and vendors aligned to the theme of Celebrating the Power and Passion of Women.

Visit the [3M IMPD California website](#) to learn more.



Nevada, Missouri

3M site spotlight

Opened in 1971 with less than 25 employees, 3M's plant in Nevada, Missouri, has expanded six times over the years and now boasts nearly 725 employees.

3M Nevada is the largest of 3M's Commercial Solutions Division (CSD) sites. CSD provides powerful solutions to customers to enhance the impact of their brand.

Operations at the Nevada plant include compounding, coating, and converting. In addition, 3M Nevada produces products for 16 other 3M Divisions, demonstrating diverse capabilities across this complex manufacturing site.

You can see products from the Nevada site in many places, including fleet vehicles, truck/trailer over-the-road hauling, billboards, translucent signage, and more. Their products are also used for high-end car wraps and refreshing marketing in stores or restaurants.

The plant is involved with several initiatives that lend to its focus on Sustainability.



From 2018 through 2019,

1,316 

tons of waste have been diverted from landfills.

Products

One of the product lines manufactured at Nevada is called [3M™ Envision™](#), a non-PVC intermediate film option that is GREENGUARD Gold Certified for low emissions of volatile organic compounds into indoor environments.

Diverting waste

The Nevada plant is active in 3M's Pollution Prevention Pays (3P) program. Plant engineers have submitted over 30 3P projects from 2018 through 2019, resulting in 1,316 tons of waste diverted from landfills.

Employee engagement

Employee-led teams championed the recycling efforts at the plant. The teams engaged with employees through a poster program designed to raise awareness of recycling efforts within the plant. The team reused containers on-site as recycling collection bins, mapped the locations for the bins by most use, and created a material flow map for continual collection of recyclables to pre-selected main collection and sorting areas.

Energy

3M Nevada received the 2018 3M Plant Energy Platinum Level Award for a 7.3% reduction in energy intensity between 2015-2017. Energy reduction efforts resulted in an energy use per pound of product reduction of 6.1%.

Community engagement

3M Nevada has applied for and received several grants from 3M Foundation. Over the past three years, these grants were used for science, technology, engineering, and mathematics (STEM) development and enhancement programs at local schools and within the community. Two environmentally focused grants, in collaboration with community donors, were used to create an outdoor learning space for the local community to enjoy. A walking trail includes pedestrian bridges and spillway development with signage. The project also includes ADA-compliant fishing docks, floating wetlands, and a butterfly garden.

Another 3M Foundation grant provided a STEM learning opportunity for Nevada's local YMCA summer program participants, funding a field trip to the Wonders of Wildlife National Museum and Aquarium.

The 3M Nevada staff takes part in many STEM programs at local schools, including STEM demonstrations, STEM Night at the local middle school, and the "Smart Girls Rock" program.

They also dedicate time to the Adopt A Highway® program. Employee teams rotate dedicated roadside clean-up activities quarterly.

Visit the [3M Nevada website](#) to learn more.

Who we are



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Impacting the world for the greater good.

Imagine a world where every life is improved.

At 3M, we look at Sustainability in terms of shared global needs. To have a sustainable future, many challenges must be addressed, including limited natural resources, lack of access to education and health care, inadequate food supplies, rapid urbanization, stressed water systems, and a global climate crisis. Even though the solutions aren't always clear, we are ready to take them on. From our highly collaborative work environment to our community of scientists and [51 core Technology Platforms](#), we have the resources and the desire to make a real difference in the world.

Sustainability has long been at the heart of 3M, and we're always trying to do more. In 2019, we took measures that will lead into a decade of action. This is the story of how we are doing it — setting aggressive goals, requiring Sustainability to be built into every new 3M product, and using science to change the world and make it more sustainable for future generations. And we aren't doing it alone.

We understand that the impact we can make as we improve our business, our planet, and every life can be far greater when we join forces with our customers, communities, and partners.

This is the continued story of our purpose:

#improvinglives



3M Value Model

The power of 3M comes from the way we connect our strengths to our customers.

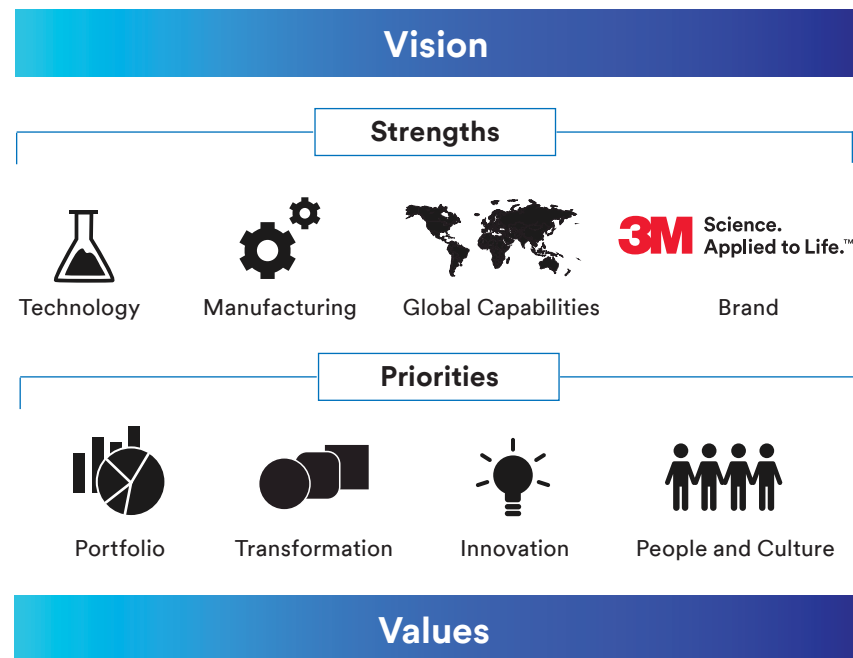
These fundamental strengths — technology, manufacturing, global capabilities, and brand — are the core of 3M.

3M's Value Model requires an intense focus on Sustainability. It is at the heart of our innovation. We grow our business by collaborating to help solve some of humanity's greatest challenges.

Our Values bind us together and are shared across all regions of the globe. These collective ideals exemplify how all employees should act to drive growth, development, reputation, and impact with every action.

Our commitment

Our Value Model makes us unique among companies and differentiates us in the marketplace. This Value Model links our Vision, our fundamental strengths, the priorities we're driving, and our Values as a company.



3M's Value Model requires an intense focus on Sustainability. It is at the heart of our innovation.

Our Vision

3M's corporate Vision inspires and motivates us. It's our North Star, guiding our work every day:

- 3M Technology Advancing Every Company
- 3M Products Enhancing Every Home
- 3M Innovation Improving Every Life

Our Vision is about how we use our technology, our products, and our innovation to improve every company, every home, and every life — for each of our customers, every day. Our Vision is aspirational and drives us as we look to the future, and it serves as a daily reminder of what the 3M Brand stands for.

Our Values

Our Values come to life through the dedicated efforts of our employees who aim to "Be 3M" — by being inclusive, respectful, encouraging, and by being champions of diversity and Sustainability.

How do we become the most inclusive enterprise we can be? By attracting top talent around the world. This leads to a much more diverse 3M, a stronger 3M, a more creative 3M, a higher-performing 3M.

We believe in supporting each individual by respecting, encouraging, and challenging everyone in the company to be their best. It's embedded in our company Values, and it takes a strong, inclusive culture to make it happen. With unequivocal support, 3M employees can succeed in their individual careers, as part of a team, and as part of the entire enterprise.



Our Strategic Sustainability Framework

Our Vision and our Values drive and inform our approach to Sustainability through our Strategic Sustainability Framework, which guides business decisions and strategy where we can make the greatest impact.

Advancing Sustainability for 3M is a priority. It's not just for 3M; it's for all of our stakeholders.

We have set a clear commitment and an ambitious, long-term strategy that will leverage our passion for science. We believe this is what makes us uniquely capable to deliver on our purpose. Our intent is to use a science-based approach to tackle challenges most material to 3M and critical to our planet and the people living on it. Building on our global capabilities and diverse technologies, we are focusing on three priority areas:

Science for Circular

Design solutions that do more with less material, advancing a global circular economy.

Our current global economy's linear business model of "take, make, and waste" is depleting natural resources faster than they can be replenished and straining ecosystems. Imagine repurposing a piece of plastic at the end of its use, giving it another life as something else. Its use is, in fact, circular, and the end of use doesn't mean the end of life.

A circular economy does more with less, keeps products and materials in use, designs out waste and pollution, and regenerates natural systems. At the core is an opportunity to develop technologies and business models that are restorative and regenerative by design. At 3M, we see the circular economy as an opportunity to inspire leadership, innovation, and disruptive change, all driving impact for a sustainable future.

For more information, see the [Circular materials](#) section.

Science for Climate

Innovate to decarbonize industry, accelerate global climate solutions and improve our environmental footprint.

There is no question that climate change is the greatest challenge we face as a global community. Its impacts are widespread, and its risks are not limited by continent, industry, or even species.

At 3M, we support the global consensus set forth in the 2015 Paris Agreement, and we are incorporating the 2018 findings of the Special Report on Global Warming of 1.5°C by the Intergovernmental Panel on Climate Change into our goals, operations, and actions. The global climate crisis impacts business, our communities, and our families. We believe that by working together, we can drive the systemic change needed. We recognize the work to be done and are inspired by the opportunity to chart our collective path forward.

For more information, see the [Climate and energy](#) section.

Science for Community

Create a more positive world through science and inspire people to join us.

By 2050, the world population is expected to surpass nine billion people. Science is more important than ever to help our growing population live well. We need scientific solutions to global challenges like climate change, accessible health care, interconnectivity, and safe workplaces — and technical skills are increasingly required for all types of jobs.

3M's [2019 State of Science Index](#) (a survey of 14,000 people across 14 countries) concludes that attitudes about science are complex. Yet around the world, people are curious and agree that science needs champions to deliver on its potential for future generations.

At 3M, we recognize the importance of science and use it every day to improve the lives of people in our communities and around the world. We know that in order to solve global challenges we need new technologies, creative scientists, and evidence-based policies and decisions to drive impactful change. We also recognize the importance of well-trained science, technology, engineering, and mathematics (STEM) graduates and the critical need for a diverse workforce with advanced manufacturing and vocational skills. We believe in the power of science, sharing our expertise, and investing in the bright minds of tomorrow. Together we will lead and design a sustainable future for all.

For more information, see the [Communities](#) section.

Advancing Sustainability for 3M is a priority. It's not just for 3M; it's for all of our stakeholders.

Our actions

We are a science-based company with many stakeholders: customers, consumers, investors, government agencies, industry organizations, subject-matter experts, academia, non-government organizations (NGOs), and other corporations.

When it comes to strategic planning, partnerships, environmental and social goal setting, and reporting, we seek and rely on both internal and external input in order to understand the top social, economic, and environmental global challenges.

Stakeholder engagement

3M's stakeholder engagement strategy on priority focus areas continues to evolve. We continually look to our stakeholders to help us increase understanding, broaden our awareness, seek technical input and expertise, and evaluate possible collaborations and strategic partnerships. We rely on their counsel and expertise to help guide us. We believe stakeholder engagement should be based on candid and authentic dialogue — grounded in the company's Values — and should contribute to the evolution of our strategic priorities.

Stakeholder engagement varies greatly by geography, type, and function. For example, we frequently engage 3M employees globally through Sustainability communications and events with diverse content based on our materiality topics.

Materiality assessment

In 2014, 2016, and 2018, 3M commissioned GlobeScan, an independent research consultancy, to assist us in better understanding our stakeholders' perspectives on key issues and assessing our corporate reputation and leadership opportunities.

Through an in-depth interview process conducted for the 2018 assessment, stakeholders shared their short-term (0 to 1 year), medium-term (1 to 5 years), and long-term (10-plus years) expectations for 3M. As part of the process, they revisited top focus areas identified in 2016 compared with current areas.

Stakeholders included in the comparative assessment consisted of academia, consultants, customers, governmental/regulatory agencies, group purchasing organizations, NGOs, trade unions, 3M retirees, and non-3M private-sector businesses. At the same time, 3M conducted a similar process through an internal online employee survey. Following completion of the interviews, GlobeScan analyzed insights and inputs from the stakeholders to develop our evidence-based focus area matrix.

From this matrix, 3M and the readers of this report can understand stakeholder expectations and the degree of importance they place on each issue, the ability of 3M to make a positive difference on the issue, and the level of impact an issue may have on our reputation.

Past, present, and future focus areas

From our 2018 assessment, the top focus areas for stakeholders center around climate change, waste from operations, fresh-water shortages, energy use, human rights, and the reduction of toxic substances. Most of these focus areas were perceived to have increased in importance since 2016, along with scarcity of raw materials, water quality, social equality, and ethical business practices.

More than ever, we need science. The resilience of our planet, our people, and our economy depends on it.

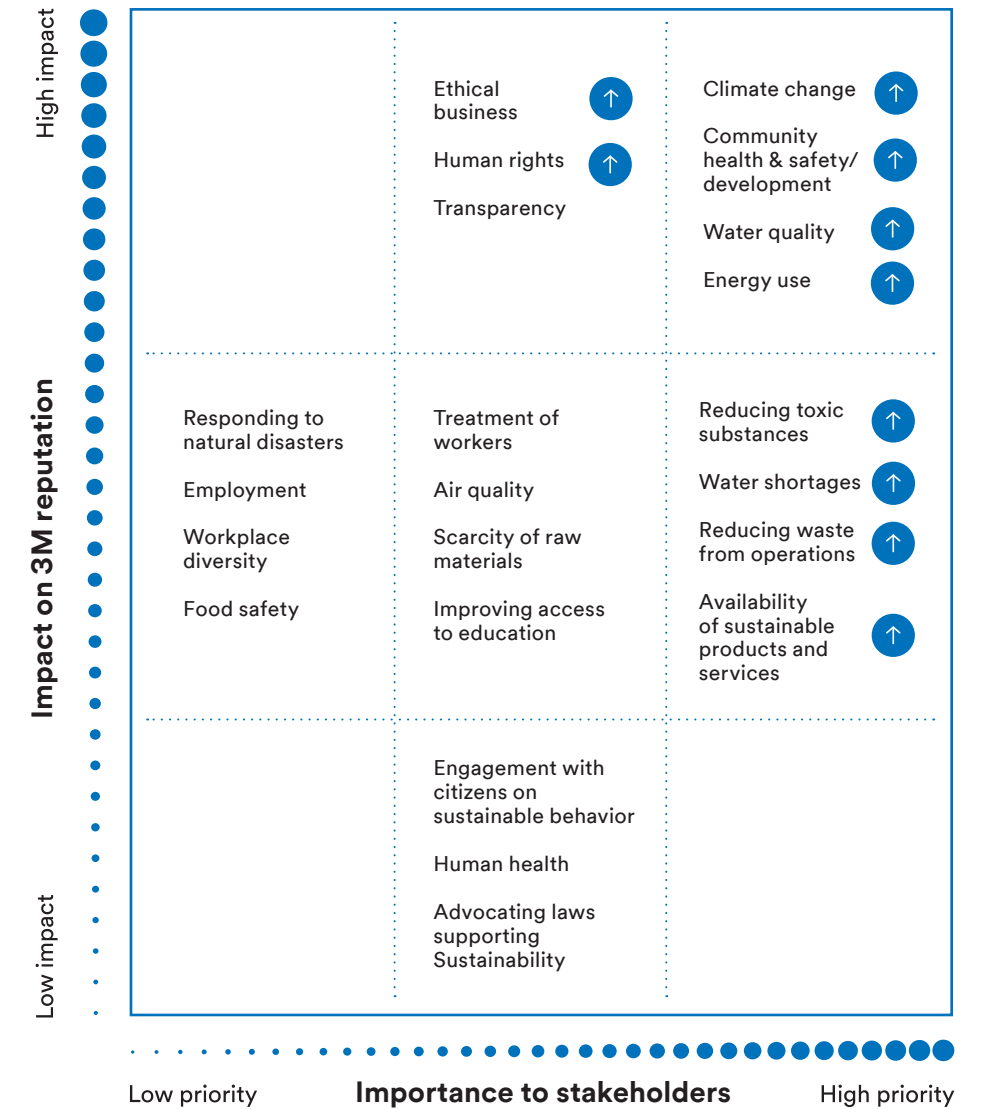


The feedback from this assessment was incorporated into our consideration for our Strategic Sustainability Framework, goals, and actions as we continue to evolve and advance our company purpose. Moving forward, we will continue a consistent rhythm to produce a comprehensive third-party focus area (materiality) assessment.

Data provided in this report includes information on issues that were found through this assessment to have the highest potential to impact our reputation and that are of great importance to internal and external stakeholders. Because we are a diversified company, several other environment-related topics and performance indicators relevant to various sectors of the company are also included in the report. 3M's executive-level Innovation Steering Committee reviews, approves, and assures material topics are covered in our Sustainability Report. In addition, effective November 2019, the 3M Science, Technology, and Sustainability Committee of the Board of Directors will annually review the company's Sustainability Report.

All material aspects defined within this report are deemed material for all entities within the 3M organization. The prioritization for the different aspects may vary within 3M operations and geographies, but they are still material.

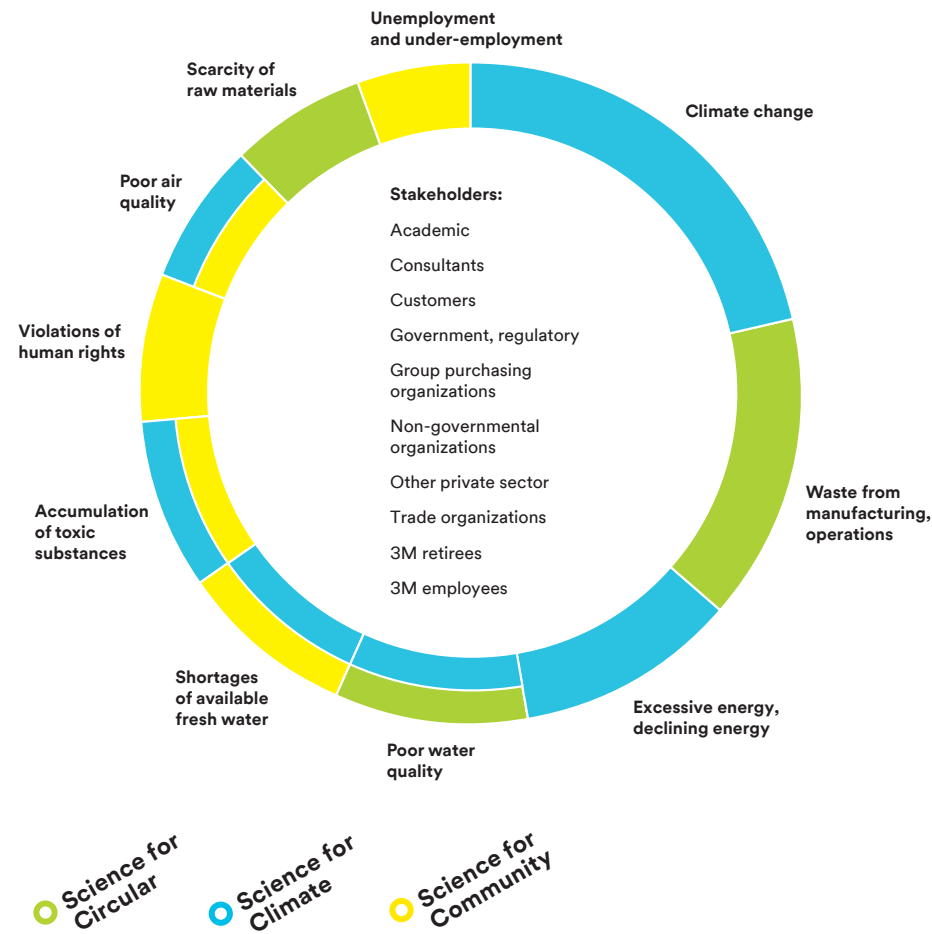
2019 focus areas*



↑ Indicates a higher priority on 2018 versus the 2016 assessment

*Based on 2018 focus area assessment

2019 stakeholder assessment key focus areas



Membership and partnership

External engagements and collaboration efforts on priority focus areas help provide us with diverse viewpoints, a better understanding of the positions of our stakeholders, and a mechanism to learn from the successes and failures of our peers, all of which contribute to our commitment to a purpose-driven business.

As part of GlobeScan's 2018 interview process, stakeholders responded to a series of questions around the topic of engagement tactics. During these interviews, stakeholders mentioned a variety of groups to prioritize, including customers/consumers, local communities, investors, government agencies, and NGOs. In addition, they preferred communication that is simple, intuitive, and easy to understand (e.g., this report, blogs, and news releases).

Stakeholder engagement and collaboration efforts are core to how we are moving our strategies and actions within our Strategic Sustainability Framework. With that in mind, you will find examples of these efforts throughout this report.



Looking forward

The world around us is changing fast. Waste and resource scarcity threaten our natural systems and every species. Climate change is accelerating and endangers everyone's well-being. People around the world will need to come together to create a more positive future in which everyone can thrive. More than ever, we need science. The resilience of our planet, our people, and our economy depends on it.

We believe we can help. This is our purpose. That is why we are committed to three priority areas — Science for Circular, Science for Climate, and Science for Community — and it is why we are reinventing the products, processes, and systems that will improve every life. We are transforming our business and putting science to work for the greater good.

In 2020, we will be conducting another materiality assessment to assist us in better understanding our stakeholders' perspectives on key issues and assessing our corporate reputation and leadership opportunities.

Advancing impact

Accelerating efforts to help solve the world's biggest challenges.

Our commitment

For more than 40 years, 3M has been a leader among global corporations in Sustainability actions and measures, beginning with the creation of our groundbreaking 3M Pollution Prevention Pays (3P) program in 1975.

Our goals are becoming stronger and gaining momentum as we recognize how much needs to be done in order to make the world more sustainable for future generations. We are heading into a decade of action that will help accelerate solutions to the world's biggest challenges. We are committed to doing much more than just focusing on what benefits us as a company. We have a commitment — and the ability — to use our resources and capabilities to impact the world.

Our stakeholders expect this of us, and we expect it of ourselves. In 2015, we launched our 2025 Sustainability Goals, expanding beyond 3M to include customers, suppliers, and social impact. The goals we are pursuing reflect a heightened commitment to going beyond compliance and thinking holistically about how our operations and products affect the world and every life in it.

We see the opportunity, in the next decade, to create systemic change within the three pillars of our Strategic Sustainability Framework.

Our goals align with the United Nations 2030 agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDGs). Additional information on United Nations SDG alignment can be found in the [About report](#) section.

Our Strategic Sustainability Framework helps us apply science to improve every life.

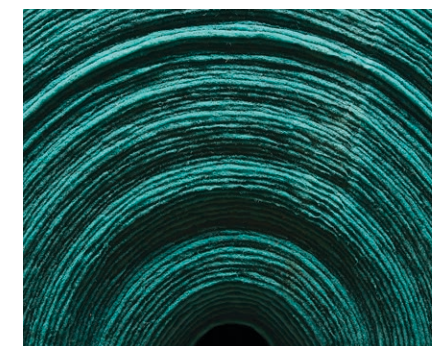
It also guides our business decisions and strategy, as well as how we focus our efforts for local and global community impact. For that reason, we've reorganized our 2025 Sustainability Goals to fit within each pillar of our Strategic Sustainability Framework — Science for Circular, Science for Climate, and Science for Community.

United Nations SDGs



Science for Circular

Design solutions that do more with less material, advancing a global circular economy.



- Require every new product that enters 3M's new product commercialization process to have a Sustainability Value Commitment, demonstrating how it drives impact for the greater good starting in 2019
- Reduce manufacturing waste by an additional 10%, indexed to sales by 2025
- Achieve zero landfill status at more than 30% of manufacturing sites by 2025
- Drive supply chain Sustainability through targeted raw material traceability and supplier performance assurance by 2025
- Reduce global water use by an additional 10%, indexed to sales by 2025
- Engage 100% of water-stressed/scarcely communities where 3M manufactures on community-wide approaches to water management by 2025

Science for Climate

Innovate to decarbonize industry, accelerate global climate solutions and improve our environmental footprint.



- Help our customers reduce their GHGs by 250 million tons of CO₂ equivalent emissions through use of 3M products by 2025
- Improve energy efficiency indexed to net sales by 30% by 2025
- Ensure GHG emissions are at least 50% below our 2002 baseline by 2025, while growing our business
- Increase renewable energy to 50% of total electricity use by 2025 and to 100% by 2050

Science for Community

Create a more positive world through science and inspire people to join us.



- Provide training to five million people globally on worker and patient safety by 2025
- Invest cash and products for education, community, and environmental programs by 2025
- 100% participation in employee development programs to advance individual and organizational capabilities by 2025
- Double the pipeline of diverse talent in management to build a diverse workforce by 2025
- Donate 300,000 skills-based work hours across the globe by 2025



Looking forward

With our Strategic Sustainability Framework, we are cutting across industries and silos to collaborate with suppliers, customers, and communities by working together to build a more resilient world. We at 3M have the unique opportunity to apply our passion and collaboration to help the world prosper. Our Strategic Sustainability Framework will enhance and continue to grow our existing Sustainability goals and commitments.

Our customers, and the communities in which we operate, deserve it. Our people are motivated by it. Our future will be all the better for it.

Science for Circular

Design solutions that do more with less material, advancing a global circular economy.

- Achieved 100% Sustainability Value Commitment for new products in 2019; achieving our goal of 100%
- Reduced manufacturing waste by 12.6%, indexed to sales; exceeding goal of 10%
- 35.4% (69 manufacturing sites) zero landfill; exceeding goal of 30% of manufacturing sites
- Completed over 550 supplier assessments: maintaining our commitment to drive supply chain Sustainability through targeted raw material traceability and supplier performance assurance
- Increased water efficiency by 5.76%, indexed to sales; working toward goal of 10% reduction
- Engaged with 100% of sites (18 sites) located in water stress/scarcce areas; maintaining goal of engaging with 100% of communities

Science for Climate

Innovate to decarbonize industry, accelerate global climate solutions and improve our environmental footprint.

- Improved energy efficiency by 3.2%, indexed to sales; behind goal of 30% improvement
- Increased renewable energy footprint to 32.6%, total electricity use; working toward goal of 50% by 2025 and 100% by 2050
- Scope 1 and 2 emissions 68.1% below baseline; ahead of goal of 50% below baseline¹
- Over 58.3 million metric tons CO₂ equivalent customer-avoided emissions; toward goal of 250 million metric tons

Science for Community

Create a more positive world through science and inspire people to join us.

- Provided 1.24 million training instances; toward goal of 5 million training instances
- \$73.3 million investment in total global giving; achieving goal of continuing to invest in global giving programs
- More than 59% participation in employee development programs; toward goal of 100% participation
- Increased pipeline of diverse talent in management from 32.6% to 41.8%; toward goal of doubling the pipeline
- Donated 20,600 skills-based work hours across the globe; toward our goal of 300,000 hours

¹ 2002 baseline year; all others have a 2015 baseline.

Our actions

In 2019, we strengthened our goal to invest to develop more sustainable materials and products to help our customers reach their environmental goals, by requiring that 100% of our products entering the new product commercialization process include a Sustainability Value Commitment. By embedding Sustainability into our R&D process, our brands, and the mindset of our customers and suppliers, we're able to move 3M's growth to new levels and advance our commitment to improving our business, our planet, and every life.

And in 2019, we upped our renewable energy goal from 25% to 50% renewable electricity by 2025 and 100% by 2050. We also added a new Science for Community goal to donate 300,000 skills-based work hours across the globe by 2025. For more information, see our feature stories, ["Flipping the switch on renewable energy"](#) and ["Making an impact around the world."](#)

Communities

Creating a more positive world through science and inspiring others to join us.

Our commitment

3M and 3M Foundation help build sustainable communities through strategic investments and the thoughtful involvement of 3M businesses, sites, and employees worldwide who volunteer and leverage their skills and experience to make a difference in the world.

3M maximizes social impact by combining 3M employee expertise with our products, technologies, and philanthropy. 3M and 3M Foundation develop and implement strategies and partnerships with leading community organizations that have a proven track record for delivering results. Governance is provided by the 3M Foundation Board of Directors and Corporate Contributions Committee, which is comprised of senior-level company executives.

To assure that our support delivers the maximum benefit to the communities being served, 3M and 3M Foundation assess the impact of prospective grants and employee engagement initiatives and provide signature partners with financial support to help evaluate outcomes.



Science for Community

Goal: Invest cash and products for education, community, and environmental programs by 2025.

3M continues to invest in science, technology, engineering, and mathematics (STEM) and business programs. 3M Foundation also serves the needs of our local communities through charitable investments. Additional 3M investments include accelerating global climate solutions and advancing a circular economy to foster sustainable communities and improve the quality of every life. Cash, in-kind investments, and employee engagement remain at the core of both 3M and 3M Foundation strategies. Since 1953, 3M and 3M Foundation have invested \$1.72 billion in cash and product contributions in 3M communities.

Since 1953, 3M and 3M Foundation have invested \$1.72 billion in cash and product contributions in 3M communities.

Science for Community

Goal: Provide 300,000 work hours of skills-based volunteerism by 3M employees to improve lives and help solve society's toughest challenges by 2025.

In 2019, the company announced it was expanding 3M Impact, a skills-based service program that allows employees to lend their business skills, experience, and energy to make a difference in global communities while also developing leadership, problem-solving, and interpersonal communication skills. 3M will provide opportunities for employees in their own communities as well as in the region surrounding 3M's global headquarters in St. Paul, Minnesota. In addition to assisting groups and organizations in need, each one of these projects is designed to support 3M's Strategic Sustainability Framework, advancing our commitments to Science for Circular, Science for Climate, and/or Science for Community. See more in our feature story ["Making an impact around the world."](#)

Our actions

Empowering the next generation

3M empowers the next generation of scientists and engineers by supporting education initiatives that advance equitable outcomes in STEM and business for underrepresented and underresourced students.

Community training resources

As manufacturing evolves and companies like 3M invest in facilities of the future, it is essential that our local technical schools and high schools have access to appropriate technologies and training. Below are some of the programs 3M is investing in to help keep the workforce pipeline flowing.

- The 3M Manufacturing and Academic Partnership (MAP) program provides manufacturing equipment, teacher training, and student scholarships through partnerships with high schools and technical colleges in communities where we operate. Learn more about [creating partnerships to solve the worker shortage problem](#).

Teachers are the most important school-related factor influencing student achievement.

In 2019, we supported

35 

high schools

10 

community and technical schools and provided

65 

- 3M has helped close the workforce gap across many industries around the world by supporting WorldSkills™ since 2013 and SkillsUSA since 2008 — two programs that provide forward-thinking educational programs, events, and competitions. Learn more about skilled trade development by visiting our feature story, [“Helping close the skills gap”](#)
- 3M sponsors an annual event called “Robots Invade the Plaza” that in 2019 brought 22 local high school teams to 3M headquarters to showcase the robots they designed, built, and programmed as part of the FIRST® Robotics Competition. The teams compete throughout the year at events organized by FIRST®, a 3M STEM partner. 3M is committed to helping all students gain access to high-quality STEM programming like FIRST. To support this goal, 3M established a sponsorship application process to assure 3M funding goes to robotics teams that enable underresourced and underrepresented students to participate.

Team sponsorships are one aspect of 3M’s support of FIRST — 3M currently provides an annual total of \$1.5 million in product and financial donations, which includes \$250,000 to support FIRST’s Equity, Diversity, and Inclusion program to increase participation of underrepresented students in robotics. Hundreds of 3M employees share their expertise by volunteering as coaches, mentors, and judges for the FIRST Robotics Competition program

- Teach For America recruits, develops, and supports a diverse network of recent college graduates who make a two-year commitment to teaching in urban and rural communities across the United States. The 3M grant will go toward recruitment, training, and professional development of diverse STEM teachers — recognizing that when teachers reflect student demographics, it is academically beneficial for all students and particularly students of color



Science for teachers and students

Teachers are the most important school-related factor influencing student achievement. Since 1984, 3M has selected 40 teachers each year and helped them improve their classroom instruction by providing an opportunity to experience science in 3M labs and manufacturing sites to discover how we apply science to real life.

The [3M Visiting Wizards](#) are trained 3M volunteers who travel to elementary schools to showcase interesting science demonstrations and fun hands-on experiments. The goal is to encourage students in grades one through six to become interested in science and technology and raise interest in STEM. These simple experiments help students understand how 3M science can impact everyday life and show that science can be fun. Learn more about supporting science and technology teachers by visiting [3M’s Visiting Wizards website](#).

STEM-equity support

To support efforts in communities where our sites are located, 3M awards grants to organizations with effective STEM-equity programs. Below are some 2019 examples.

- Georgia Tech’s Challenge program, also known as “Academic Pre-Season,” offers incoming students an opportunity to prepare for their college experience. Along with participating in courses that simulate their first year, students gain exposure to resources and networks that will support their success. The 3M grant enabled more individuals to participate in this program, which is targeted to students from underrepresented groups who may not have had access to such opportunities before
- STEM scholarships for diverse undergraduate students attending the University of Illinois, Northwestern University, University of Wisconsin, and Georgia Tech enable the students to develop professional skills and participate in research programs as they pursue STEM degrees
- GEM (National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc.) Fellowships support graduate students from underrepresented populations as they earn advanced degrees and gain practical experience in engineering and applied science fields. The grant will bring a fellow to 3M for an advanced-level internship and will also enable GEM fellows to attend national GEM conferences

STEM superheroes campaign

To inspire and empower younger students’ love for STEM, 3M and DoSomething.org launched the STEM Superheroes campaign. Students (ages 13-25) designed posters featuring superheroes who use STEM-related powers to save the world. They were encouraged to display these posters where younger students could see them — such as schools and libraries — to show that STEM is exciting, relevant, and relatable. The campaign encouraged participants to design diverse superheroes so all young students could picture themselves in a future in STEM. Two students who participated in the campaign will receive a \$2,500 scholarship.

One giant STEP for students

Each year for 48 years, the 3M [Science Training Encouragement Program \(STEP\)](#) has offered a nine-month science encouragement experience to underserved students located near 3M’s headquarters in St. Paul, Minnesota. In 2019, 38 junior and senior high school students had the opportunity to participate in on-site science training, mentorship with 3M scientists, and hands-on experience in 3M labs in the summer.

3M has hired many employees who are STEP alumni, working in areas across the company. Read about one 3M scientist’s journey in the story, [“3M’s ‘100-Patent Woman’ Audrey Sherman Explains How She Did It.”](#)

Inspiring employees to make an impact

By investing in programs that promote a circular economy, fight against climate change, and create a more positive world through science, 3M inspires employees to make an impact on the world.

Passion making a difference

When asked why they love to work for 3M, many employees say they enjoy making a difference in the world. The company offers a program called 3M Impact, where employees travel to communities around the world to work on-site with local nonprofit organizations for two weeks. 3M Impact in a Day was added in 2019 — a week of half-day service hackathons connecting 100 3M employees with more than 20 local nonprofits seeking functional expertise on a specific project. Also, in 2019,

the global 3M Impact program expanded from 50 to

125 

participants who traveled to 9 cities around the world.

In 2019, 20,600 skills-based work hours were donated through 3M Impact activities.

Learn more about the [3M Impact program](#).

Post-graduate learning opportunity

The 3M Optimized Operations Experience (O2 Engage) is a manufacturing and supply chain development program that provides recent engineering, supply chain, and environmental, health, and safety graduates the opportunity to jump-start their careers.

A world of volunteers

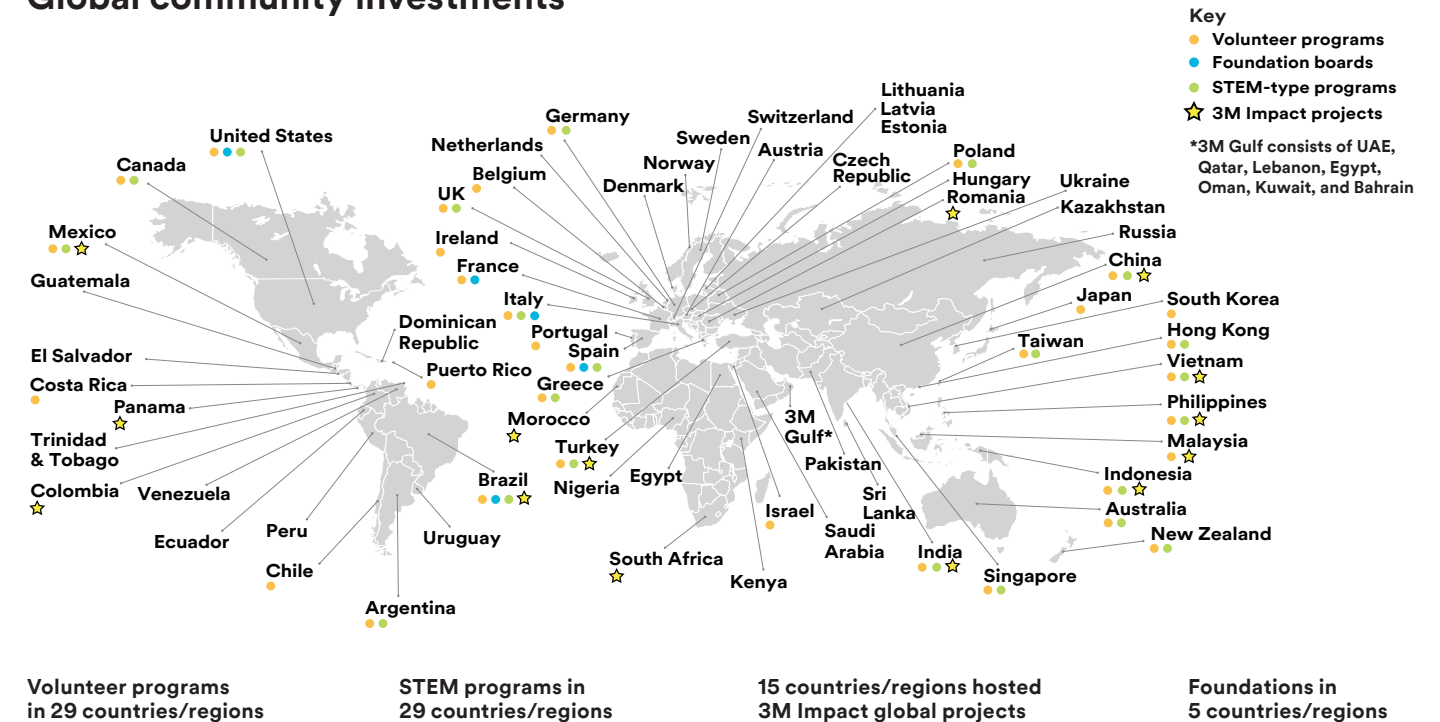
Our sixth annual 3M Global Volunteer Day broke records as more 3M sites got involved this year than ever before. Observed in September, 3M Global Volunteer Day encourages 3M employees to demonstrate our commitment to improving lives by dedicating time to volunteer service. More than 30 international 3M sites around the world organized community engagement activities. Here are a few ways 3M volunteers made a positive impact this year:

- Nearly 30 volunteers from 3M China brought interactive science experiments and contests to the Shanghai Huahong migrant children primary school to increase students' interest in STEM
- Fifty volunteers from 3M Colombia visited the main landfill in Bogotá and planted 200 trees in an area prioritized by the city for reforestation
- Twenty volunteers from 3M Hong Kong prepared 1,100 meal boxes at Food Angel, an organization that rescues edible surplus food from different sectors of the food industry and turns it into nutritious hot meals for people affected by poverty

- Employees from 3M Malaysia spent a day with students at [MySkills](#), a nonprofit that equips at-risk teenagers with skills to prepare them for the workforce. Together, 3M employees and the students completed a landscaping project, painted a mural, and participated in fun science games, including an egg drop challenge
- 3M employees from the Global Service Center in Costa Rica facilitated Sustainability-themed workshops at the Tree Festival at the Parque La Libertad, helping 450 public school students learn about environmental conservation



Global community investments



- More than 100 3M Poland employees and their families helped with painting and upkeep at two orphanages and a social care home
- Nearly 50 volunteers from 3M Mexico took part in forest maintenance activities at Nevado de Toluca, a national protected area, to help prevent forest fires
- 3M Korea brought a few nonprofit partners on-site, including The Beautiful Foundation, which creates aids to provide support and mobility for children with disabilities. Employees helped assemble several eco-friendly aids for donation

- Around three dozen 3M employees across the North Europe Region rolled up their sleeves to support their local communities. Teams from 3M Bracknell undertook gardening projects at residential care homes, and 3M Bangor repainted the children's training room — complete with a mural — at Donaghadee Sailing Club. 3M Atherstone helped clear an area for animals at AIM Educational's new farm, where young people with disabilities or special educational needs will gain practical rural skills along with traditional academic qualifications

- Around 100 volunteers from 3M global headquarters in St. Paul brought hands-on science demonstrations to nearly 900 second-graders in the St. Paul Public School District — helping to inspire the next generation of scientists and engineers

Standing out among standouts

For the past 33 years, the 3M Volunteer Award has celebrated extraordinary 3M volunteers who generously share their time and talents to improve lives in the areas of education, community, or the environment. In 2019, 26 awardees were honored globally, including:

Dr. Boon Kiat Lim, Application Specialist in Singapore, honored for his role in STEM education outreach activities. As a mentor and judge for the 3M Science Outreach Program at the School of Science and Technology, Singapore-3M InnoScience Challenge, Boon Kiat has engaged students in STEM, helped them develop problem-solving skills, and encouraged them to innovate.

Jim Brown, Project Manager in Indianapolis, Indiana, honored for founding and leading the 3M Visiting Wizards program in his city to help inspire the next generation of STEM enthusiasts. Jim also contributes to the restoration of the Goose Pond Fish and Wildlife Area by performing surveys to monitor bird species, serving on the Board of Directors, and coordinating social media for the organization.

Dr. Kevin Qiu, R&D General Manager of Health Care Business Group in China, honored for his regular involvement in 3M volunteer opportunities, such as visiting classrooms to perform engaging STEM demonstrations for students.

Through the Sichuan University Volunteer Group, Kevin also spent two months in a village where he organized writing and STEM education activities for children, helped coordinate best practice sharing among farmers from two villages, and raised donations for families affected by an earthquake.

Alessandra Passos Bassotelli Cauduro, Project Engineer in Brazil, honored for her fundraising and volunteer work with the Lar Pequeno Paraiso elementary school. In addition, Alessandra helps with Instituto 3M (3M Brazil's nonprofit organization) donation campaigns that provide school supplies, toys, and clothing for local children.

2019 giving by focus area

	cash	In-kind	Total	Volunteer hours
Community	\$15,000,000	\$14,300,000	\$29,300,000	273,000
Education	\$14,900,000	\$26,500,000	\$41,400,000	-
Environment	\$2,460,000	\$127,000	\$2,590,000	-
Total	\$32,400,000	\$40,900,000	\$73,300,000	273,000

2019 global giving by region

	cash	In-kind	Total	Volunteer hours
Asia Pacific	\$1,640,000	\$1,550,000	\$3,200,000	16,900
Europe, Middle East, Africa	\$420,000	\$34,000	\$454,000	8,450
Latin America	\$2,150,000	\$744,000	\$2,900,000	10,400
Canada	\$706,000	\$538,000	\$1,240,000	1,170
United States	\$24,100,000	\$33,400,000	\$57,600,000	216,000
OUS, region not defined	\$3,350,000	\$4,560,000	\$7,920,000	20,800
Total	\$32,400,000	\$40,900,000	\$73,300,000	273,000

Values presented in this table represent the most current values, in \$USD, but are still subject to change. Totals may vary due to rounding. Volunteer hours include employees and retirees.

Big hearts, matched

As part of the 3M Foundation Volunteer Match program, 3M Foundation donates money to eligible nonprofit organizations when a 3M employee or retiree volunteers 25 hours or more per calendar year.

Since 2000, 3M Foundation has donated 

\$9.13

million in 3M Volunteer Match dollars

and in 2019, Volunteer Match Grants supported 1,064 unique schools and/or nonprofit organizations throughout the United States.

Giving that starts at home

3M Foundation's Community Giving Campaign has increased its matching amount to help employees support the organizations they are passionate about. 3M's program now matches up to \$500 per employee gift. With a maximum of \$500 in corporate support per employee, the Community Giving Campaign invested more than \$3.58 million in current donations and 2019 pledges. When including the 3M Foundation match, this equals more than \$6.14 million in donations to help solve our communities' greatest needs.



Enhancing community vibrancy

3M and 3M Foundation enhance the vibrancy of our communities by assuring access to basic needs, preparing youth for lifelong success, increasing access to diverse arts opportunities, and contributing to global humanitarian relief efforts.

Go-power for NGOs

3M worked with the National Association for the Exchange of Industrial Resources (NAEIR) to provide needed materials and supplies to a multitude of nonprofit organizations, from hospitals to schools to shelters. In addition to streamlining 3M's excess product donations process, NAEIR is a 3M strategic partner, administering the 3M Supplies for Community Partners and the 3M Supplies for Schools product donation programs in 3M communities across the United States.

Responding to natural disasters

In 2019, 3M and 3M Foundation responded to natural disasters around the world, including:

- Flooding activities in the South, Midwest, and Southeast United States, as well as in South Asia/ Nepal and Mozambique
- Communities in Congo and Rwanda impacted by an Ebola outbreak
- Massive wildfires in California

As is the case every year, the most requested product donation in 2019 was for our respirators, with over 1.6 million donated to disaster relief efforts. 3M Foundation provided support through cash and product donations valued at \$4.53 million through our strategic disaster relief partners — American Red Cross, Direct Relief, GlobalGiving, and MAP International.

Empowering local communities

3M United States sites have their own 3M Foundation budgets as well as the authority to determine local community needs and set priorities. 3M Nevada, in Missouri, used 3M Foundation grants, in collaboration with community donors, to create an outdoor learning space for the local community to enjoy.

A walking trail includes pedestrian bridges and spillway development with signage. The project also includes ADA-compliant fishing docks, floating wetlands, and a butterfly garden. See the [Site spotlight](#) stories for additional examples.

For information on how 3M products help build sustainable communities, visit the [Our customers](#) and [Our products](#) sections.



Looking forward

While 3M's and 3M Foundation's international and United States giving efforts share a common philosophy, our support for international programs stands out in two ways:

- Support for international programs originating in the United States is conducted through intermediary organizations based in the United States that have a global reach
- Subsidiaries have local community engagement programs focused on social concerns specific to their sites

Our international approach is evolving to expand our reach and build local ownership. Our goal is to increase international cash giving (comprising 3M and 3M Foundation cash investments as well as subsidiary cash investments) to 25% of total cash giving by the end of 2020.

In 2020, 3M Foundation's Community Giving Match will double from \$500 to \$1,000 per employee.

The company has expanded its Science for Community goals with a new commitment: provide 300,000 work hours of skills-based volunteerism by 3M employees to improve lives and help solve society's toughest challenges. To reach 300,000 hours, the company is expanding 3M Impact, its skills-based service program where employees lend their business skills, experience, and energy to make a difference in global communities, while also developing leadership, problem-solving, and interpersonal communication skills.

Throughout 2020, 3M will add depth and direction to the Strategic Sustainability Framework, including Science for Community.

Get updates on 3M's [Strategic Sustainability Framework](#).

Employee diversity and inclusion

A thriving, diverse, inclusive culture.

Our commitment

To become the most inclusive enterprise we can be, 3M focuses on engaging all our employees and on attracting top talent around the world. Diversity and inclusion are the foundation of our [Value Model](#). Our Value Model comprises the actions we take that make us unique among companies and differentiate us in our marketplace.

We know that a diverse, global workforce — people with different experience, ethnicity, age, gender, sexual orientation, personalities, styles, and ways of thinking — helps us relate more closely to the needs of all 3M customers, suppliers, and channel partners around the world.

Equally important, we know that inclusion is the key to unlocking the power of diversity. An inclusive culture supports and appreciates differences and provides fair and equal opportunities for everyone — a culture of belonging where people are respected for being exactly who they are.

Inclusion leads to engagement, which in turn fosters the collaboration, creativity, and innovation that drive long-term growth for 3M as well as for our people and our teams.

Above all, fostering a culture that supports diversity and inclusion is the right thing to do. Diversity and inclusion are about creating intellectual and emotional oxygen so all people can flourish and feel comfortable to collaborate, agree, disagree, and respectfully exchange, learn, and create.

Our [Code of Conduct](#) lays out what it means to be a 3M employee and includes the 3M Respectful Workforce Principle:

Be Respectful: We strive to have a work environment that reflects and values the best in all of us, where we treat each other respectfully and professionally, and where individual differences are valued.

3M's [Respectful Workplace Principle](#) states that “everyone is entitled to respectful treatment in the 3M workplace. Being respectful means being treated honestly and professionally, and valuing each person’s unique talents, background, and perspectives. A respectful workplace is free from unlawful discrimination and harassment, but it involves more than compliance with the law. It is a work environment that is free of inappropriate or unprofessional behavior and consistent with 3M’s ethics and values — a place where all employees can do their best and are free to report workplace concerns without fear of retaliation or reprisal.”

To foster this kind of workplace, we follow our [Equal Employment Opportunity](#) (EEO) policies, which prohibit all forms of discrimination or harassment against applicants, employees, vendors, contractors, or customers on the basis of race, color, creed, religion, sex, national origin, age, disability, veteran’s status, pregnancy, genetic information, sexual orientation, marital status, citizenship status, status with regard to public assistance, gender identity/expression, or any other reason prohibited by law.

Our affirmative action policies and programs are designed to assure equal opportunities for qualified minorities, women, covered veterans, and individuals with disabilities and also to provide reasonable accommodations to individuals with disabilities.



Goal: Double the pipeline of diverse talent in management to build a diverse workforce by 2025.

Increasing diversity in every region in which we operate is a core part of our Sustainability strategy. Doubling our diverse talent in management positions will ultimately help build a diverse pipeline for executive leadership as well. We recognize that definitions of diversity vary among different countries and cultures. The 3M definition of diversity includes gender, race/ethnicity, nationality, people with disabilities, U.S. military veterans, and people who identify as lesbian, gay, bisexual, transgender, questioning, and intersex (LGBTQI+). To measure progress against our goal, we use the 3M Diversity Index, which represents the total number of diverse future leaders within the company globally.

In the United States and in many other countries, we provide our people with the opportunity to opt into the index research and confidentially provide information such as disability status, veteran status, sexual orientation, and race/ethnicity.

To date, we have improved our Diversity Index by 9.2 points, moving from 32.6% to 41.8%, progressing toward our 2025 Goal of 65.2%.

Our actions

Every day, we work to assure that the 3M workforce is representative of the people with whom we do business. This entails strengthening 3M’s reputation as a great place for diverse people to work:

- Seeking and attracting diverse and qualified candidates globally
- Building our global pipeline of diverse candidates

Beyond our day-to-day efforts to support diversity in 2019, we also actively promoted initiatives to engage our people, attract the best talent, and create a work environment where everyone feels safe and included.



Science of Inclusion

In 2019, 3M launched a Science of Inclusion training course for employees worldwide that explored how physiological and psychological responses to inclusion and exclusion are connected to health and well-being. The course examined relevant studies, included a quiz to uncover personal opportunities to be more inclusive, incorporated a “workplace inclusion challenge,” and provided specific ways employees can increase inclusion and contribute to workplace well-being.

Global Inclusion Day

An environment that encourages people to listen to different perspectives, explore new ideas, and hold productive discussions leads to game-changing solutions. Inclusion and innovation are interconnected. On 3M Global Inclusion Day, employees learned how to support an inclusive workplace that enables everyone to feel heard, valued, and empowered to contribute their best.

Speakers included 3M CEO Mike Roman as well as other leaders who shared personal stories and tips for advancing diversity and inclusion at 3M. Speakers shared how to turn moments of exclusion into moments of inclusion, explored the science behind creating workplace environments where everyone feels safe to be themselves, and discussed how to be an inclusive leader and a voice for change.

United Nations Standards: Support of women and LGBTI community

3M joined companies around the world to support the United Nations Women’s Empowerment Principles and the United Nations LGBTI Standards of Conduct for Business.

These United Nations standards recognize that more must be done to achieve equal treatment for women and individuals who identify as lesbian, gay, bisexual, transgender, and intersex (LGBTI) around the globe — and that companies play an important role in advancing equity.

In support of these standards, 3M, along with other companies, has committed to having processes, policies, and programs in place that promote equality and safety, prevent harassment and discrimination, and advance women and LGBTI individuals in the workplace and the community.

Two of 3M’s Employee Resource Networks (ERNs), the Women’s Leadership Forum (WLF) and 3M Pride, have played instrumental roles in identifying allies and advocates to continue to include and advance women and LGBTI individuals. Learn more about [these efforts](#).

CEO Inclusion Council

The CEO Inclusion Council is a diverse group of 3M leaders from across the company that focuses on action planning for inclusion and diversity initiatives. With CEO Mike Roman as the champion, the CEO Inclusion Council met quarterly throughout 2019.

A significant part of the meetings is the Raising Voices Platform. Two ERN leaders present at each CEO Inclusion Council meeting. The purpose is to elevate current inclusion challenges impacting the specific group or broader organization. The focus is on accomplishments over the last six months, their priorities and strategic plan, and suggestions on ways to improve. The presentation is followed by a group discussion.

One of the first actions of the CEO Inclusion Council in 2019 was committing to the United Nations Women’s Empowerment Principles and LGBTI Standards of Conduct for Business.

Catalyst CEO Champions for Change

As part of 3M’s commitment to building a diverse and inclusive work culture, 3M CEO Mike Roman is a member of Catalyst CEO Champions for Change initiative, along with more than 60 CEOs and industry leaders who also have made personal pledges to accelerate gender equality and inclusion in their organizations.

Global Inclusion Index

In 2017, 3M created the Global Inclusion Index, based on opinion survey data, to measure how included employees feel in the workplace. We are using results from the 2019 index to guide inclusion action plans across our organization. United States and global inclusion teams are activated to help fortify our culture of inclusion and drive improvement in their individual organizations’ Inclusion Index results.

Inclusion and innovation are interconnected.

Martin Luther King Jr. Day

In January, 3M was the lead sponsor of the 33rd Annual State of Minnesota Martin Luther King Jr. Day Celebration held in St. Paul, Minnesota, which focused on themes of equality and representation in STEM (science, technology, engineering, and mathematics). As one of the keynote speakers, 3M CEO Mike Roman talked about the importance of facing reality to address socioeconomic inequities. Attendees included Minnesota Governor Tim Walz, Senators Tina Smith and Amy Klobuchar, plus hundreds of others, including busloads of 3M employees.

International Women’s Day

In March, 3M celebrated International Women’s Day with global celebrations around the world. At 3M headquarters, the 3M Women’s Leadership Forum and Diversity & Inclusion Team hosted an interactive celebration that recognized women’s achievements and encouraged women to find the confidence to be their authentic selves.

Over

600 

3M employees joined a You Define You session,

more than 500 participated in a Personal Purpose workshop, and thousands more took part in global celebrations around the world.

Employee Resource Networks

3M’s ERNs include nine organizations designed to nurture leadership skills and collaboration across cultures, lifestyles, and genders through events and activities as they align to their mission. Open to all employees, these organizations help 3M recruit, engage, and retain diverse talent and work with our businesses to provide relevant customer insights that can expand our marketplace reach. Learn more by visiting [3M’s ERNs](#).

3M’s nine ERNs continue to expand their reach globally. For example,

the Women’s Leadership Forum now has more than

65 

chapters worldwide, and 3M Pride has expanded to

15 

chapters around the globe.



ERN Community Champions

3M's nine ERNs aim to address education equity and homelessness by participating in local 3M Impact projects for underrepresented and underresourced youth, families, and veterans. The ERN Community Champions also support skills-based volunteer interactions to increase student exposure to STEM, business careers, and skilled trades.

ERN member development program

To address crowdsourced feedback from our ERN members around professional development, 3M's Diversity & Inclusion Team partnered with 3M Learning & Development to design a progressive development plan that aligns to the goals of our ERNs, Diversity & Inclusion Team, and the company. The ERN members use corporate learning tools and resources to create activation plans and accountability.

This development journey is based on a growth mindset and will equip the ERNs to influence, lead, and build mentor, sponsor, and ally relationships across our four business groups.

Sharing preferred pronouns

To support the way in which employees choose to express their gender identities, 3M launched system enhancements enabling them to share their preferred pronouns in their personal profiles and email signatures. We encourage employees to check their colleagues' email signatures to assure they refer to each other in their preferred way, and provide lanyard pins for employees to wear, if desired, to indicate their pronoun preference.

Domestic partner benefits

At 3M, diversity and inclusion are the cornerstones of our organization. We offer benefits for eligible opposite-sex and same-sex domestic partners of employees, as well as their eligible dependents.

Continuing support for our military community

3M strives to be the premier employer for the military community, with paid leave benefits that reflect our commitment to veterans and the mission of the [Military Support Network \(MSN\)](#).

The MSN provides active support and outreach, professional development, and focused veteran hiring services to current 3M military veterans, their families, and other military members seeking to join 3M.

3M offers up to four weeks of paid military leave for military training each calendar year to support eligible 3M employees in the U.S. National Guard or Reserve units. Eligible employees on leave for annual encampment or training may be entitled to differential pay for the difference between their 3M pay and their military pay.

Best Places to Work for Disability Inclusion

Representing people with disabilities is an important dimension of 3M's Sustainability goal to double the pipeline of diverse talent in management by 2025.

We earned a top score of **100%**

on the 2019 Disability Equality Index® 

making us one of the "Best Places to Work for Disability Inclusion." Participating in this index helps us identify ways we can further enhance our policies and practices around disability inclusion. It's part of our commitment to have an inclusive culture and workplace where people of all abilities can thrive.

Latina Style Award

In September 2019, 3M was selected as one of the Top 50 companies for Latinas to work for in the United States by LATINA Style Inc. The LATINA Style 50 Report sets the standard for identifying corporations that are providing the best career opportunities for Latinas in the United States. The report reflects those programs that Latinas are looking for when seeking job opportunities.

Best Places to Work for LGBTQ Equality

For the eighth year in a row, 3M was named one of the

"Best Places to Work for LGBTQ Equality" in

2019 

scoring 100% on the Corporate Equality Index (CEI). The CEI is administered by the Human Rights Campaign and benchmarks corporate policies, including non-discrimination workplace protections, domestic partner benefits, and transgender-inclusive health care.

STEM Workforce Diversity magazine award

The readers of STEM Workforce Diversity magazine voted 3M one of the

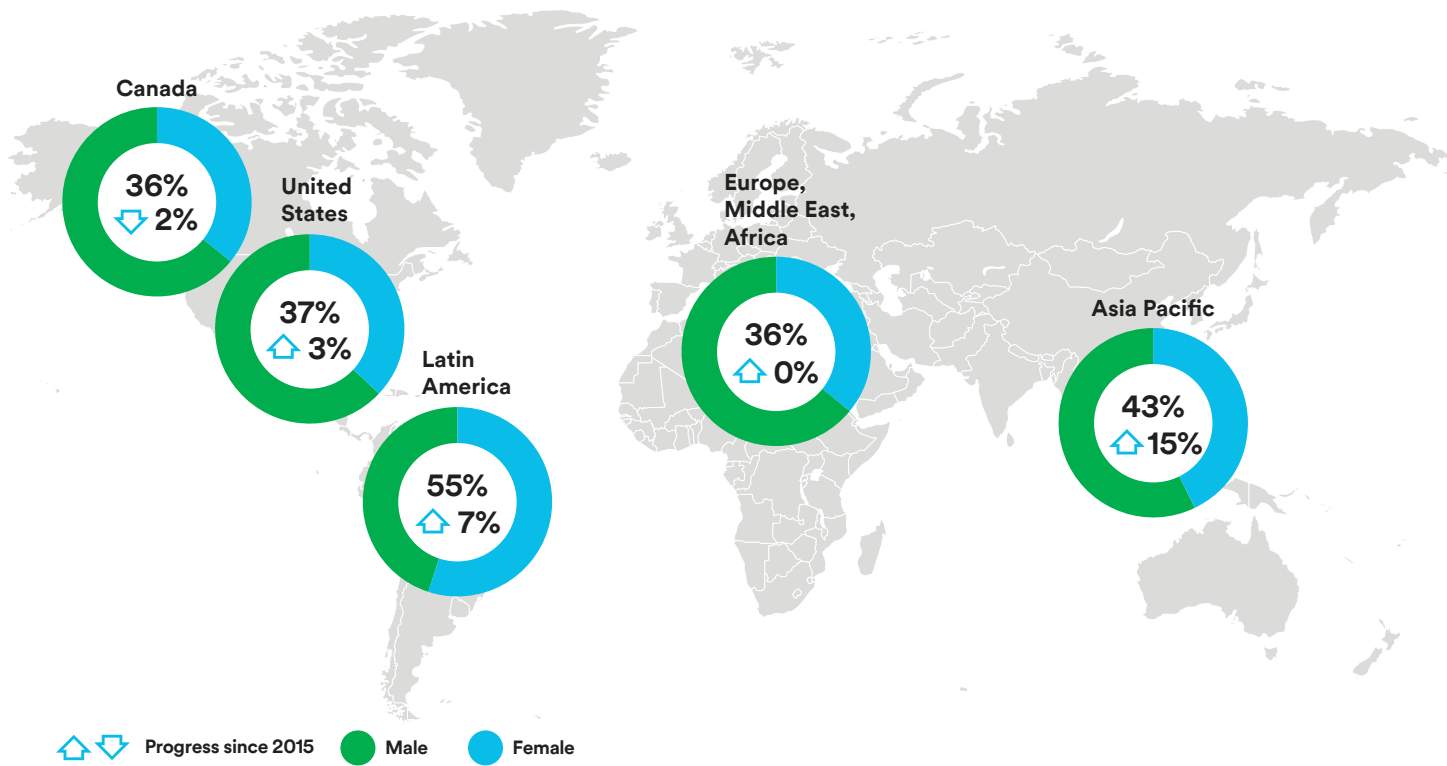
Top **50**  Employers for 2019

The annual survey asked readers to choose the companies for which they would most prefer to work or believe would provide a positive working environment for STEM professionals who are women, members of minority groups, and people with disabilities.

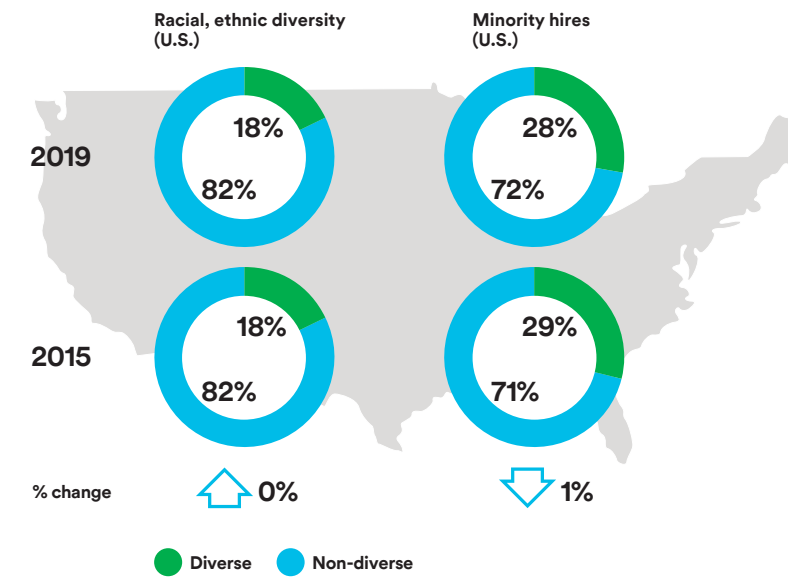
At 3M, diversity and inclusion are the cornerstones of our organization.



Current progress and opportunity – percentage of female hires, 2019



Current progress and opportunity – racial, ethnic diversity



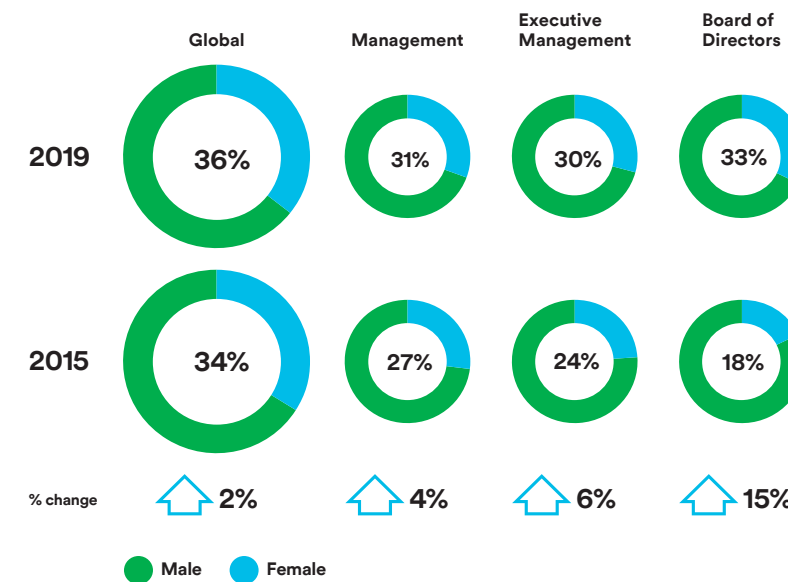
Looking forward

We will continue to advance 3M through our people and our culture, engaging our current employees, attracting best-in-class employees, and increasing the pipeline of diverse talent in management. We will review our people and culture strategy, use crowdsourcing insights to improve our organizational effectiveness, and work toward one global 3M experience for all. 3M's nine ERNs will continue expanding their reach across the United States and the world.

In 2020, 3M will partner with Progyny to provide a comprehensive, inclusive fertility benefit for every unique path to parenthood. The benefit applies to employees and their partners who are covered by an eligible 3M medical plan and includes single parents and LGBTQI+ individuals and couples.

We will also accelerate our diversity and inclusion efforts, with the CEO Inclusion Council championing projects that specifically advance our culture of inclusion.

Current progress and opportunity – percentage of global female employees



Recognition

Here, at 3M, we strive to improve every life, act with honesty and integrity, and ask question after question to develop innovative solutions with a purpose.

We value the recognition we receive, as it shows we are a company driven by employees who are truly making a difference in the world.



The World's Most Ethical Companies®

The World's Most Ethical Companies® program, managed by the Ethisphere® Institute, honors companies that excel in “promoting ethical business standards and practices internally, enabling managers and employees to make good choices, and shaping future industry standards by introducing tomorrow’s best practices today.” According to the institute, honorees have also historically outperformed other companies from a financial perspective, supporting the notion that sound ethical practices are appreciated in the competitive marketplace. This year’s honorees spanned 21 countries and 51 industries. It was the seventh consecutive year 3M made the list.

3M Brazil: Pró Ética Certification Award

For the sixth year, 3M Brazil was recognized by the Brazilian Government with the Pró Ética Certification Award. The award, the first of its kind in Latin America, was created to promote ethics and encourage companies to take voluntary steps to prevent corruption, creating a more ethical, transparent, and honest business environment. 3M Brazil was recognized for top management’s commitment to ethics, their policies and procedures, and their risk monitoring and analysis.

Best Places to Work for LGBTQ Equality

Human Rights Campaign Foundation’s 2020 Corporate Equality Index is the national benchmarking tool on corporate policies and practices pertinent to lesbian, gay, bisexual, transgender, and queer (LGBTQ) employees. For the eighth straight year, 3M earned a perfect score of 100% and, along with it, the distinction of being named among the “Best Places to Work for LGBTQ Equality.”

Best Places to Work for Disability Inclusion

In the fifth annual Disability Equality Index® (DEI®) survey, 3M earned a top score of 100%, making 3M one of the “Best Places to Work for Disability Inclusion.”



EcoVadis Gold Recognition Level

EcoVadis awarded 3M a Gold Recognition Level for achievements in the 98th percentile of suppliers assessed in corporate social responsibility (CSR) in global supply chains.



Euronext World 120 and Euronext U.S. 50

Euronext and Vigeo Eiris included 3M, for 2019, in the Euronext World 120 and Euronext U.S. 50 based upon environmental, social, and governance (ESG) performance. Index components are reviewed and updated twice a year, in June and in December. Companies included in this index have achieved the highest scores, as determined by nearly 330 indicators, assessed by the agency.



FTSE4Good

FTSE4Good Index Series

FTSE Russell confirmed that 3M, in 2019, had been independently assessed according to the FTSE4Good criteria and satisfied the requirements to become a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong ESG practices. The FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.



ISS Environmental and Social Quality

3M earned best-in-class ranking for risk management around environmental and social areas of concern by the Institutional Shareholder Services (ISS). 3M earned the top-performing ISS QualityScore of “1.”





SDG Invest

In 2019, 3M was included in the SDG Invest portfolio as one of the 60 best-performing companies in the world. SDG Invest is a Danish investment fund launched in 2017, created by investment and Sustainability professionals. SDG Invest is listed on the NASDAQ stock exchange and is an active member of Climate Action 100+. SDG Invest only includes companies that address the United Nations' Sustainable Development Goals (SDGs) by setting ambitious targets and driving change through actions.

MSCI ESG Ratings

MSCI's ESG ratings provide institutional investors with a robust ESG integration solution. In 2019, MSCI awarded 3M the AAA rating, the highest rating.

World Business Council for Sustainable Development, Reporting matters

In 2019, Reporting matters published by the World Business Council for Sustainable Development (WBCSD) recognized 3M for its good practice of story-telling and messaging in our annual Sustainability Report: "3M introduces inspiring, company-specific messaging that focuses on applying science to improve lives at the beginning of its 2019 Sustainability Report. This messaging appears on the cover and is expanded on in the opening CEO message. The messaging explicitly ties to its sustainability strategy which is organized around 'Science for Circular,' 'Science for Climate' and 'Science for Community.' 3M begins each section of its report with divider pages that feature a clear tagline and an overview of 3M's commitment. It ends each section with a brief forward-looking statement. 3M builds all of this into the visual wireframe which ties each issue back to the overarching story and ensures an engaging tone throughout."

Corporate Responsibility Magazine's 100 Best Corporate Citizens

In 2019, Corporate Responsibility Magazine named 3M the 22nd best corporate citizen for being a standout business in the areas of environmental, social, and governance performance.



TIME Best Inventions 2019

3M was recognized in TIME magazine's list of Best Inventions of 2019 in the Productivity category for the Scotch™ Flex & Seal Shipping Roll.

Fast Company's Most Innovative Companies in 2019

In 2019, Fast Company named 3M to its list of Most Innovative Companies once again — with a focus on our 3M™ Smog-reducing Granules — a sustainable product that harnesses the power of the sun to help reduce smog.

Fast Company's 50 Best Workplaces for Innovators in 2019

In 2019, Fast Company listed 3M as one of the 50 Best Workplaces for Innovators in 2019 — recognizing businesses that encourage innovation.

Derwent Top 100 Global Innovators 2019

The Derwent methodology examines an organization's patent portfolio strength and quality, assessing not just volume of filed patents but success in obtaining granted patents, breadth of filing of inventions, and external citations. These criteria create a combined indicator score used to identify the top 100 most innovative organizations globally. Since 2011, 3M has made the Derwent Top 100 Global Innovators list.

How we work

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How we work



Just as Sustainability is embedded throughout our Value Model, sustainable thinking is embedded into the core of 3M and in the strategic planning process we use for every region, every market, and every business.

In each of our business groups and regions, we have dedicated Sustainability leaders who develop a relevant and well-informed strategy specific to their market demands and business goals.

Annually, like many companies, we go through a strategic planning process during which our divisions develop their business strategies for the next few years. However, unlike other companies, we formally require that each plan addresses Sustainability factors relevant to the division's market needs and business opportunities.

R&D at 3M is a little different: We separate the R and the D.

First, the "R." Scientists in our central laboratory are free to focus on pure research, in search of unscripted, unexpected opportunities for breakthroughs. Our unique 15% Culture gives them the freedom to follow their instincts. At the same time, our Tech Forum is a key enabler of collaboration. This self-directed, self-organized group unites 10,000-plus scientists and engineers who work together to solve problems across oceans and continents, regardless of which business they're from.

For the "D," 3M development teams within each of our business groups draw upon our core technologies to create products for targeted markets and geographies.

We will continue to expand beyond our own operations and focus more on 3M Sustainability goals and the needs of our customers and communities. While we recognize the importance of what we do in our own businesses and will continue to innovate there, we see that far greater impact can be realized when we partner with others to understand and overcome the challenges we face together.

Corporate governance

3M believes that good corporate governance practices serve the long-term interests of shareholders, strengthen the Board and management, and further enhance the public trust 3M has earned from more than a century of operating with uncompromising integrity and doing business the right way.

Our commitment

Our corporate governance principles govern how we do business daily, enabling us to outperform and lead the way to sustainable growth. They provide a framework that defines the roles, rights, and responsibilities of different groups within the organization, the Board's role in risk oversight, public policy engagement, and 3M's commitment to Sustainability.

3M's [Board of Directors](#) oversees the CEO and senior management and assures that appropriate procedures and controls are in place covering management's activities in operating the company on ethical grounds on a day-to-day basis.

3M's Board of Directors has adopted [Corporate Governance Guidelines](#) which provide a framework for the effective governance of the company. The guidelines address matters such as the respective roles and responsibilities of the Board including leadership structure, responsibilities of the independent Lead Director, director independence, membership criteria, committees, and management evaluation. The Board's Nominating and Governance Committee is responsible for overseeing and reviewing the guidelines, at least annually, and recommending proposed changes to the Board for approval. The Corporate Governance Guidelines, [Certificate of Incorporation](#) and [Bylaws](#), charters of the Board committees, [Director Independence Guidelines](#), and [Board of Directors Code of Conduct](#) provide the framework for the governance of the company and are available on our website at [3M.com](#), under [Investor Relations — Governance](#).

The Board's current leadership structure is characterized by:

- A combined Chairman of the Board and CEO
- A strong, independent, and highly experienced Lead Director with well-defined responsibilities that support the Board's oversight responsibilities
- A robust committee structure consisting entirely of independent directors with oversight of various types of risks
- An engaged and independent Board



The Board of Directors believes that this leadership structure provides independent Board leadership and engagement while deriving the benefits of having our CEO also serve as Chairman of the Board. As the individual with primary responsibility for managing 3M's day-to-day operations and with in-depth knowledge and understanding of the company, our CEO is best positioned to chair regular Board meetings as the directors discuss key business and strategic issues.

Coupled with an independent Lead Director, this combined structure provides independent oversight while avoiding unnecessary confusion regarding the Board's oversight responsibilities and the day-to-day management of business operations.

The Board plans the succession to the position of Chairman/CEO and other senior management positions. To assist the Board, the Chairman/CEO and Senior Vice President of Human Resources annually assess senior managers and their succession potential for the position of Chairman/CEO and other senior management positions. As a result of a thorough and thoughtful succession planning process, in February 2019, Inge G. Thulin, Executive Chairman of the Board, announced his intention not to stand for reelection at the 2019 Annual Shareholder Meeting. The Board nominated Michael F. Roman to serve as Chairman of the Board, effective May 14, 2019, following his election as a director by shareholders at the 2019 Annual Shareholder Meeting.

Board's role in the company's long-term strategy

Each year management presents to the Board, and the Board discusses and approves, detailed long-term strategic plans for the company. In addition to the overall strategic plan for 3M and the business groups, the discussions also focused on breakout sessions with the directors on strategic corporate-wide themes of portfolio management, innovation, commercial transformation, manufacturing and supply chain transformation, and people and culture.

Our long-term strategy is outlined in the 3M Value Model. The 3M Value Model is what differentiates our company in the marketplace.

It's how we create extraordinary value for customers and premium returns for shareholders. The model is built around four elements: our Vision, our strengths, our priorities, and our Values. Additional details can be found in the [3M Value Model](#) section.

Lobbying and Political Activities Principle

As a concerned member of our communities, 3M actively participates in public policy and legislative advocacy, or “lobbying.” As appropriate, 3M also participates in political activities to elect and work with elected representatives and government officials. 3M’s Government Affairs organization coordinates and oversees 3M’s lobbying and political activities. 3M Political Activities Board, which is made up of senior 3M executives, oversees 3M’s political contributions and the activities of 3M’s Political Action Committee (3M PAC). 3M PAC is a nonpartisan fund comprised of voluntary employee and stockholder contributions that is used to make contributions to U.S. federal, state, and local candidates as permitted by law. These activities must always comply both with applicable laws and [3M’s Lobbying and Political Activities Principle](#).

Our actions

Board membership criteria

3M’s Corporate Governance Guidelines contain Board Membership Criteria which include a list of key skills and characteristics deemed critical to serve 3M’s long-term business strategy and expected to be represented on 3M’s Board. The Nominating and Governance Committee periodically reviews with the Board the appropriate skills and characteristics required of Board members given the current Board composition.

It is the intent of the Board that the Board itself will be a high-performance organization creating competitive advantage for the company. To perform as such, the Board will be composed of individuals who have distinguished records of leadership and success in their arena of activity and who will make substantial contributions to Board operations and effectively represent the interests of all stockholders. The committee’s and the Board’s assessment of Board candidates includes, but is not limited to, consideration of:

- Roles in and contributions valuable to the business community
- Personal qualities of leadership, character, judgment, and whether the candidate possesses and maintains throughout service on the Board a reputation in the community at large of integrity, trust, respect, competence, and adherence to the highest ethical standards
- Relevant knowledge and diversity of background and experience in business, manufacturing, technology, finance and accounting, marketing, international business, government, and other areas; and
- Whether the candidate is free of conflicts and has the time required for preparation, participation, and attendance at all meetings

In addition to these minimum requirements, the committee will also evaluate whether the nominee’s skills are complementary to the existing Board members’ skills, the Board’s needs for particular expertise in certain areas, and will assess the nominee’s impact on Board dynamics, effectiveness, and diversity of experience and perspectives.

Board refreshment

We regularly add directors to infuse new ideas and fresh perspectives into the boardroom. Five out of the 10 independent director nominees standing for this year’s election have joined our Board within the past four years. In recruiting directors, we focus on how the experience and skill set of each individual complement those of their fellow directors to create a balanced Board with diverse viewpoints and backgrounds, deep expertise, and strong leadership experience.

Shareholder engagement

Shareholder engagement is fundamental to our commitment to good governance and essential to maintaining our strong corporate governance practices. We engage regularly with our global investors to gain valuable insights into the governance issues about which they care most. We aim to seek a collaborative and mutually beneficial approach to issues of importance to investors that affect our business, and to assure that our corporate governance practices remain industry-leading from their perspectives.

During 2019, members of senior management met with a cross-section of shareholders owning approximately

29% 

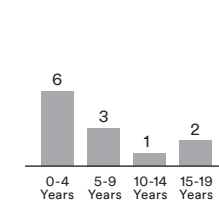
of our outstanding shares or approximately

42% 

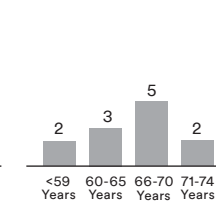
of our institutional shareholders.

Corporate governance highlights

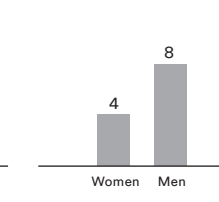
Director Tenure
Avg. 7 years



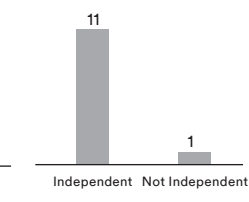
Director Age
Avg. 64.3 years



Gender Diversity
33.3% Women Directors



Board size and independence
11/12 Directors are independent



Independent Lead Director



- Independent Lead Director with robust authority
- Combined Chairman and CEO positions

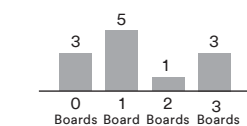
Meeting attendance

96%

- Overall attendance at Board and committee meetings
- There were eight Board meetings in 2019

Other public company Boards

1.3 average Board positions



The meetings included an overview of the company and a discussion of the company’s practices on corporate governance, including Board refreshment and diversity, director evaluation, directors’ skills matrix, Board leadership structure, as well as on strategic priorities, capital allocation and structure, environmental and social matters, Sustainability, and company culture. In general, investors viewed the company’s governance practices favorably, including the Board Chairman transition, the mix of tenure and overall diversity, and the disclosure regarding the Directors’ skill sets and qualifications. The feedback from these meetings was shared with the Board of Directors and helped inform the Board on corporate governance practices and trends.

Director independence

The Corporate Governance Guidelines and Director Independence Guidelines provide that independent directors must comprise a substantial majority of the 3M Board. A director is “independent” if the Board affirmatively determines that the director has no material relationship with 3M directly or as a partner, shareholder, or officer of an organization that has a relationship with the company and otherwise meets the requirements for independence of the listing standards of the New York Stock Exchange. The independent directors will make the Board decisions on corporate governance matters.

The Guidelines specify the criteria by which the independence of our directors will be determined, including strict guidelines for directors and their immediate family members with respect to past employment or affiliation with 3M or its independent registered public accounting firm. The Guidelines also prohibit Audit and Compensation Committee members from having any direct or indirect financial relationship with the company, and restrict both commercial and not-for-profit relationships of all directors with 3M. Directors may not be given personal loans or extensions of credit by the company, and all directors are required to deal at arm’s length with 3M and its subsidiaries and to disclose any circumstance that might be perceived as a conflict of interest.

Diversity

For 3M, diversity, in its myriad manifestations, is fundamental to innovation, performance, and relevancy.

The Board of Directors regards diversity as an important factor in selecting Board nominees to serve on the Board. Although the Board has no specific diversity policy, when selecting nominees, it actively considers diversity in recruitment and nomination of directors, such as gender, race, and national origin. The current composition of our Board reflects those ongoing efforts and continued importance of diversity to the Board.

An inclusive culture at 3M is built on our [Be Respectful Principles](#) — to respect the dignity and worth of individuals; encourage the initiative of each employee; challenge individual capabilities; and provide equal opportunity. 3M is continuously focusing on building and maintaining an inclusive culture. Additional information on our inclusive culture can be found in the [Diversity and inclusion](#) section.

Governance actions

As we continually seek ways to improve corporate governance, our Board announced in November 2019 that it had established a new committee to strengthen oversight of the company's strategies related to research and development, commercialization, Sustainability, environmental stewardship and other related activities. The new 3M Science, Technology & Sustainability Committee of the Board of Directors will help assure 3M is building on its strong innovation capabilities while maintaining 3M's high product stewardship standards.

As a science-based company that relies on investments and capabilities in R&D, commercialization and Sustainability for our success, this new committee aligns with 3M's strategic priorities and enables the Board greater focus and engagement on a critical element of our strategy.

In addition to forming the Science, Technology & Sustainability Committee, the Board has ended the Finance Committee. The responsibilities of the Finance Committee will be undertaken by the Audit Committee and the full Board.

During 2019, the Board of Directors held eight meetings. Overall attendance at Board and committee meetings was 96%.

Commitment to economic, environmental, and social topics

At 3M, we are inspired and motivated by our Vision of advancing every company, enhancing every home and improving every life. In collaboration with our employees, customers, partners, government, and communities, we apply our expertise and technology to help solve shared global challenges. Sustainability is at the heart of our company. It anchors our purpose-driven innovation in products, manufacturing processes and new technologies — and we're always trying to do more. It is our ambition to meet the increasing expectations of our customers, employees, investors, and stakeholders — and grow our business — by continuing to make bold Sustainability commitments and taking stronger actions.

3M has a long-standing commitment to Sustainability, from our groundbreaking Pollution Prevention Pays program that began in 1975 to our increasingly ambitious set of 2025 Sustainability Goals, which are designed to improve the footprint of our own operations, help our customers meet their own Sustainability goals and drive action on global environmental and social issues.

As a global corporation, contributing to society through diverse markets, we believe that we have a significant responsibility to advance the United Nations Sustainable Development Goals across the world.

We are also a participant of the United Nations Global Compact, a policy initiative for businesses to demonstrate their commitment to 10 principles in the areas of human rights, labor, environment, and anti-corruption. We align this Report to the guidelines of the Sustainability Accounting Standards Board (SASB) and the Task Force for Climate-related Financial Disclosures (TCFD) recommendations for helping businesses disclose climate-related financial information. Together with our ambition of improving every life and our strong set of 3M values, these commitments drive and inform our formalized approach to Sustainability — the 3M Strategic Sustainability Framework.

Announced by CEO Mike Roman on Investor Day in November 2018, the Framework directs our efforts to areas where we can make the greatest impact: Science for Circular, Science for Climate, and Science for Community.



At 3M, we are inspired and motivated by our Vision of advancing every company, enhancing every home and improving every life.

Our continued work across the Strategic Sustainability Framework helps advance 3M's progress toward our 2025 Sustainability Goals, which is reported on in this Report. Sustainability at 3M is also guided by our Innovation Steering Committee which includes our CEO, CTO, and General Counsel. The committee provides leadership, oversight and strategy to encourage and assure Sustainability opportunities are recognized, and strong policies and procedures are in place.

In November 2019, the 3M Board of Directors established a new Board-level committee to provide general oversight of the significant scientific and technological aspects of 3M's businesses and the company's Sustainability and stewardship activities: the 3M Science, Technology & Sustainability Committee of the Board of Directors. The committee will review the company's Sustainability policies and programs, identifying and analyzing significant Sustainability, materials vulnerability, and geopolitical issues that may impact our overall business strategy, global business continuity, and financial results.

Additional information can be found in our [2020 Proxy](#), Commitment to Sustainability.

3M's Code of Conduct

More than a century of operating with uncompromising integrity has earned 3M trust from our customers, credibility with our communities, and dedication from our employees. And for the seventh year in a row, 3M has been recognized by Ethisphere® as one of the World's Most Ethical Companies®.

The Code of Business Conduct and Ethics for Directors of the company incorporates long-standing principles of conduct 3M and the Board follow to assure the company's business and the activities of the Board are conducted with integrity and adherence to the highest ethical standards, and in compliance with the law.

Our Code of Conduct applies to all employees, including our CEO, Chief Financial Officer, and Chief Accounting Officer. See the [Corporate Code of Conduct](#) section for additional details.

Lobbying and Political Activities Principle

All 3M Political Action Committee (PAC) receipts, disbursements, and contributions are publicly disclosed as required by law. 3M's reports are available on the Federal Election Commission website. Corporate contributions directly to candidates, political committees, ballot measures, Section 527 organizations, and issue advocacy or "lobbying" are outlined in our [Political Activities and Issue Advocacy report](#).

Governance links

For more information on corporate governance at 3M, see:

- [Corporate Officers](#)
- [Board of Directors](#)
- [Committee Composition](#)
- [Governance Documents](#)
- [Annual Reports and Proxy Statements](#)

More than a century of operating with uncompromising integrity has earned 3M trust from our customers, credibility with our communities, and dedication from our employees.



Looking forward

We regularly post governance news, events, and presentation information in the Investor Relations section of our website. See 3M [Events and presentations](#).

Enterprise risk

Assessing and planning for risk at all levels.

Our commitment

The concept of risk appetite and tolerance is an essential component of our strategic planning, and it's the responsibility of our senior business leaders to plan accordingly.

We firmly believe that good corporate governance practices serve the long-term interests of our stockholders, strengthen 3M's Board of Directors and management, and further enhance the public trust 3M has earned from more than a century of operating with uncompromising integrity and doing business the right way. Governance includes broad risk oversight by the Board and its committees. Risk analysis is reported to the full Board, the General Auditor, and the Chief Ethics & Compliance Officer. Both the General Auditor and Chief Ethics & Compliance Officer are appointed by, and report to, the Audit Committee of the Board.

Risk oversight

The Board has delegated primary responsibility for the oversight of risks facing the company to the Audit Committee of the Board of Directors. [The Audit Committee Charter](#) states that the committee will "discuss policies and procedures with respect to risk assessment and risk management, the company's major risk exposures, and the steps management has taken to monitor and mitigate such exposures."



The Vice President and General Auditor, Corporate Auditing, whose appointment and performance is reviewed and evaluated by the Audit Committee, is responsible for leading the formal risk assessment and management process within the company. The General Auditor, consulting with the company's senior management, annually assesses the major risks facing the company and works with those executives responsible for managing each specific risk. The General Auditor periodically reviews with the Audit Committee the major risks facing the company and the steps management has taken to monitor and mitigate those risks.

While the Board's oversight of risk is primarily performed by the Audit Committee, the Board has also delegated to other [committees](#) the oversight of risks within their areas of responsibility and expertise. We believe this governance of risks by Board committees, who share information with the full Board, is appropriate for a diversified technology and manufacturing company like 3M. [3M's 10-K, Item 1A](#) outlines risk factors applicable to the company.

Our actions

Corporate-level

3M's Enterprise Risk Management (ERM) initiative, launched in 2001, has helped assure adequate recognition and ownership of the most significant potential risks to the company's shareholder value, using a process that proactively identifies and communicates enterprise risks within the company. This includes confirming that appropriate plans and oversight exist for all major risks, providing for ongoing review and assessment of risk, and aiding in generating awareness and engagement of general risk matters throughout the company. The approach provides a customized capability that leverages 3M's comprehensive, experience-based global knowledge and capabilities while also considering tools often used in financial or insurance-oriented businesses.

To assure long-term success, we are committed to discovering and preparing for all potential threats to our [Vision](#).

Risk owners familiar with the environmental, economic, and business aspects within the company are interviewed and requested to complete a thorough assessment for their respective risk(s).

Together with subject-matter experts and senior management, the outcomes are mapped to demonstrate the relative level of risk and likelihood of risk. This "heat map" identifies the highest-risk areas and shows where to focus our internal efforts. In addition, external resources and data are continually reviewed to assist in the risk identification process. The results of our various risk assessment exercises are shared with the Corporate Operations Committee and the company's full Board of Directors.

3M places particular emphasis on protecting our company against emerging risks in an ever-changing world.

Case in point: cybersecurity. Strong cybersecurity programs are essential, and we continue to invest in information technology systems and activities around cybersecurity training and awareness, especially when it comes to avoiding phishing and other threats targeting 3M.

For more information on corporate-level risks, see [3M's 10-K, Item 1A](#), as well as the [Climate and energy](#) section and [Environmental management](#) section.

Board members and General Auditor meet 1:1

In 2019, the Vice President and General Auditor met with each independent 3M Board member to discuss risk management in general as well as specific risk-related topics facing the company. These meetings gave Board members an opportunity to share what risk issues were top of mind for them and which should be reviewed and addressed by the Board.

Business-level

3M serves customers through our four business groups. Annually, leadership from each business group presents to the Board, and the Board discusses and approves detailed long-term strategic plans for the company, both at the area and business-group level. Each presentation includes the following: an overview of the business group, short- and long-term financial performance and goals, an assessment of portfolio growth opportunities, and strategic priorities to drive our [Value Model](#).

Site-level

Our Environmental, Health, and Safety (EHS) management system looks carefully at each 3M site and new acquisition and performs a risk assessment that considers factors such as potential impact to the environment, the community, and 3M employees. Each site is ultimately ranked based on the risk it poses to the company, and necessary steps are taken to minimize potential risks. We also place particular focus on bringing acquisitions into alignment with 3M's protocols, standards, and training.

In addition to conducting environmental, health, and safety risk analysis, we have Business Resiliency plans for each 3M site. Although we hope to never use them, it's critically important they are in place, current, and that employees understand what to do should an emergency occur. All plans are prepared in accordance with good engineering practices and full approval of management. Scenario exercises are conducted periodically at sites to evaluate the effectiveness of the plans.

Strong cybersecurity programs are essential, and we continue to invest in information technology systems and activities around cybersecurity training and awareness.



Looking forward

3M will continue to advance our processes to identify and mitigate enterprise risk by engaging all levels of leadership. Our priority is the comprehensive management of enterprise risks through an ethical tone, 3M Leadership Behaviors, governance processes, and clear roles, responsibilities, and accountability.

Corporate Code of Conduct

A “Speak Up” culture that keeps ethics and business conduct front and center.

Our commitment

The Code of Conduct is part of 3M’s Value Model and positions 3M for long-term growth. Our Values bind us together as 3M employees — across business groups and across geographies.

Great companies are built on trust — from customers, shareholders, employees, and communities. We’ve earned that trust and a reputation for integrity over many decades, and no one at 3M is free to compromise it.

We have one [Code of Conduct](#) that applies to our 96,000 employees in over 70 countries globally. Our Code of Conduct summarizes 3M’s compliance principles and raises awareness about how to do business the right way, at all times and at every site.

The Code of Conduct is our guide, answering questions and providing direction when the right choice may not be clear.

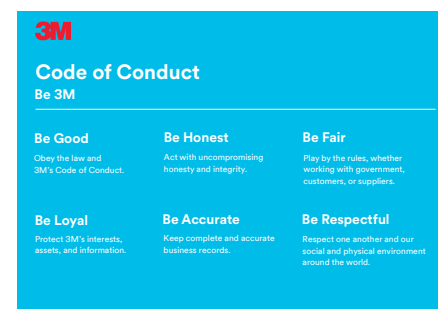
3M’s Code of Conduct defines the expectations for how we work:

- Be Good
- Be Honest
- Be Fair
- Be Loyal
- Be Accurate
- Be Respectful

3M employees, including all supervisors, managers, and other leaders, are responsible for knowing and following the ethical, legal, and policy requirements that apply to their jobs and for reporting any suspected violations of law or the Code of Conduct.

Executives and managers are accountable for creating an inclusive workplace environment that encourages asking questions and raising concerns.

The Code of Conduct is available in 25 languages and sets clear expectations not only for employees but also for relevant stakeholders and business partners. All new employees receive a copy of the Code of Conduct.



Business Conduct Committee

The 3M Business Conduct Committee is comprised of several senior executives and is chaired by 3M’s Vice President and Chief Ethics & Compliance Officer. This committee oversees 3M’s compliance efforts to assure that 3M has an effective and world-class compliance program — one that is agile and anticipates changes in the external landscape and internal business strategy.

The Business Conduct Committee, annually or as needed, updates the [Audit Committee](#) of the 3M Board of Directors and 3M’s executive Corporate Operating Committee. Additionally, similar committees exist at country and regional levels to operationalize and prioritize compliance activities.

Global compliance program

3M’s global compliance program is managed and administered by the Ethics & Compliance Department, led by the Vice President and Chief Ethics & Compliance Officer. The department is staffed with compliance professionals stationed around the world. The Vice President and Chief Ethics & Compliance Officer reports directly to the Audit Committee of the 3M Board of Directors. The Audit Committee assists the Board in overseeing 3M’s legal and regulatory compliance efforts. This direct reporting line assures the independence of the Ethics & Compliance Department, which is responsible for overseeing and administering strategic, systemic, and operational components of 3M’s compliance program.

The compliance program is designed to meet the U.S. Federal Sentencing Guidelines and, as designed, meets similar global standards and requirements of other countries’ anti-bribery laws.

The program consists of:

- A core set of business conduct principles
- Education and training
- Periodic evaluations, audits, risk assessment, and procedures to measure and assess the compliance program’s effectiveness
- A 24-hour global helpline and website through which employees, customers, vendors, and other external parties can report concerns and ask questions, anonymously in most countries
- Risk-based due diligence on business partners, potential acquisitions, equity investments, and candidates for hiring and promoting
- Investigation expertise
- Incentives and discipline to address compliance successes and failures

Compliance training and education

3M offers a comprehensive online compliance training program to employees worldwide.

The program’s training modules are assigned to employees based on their role and area of responsibility within the company. Most courses are mandatory for approximately 46,000 global employees.

An annual training plan is established each year based on an assessment of internal and external factors to prioritize topics and timing of deployment. Online courses are offered in 22 languages.

Examples of recent training modules include:

- Data Privacy and Protection
- Understanding Information Security and Protection
- Gifts, Entertainment, and Travel
- Avoiding Bribery and Corruption: A Global Overview
- Understanding Global Competition
- Creating a Harassment-Free Workplace
- Code of Conduct and Ethical Decision-Making
- Recognizing Conflict of Interest

The Ethics & Compliance website on 3M’s intranet offers additional on-demand online training courses. In addition to offering online training, the Ethics & Compliance Department — in close collaboration with 3M Legal Affairs, local compliance partners, finance, and human resources — provides frequent, tailored, in-person training to businesses, subsidiaries, staff groups, and third parties. Some of this training occurs as part of an annual schedule, while other training occurs as requested or when deemed appropriate.



Recipients of the Living the Code Award receive a letter from our Vice President and Chief Ethics & Compliance Officer along with an engraved crystal glass globe.

3MEthics.com is a 24-hour confidential and anonymous (where permitted by local law) helpline and online reporting system.

It is managed by a third-party vendor and is available to 3M employees and others internally and externally. The system does not trace phone calls or use caller identification, nor does it generate or maintain internal connection logs containing internet protocol (IP) addresses. Web-based reports are made through a secure internet portal that does not trace or show user screen names.

The Ethics & Compliance Department has the responsibility to review every business conduct concern that is reported. After review, the department determines which reports require an investigation. If an investigation is needed, an appropriate investigation resource is assigned to the matter. For concerns that are substantiated, disciplinary actions may be taken. Discipline comes in a range of forms consistent with similar past violations, from warnings to suspensions to termination. Disciplinary actions may impact one or more persons associated with a single substantiated violation. The 3M global allegations and disciplinary action graph illustrates business conduct-related reports raised in 2018 and 2019, using our reporting tools found at [3MEthics.com](https://www.3methics.com).

Based on a project in 2018, the Ethics & Compliance Department has continued to report metrics from a broader range of 3M functions that conduct investigations and track employee concerns. This provides a more complete view of the frequency and type of concerns reported globally and better reflects the healthy “Speak Up” culture that exists within 3M. This data is used to prioritize resources and focus strategies.

3M encourages all employees to speak up to raise a concern or suspected violation of the Code of Conduct. The “Speak Up” poster that encompasses many of our most frequently used languages continues to be widely used globally.

3M’s non-retaliation process

3M prohibits retaliation against anyone who raises a business conduct concern in good faith or cooperates in a company investigation. To monitor this risk, a compliance investigator contacts the reporter several times after an investigation closes to discuss if the person has experienced any form of retaliation. This is done either by phone or via email for non-anonymous reporters. For anonymous reporters who used 3MEthics.com to raise a concern, the follow-up is handled through 3MEthics.com to maintain anonymity. If claims of retaliation are identified, the investigation team will follow up on them. 3M takes a strong position against retaliation, which is reflected in the Non-Retaliation Policy and within [3M’s Employee Obligations and Reporting Principle](#).



Our strong ethical culture requires and empowers employees to make the right choices every day.

Assessments

A dedicated team within 3M’s Ethics & Compliance Department conducts periodic compliance and anti-bribery evaluations in various 3M subsidiaries and operating units each year. Subsidiaries or operations are selected for an evaluation using objective and subjective risk factors. An evaluation process includes a review of financial transactions, compliance records, interviews with business personnel, and audits of selected business partners. Our evaluation process continues to evolve. In 2019, we continued to interview at least 10% of non-production employees as part of the evaluation process.

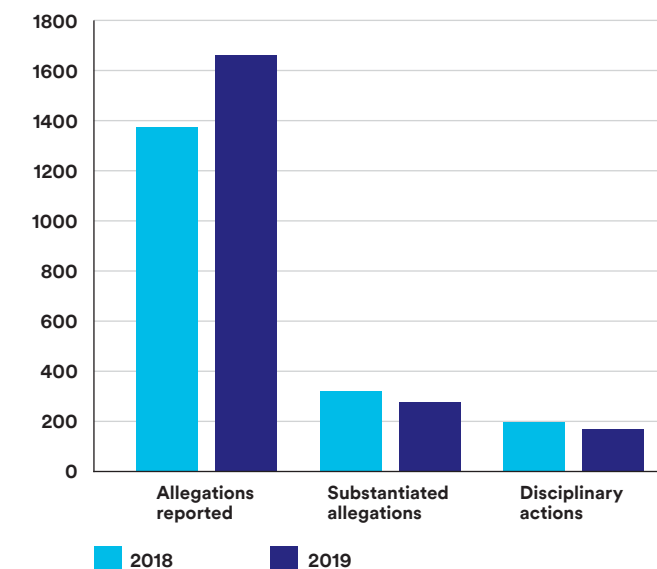
Our evaluation planning and site selection process was enhanced in 2019 by incorporating additional data and analytical tools to prioritize countries and operations for future review.

Additionally, a “local evaluation” process was developed to address site-specific risk with more agility and speed. Now part of the annual evaluation planning process, a local evaluation has a more focused scope than our standard deep-dive evaluation, and it can be completed with fewer resources in half the time. This approach is more adaptable to local needs while continuing to meet the requirements of the Ethics & Compliance Department.

Not only do audits, evaluations, and risk assessments help detect opportunities for improvement and gaps in processes or procedures, they also reinforce the importance of operating in an ethical, compliant manner.

3M global allegations and disciplinary actions

Total number



**Data in the present chart may differ from previous reports as case management progresses*

Commitment to anti-corruption

As a participant of the United Nations Global Compact (UNGC), 3M is committed to supporting Principle 10 on Anti-Corruption. Our commitment and involvement with the UNGC, and with our community of peer companies, provides us with the opportunity to collaborate and share best practices related to work against corruption in all its forms. Additionally, the compliance professionals on our team regularly participate, present, and are members of organizations and associations working to improve compliance controls and reduce legal risk.

3M's Code of Conduct requires compliance with all applicable anti-bribery laws, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, Brazil's Clean Company Act, and local laws where 3M operates. It applies to 3M employees, as well as to our business partners. In addition, [3M's Anti-Bribery Principle](#) and anti-bribery policies and procedures have been communicated to all employees. Our Avoiding Bribery and Corruption training is required of most non-production employees and specifically employees in higher-risk roles, including those in legal, audit, sales, marketing, export, and global trading. The Vice President and Chief Ethics & Compliance Officer provides quarterly updates on all activities to the Audit Committee of the Board of Directors and the 3M Business Conduct Committee.

3M's commitment to anti-corruption is also reflected in our management of third-party intermediaries and other business partners. 3M conducts due-diligence reviews of our third parties based on an assessment of risk factors, including transaction size, type of relationship, government interactions, and geography. Depending on the outcome of the review, we respond to any identified risks with specific actions, such as training, inclusion of relevant contractual terms, and other risk-mitigating controls. 3M may end a relationship with a business partner if the risk presented is determined to be too high and cannot be appropriately mitigated.

Further, the Ethics & Compliance Department collaborates with 3M Legal Affairs on due-diligence processes related to potential equity investments and mergers and acquisitions. These processes help identify risks in the target company before an acquisition or investment is initiated. This process accelerates our efforts to integrate an acquired company's employees into 3M's compliance program and culture. Ultimately, the Ethics & Compliance Department is charged with conducting a risk review and implementing any necessary remediation activities upon the closing of every acquisition. As a part of our ethics and compliance integration process, in 2019, we completed a compliance culture survey with an acquisition to identify and prioritize compliance integration activities. Acquisition culture surveys help identify whether new employees understand 3M's compliance expectations and where further assistance or training can be provided.

Finally, the Ethics & Compliance Department has a group of specialists focused on assuring that 3M conducts government contract and subcontractor business in compliance with all laws. This group trains, assists, and coaches 3M employees on all government contracting needs, including providing guidance and advice on identifying, managing, and mitigating risk.

Political values

3M respects our employees' right to engage in the political process, and, at the same time, 3M is committed to preventing potential corruption. When allowed by law, any corporate political contributions outside of the United States require approval by the Area Vice President and assigned legal counsel.

For additional information, please visit the [Ethics and Compliance webpage](#).



Raising third-party awareness of 3M Ethics & Compliance expectations

To enhance our communications and expectations with third parties, 3M has an online training course and a [brochure](#) for our business partners. In 2019, we moved to a new vendor and refreshed the content of the online third-party training course on anti-bribery. The course is available in 30 languages. The brochure, available in 27 languages, provides another way for 3M to communicate with our business partners regarding our commitment to combat global bribery.

“For more than a century, 3M has done things the right way, assuring integrity is at the heart of what we do. Our Code of Conduct provides the foundation for the values we live by. These values can be felt all over the world.”

— Michael Duran
3M Vice President and Chief Ethics & Compliance Officer

Our actions

Ethics & Compliance Department

The teams within the Ethics & Compliance Department were reorganized in 2019, allowing for greater efficiencies and collaboration, further enhancing our established Centers of Excellence. A Platforms and Strategic Transactions Team was created to provide greater focus on simplifying and automating processes. We also established a dedicated team for risk monitoring and metrics management.

This year, we rebranded the department, changing its name from Compliance and Business Conduct to Ethics & Compliance. We did this to establish a name that reflects our mission of assuring employees conduct business ethically. The new name also brings greater alignment with 3MEthics.com, our external website that is used to raise concerns and ask questions. Our Chief Compliance Officer became the Vice President and Chief Ethics & Compliance Officer. Finally, we updated our 3MEthics.com website to reflect the rebranding and, while doing so, created a refreshed and simplified user interface to facilitate the “Speak Up” process.

Global Ethics & Compliance Day

All over the world, we held Ethics & Compliance Day events to further build employee engagement around the Code of Conduct and doing business the right way. For the third year in a row, we held a compliance day at our global headquarters. The theme was “The Gray Area: where doing the right thing isn’t always black and white.”

The day featured an outside speaker who discussed his personal experience in making poor ethical choices and the impact such choices had on his personal life and professional career. Additionally, several 3M leaders participated in the day. All participants shared their perspectives on the importance of doing business the right way, the resources available to help employees in the “gray zone,” and the potential consequences of poor choices. The event included a fair, where representatives from various compliance functions were stationed at booths where they held interactive discussions with employees.

Communications to support our employees and supervisors

We recognize the power in storytelling to inspire and influence ethical behavior. In 2019, the Ethics & Compliance Department launched a new video series called “My Moment of Truth,” which leverages the personal stories of 3M employees who had the courage to speak up and do the right thing. The series was intentionally unpolished and showed real employees in their workspaces and was filmed on cell phones or other readily available video equipment. The participants included employees from all over the world and were subtitled in English and nine other languages.

The most frequent resource employees go to with ethical or compliance questions is their manager. The Ethics & Compliance Department publishes a series of toolkits containing reference materials and case studies to help supervisors effectively address employee questions and respond appropriately when dealing with potential violations of the law or the 3M Code of Conduct.

To assure global accessibility, in 2019, these publications were translated into the languages most frequently requested by our global team. This year, the supervisor toolkits covered speaking up; conflicts of interest; respectful workplace; and gifts, entertainment, and meals.

Data analysis and metrics

Through the work of a data scientist on the Ethics & Compliance Team, we have seen positive impacts in our reporting and metrics analysis. The cycle time to create our compliance reporting metrics was cut in half, allowing quicker access to current data. We now also provide our compliance partners and leaders with a user-friendly platform to review and analyze their relevant data through custom dashboards.

This year, we again implemented an ethical culture survey for 3M sales professionals.

The survey participation rate improved by approximately

20%



Through analyzing the survey results, we were able to correlate the frequency of discussion that a manager has with their employees about ethics and compliance with other measures, including the willingness of employees to speak up. This data finding was used in manager training to emphasize the importance of speaking about compliance.

Training enhancements

In 2019, we transitioned to a new online training vendor for ethics and compliance courses. The new vendor offers adaptive learning technology and will provide more data to leverage. To drive improvement in on-time online training course completions, we implemented a pop-up notification that reminds a user of their need to complete their compliance training each time they open certain desktop applications. This pop-up helped on-time online training course completions reach the highest level ever achieved. Additionally, we introduced a third-party code certification in 22 languages that can be leveraged any time there is a need to communicate or clarify our Code of Conduct expectations.



Looking forward

As 3M’s business models change over time, ethics and compliance remain at the core of what we do for our employees, customers, communities, and shareholders. The Ethics & Compliance Department will continue to evolve, establishing appropriate governance bodies and partner networks to assure we continue to drive a culture of speaking up and doing business the right way. As we do so, we will optimize opportunities to continually improve our program. We will support supervisors and managers globally, so they are prepared with necessary information and resources.

Data analysis will remain a priority for the Ethics & Compliance Department as we leverage it to understand our risks. We will continue to empower global leadership to take ownership of key performance indicators by providing access to tools and metrics. In 2020, we will use our technology and reporting platforms to create tools and measures that identify risk and increase our visibility into those risks.

We will continue to evolve our acquisition integration process, assuring effective integration of newly acquired businesses into our Ethics & Compliance program and platforms. We will provide those new to 3M with a strong support network from the Ethics & Compliance Department during times of transition.

3M will continue to hold Ethics & Compliance Days around the world to engage global employees in our culture of compliance. These events will be opportunities to create energy and enthusiasm around compliance, with active participation from our divisions and functions and across levels of seniority and tenure in the company.

Human rights

Doing business the right way is the only way we do business.

Our commitment

Our [Human Rights Policy](#) applies to all 3M employees, contingent workers, candidates for hire at 3M, anyone doing business with or on our behalf, and others acting on 3M's behalf.

In 2014, we became a United Nations Global Compact (UNGC) participant, thereby committing to align our operations and strategies with the UNGC principles on business and human rights. We support its "protect, respect, and remedy" framework and its principles of due diligence. Furthermore, our Code of Conduct and its underlying principles require compliance with all applicable laws and also require respect for internationally recognized human rights in all global operations.

We also recognize the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work. Adopted in 1998, the declaration commits member states to respect and promote principles and rights in four categories, whether or not they have ratified the relevant conventions: freedom of association and elimination of discrimination in employment and occupation; the right to collective bargaining; the elimination of forced or compulsory labor; and the abolition of child labor.

Guided by deeply engrained principles in our culture

Respect for human rights is deeply engrained in our culture. Within our own business, 3M's approach to managing and assuring human rights is derived from the [3M Code of Conduct](#), which recognizes the right of employees to have a respectful workplace. This culture extends through our human resources policies, programs, and management systems, including 3M's [Leadership Behaviors](#). We continue to implement our human rights program through our global policies, management system, assessments, audits, training, and, ultimately, our metrics tracking. Our audit process provides us with a global perspective over all of our sites and our supply chain.

Human rights elements brought to life

Our commitment to upholding human and workplace rights is embodied in the 3M Human Resource (HR) Principles, which respect the dignity and worth of all individuals, encourage the initiative of each employee, challenge individual capabilities, and provide equal opportunity for development.

A respectful workplace

Our [Code of Conduct](#) lays out what it means to be a 3M employee and includes the 3M Respectful Workforce Principle:

Be Respectful: We strive to have a work environment that reflects and values the best in all of us, where we treat each other respectfully and professionally, and where individual differences are valued.

3M's [Respectful Workplace Principle](#) states that "everyone is entitled to respectful treatment in the 3M workplace. Being respectful means being treated honestly and professionally, with each person's unique talents, background, and perspectives valued. A respectful workplace is free from unlawful discrimination and harassment, but it involves more than compliance with the law.

It is a work environment that is free of inappropriate or unprofessional behavior and consistent with 3M's ethics and values — a place where all employees can do their best and are free to report workplace concerns without fear of retaliation or reprisal."

Working hours and living wages

3M complies with minimum wage legislation globally, and we make every effort to exceed the legal minimum wage. Our competitive compensation reflects our practice of establishing competitive salary ranges based on actual pay data from benchmark peer companies in manufacturing. 3M also complies with all applicable laws relating to overtime and breaks. Additional information can be found in the [Compensation](#) section.

Freedom of association and the right to collective bargaining

3M works diligently to create a work culture that affords all employees the opportunity to work without fear of intimidation, reprisal, or harassment, in an environment where employees can have their questions and concerns addressed in a fair and timely manner. In all sites, the company's relationship with employees, whether union or non-union, is a key responsibility of all company leaders, and is assisted by human resources representatives. Human resources professionals work with employees to maintain positive employee relations.

Our Human Rights Policy has a specific subdivision on the freedom of association, which assures that we respect "the ability of employees to choose whether or not to join unions and engage in collective bargaining, as permitted by applicable laws in the countries where 3M does business." In the event of business operations changes, we follow all applicable local laws and regulations regarding notice periods for both union and non-union employees.

Approximately

8% 

of 3M's global workforce is unionized

with the number rising to

22% 

when labor agreements are included.

We are aware that, in some countries, collective bargaining rights are not protected or recognized. Nevertheless, 3M assures employees that freedom of association and collective bargaining aspects of our Human Rights Policy apply to all 3M employees worldwide.



Modern slavery

Modern slavery, as an umbrella term, encompasses several human rights issues, including forced labor, bonded labor, child labor, human trafficking, and slavery-like practices. We have a robust stance against these practices as set out in our labor, employment, and business conduct policies, and our Supplier Responsibility Code. These policies reflect our commitment to acting ethically and with integrity in all our business relationships and to implementing effective systems and controls, so this practice does not take place within our organization and supply chains. Additional information can be found at 3M Supplier Direct, [Transparency in Supply Chains and Modern Slavery Disclosures](#).

Child labor and minimum hiring age

3M is committed to doing our part to help abolish child labor. This commitment is evident in our Human Rights Policy and [Supplier Responsibility Code](#). Although the permissible hiring age for employees may vary based on the laws of different countries, 3M has adopted global expectations regarding the hiring of minors. Even if local law permits it, 3M will not hire any employee nor engage a contingent worker (an individual provided by a third-party staffing agency to perform temporary work) below the age of 16 for any job. If the applicable laws impose a higher minimum age requirement than 16, 3M follows the stricter standard in compliance with the law.

Forced and compulsory labor

3M complies with all applicable laws and employment regulations and does not engage or participate in forced labor. We have those same expectations for all suppliers doing business with us. This commitment is evident in our Human Rights Policy and Supplier Responsibility Code.

Human trafficking

Our approach to human trafficking is very simple: We do not tolerate it.

Our Human Rights Policy details our prohibition of human trafficking. We are committed to using effective systems and controls to prevent human trafficking from taking place anywhere within our business or supply chains.

These prohibitions apply to 3M and its subsidiaries as well as to our federal contracts and subcontracts for either commercial or non-commercial items.

Our Supplier Responsibility Code details expectations regarding labor and human resource practices for all of our suppliers worldwide. 3M suppliers must comply with all local country labor and human resource laws and cannot use labor that is obtained through mental or physical coercion, physical punishment, slavery, or other oppressive labor conditions, and cannot engage in any form of human trafficking. Additional information can be found in the [Suppliers](#) section.

Security personnel training and procedures

With the alarming rise in corporate security breaches worldwide, our Human Resource Security Standard provides the controls required to achieve human resource security based on industry standards and best practices.

Roles and responsibilities of information security employees, contingent workers, and suppliers must be defined and documented in accordance with the 3M Information Security Management System (ISMS). Background checks verify all suppliers, contingent workers, and candidates for employment. Background checks must be carried out in accordance with relevant laws, regulations, and ethics, and must be appropriate for the business requirements, classification of the information to be accessed, and the perceived risks. Contingent workers and suppliers in the United States are required to review and acknowledge 3M's Systems Access Control Standard and other 3M policies and standards.

Management requires employees, contingent workers, and suppliers to apply security practices in accordance with established policies and procedures. All 3M employees and, where relevant, contingent workers and suppliers, must receive appropriate awareness training and regular updates in organizational policies and procedures, as relevant for their job function.

Raising, addressing, and resolving workplace concerns

When concerns related to human rights, labor practices, environmental, or safety issues arise, our employees and non-employees are encouraged and trained to raise questions or report misconduct or potential misconduct.

We provide a variety of mechanisms for reporting and resolving concerns:

- Employee's management and/or human resource manager
- 3M legal counsel
- 3M Ethics & Compliance Department
- [3MEthics.com](#)
- 3M Global Security Operations Center

See 3M's Ethics & Compliance website for more information regarding how to report a concern. Additional information can be found in the [Corporate Code of Conduct](#) section.

3M prohibits retaliation against anyone who asks a question, reports a concern in good faith, or participates in a company investigation. This position is reflected in the Non-Retaliation Policy and within 3M's [Employee Obligations and Reporting Principle](#).

In addition, we conduct audits of site, workplace, and human resource practices, and we conduct assessments and audits of suppliers to assure compliance with 3M's expectations related to labor practices. See the [Suppliers](#) section for more details.





Our actions

Strong support for human rights charters

3M continues to support several human rights charters. Among them:

- United Nations Global Compact
- Universal Declaration of Human Rights
- European Convention on Human Rights
- United Nations Guiding Principles on Business and Human Rights
- International Labor Organization's Declaration on Fundamental Principles and Rights at Work
- OECD — Organization for Economic Co-operation and Development Guidelines for Multinational Enterprises, including OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- Agenda 21 — United Nations Convention against Corruption

Holistic approach to human rights due diligence

The 3M Corporate Code of Conduct describes the company's business conduct [principles](#), or core values, which set forth global corporate expectations for all 3M employees and third parties who act on 3M's behalf. The principles in this Code of Conduct remain consistent with 3M's long-standing business conduct principles, its values, and our shared ethical standards for conducting business with uncompromising honesty and integrity.

In our view, human rights due diligence requires a holistic approach. We assess our own business as well as those who are acting on our behalf — in supply roles, government relationships, acquisitions, mergers, and divestitures — to identify the salient human rights issues applicable to our business. We have a grievance mechanism in place, [3MEthics.com](#), which can be used to raise a concern regarding any adverse human rights impacts. We also comply with all applicable laws and honor the principles of internationally recognized human rights when faced with conflicting requirements.

Assessing human rights

Our assessment of human rights aligns with our corporate Human Rights Policy, as outlined under our commitment, and includes these points of review: safe and healthy workplace, respectful workplace, workplace security, work hours and wages, freedom of association, child labor, forced labor, human trafficking, or recruitment fees to obtain employment. Evaluations are integrated into other assessment and management processes and are based on material issues regardless of where they're identified within the value chain.

Based on this assessment process, we have determined that in our various spheres of influence (our own business and in others acting on 3M's behalf), the sphere with the greatest potential for human rights impact is within our supply chain.

Segment	Salient risk*	Action plan to address
3M employees	Assuring conformance with the 3M Code of Conduct	See Corporate Code of Conduct section for additional details on our actions
Others acting on 3M's behalf	Unsafe working conditions, mistreatment of workers	See Workplace Environmental, Health, and Safety Principle
Suppliers	Assuring conformance with 3M Supplier Responsibility Code expectations	See Suppliers section for details on our risk-based supplier assessment process
Government relations	Not adhering to all applicable laws, rules, and regulations	See Lobbying and Political Activities Principle ; Political Activities and Issues Advocacy , and Doing Business with Government Agencies and Contractors Principle for more information
Acquisitions, mergers, and divestitures	Failing to recognize human rights issues during the acquisition integration or divestiture process	Prioritize and address human rights issues relative to risk and compliance; see Human Rights Policy , Respectful Workplace Principle , and Workplace Environmental, Health, and Safety Principle for more information
Local communities and customers	Inequitable opportunities to succeed in science, technology, engineering, and math (STEM); skilled trades occupations	Assess community partnerships to assure we are providing support to underrepresented populations, so they have equal opportunity for success in STEM and skilled trade employment areas; see the Communities section for additional information

*Risks as per human rights (safe and healthy workplace, respectful workplace, workplace security, work hours and wages, freedom of association, child labor, forced labor, or recruitment fees to obtain employment, and human trafficking)

In our view, human rights due diligence requires a holistic approach. We assess our own business as well as those who are acting on our behalf.

Within our own business

Within 3M, our approach to managing and assuring human rights aligns with the 3M Code of Conduct, which recognizes the right of employees to have a respectful workplace.

As stated in the Code of Conduct [Global Handbook](#), which is available in 25 languages, all 3M employees are held to the same high standards. If the Code of Conduct sets a higher standard than the law, we are expected to follow the Code of Conduct and do business the 3M Way. 3M's success depends on each of us doing the right thing. No matter our job title, we are all leaders when it comes to ethics and integrity, and we must meet these important commitments:

- Know and follow the guidance set forth in our Code of Conduct
- Foster a positive, inclusive work environment and a strong culture of ethics
- Complete compliance courses and certifications on time
- Report suspected violations of the law or our Code of Conduct unless prohibited to do so by local law
- Do not engage in workplace retaliation
- Report any known or suspected retaliation
- Cooperate with investigations

3M employees, including all supervisors, managers, and other leaders, are responsible for knowing and following the ethical, legal, and policy requirements that apply to their jobs and for reporting any suspected violations of law or the Code of Conduct. Executives and managers are accountable for creating an inclusive workplace environment that encourages asking questions and raising concerns.

For additional details on our employee processes, see the [Diversity and inclusion](#) and [Employee programs](#) sections.

No matter our job title, we are all leaders when it comes to ethics and integrity.

Assuring human rights through training

We provide training globally to assure that all 3M employees comply with the law, 3M's Code of Conduct, supporting policies, standards, and procedures, including Human Rights.

In addition to offering online training, the Ethics & Compliance Department — in close collaboration with 3M Legal Affairs, local compliance partners, Finance, and Human Resources — provides frequent, tailored, in-person training opportunities to businesses, subsidiaries, staff groups, and third parties. Some of this training occurs as part of an annual schedule, and some training occurs as requested or when deemed appropriate.

Each manager and supervisor is required to assure that those who report to them complete mandatory compliance training and Code of Conduct certification as identified in 3M's [Code of Conduct Global Handbook](#). See the [Corporate Code of Conduct](#) section for more information.

Employees are assigned courses based on their job function, country location, production/non-production status, and supervisor/non-supervisor and management-level status. Email notifications are sent to the employee's or their supervisor's 3M email address informing them of their course requirements and their timeline for completion. The new employee courses are due within 60 days of assignment.

If an employee does not have a 3M email address in the HR system, it is the responsibility of their supervisor (or designated trainer) to inform them of their course requirements. The email notifications include a course announcement and up to three reminders.

An annual training plan is established each year based on an assessment of internal and external factors to prioritize topics and timing of deployment. Online courses are offered in 22 languages.

Training for 3M employees on the Supplier Responsibility Code processes and tools includes a self-check exercise and final quiz to understand the effectiveness of the training. Training is provided when there have been significant changes to the Supplier Responsibility Code, process, or tools.

Supplier Responsibility Code training and information for suppliers reside on the [3M Supplier Direct](#) website. Supplier Responsibility Code information is sent to suppliers prior to conducting an assessment to assure awareness of expectations — which are also addressed during supplier status review meetings.



Others acting on 3M's behalf

Upholding 3M's Code of Conduct and values is the responsibility of everyone acting on 3M's behalf. Multiple processes are in place to assure 3M's principles are being upheld by these parties. Case in point: our approach to health and safety.

Under our [Workplace Environmental, Health, and Safety Principle](#), 3M's Code of Conduct requires 3M employees to select and retain suppliers, contractors, or outsourced manufacturers and service providers who comply with all applicable laws and regulations and meet 3M's environmental, health, and safety values. In addition, at 3M sites, all visitors, suppliers, contingent workers, and contractors are held to the same safety and health requirements as 3M employees.

See the [Health and safety](#) section for additional information on this assessment process.

Our suppliers

At 3M, we recognize the choices we make for our material and service providers must also reflect our values. We want our suppliers to share our commitment to maintaining compliant, responsible, and sustainable operations and practices. In addition to full compliance with all applicable labor and human resource laws, we expect our suppliers to be committed to upholding the human rights of workers and to treating them with dignity and respect as understood by the international community. This applies to all workers, including temporary, migrant, student, contingent, and direct employees.

These expectations are laid out in the 3M Supplier Responsibility Code and support our Science for Circular goal to drive supply chain Sustainability through targeted raw material traceability and supplier performance assurance.

For details on our risk-based supplier assessment process, see the [Suppliers](#) section.

Government relations

Under our [Be Fair Principle](#), 3M is committed to being a responsible company with uncompromising integrity in all dealings with local, state/provincial, and national governments and with their prime contractors and subcontractors around the world. In all our activities with governments, we carefully follow all applicable laws, rules, and regulations.

Before entering into any government contract, or any agreement related to a government customer, 3M employees must consult 3M's Government Contract Compliance Department or their business group's assigned legal counsel.

Human trafficking and forced labor-related provisions are also included in 3M's government contract flow-down requirements for suppliers. In the United States, the government has adopted a regulation (Federal Acquisitions Regulation 52.222-50) prohibiting human trafficking, including slavery, servitude, forced and compulsory labor, and coercion to induce a commercial sex act or to procure the same — all of which result in the deprivation of a person's liberty by another in order to exploit them for personal or commercial gain.

3M has implemented processes to assure compliance with the U.S. Federal Acquisitions Regulation, including a Human Trafficking Prevention Standard.

For more information, see the [Doing Business with Government Agencies and Contractors Principle](#).

Acquisitions, mergers, and divestitures

3M regularly pursues the sale and purchase of business interests. For each business that may be acquired or divested, human rights issues are prioritized and addressed relative to risk and compliance during the acquisition integration or divestiture process.

Additional information can be found in our [Respectful Workplace Principle](#) and the [Environmental management](#) section.

Partnering with local communities and customers

Under our [Be Respectful Principle](#), 3M's core values include treating each other and our stakeholders with respect and respecting our social and physical environment.

As part of 3M's Vision, we work to imagine a world where every life is improved. The power is in partnership. As a global corporation, we believe that we have a significant responsibility to society in general, and especially to the communities in which we live and work.

We have created a robust, stakeholder-driven approach to Sustainability materiality that includes human rights. Our materiality assessments and stakeholder engagements are vital components of our company's strategy and reporting. Details of our materiality assessment can be found in the [3M Value Model](#) section. Our [Sustainability goals](#) and Strategic Sustainability Framework were developed from the materiality assessment.

For additional information on our stakeholder engagements, see the [3M Value Model](#) section.

As a global corporation, we believe that we have a significant responsibility to society in general, and especially to the communities in which we live and work.

Looking forward

In 2020 and beyond, we are looking at ways to recognize business opportunities that help the company grow while addressing societal issues. We cut across industries and interests to collaborate with suppliers, customers, and communities by working together to build a more resilient world. We have a unique opportunity to apply our passion and collaboration abilities to help the world prosper. This includes collaborating to continuously improve our due-diligence management system, identify and address salient human rights issues within our sphere of influence, and stay aligned with internationally accepted frameworks, such as the United Nations Guiding Principles.

Compensation

Equitable pay for everyone, everywhere.

Our commitment

3M provides competitive market-based pay and comprehensive benefits. In addition to a professional work environment that promotes innovation and rewards performance, 3M's total compensation for employees includes a variety of components that support sustainable employment and the ability to build a strong financial future.

We pay for performance

3M is a pay-for-performance company. In addition to earning a base salary, eligible employees are compensated for their contributions to the company's growth, profitability, and other goals. This compensation falls into one of two categories: short-term cash incentives and long-term equity incentives in the form of annual restricted stock units (RSUs), stock options, and/or performance-based awards. In certain circumstances (e.g., for purposes of hiring or retaining key talent), we offer grants of restricted stock units.

As detailed in the [3M Board of Directors' Compensation Committee Charter](#), all incentive compensation and all aspects of executive compensation are reviewed regularly by the [Compensation Committee](#), which is comprised solely of independent non-employee directors.

The committee, along with its independent compensation consultant, assesses the design of and risks associated with incentive compensation, recommending changes when appropriate. Any recommendations related to compensation for 3M's CEO are subject to ratification by all of the independent members of the Board of Directors.

The Compensation Committee reviews stakeholder proposals relating to executive compensation matters and recommends to the Board the company's response to such proposals.

3M executives are also eligible to participate in deferred-compensation plans that enable them to save for retirement or for other reasons, and they receive certain other benefits, such as financial planning services.

Approximately

100



executives were eligible for these benefits in 2019

including all of the named executive officers.

[3M's 2020 Notice of Annual Meeting and Proxy Statement](#) provides additional details on the named executive officers' compensation.

Director compensation philosophy and elements

The [Nominating and Governance Committee](#) annually receives reports on the status of the Board's compensation in relation to other large U.S. companies and is responsible for recommending to the Board changes in compensation for non-employee directors. In developing its recommendations, the committee is guided by the following goals:

- Compensation should fairly pay directors for work required in a company of 3M's size and scope
- A significant portion of the total compensation should be paid in stock to align directors' interests with the long-term interests of stockholders
- The structure of the compensation should be simple and transparent

Annually, at the request of the Nominating and Governance Committee, Frederic W. Cook & Co., Inc. conducts a survey of director compensation at other large U.S. companies and provides expert advisory support to the committee on the compensation of non-employee directors.

Everyone is a leader

Compensation for 3M employees is tied to their job descriptions as well as how they perform in their jobs. This holds true for general leadership responsibilities as well as performance related to Sustainability issues. 3M Leadership Behaviors establish expectations and ways everyone can demonstrate and meet those expectations through their actions and interactions.

The six behaviors of effective leaders at 3M include the following:



Play to win



Foster collaboration and teamwork



Innovate



Prioritize and execute



Develop others and self



Act with integrity and transparency

To foster 3M's culture of innovation, we expect our leaders to create an environment that allows and challenges all employees to seek out new ideas and process improvements that drive success. Our "Innovate" Leadership Behavior includes an expectation to support 3M's Sustainability goals.

Ratings of achievement against measurable targets impact the award values for those employees who are eligible for incentive compensation. For those employees eligible to receive long-term incentive compensation, ratings of Leadership Behaviors impact their long-term incentive grant values.

Earn up to your true potential

All employees have the opportunity to grow through challenging work and be rewarded for their efforts. Our employee performance review process directly connects to an individual's compensation. The intent of the process is to align individual goals and performance with business objectives and outcomes, creating a win-win situation for the employee and the company. In addition, the process helps identify and develop leaders to meet 3M's ongoing talent needs.

Additional information on 3M's employee development and compensation can be found in the [Employee programs](#) section and at [3M.com](#).



Our actions

Delivering on the promise of fair and equitable pay

3M's industry-leading formula for compensation helps provide equitable pay for all employees. We factor in performance accelerators based on an annual performance review, and the Leadership Behaviors discussed in our commitment.

At 3M, the proportion of total rewards aligned with variable (incentive) pay increases with job level and reflects the job level's influence on both short- and long-term results. Eligibility for 3M's Annual Incentive Plan (AIP) and Long-Term Incentive Plan (LTIP) is based on job level, considering both the job level's ability to influence the incentive period being measured and market competitiveness for these types of compensation.

In late 2018, the Board of Directors updated the company's clawback policy that covers both cash and equity compensation for executives. The updates address situations involving significant financial or reputational harm as well as risk management failures. The Board of Directors continues to monitor regulatory developments relating to recoupment of incentive-based compensation.

Additional information on 3M Total Rewards can be found in the [Employee programs](#) section.

Pay based on role, responsibilities, skills, and performance

We maintain our focus on our global compensation principles to provide market-competitive, fair, and equitable pay. We continue our journey to assure we appropriately benchmark compensation within our many sites globally and use consistent methods to analyze our compensation position against the market. Efforts continued in 2019 to standardize and simplify our methodology around market pricing, utilizing data sources from multiple vendors. As we move forward, we will continue to look for ways to handle this process in an increasingly efficient and consistent manner.

Our Global Market Pricing Process assures market-competitive compensation for employees and drives consistency and transparency in compensation practices across all regions. Using common job descriptions and grades throughout the world, this process uses data from three global surveys to benchmark pay levels and map job grades, which helps drive our pay principles for fair and equitable pay. In 2019, the Compensation Committee formally added to its list of responsibilities a review of matters relating to internal pay equity.

In 2019, approximately 95% of the shareholder votes cast on our say-on-pay proposal approved the compensation of our Named Executive Officers as disclosed in 2018's Proxy Statement. The Committee will consider the results of this year's say-on-pay proposal, as well as feedback from our stockholders, when making future executive compensation decisions.



Looking forward

3M has the same annual incentive plan design for all eligible employees, including our executive officers — the same payout curves, thresholds, maximums, metrics, and metric weightings.

This year, we will consolidate incentive plans to align with our global business model. 3M will continue to conduct assessments for the purpose of identifying and mitigating significant economic and reputational risks in the design of our incentive compensation programs.

In 2019, 3M announced new business segments and leadership appointments. This new structure will increase our customer focus, agility, and productivity in 2020.

Employee programs

Building a meaningful culture.

Our commitment

At 3M, we lead with culture. We want our employees to focus on making an impact on the world and feel empowered to bring innovation into their work.

We know that engaged employees are more satisfied with their work, tend to stay longer, and are more productive and committed. We foster and reinforce behaviors that support engagement on many levels, including networking, collaboration, diversity, and inclusion. We focus on the quality and the impact of professional development and career growth.

3M is the place to be for employees interested in development opportunities. Our company touches nearly every industry in every market globally. If you work at 3M, you have a range of development opportunities few other companies can offer. Our people can live in different countries, learn about different cultures, and develop a variety of skills across different industries.

It's possible for someone to go from a lab, to marketing, to sales, to business development, and all the way up to the C-suite. 3M is so diverse that people can reinvent themselves and their careers all within one company — and so inclusive that they'll be able to collaborate with other curious, creative minds wherever they go. For more information, see the [Employee diversity and inclusion](#) section.

 Science for Community

Goal: 100% participation in employee development programs to advance individual and organizational capabilities by 2025.

We encourage our employees to pursue areas of interest, and we support the development of career paths and opportunities aligned with those interests. Development programs may consist of formal training, on-the-job development, mentoring, and more.

Our actions

Our most valuable resource is our people, and we invest in their success. We offer a wide range of benefits and discounts designed to help them live their best lives. We also provide tools, opportunities, and support for people who want to grow their careers.

A learning-focused culture

Our 96,000 employees do work that matters, applying 3M science in ways that make a positive impact on people's lives. In today's fast-moving business environment, it's more important than ever to anticipate and exceed the needs of our customers, shareholders, and employees. Creating a high-performance culture built on continual learning helps 3M achieve business growth for the company and professional growth for employees.

Investing in our people

The professional growth of our people is essential to the growth of our business. In 2019, we provided over

25+ 

hours of training and development for full-time equivalent (FTE) employees.

We leverage a 70-20-10 development model which indicates that, over the course of a career,

70%  of learning is done on the job

20%  comes through other employees

10%  of meaningful development is reached through formal training.

Our learning orientation and philosophy focus on experiential learning and skill building rather than classroom-style training.

The number of training hours and the training cost per employee are not our leading indicators of human capital performance. Instead, we focus on indicators that align employees' results to the company's success when assessing our development programs. Leadership and employee engagement, employee retention rates, brand recognition, acquisition integration milestones, and Lean Six Sigma (LSS) project value are a few examples of indicators that contribute to 3M's recognition as an industry and global business leader.

3M has prioritized learning and career development opportunities not only for leaders but for all employees. Further, 3M has separate processes for employee performance and career development. This gives employees the freedom to create meaningful development plans without performance or compensation implications.

Employee development

Effective employee development programs are crucial in order to reach our goal of 100% of employees engaging in development activities. With our global online employee learning platform, Develop U, employees are easily able to access development resources to support their career aspirations and advance their strategic capabilities within 3M. Develop U provides employees with a personalized experience by recommending relevant content based on their role within the organization.

Additionally, content is organized and aligned to directly support our organizational priorities, including the 3M Leadership Behaviors, company-defined functional competencies, LSS, Sustainability, and supervisory content. Develop U provides access to tens of thousands of unique, just-in-time learning resources in over 15 languages, allowing 3M's global workforce to engage in employee development.

Given this breadth, we've seen

69% 

of our global workforce engage in self-directed training via online platforms.

Considering job-specific training as well as self-directed, over 1.5 million training classes were completed. In 2019, we launched 10 data science and eight digitization functional learning paths, leading to over 3,800 completions. These and other live events pushed our live event completions total to over 102,000 and reached both production and non-production employees globally.

Employees create or update development plans that include activities meant to improve individual skills and further career development. Employees can use additional skill-mapping tools in collaboration with their supervisors to identify long-term desired goals and define actions needed to help reach those goals.

A key part of career development is understanding the available career paths and resources. Employees can access functional competency models that clarify expectations regarding the knowledge, skills, and abilities to be developed over a career within a specific function. Based on shared expectations, career paths are aligned with relevant training and development resources. Each function follows a competency model that leverages 3M's learning platform and directs employees to relevant training opportunities.

Functions also provide development suggestions that can grow competencies through on-the-job activities or social learning activities, such as meeting with a coach or mentor. Currently, the competency-based resources cover approximately 93% of the non-production professional employee population.

At 3M, wisdom is shared. Just as we share and combine our technologies, we also share and combine our knowledge through mentorship, storytelling, and our internal social networking website. We define mentoring as a unique relationship in which a mentor (a more experienced person) helps a mentee (a less experienced person) with their development in a particular area. Further information can be found at [Mentorship at 3M](#). At 3M's internal social networking website, employees can start new topic groups, join groups, and engage with others on specific topics to help them collaborate and learn.

Setting new employees up for success

3M invests in onboarding and developing new employees so that they have access to the tools, resources, and networks they need to succeed. Our onboarding process begins at the time a candidate accepts a job offer and continues through the first year of employment.

A consistent, comprehensive onboarding platform provides pre-start information delivery and engagement for new employees on the front end and clear metrics, reporting, and tracking for 3M on the back end. This investment sets up new employees to succeed and make meaningful contributions from the start.

Nurturing the leader in everyone

Leadership development is a competitive advantage at 3M. To maintain this advantage, we are continually leveraging new technologies and delivery methods, thereby assuring impact, consistency, and global inclusivity.

Many development opportunities and programs are available throughout the various stages of a leader's career journey, spanning every geographic region and 3M business. Programs include a range of online and self-paced offerings, from personal effectiveness to financial acumen, that cover core skill development aligned to the 3M Leadership Behaviors. These programs also focus on the future by embedding inclusive leadership strategies, promoting development through corporate social responsibility, and offering mentoring opportunities.

Global executive and leadership development

The 3M Leadership Way is a suite of high-potential leadership development journeys within 3M Learning & Development, bringing one consistent approach to how 3M develops leaders across all geographic areas, business groups, and functions. Each program is an integration of customer-focused, results-driven, and experience-based learning that takes leaders outside the classroom walls to sharpen their skills with leadership challenges for our customers and in our global communities.

Development for people leaders

With a focus on the critical skills that leaders need to be successful in leading others, the Essentials for People Leaders program emerged as a multi-module program with the flexibility to be delivered as face-to-face classroom training or as online, virtual training. This flexible delivery format is key to providing a consistent development experience for all leaders of 3M while still allowing for needed localization.

All-employee development

All our people globally, at every level of the 3M organization, are provided with opportunities to develop themselves as leaders. These leadership development offerings target areas of strategic importance, including the development of a growth mindset, agility, innovation, and customer focus. Delivery of content is available face to face in experiential workshops, through virtual instructor-led training, and via self-paced e-modules.

Coaching

3M has invested in external leadership coaches to support and accelerate the development of 3M leaders around the world. These coaches work in a variety of ways with 3M leaders. We offer one-on-one time with a coach to help employees apply new learning or on-demand coaching to work through a change. We also work with teams to help them stay close to changing stakeholder expectations.

Leadership development is a competitive advantage at 3M. To maintain this advantage, we are continually leveraging new technologies and delivery methods, thereby assuring impact, consistency, and global inclusivity.



Be rewarded for your efforts

To drive 3M's successes, we incentivize our employees to excel. Our process includes two components: measurable targets agreed upon by employees and their supervisor, and Leadership Behaviors ratings, which reflect the extent to which the employee is engaged in core behaviors that allow 3M to execute our strategies and meet our objectives.

The performance assessment process helps hold each of our employees accountable for his or her contribution and everyday behaviors. The process aligns personal goals with organizational goals — we strive to achieve our goals in ways that support and strengthen our culture and achieve sustainable growth.

3M has long prioritized taking a well-rounded view of an individual's performance, assuring that employees are treated in a fair and consistent manner:

- Performance goals, linked to higher-level organizational goals, are set jointly between the individual and his or her leader
- Tools provided to leaders facilitate conversations between leaders and employees to assure mutual understanding of expectations and desired behaviors
- Feedback on progress toward these goals is provided formally, twice a year, and supervisors are taught and encouraged to provide routine feedback to help employees adjust performance and meet or exceed goals

- Management Team Reviews function not only to provide comprehensive information about an employee, but also to further the goal that rating considerations will be consistent for employees within an organization

Each year, all 3M non-production employees identify their contributions in meeting their specified goals through an employee performance process. 3M strives to have 100% of non-production employees complete the entire performance review process. In 2019, all eligible employees were rated through calibration meetings, and these employees and their supervisors received tasks to complete the year-end process in the performance system.

Learning from listening

For more than 50 years, 3M has been conducting surveys to solicit employee observations, attitudes, and opinions. Our Standard Opinion Survey program covers the entire globe and provides specific and relevant feedback to major units within the company (e.g., divisions, sites, and countries). All employees have the opportunity to complete the 3M Standard Opinion Survey, and our average response rates are typically about 85%.

The Standard Opinion Survey program enables us to regularly assess the state of employee engagement and other workplace factors critical to high performance and providing a great place to work. In 2019, we launched a new survey platform to provide leaders of the business groups surveyed with an in-depth dashboard of survey results. This is a cycle of continuous improvement for us, year after year.

Each unit or business group that surveys must review their results, present them to their employees, and execute an action plan to address the issues that arise from the results. We built supports into our process that make it easier to bring about successful change through action planning — such as accountability checks and specific tools to act on the results. We identified key drivers of employee engagement and developed and deployed learning opportunities for leaders (e.g., multiple on-demand instructional videos on engagement). We continually assess survey content and update it as needed to assure alignment with company strategy and major initiatives. Thus, our surveys support strategy and business objectives directed at supporting sustainable corporate success through our employees' behavior on the job.

Long may your curiosity flourish here

Our global voluntary turnover rate continues to be under

6%, 

a source of great pride for our company.

We calculate voluntary turnover separately from retirements, company-initiated turnover, and reductions in workforce. Voluntary employee turnover is defined as turnover due to employee-initiated reasons (e.g., returning to school or going to another job in a different company).

Total turnover includes voluntary turnover and all other forms of turnover (e.g., termination as a result of restructuring, termination for poor performance, and retirements). Our total employee turnover rate is an annualized rate that measures terminated or retired 3M employees during the calendar year, excluding foreign service employees and 3M temporary employees.

Temporary employees are 3M employees hired temporarily with intent to be employed short-term. They do not include contingent workers.

3M follows all applicable local laws and regulations regarding notice periods in the event of business operations changes.

3M's Human Resources (HR) Department is unique in that we have one global system to track HR information. At every 3M site around the globe, we have instant access to this information through our global reporting tool.

Workforce experience, services, and rewards

The more an employee contributes to 3M's success, the more success they create for themselves. We offer a competitive base pay, and depending on position, variable incentive pay linked to company and individual performance. We also offer a wide range of benefits and discounts designed to help employees live their best.





U.S. parental leave retention rate

88.0% in 2018 **98.4%*** in 2019

*2019 numbers may include those that left on leave in 2018 and came back in 2019. Some employees on leave in 2019 may return in 2020.

Rewarding employees for their efforts

Medical, dental, and vision plan options; savings and retirement plans; a 3M employee stock purchase plan; and many other resources can enhance a 3M employee's life, both physically and financially. All regular full-time employees in the United States are eligible for these benefits — regular part-time employees who work at least 20 hours a week are also eligible. Some programs and benefits may differ internationally due to local laws and regulations.

As of January 1, 2019, where applicable, benefit eligibility also extends to domestic partners and their children.

Our parental leave policy helps employees be their best selves at home and at work. All U.S. salaried mothers and fathers of newborn or newly adopted children are entitled to up to 20 weeks (10 weeks paid and 10 weeks unpaid) of parental leave. This policy was instituted in late 2016. In 2019, 1,119 U.S. eligible employees participated, including 322 females and — we're proud to say — 797 males.

U.S. employee parental leave

Usage of parental leave

In 2018:

1,159

total employees



354 female employees



805 male employees

In 2019:

1,119

total employees



322 female employees



797 male employees

Parental leave retention

In 2018:

1,020

total employees



288 female employees



732 male employees

In 2019*:

1,101

total employees



330 female employees



771 male employees

*2019 numbers may include those that left on leave in 2018 and came back in 2019. Some employees on leave in 2019 may return in 2020.

In 2019, our overall United States work and retention rate, those returning after leave, was 98.4%.

Further information on 3M's wide range of benefits, healthy living program resources, and discounts designed to help employees live their best can be found at [Working at 3M: Benefits](#).

Highly competitive pay

We offer a competitive base pay, and, depending on position, variable incentive pay linked to company and individual performance. For more details, see the [Compensation](#) section and [Working at 3M: Pay](#).

When and where to do the best work

Based on their job function, employees and their supervisors can make individual arrangements for a flexible work practice that maximizes professional and personal productivity.

FlexAbility puts into practice a new way of thinking: that work life and personal life can coexist. A FlexAbility plan can put the power in the employee's hands to make choices that benefit them, their work, their team, their friends and family, and 3M. For more details, visit [FlexAbility at 3M](#).



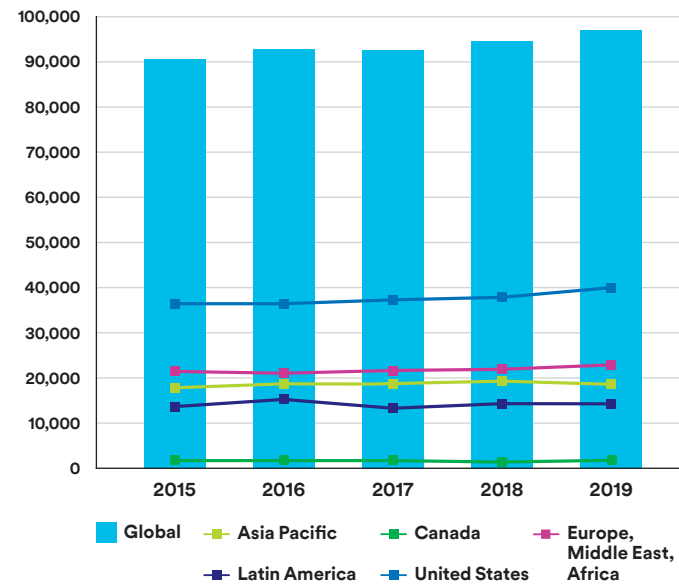
Our footprint

Data related to employee metrics has been derived from our human capital management system. For the data in the charts provided to the right, 100% has been calculated with no assumptions. Additional information on data management can be found in the [About report](#) section.

The employee metrics in the charts are reflective of employee headcount as of December 31, 2019 (total number of 3M full-time and part-time employees), not 3M full-time equivalent (FTE) employees. Due to acquisition integration schedules factored into 3M's human capital management system, detailed employee information below may differ from employee totals in 3M financial reports.

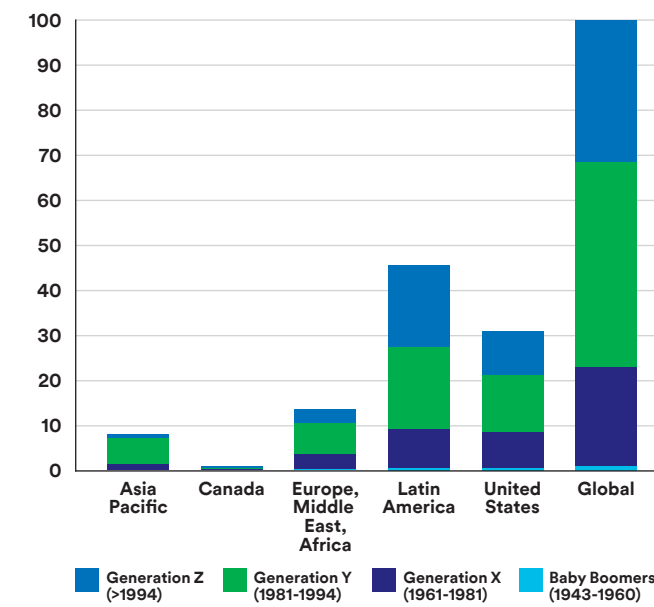
3M global employees by region

Full and part-time, total



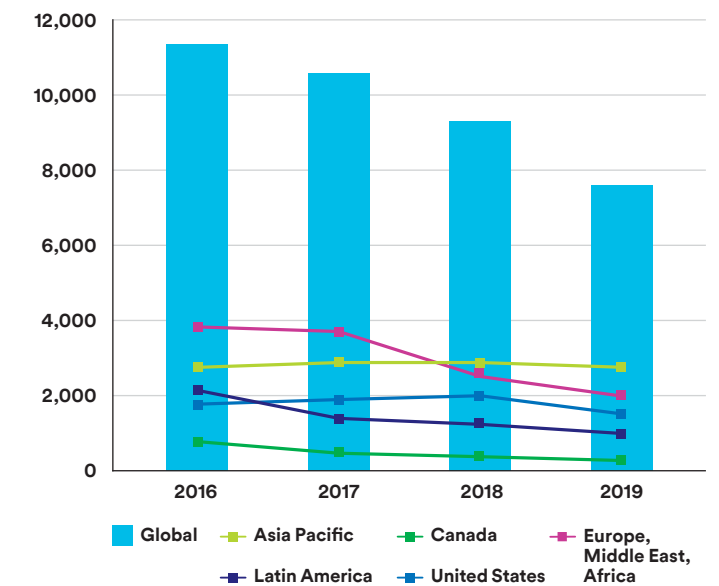
3M regional and global employee hires age distribution

2019 percentage



3M global contingent employees by region

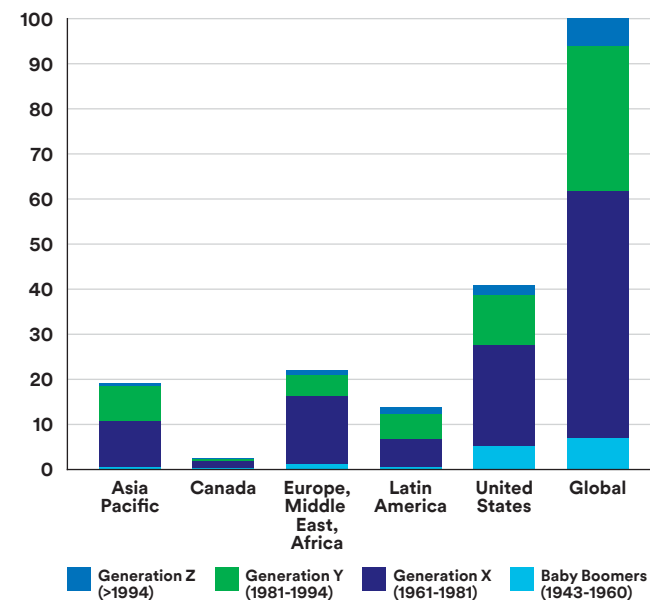
Permanent and temporary employment total



Contingent hourly or daily workers only, see GRI 102-8 and employee contract.

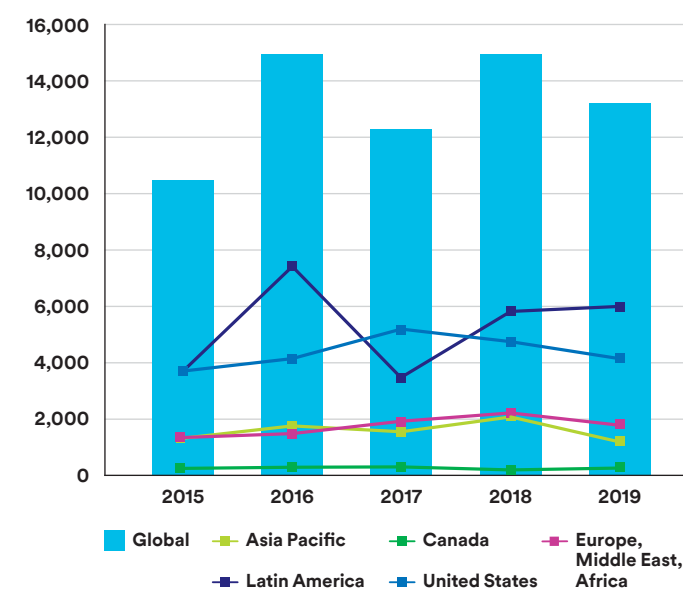
3M regional and global employee age distribution

Full and part-time, percentage of total



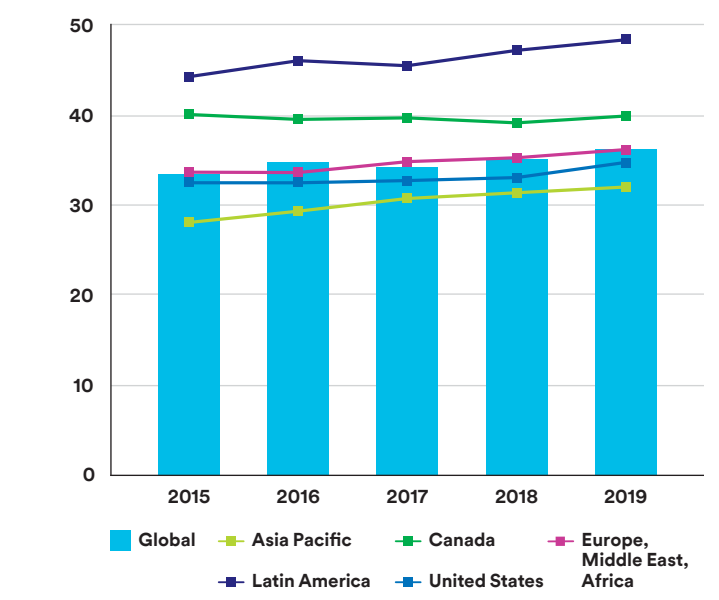
3M global new employee hires by region

Total



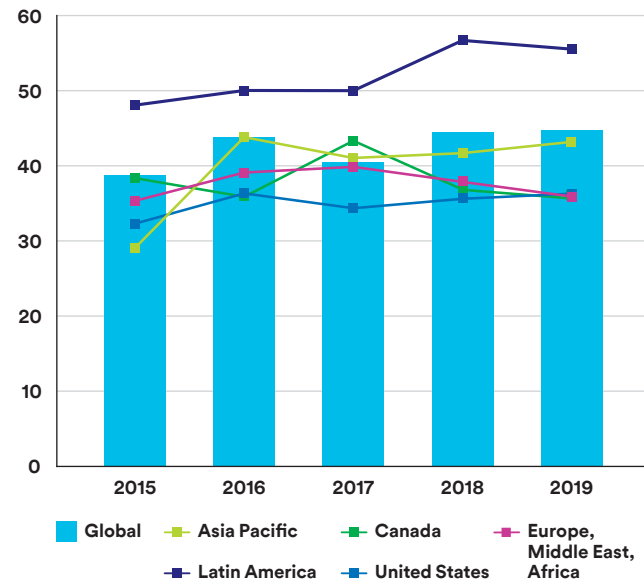
3M global female employees by region

Percentage of total employees



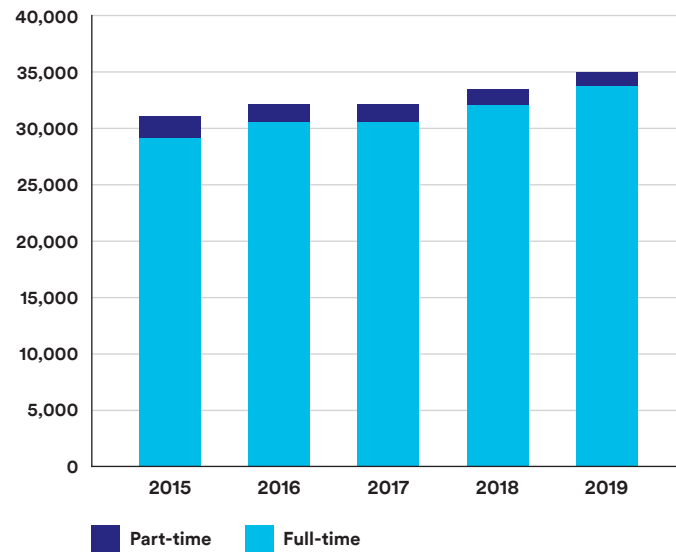
3M global female hires by region

Percentage of total hires



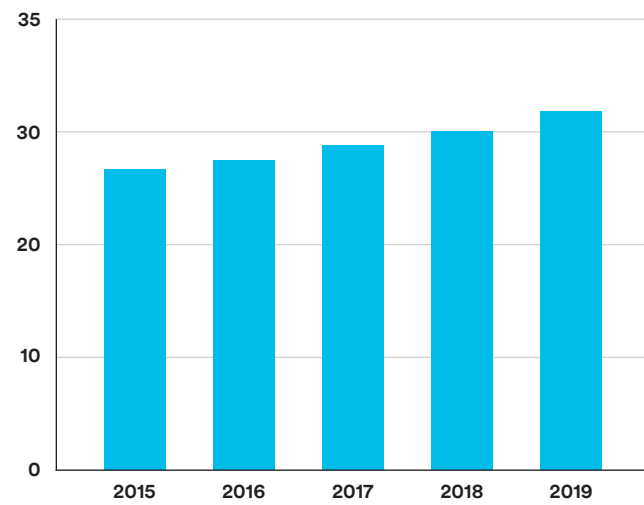
3M global female employees

Full and part-time

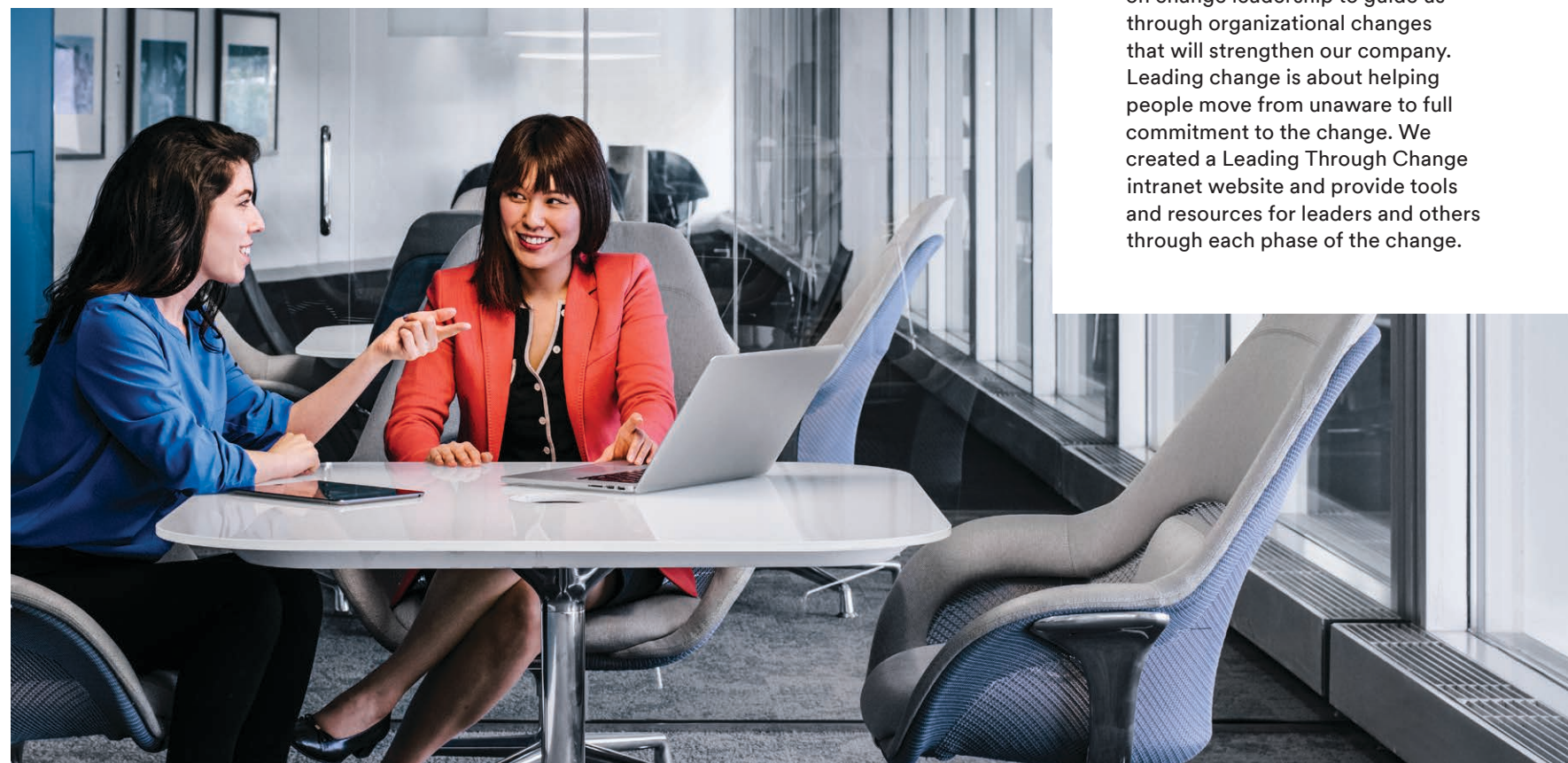


3M global females in management

Percentage of total



Values represent the percentage of management positions held by women



People and culture

In 2019, we published our first-ever 2018 Year in Review of [People and Culture magazine](#). The magazine features stories from a few of the 96,000 employees who represent what culture looks like at 3M. Everyone has their own journey: how they arrived at 3M; how they focus their time professionally at 3M and externally; how they learn, innovate, and partner at 3M; and how they contribute to one global 3M culture.

Leading through change

In 2019, we focused on creating change leaders. With our background in growth mindset training, we focused on change leadership to guide us through organizational changes that will strengthen our company. Leading change is about helping people move from unaware to full commitment to the change. We created a Leading Through Change intranet website and provide tools and resources for leaders and others through each phase of the change.

Looking forward

In 2020, we will continue to work toward our 2025 Sustainability Goal for employee participation in development by strengthening our “development for all” philosophy.

As we build 3M for the future, strengthening our culture is a top priority. At its core, culture is how we do things at 3M, and it belongs to all of us equally. As change occurs, we are engaging our employees by continually broadening our listening strategies.

Health and safety

Protecting our people at home and work.

Our commitment

3M is at the forefront of the global effort to bring science and innovation to workplace safety. At the same time, as an enterprise with 96,000 employees working around the world, we are always taking steps to further advance the safety, health, and well-being of our employees.

3M is committed to helping improve the safety and health of people worldwide, so we can all focus on what matters most to us.

Employee safety and health

The [3M Safety and Health Policy](#) applies to 3M operations everywhere, including new acquisitions. Hazards in 3M's workplaces must be well understood and effectively managed to protect 3M employees, visitors, sites, and surrounding communities.

In addition, we continue to evaluate opportunities to raise our safety and health standards. We visit sites to identify and manage environmental, health, and safety (EHS) risks; evaluate compliance with regulatory requirements and conformance to 3M policies and standards;

identify opportunities for continuous improvement; and share exemplary practices among 3M auditable entities. Additional details on these efforts can be found in the [Environmental management](#) section.

To assure consistent reporting and metrics globally, 3M, like many multinational companies, follows the U.S. Occupational Safety and Health Administration (OSHA) recordkeeping rules and formulas to record and measure injury and illness rates worldwide. At all sites within 3M's operational control, 3M employees and contingent employees are covered by our injury and illness recordkeeping rules.

3M medical programs and services

3M is committed to promoting a culture of health by identifying and controlling potential stressors in the workplace that impact health and well-being. Employees are encouraged to take advantage of 3M's health and well-being programs that promote disease prevention and health improvement. People are the most important part of our company. 3M aims to support healthy lifestyles and create a psychologically safe work environment that empowers employees to be their best both at work and at home.

Our programs are designed to prevent health-related issues. Clinical services for illnesses and injuries are offered at 3M sites worldwide. Some of our preventive programs include hypertension management, cardiovascular risk reduction, stress management, physical activity programs, smoking cessation, nutrition consultation, and cancer prevention in partnership with the 3M Healthy Living program.

[3M's Medical Record Standard](#) defines the rules that must be followed to protect workers' medical information. The standard covers access, collection, storage, security, transfer of records, record retention, and record destruction. This standard assures that 3M medical information is handled in a manner consistent with the [3M Data Privacy Principle](#) and all applicable legal requirements.

On-site occupational health services are available at specific 3M sites around the world, based on the risk factors at each site. 3M supports volunteer first responder teams by providing CPR/Automated External Defibrillator (AED) training to employees. All manufacturing sites in the United States are supplied with AEDs and staffed with AED-trained personnel.

International travel health

Our travel health team prepares 3M employees for international business travel through comprehensive travel health consultations that include a personal health history review, immunizations, appropriate travel medications, and travel health education. We assist all employees who may require medical assistance while away from their home country.

Healthy living

Health, wealth, wellness, and resilience create a framework for a collection of programs, resources, and services designed to help employees and their families achieve their well-being goals. Programs and services vary globally, examples include free flu shots, health-conscious options in the cafeterias, on-site fitness centers and medical care, telehealth, adoption and foster care support, and the FlexAbility approach, which provides employees with help optimizing their work and personal life through one-on-one planning with their supervisor.

Additional information can be found in the [Employee programs](#) section of this report.

People are the most important part of our company.

Contractor and visitor safety and health

3M requires all visitors, vendors, contingent workers, and contractors at 3M sites to follow all applicable 3M workplace safety and health requirements. For example, contractors must complete a pre-qualification process before they may perform work on 3M premises. This process includes, among other things, reviewing the contractor's employee injury/illness rates, experience modification rates (EMR), employee training records, and safety committee evaluations include safety reviews. Pre-construction safety reviews address potential hazards and controls related to the work.

Each 3M site has a contractor coordinator who is the main 3M contact for working with contractors on safety issues. The contractor coordinator is empowered to participate in pre-bid meetings and pre-qualifications for contractors. The contractor coordinator and/or a trained designated representative is on-site and therefore available for contractor meetings and safety reviews whenever necessary and appropriate.

Contractors are asked to submit notification to 3M of worker hours and any injuries occurring while performing work in accordance with a 3M contract. Any contractor incidents are reported in the 3M EHS 360 data management system, including injuries and contractor worker hours.





Workplace security

3M secures and monitors its sites to protect 3M's property, assets, people, and operations. 3M sites are accessible with badge access. Uniformed security personnel support and assist workers and visitors in both emergency and nonemergency situations, such as accidents, incidents, loss or theft, suspicious items or behaviors, and lock-outs. Risk mitigation and investigation managers provide security expertise and guidance to businesses and sites. 3M's Global Security Operations Center (GSOC) monitors risks and intelligence sources worldwide and supports local operations in severe situations.

The GSOC also manages travel safety and provides emergency care and support to workers.

Incident and crisis management

3M has plans and processes in place to help prevent and prepare for, respond to, and recover from serious, severe, and crisis situations throughout its sites. Notification and communication processes managed through the GSOC inform and engage response teams, leadership, and subject matter experts. When a safety or security threat arises, a message informs workers and provides a response mechanism to confirm their safety after a severe or catastrophic event. 3M's Corporate Crisis Action Team (CCAT) provides global leadership, coordination, and direction in crisis situations. For more information, visit the [Enterprise risk](#) section.

Process hazard management

3M is committed to rigorously managing the risks associated with hazardous processes, such as those with the potential to result in catastrophic fires, explosions, and sudden release of toxic materials. We use a Hazardous Process Evaluation Tool (HazPET) to categorize hazardous processes. Process Hazard Analyses (PHAs) are used to assess the effectiveness of existing safeguards. Layers of Protection Analysis (LOPA) is also used in some instances to evaluate safety-critical devices and systems, providing more attention to independent protection layers. Facility siting assessments help us identify and mitigate "maximum credible event" scenarios that could impact workers at some sites, and is a global initiative that builds on 3M's existing guidance to our sites around effectively managing potential combustible dust hazards.

Another way we manage hazardous processes is through mechanical integrity programs. These programs help our manufacturing sites manage critical process equipment to assure they are operated and maintained in the most effective and safe manner. In 2019, we focused on increased training and guidance to support mechanical integrity programs at our manufacturing sites.

Our actions

3M uses a variety of tools to manage risks related to hazards in the workplace. We have successfully used specialized tools for several years in the areas of life safety, process safety, industrial hygiene, and ergonomics. Each of these disciplines uses a risk management approach to categorize hazard levels and define appropriate levels of control.

Environmental, health, and safety (EHS) management system

In 2019, our Global Safety and Health Plan (GSHP) Self-Assessment and Global Environmental Management Self-Assessment (GEMSA) were combined to create 3M's EHS Management System Self-Assessment, which is the basis for our self-assessment and audit protocols. This system defines EHS requirements that apply to manufacturing, supply chain, and R&D operations.

As part of this system, all manufacturing sites and new acquisitions must complete the EHS Management System Self-Assessment at least annually. This assessment is categorized into multiple elements that address various areas and standards related to safety and health.

EHS Cultural Excellence initiative

In 2019, our EHS Cultural Excellence initiative launched globally. The goal of this new program is to continually enhance 3M's EHS culture at all sites worldwide, with a key metric of enhancing EHS culture through leadership engagement with site employees.

Each manufacturing and distribution site completed an EHS employee perception survey to gain a baseline measurement.

Based on survey results, site-specific action plans direct the site's leadership team on future steps to improve EHS culture, such as:

- Leadership and employee engagement
- Recognition of exemplary work
- Risk identification and follow-up

Significant injury/illness and fatality (SIF) and significant injuries and events (SIE) rates

At the end of 2019, over 110,000 risk assessments resulted in the identification and reduction of risk associated with more than 30,000 activities, including 8,300 associated with activities that have greater potential to result in a SIF.

From 2012 to 2018, there has been a net reduction in the number of SIFs of 42.1%. In 2019, we refined and expanded our internal SIF classification criteria. Previously, our SIF definition included specific types of injury for inclusion. SIE is more broadly defined by impairment, disability, and other considerations. It also includes non-injury and illness events, such as fires, spills, and communicable disease outbreaks. In 2019, we established a new baseline for the SIE rate.

Ergonomics risk management

3M's Ergonomics Risk Reduction Process (ERRP) is a global, comprehensive program that integrates ergonomic job analysis and engineering design criteria to reduce exposure to commonly identified musculoskeletal disorder (MSD) risk factors. To accomplish this, we apply ergonomics risk assessment tools globally to identify and assess ergonomic risk in the industrial environment.

In 2019, all manufacturing sites were required to complete an ergonomic footprint assessment.

Online ergonomic training is also available 24/7 to any employee who wants to learn more and has access to 3M's intranet. These efforts have paid off, resulting in reduced numbers of ergonomic recordable injury cases. See the 3M regional and global recordable incident rate chart for details.

Industrial exposure risk management

To accurately assess exposure management programs and activities, 3M uses the comprehensive approach outlined by the American Industrial Hygiene Association (AIHA). In the past decade, over 95% of all chemical agents and noise baseline exposure risk assessments have been completed for all jobs. As prescribed by our Global Safety and Health Plan, we have also conducted proactive assessments of dermal exposure, engineered nanoparticles, hazard communication, personal protective equipment, respirator protection, and ventilation. These assessments help us determine whether any changes in exposure management programs are warranted.

Medical surveillance

We monitor our employees based on their potential exposure to chemical and physical hazards in the workplace. We screen for early signs of occupational illnesses to protect workers from further exposure, and we provide medical management. We look for trends in the health data of working populations to assure that potential hazards are well controlled. While many of these programs are mandated by government requirements, others are established to meet 3M's more protective standards.

Occupational epidemiology

3M is one of the few companies supporting an internal occupational epidemiology program. For the past 25 years, this group has conducted epidemiologic studies to examine health outcomes among 3M manufacturing workers and their potential association with occupational exposures and other workplace conditions. Occupational epidemiology research is used to inform risk assessments and develop risk management activities within 3M.

Radiation protection

3M's Corporate Radiation Protection and Compliance group (CRPC) provides hazard evaluations and develops and provides training for both radiation source users as well as site radiation safety officers to help protect 3M employees, our customers, and the public. This includes the use of radiation in both manufacturing and R&D — ionizing radiation sources such as radioactive materials and x-ray emitting devices; and nonionizing radiation sources such as lasers, microwave and radiofrequency radiation, magnetic fields, and ultraviolet, infrared, and visible light. Periodic program audits evaluate site performance in managing hazards during routine use and maintenance of radiation sources, security of radiation sources, training of personnel, and regulatory compliance.

While many of these programs are mandated by government requirements, others are established to meet 3M's more protective standards.



Global EHS Team

3M's global EHS Team has continued to evolve. We believe our current operational state sets us apart from our peers. Comprised of business-level EHS committee members, regional EHS managers, and corporate subject-matter experts, this committee will work with EHS site staff to address and replicate best practices, solve problems, and drive worthy EHS initiatives to the operational level. The global EHS Team also supports the professional development of EHS site staff by holding topic-specific meetings, global conferences, and providing scholarships for professional certification training courses.

In 2019,

100% 

of 3M manufacturing sites worldwide

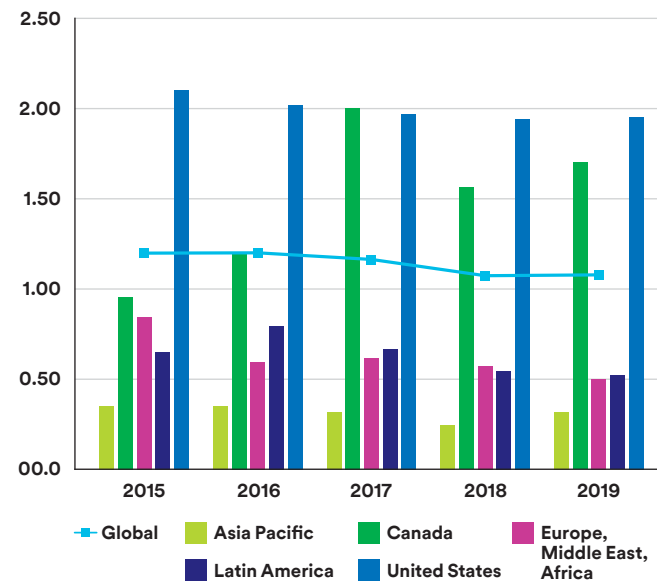
had active employee safety and health committees.

Safe and sustainable project investments

In 2019, 3M introduced the safe and sustainable centrally coordinated investment fund to mitigate risk and facilitate technologies of the future. Examples of projects funded in 2019 include fixed fire protection upgrades, noise reduction, machine guarding, and dust collection systems.

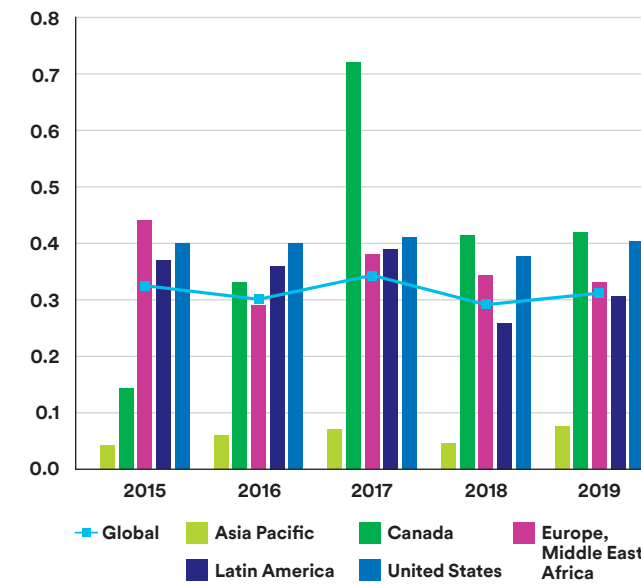
3M regional and global recordable incident rate

Per 100 3M employees (200,000 work hours)



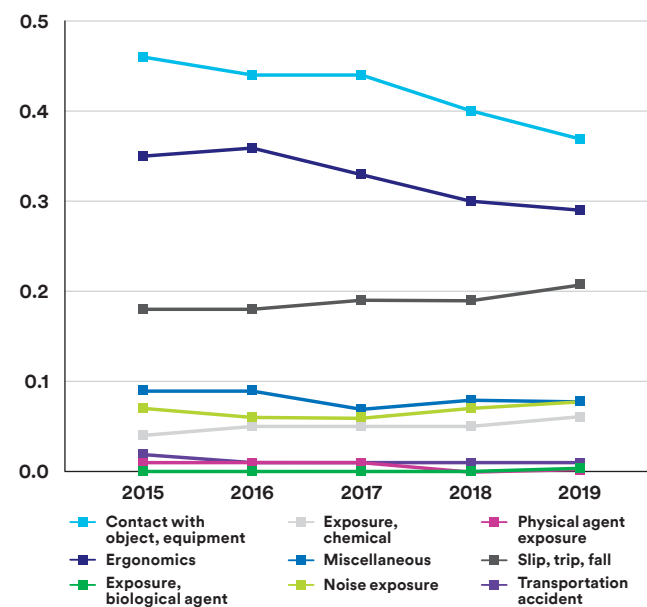
3M regional and global lost time incident rate

Per 100 3M employees (200,000 work hours)



3M global recordable incident rate category

Per 100 3M employees (200,000 work hours)



Looking forward

In the coming year, 3M will be working to advance the 3M Value Model, with safe and sustainable progress at the top of the list. 3M's EHS Management System Self-Assessment will set a new baseline for EHS performance and a more in-depth auditing process.

In 2020, we are expanding the number of global EHS audits and are working to bring multidisciplinary teams to help sites achieve risk reduction and EHS goals. We will be implementing a new global site EHS management of change system and a new Environmental Hazard Assessment (EHA) process tool; developing standard work for event investigations; and exploring real-time data systems to track EHS compliance, risk reduction, and cultural excellence.

Environmental management

Responsible stewardship.

Our commitment

In 1975, 3M's Board of Directors adopted the [3M Environmental Policy](#), formalizing its commitment to environmental stewardship. This policy established the framework for environmental management and conservation of resources, emphasizing prevention of pollution at the source.

Since then, our environmental management programs have continued to evolve. We work to identify potential risks to the environment, the health and safety of our employees, and communities, and we take steps to modify processes, product design, and standards to address these risks. We leverage information and technology to assess the risks and drive compliance through data systems and technical analysis.

3M's strategies for sustainable development encompass the pursuit of customer satisfaction and commercial success within a framework of environmental, social, and economic values. We are committed to complying with all applicable environmental requirements worldwide.



Beyond compliance, the company continues to make significant investments to reduce the environmental impact of our operations and our products. We incorporate sustainable attributes into our products to help customers reduce their environmental impact and help meet their Sustainability goals. 3M believes environmental policies and regulations should always be guided by science-based decision-making.

Our actions

Developing and implementing global environmental policies, management systems, and key performance metrics enables 3M to continually integrate and drive continuous improvement into each of the company's four business groups globally, assuring consistency and innovative environmental thinking.

Management

3M's Environmental Management System (EMS) framework provides structure and consistency for implementing our programs and puts the company in a proactive rather than a reactive mode regarding our environmental focus. We have extensive global systems in place to identify, track, and manage relevant information on corporate-wide environmental management and performance. This includes covering a full range of environmental compliance and operational performance metrics relevant to 3M operations, some of which are provided in this report.

Quarterly scorecards report data at the site, division, business group, and corporate levels. Scorecards are reviewed by executive management for performance on selected indicators, enabling 3M to monitor and identify successes, risks, and opportunities for performance improvements and footprint reductions worldwide.

Environmental, health, and safety (EHS) incident management

Since 2010, all 3M sites globally are required to internally report actual and potential incidents (i.e., identify risks) including, but not limited to, injury or illness, fire or explosion, environmental exceedances, spills, agency notices, and fines through one dedicated system, which we call EHS 360.

EHS 360 has led to continuous improvement relating to awareness of responsibilities, understanding of the holistic system, and more consistent reporting requirements for 3M's global operations.

Environmental investments

In 2019, 3M expended approximately



\$59M

for capital projects related to protecting the environment.

This amount excludes expenditures for remediation actions relating to existing matters caused by past operations that do not contribute to current or future revenues, which are expensed. Capital expenditures for environmental purposes have included pollution control devices — such as wastewater treatment plant improvements, scrubbers, containment structures, solvent recovery units, and thermal oxidizers — at new and existing facilities, constructed or upgraded in the normal course of business. The company places consistent emphasis on environmental responsibility. Capital expenditures (other than for remediation projects) for known projects are presently expected to be about \$150 million to \$220 million over the next two years, for new or expanded programs to build facilities or modify manufacturing processes to minimize waste and reduce emissions.

In 2019, 3M introduced the safe and sustainable centrally coordinated investment fund to mitigate risk and facilitate implementation of sustainable technologies to align with our [Strategic Sustainability Framework](#).

For more information, visit the [Health and safety](#) section.

Environmental management implementation

We continue to advance our EMS throughout the world.

Our approach calls for each site to establish, implement, and maintain documented environmental objectives and targets. When establishing an EMS plan, each 3M site must address financial, technological, operational, and business considerations. The objectives and targets should be measurable and consistent with our environmental policy, including our commitments to prevent pollution, and comply with applicable regulations and other requirements.

3M's multifaceted strategy for implementing EMS and global auditing of environmental compliance for our operations is key to understanding any potential gaps and quickly gaining resolution. In 2019, we combined our Global Safety and Health Plan (GSHP) self-assessment and Global Environmental Management Self-Assessment (GEMSA) to create 3M's EHS Management System Self-Assessment, which is the basis for our self-assessment and audit protocols. The EHS management system defines EHS requirements that apply to all 3M sites globally and has been designed to bring more consistency to EHS assessments at 3M manufacturing, supply chain, and R&D sites worldwide.

All manufacturing sites, and new acquisitions based on their integration progress, must complete the EHS Management System Self-Assessment at least annually. The environmental elements reflect procedures, systems, and processes that are

comprehensive and mandatory to maintain compliance with legal or other internal requirements. Data from the assessments is validated through audits, site visits by subject-matter experts, and other data systems.

Environmental site assessments and enhancements

Outside of 3M's EMS, 3M has completed environmental site assessments at most sites, with the goal of identifying potential historical liabilities. Because of these assessments, we can identify sensitive biodiverse areas. Where applicable, 3M conducts searches of public databases, which includes a wetland database. Site visits also identify areas such as rivers, creeks, and potential wetlands that are on or near the manufacturing sites.

Sites throughout the world practice good land stewardship. For example, Menomonie, Wisconsin, focuses on the removal of invasive species and has an active bluebird management program on its 500-acre property. Since 2015, 3M headquarters in St. Paul, Minnesota, has provided a certified and registered Monarch Waystation to provide milkweeds, nectar sources, and shelter to sustain monarch butterflies as they migrate through North America. 3M headquarters, as well as the 3M Global Service Center in Wroclaw, Poland, maintain beehives. In 2019, Wroclaw's Service Center organized beekeeping workshops, educating employees on bee behaviors, protection, and treatment.




Applying ISO 14001

The ISO 14001 Environment Management System (EMS) standard is an internationally recognized approach for managing the immediate and long-term environmental impacts of an organization's products, services, and processes. In 2018, 3M recertified all relevant sites to the current ISO 14001 standard.

To help sites comply with the current ISO 14001 standard, 3M provides ISO 14001 training modules in our Global Learning System. Web-based courses are offered, with topics on general awareness, internal auditors, leadership management, and more. Learning coordinators can assign these web-based trainings to groups of employees, process certifications, and run reports. Supervisors can then view their direct report's learning activities.

Altogether, our ISO 14001-certified sites account for approximately

80.3%
of 3M's total product output. 

Third-party assurance of Sustainability metric reporting

APEX Companies, LLC provided independent third-party verification of 3M's 2019 environmental data (volatile organic compound emissions, water, waste, environmental compliance metrics, energy consumption, and greenhouse gas emissions), included in this 2020 Sustainability Report. For additional information on our third-party assurance, see the [APEX Companies, LLC Assurance Statement](#).

Site self-assessments and auditing

3M verifies regulatory compliance and alignment with prioritized sections of the EHS Management System Self-Assessment, conducting environmental-related audits on a standardized schedule based on site-specific EHS complexities. In 2019, our EHS site audits covered sites that manufactured 34.8% of sales value of production (SVOP).

Key objectives of audits:

Managing Global Risk and Compliance

Maintain compliance	Develop environmental professionals	Manage risk
Share best practices	Identify common areas for improvement	Build common understanding of requirements

Comprised in the auditing process:

- The frequency of environmental compliance audits on manufacturing, distribution, and laboratory operations is based on the site's EHS complexity rating along with management input
- At least annually, all global manufacturing, supply chain, and R&D sites are assessed with respect to the standard audit frequencies to establish a prioritized list of sites for compliance auditing
- 3M uses a variety of tools and resources for compliance auditing, including:
 - Internally developed compliance protocols created by subject-matter experts in regulatory programs and 3M processes
 - 3M's EHS management system
 - Externally purchased compliance protocols, especially for operations outside the United States, to assure local compliance obligations are understood and met
 - Internal environmental compliance experts from around the company
 - External environmental consultants, as needed, to provide additional expertise and third-party verification of our auditing protocols
 - Complete and robust documentation of audits
 - Findings, with assignments of responsibility, due dates for closure, and tracking to completion
 - Detailed reviews of findings to assure corrective actions are complete

3M's EHS auditing program is audited periodically by 3M's Corporate Auditing Department, resulting in recent improvements to the scope of the audit program, fully addressing all in-scope sites and the verification of EHS audit findings.

All EHS auditors, except for 3M EHS professionals who are guest auditors, are required to take a certification test covering the important aspects of the 3M EHS Auditor Guidelines. 3M EHS professionals are assigned to an audit team or lead auditor to provide support on the auditing process and/or a specific subject during the audit.

Compliance analysis, documentation, and verification

In an effort to create more consistency in auditing of manufacturing sites, 3M has refined its Compliance and Auditing Management and Metric Systems (CAMMS).

Primarily focused in the United States and Canada, CAMMS is a system for maintaining environmental compliance requirements and determinations. It allows us to conduct internal compliance audits in the context of applicable regulatory requirements and company policies and standards through the use of CAMMS dynamic audit checklists. In addition, CAMMS utilizes a risk assessment tool for prioritizing resources to implement corrective actions.

EHS professional training

As part of our ongoing training efforts, 3M conducted monthly webinars in 2019 for environmental, health, and safety employees on topics that draw global interest. The webinars were recorded and placed on a website that allows convenient access for those who couldn't attend the live events. A wide range of topics were covered, with specific focus on the new elements of the EHS management system.

In addition, 3M holds EHS global conferences in the St. Paul/Minneapolis region as well as half-day to multi-day on-site workshops around the globe. 3M also offers scholarships for professional certification training courses and covers fees for professional certification exams as well as recertification dues.

Commitment to PFAS stewardship

Per- and polyfluoroalkyl substances (PFAS) are a broad class of chemical compounds containing two essential elements – carbon and fluorine. The carbon-fluorine bond is strong and stable even at high temperatures. This property lends itself to many useful applications of industrial and social significance, including health care, advanced electronics, and replacement of materials with high global warming potential.

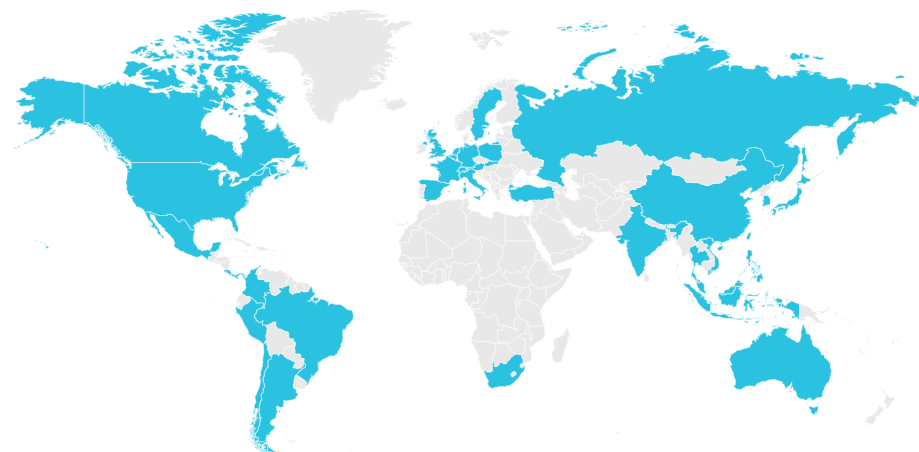
3M is constantly and proactively examining the environmental impact of our products. As the science of PFAS progressed, we learned that some of these materials were becoming widespread and had the potential to build up over time. As part of our commitment to environmental stewardship, in May of 2000, 3M made the decision to phase-out PFOS and PFOA. We chose to stop production ahead of any regulatory requirement to do so, and we shared our learnings with the United States Environmental Protection Agency (EPA) and the rest of the industry.

3M is committed to responsible environmental stewardship and protecting natural resources. We work with federal, state, and local authorities regarding environmental aspects of our operations and are dedicated to acting responsibly and transparently in the way we treat our customers and the way we treat the environments in which we operate.

Globally, 3M has invested millions on research, technology, and cleanup efforts related to PFAS. For example, more than \$50M has gone toward installing water filtration systems, and more than \$100M has been invested in testing water sources to better understand the quality of both groundwater and drinking water in communities.

To learn more, see [“3M's Commitment to PFAS Stewardship.”](#)

3M EHS audit locations, 2014-2019



Looking forward

We will continue to drive environmental management programs across all our global manufacturing sites. With the supporting technology developed in 2019, we will update our global EHS management system, including site self-assessments, internal audits, and a new EHS Management Standard. Our work to reduce the likelihood of significant events will continue into 2020, keeping our focus on environmental, health, and safety compliance in our operations.

In 2020, we are expanding the number of global EHS audits and are working to bring multi-disciplinary teams to help sites achieve risk reduction and EHS goals. We will be implementing a new global site EHS Management of Change system, developing a new Environmental Hazard Assessment (EHA) process tool, creating standard work for event investigations, and exploring real-time data systems to track EHS compliance.

We are committed to being part of environmental solutions, guided by the principles of sound science, corporate responsibility, and transparency.

Circular materials

Design solutions that do more with less material, advancing a global circular economy.

Our commitment

Our current global economy's linear business model of "take, make, and waste" is depleting natural resources faster than they can be replenished and is straining our ecosystems. Imagine repurposing a piece of plastic at the end of its use, giving it another life as something else. Its use is, in fact circular, and the end of use doesn't mean the end of life.

A circular economy does more with less, keeps products and materials in use, designs out waste and pollution, and regenerates natural systems. At the core is an opportunity to develop technologies and business models that are restorative and regenerative by design. We see the circular economy as an opportunity to inspire leadership, innovation, and disruptive change, all driving impact for a sustainable future.

At 3M, Science for Circular is one of three pillars of our Strategic Sustainability Framework and focuses on designing solutions that do more with less material, advancing a global circular economy.

Renewable and recycled materials, water, packaging, and waste are materials with critical performance indicators for circularity. We believe it is our responsibility to carefully assess these materials as we focus on Science for Circular. It is also our responsibility to be strategic, planful, and to mitigate risks related to these materials along the way.

We believe that risk management is an essential component of strategic planning — with broad risk oversight by the 3M Board of Directors and its committees and with committee-level risk analyses reported to the full Board and executive-level Internal Auditor and Chief Ethics & Compliance Officer appointed by, and reporting directly to, the [Audit Committee](#).

The highest level of Sustainability risk governance is the responsibility of our [Science, Technology & Sustainability Committee](#) of the Board of Directors. The committee oversees the twin demands of developing products to meet the ever-changing needs of our customers while assuring that those products cause no harm to people or to our planet.

The committee's roles and responsibilities include reviewing the company's Sustainability policies and programs; and identifying and analyzing significant Sustainability, materials vulnerability, and geopolitical issues that may impact our overall business strategy, global business continuity, and financial results. For more information on risk, see the [Enterprise risk](#) section.

Reusable, renewable, and recycled materials

3M continually looks for ways to recover, reuse, and recycle by-products and other surplus material, and we include renewable and recycled materials in our products whenever possible. Increasing usage of renewable and recycled raw materials through product design and operational considerations helps assure our products support the circular economy.

Water stewardship

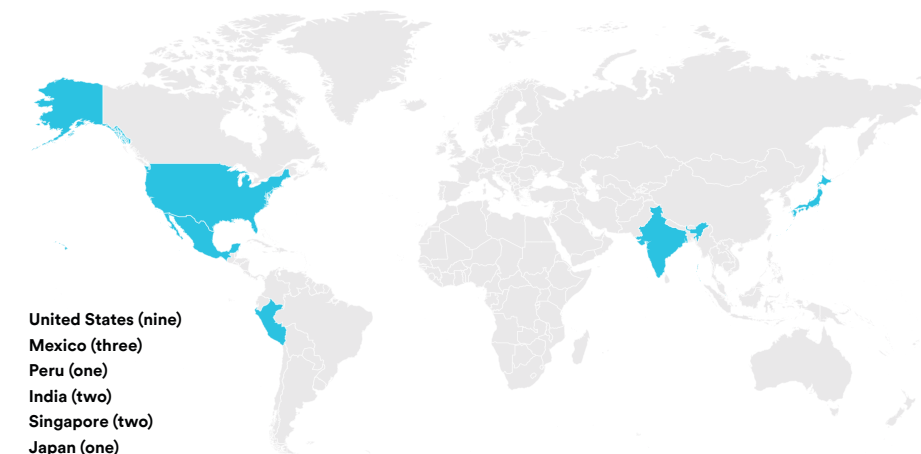
Water is an important raw material supporting our product manufacturing processes. We respect our ecological and ethical responsibility and have a vested interest in preserving and improving the quality and availability of water in the communities we serve and beyond. 3M's [Water Stewardship Standard](#) outlines our commitment to water resources that secure social equity, economic growth, and environmental protection. Water resources include water intake, effluent water discharge, and rainwater.

The threat of water scarcity is real and is already occurring in some areas of the world. We are continually evaluating risks and opportunities related to water scarcity. To define our high-risk sites, 3M uses the World Resource Institute (WRI) Aqueduct™ Tool to screen the company's various sites and their water use with validated

WRI water availability information, both on a country and watershed basis. In 2019, 18 sites with annual water use equal to or greater than 1,000 cubic meters were in water-stressed areas as defined by the extremely high baseline water stress value, according to the WRI Aqueduct Tool.

Each 3M site located in a water-stressed area is required to understand its water use and associated business risks and impacts and must work with local water resources to understand potential impacts on the surrounding area. Those sites are also asked to do water conservation planning, outlining current and future water conservation efforts. Annual stress-level screening evaluations are conducted for global operations using available updates from the water tool, an analysis of site operations, and water usage and local conditions.

3M locations in-scope for the 2025 Sustainability water-stressed/scarce communities goal



Goal: Reduce global water use by an additional 10%, indexed to sales by 2025.

3M operations must manage their water resources through alignment with regulatory requirements, conservation, and reuse, as well as by reporting water usage internally.



Goal: Engage 100% of water-stressed/scarce communities where 3M manufactures, on community-wide approaches to water management by 2025.

3M will partner with local communities to advance water recycling and conservation. Ultimately, we aim to help these communities build and manage their own clean water efforts into the future.



Packaging

3M's product diversity, markets, and global multi-channel distribution systems create a complex situation that does not lend itself to a "one solution fits all" approach. Our packaging Sustainability roadmap takes into consideration the requirements and needs that are quickly evolving around the world.

Our roadmap's top priorities include:

- **Product protection:** Design every package to optimally protect the product from point of manufacture to point of use
- **Efficient packaging:** Minimize the amount of material used. Optimize cube utilization at all pack levels. Eliminate all unnecessary packaging
- **Circular packaging:** Design packaging to be reusable, recyclable, and/or made with renewable resources. Maximize recycled content of packaging materials

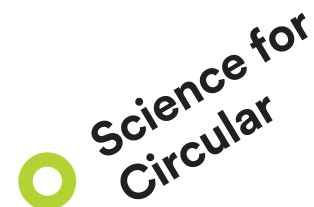
Waste management

We reduce, recover, reuse, and recycle byproducts and other surplus material in our operations whenever feasible. When not feasible, we responsibly dispose of waste materials.

The [3M Waste Management Standard](#) applies to all 3M sites and provides a framework for managing all waste types from the time of generation until reused, recycled, treated, or disposed. The standard sets a baseline for several core waste program elements and encourages waste minimization and recycling whenever possible.

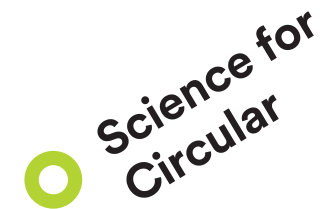
Per the standard, each 3M site has a waste management coordinator who is responsible for assuring conformance to the standard, including organizing appropriate waste training for all personnel. Compliance with all 3M and other regulated waste requirements is evaluated through the internal environmental auditing program.

Our [Disposal of Chemical Waste Standard](#) calls for appropriate management and disposal of chemical waste to manage risks and protect the environment. This includes efforts to reduce the amount and hazards of waste materials generated, to recycle or reuse those materials whenever practical, and to control waste disposal through final disposition.



Goal: Reduce manufacturing waste by an additional 10%, indexed to sales by 2025.

We'll continue to drive "zero waste" thinking with our product designs and process technologies and will continue material reduction work within our manufacturing operations. Our definition of manufacturing waste for this goal includes materials sent to incineration and landfill.



Goal: Achieve zero landfill status at more than 30% of manufacturing sites by 2025.

In addition to our waste reduction goal, we plan to increase the repurposing, reusing, and recycling of potential waste materials to divert them from landfill disposal. The intention of our zero landfill goal is to drive our sites to increase product and process optimization, on-site and offsite recycling, and composting.

Our actions

Circularity in our operations

Reusable, renewable, and recyclable materials in our operations

While reducing waste is the first choice in the hierarchy of waste management options, other possibilities, such as reusing, recycling, and composting, can also fuel the circular economy by getting more out of our materials and allowing them to continue into their next life.

As sites identify opportunities to divert material streams, we protect 3M's reputation by managing byproducts and setting up contracts with our haulers, recyclers, and waste-to-energy companies to confirm that our material is handled appropriately.

Zero landfill

Our goal resonates with our local communities as well as our suppliers and customers. However, zero landfill has various definitions for different people and sites. We've spent a great deal of time during our goal development process benchmarking peer companies that span relevant business sectors and industries. Based on our research, we've chosen a holistic definition: At 3M, zero landfill means no byproduct is sent directly to a landfill from a 3M manufacturing site in a calendar year. A site will continue to be a zero landfill site as long as no manufacturing operations waste is sent to a landfill. Waste, as defined here, does not include ash generated from 3M material sent to a waste-to-energy or incineration site controlled by a third party.

Each site reports its waste data in a corporate database each quarter. This data is third-party validated at select sites and at the corporate level. We also require sites seeking zero landfill status to complete an internal assessment to assure accurate reporting.

By the end of 2019,

35.4%

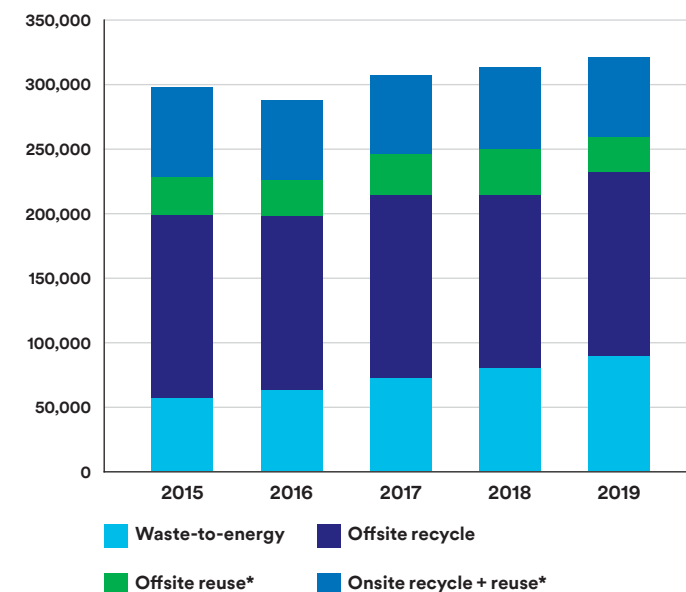
of 3M sites had attained zero landfill status.



As we monitor progress toward this goal, sites listed will change due to operations (e.g., site closures, acquisitions, and sites missing zero landfill by one day of the year). Read how one site reached zero landfill status in the [3M Columbia site spotlight](#).

Global waste diversion by type

Metric tons



*Does not include on-site recycling & reuse and offsite reuse from 3M's industrial mineral product (IMP) division

Water conservation in our operations

We are continually evaluating our water use with a consistent, company-wide focus on reuse, reduction, and internal recycling, as well as collaboration with our own technical community, channel partners, and civic and conservation leaders in communities where 3M operates.

3M's total water usage includes sanitary, process, heating, cooling, remediation, and miscellaneous sources. Water usage data is tracked and reported annually on a global basis for manufacturing sites that produce greater than 4.54 metric tons (10,000 pounds) of product per year. The reported data accounts for 99% of sales value of production (SVOP).

Total water consumption decreased



43.3%

between 2005 and 2019,

indexed to corporate-wide net sales. Results also indicate that the largest share of 3M water use in operations is for processing products in manufacturing and heating or cooling of those processes and associated operations. We continue to improve our data accuracy through monitoring and measurement.

Our water conservation successes have been achieved through recycling, reuse, product redesigns, and improvements to our buildings and manufacturing processes.

A majority of our water-intense manufacturing operations are located in the United States and Europe, in areas that are not water-stressed or water-scarce. However, they also contribute significantly to our conservation efforts. As the company continues to grow globally, thoughtful consideration is placed on the type of operations and availability of water sources.

Global water withdrawal

2019 percentage



Groundwater	49.4%
Other sources	10.7%
Public municipal	19.7%
Surface	20.2%

In 2019, we continued to expand global project tracking with our new pollution prevention system. 3M employees can place water reduction ideas into this system and list any barriers to implementation. Engineers, developers, and managers can see opportunities across our vast Technology Platforms.

This visibility provides a deeper understanding of water use reduction opportunities across the company. We use this system to create, identify, and share best management practices related to water conservation. As we have for decades, we are continuing our efforts to implement water reduction projects at targeted sites.

Packaging in our operations

To support our circularity efforts, we work internally and with suppliers so that we can reduce, reuse, or recycle packaging of raw materials we receive. For example, we continued optimizing packaging used for inter-company, international shipping, aiming to shift from single-use wood crate and core to a reusable steel rack and core. This change promoted reuse while amounting to more than 169 metric tons of solid waste reduction in 2019 in sites across Brazil, India, Poland, and Mexico.

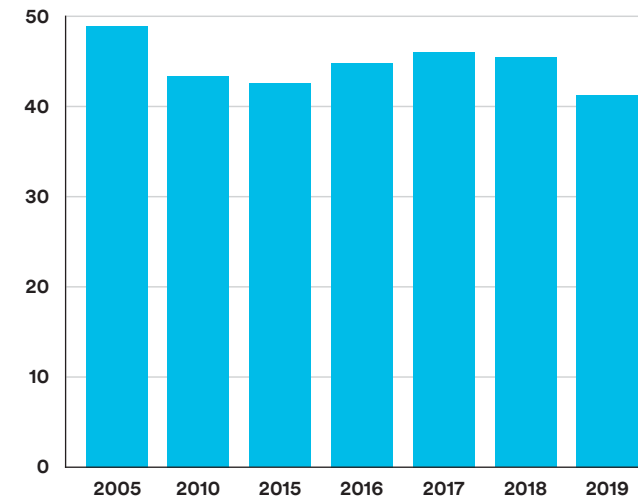
For more information on our supplier circularity efforts, see the [Suppliers](#) section.

Waste reduction in our operations

Within each region, business, and division, results are reviewed quarterly and annually against goals and tracking metrics. Specialized teams work on a variety of projects and programs, ranging from basic office recycling to more complex projects, such as developing and capturing intrinsic waste materials generated by a manufacturing line. Through an evaluation process, all aspects of material reduction benefits or risks are reviewed.

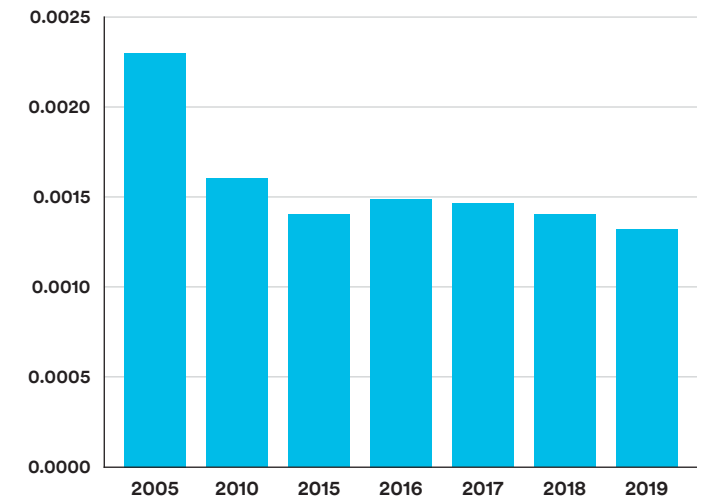
Global water usage

Million cubic meters



Global water usage

Million cubic meters per MM \$USD net sales



3M Corporate Environmental Operations measures progress toward raw material usage and waste reduction goals for sites within our global manufacturing footprint. The results and raw data are used to identify, quantify, and prioritize projects to improve, utilizing Lean Six Sigma (LSS) methodology.

Raw material utilization is a measurement of overall product and process yield throughout our manufacturing processes and is a key metric for 3M. This internal metric is tracked at all manufacturing sites and is indicative of operational excellence in our product design and manufacturing processes. Our raw material utilization includes the product, the process, and all byproducts. The first step in waste management is reduction of waste, which also increases raw material utilization. Next are examples of how we continue to reduce waste in our operations.

Pollution Prevention Pays (3P)

An industry first, 3M's 3P program, developed in 1975, is based on the belief that a prevention approach to pollution is more environmentally effective, more socially acceptable, and more economical than treatment. In the last 45 years, the program has prevented more than 2.66 million short tons of pollutants and saved over \$2.30 billion based on aggregated data from the first year of each 3P project.

In 2019, we continued to expand global project tracking with our new pollution prevention system. 3M employees can place waste reduction ideas into this system and list any barriers to implementation. Engineers, developers, and managers can see opportunities across our vast Technology Platforms. This visibility provides a deeper understanding of waste reduction opportunities across the company.

We use this system to create, identify, and share best management practices related to waste reduction.

Communication on the added functionality of the 3P system was shared throughout 2019 to various stakeholders, including sites, engineering, and 3M Tech Forum.

Using kaizen events to improve the flow of process stream

Kaizen is the Japanese word for “continuous improvement.” In 2019, in a continuation of previous efforts, the 3M Environmental, Health, and Safety Department conducted several kaizen events, including site walk-throughs, waste-by-cause analyses, and identification of circular uses for surplus materials. Findings from these events can feed into the 3P system.

Part of the identification and solution process requires utilizing LSS within a site to segregate and manage material flow for material streams and analyze the availability of internal and external by-product handling alternatives.

Our waste reduction results

Between 2015 and 2019, 3M has

reduced the amount of material sent for landfill and incineration by

12.6% 

indexed to net sales.

We have decreased our waste, indexed to net sales, by 32.9% since 2005.

3M’s waste metrics include 3M manufacturing sites with total output greater than 4.54 metric tons per year (10,000 pounds), which represents 99% of sales value of production (SVOP).

Composting materials from our manufacturing sites is an extremely small component of our manufacturing operations. 3M does not have any waste streams that are managed by deep well injection.

3M is also dedicated to operating in accordance with all regulations and managing waste materials safely and responsibly. All 3M sites are required to manage all returned, recycled, and waste materials from the time of generation until reused, recycled, treated, or disposed.

Circularity in our products

In 2019, we required 100% of products entering our new product commercialization process to have a Sustainability Value Commitment (SVC) to contribute to our aspirations laid out in our Strategic Sustainability Framework.

Examples of commitment considerations include reusability; recyclability; and energy, waste, and water savings appropriate to the specific product throughout its life cycle. For more information, see the [Innovation management](#) section.


Reusable, renewable, and recyclable materials in our products

Through our SVC efforts, we develop reusable products and create products using renewable or recycled materials for our customers. Examples include supporting refurbishment of old products with our [Post-it® Flex Write Surface](#) that can cover existing whiteboards and chalkboards and can be wiped clean with water even when permanent marker is applied; using renewable resources with plant-based adhesives in our Post-it® Super Sticky Notes and our 100% plant-based Scotch-Brite® Greener Clean Non-Scratch Scrub Sponges; and making products with recycled materials such as 3M™ Thinsulate™ 100% Recycled Featherless Insulation and Scotch-Brite® Heavy Duty and Non-Scratch Scrub Sponges.

For more examples, see the [Our products](#) section and our feature story “[Collaborating for a circular economy.](#)”

Water conservation and quality designed into our products

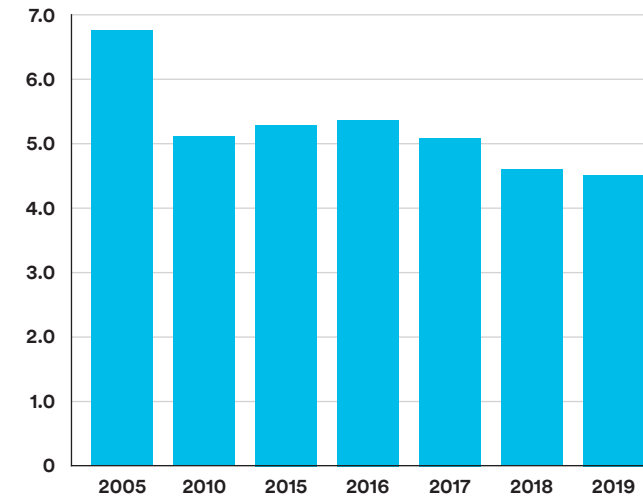
Through our SVC efforts, we develop water-saving opportunities for our customers. One example is 3M™ Petrifilm™ Plates which use

79% 
less water
when compared with traditional agar test methods.

For more examples, see the [Our products](#) section and our feature story, “[Collaborating for a circular economy.](#)”

Global waste

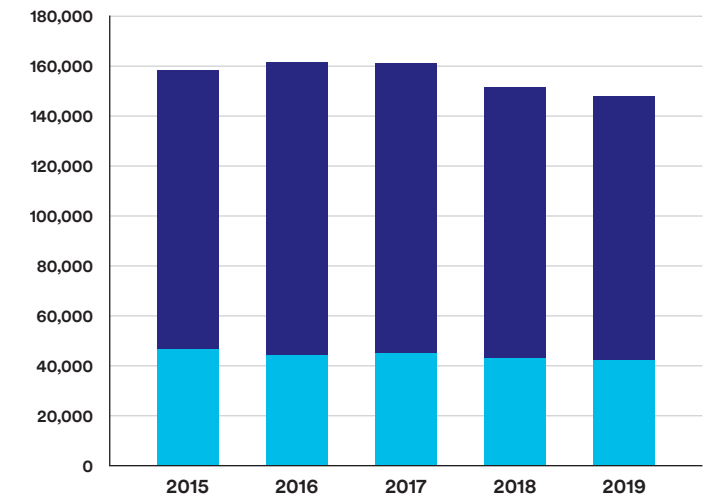
Metric tons per MM \$USD net sales



Starting in 2016, waste no longer includes waste-to-energy

Global waste by disposal type

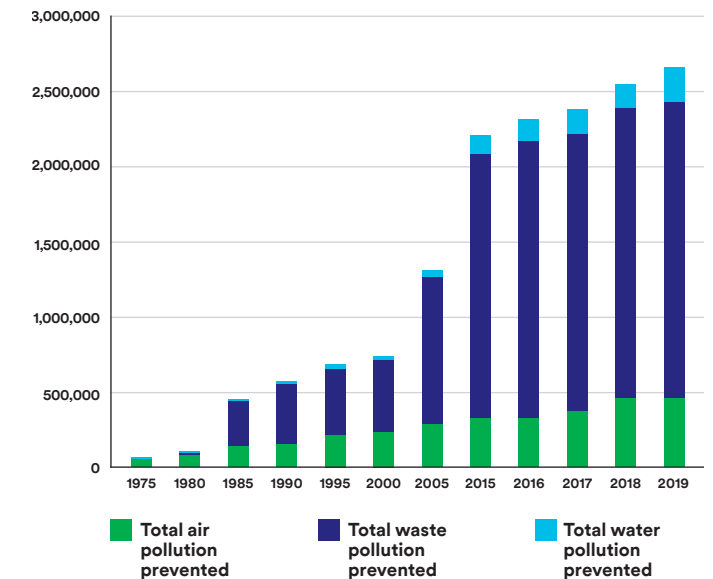
Metric tons



Starting in 2016, waste no longer includes waste-to-energy

3P global pollution prevention achievements: 1975-2019

First year total pollution prevention cumulative totals, short tons



Circularity in our packaging

3M continues to convert plastic blister packaging from polyvinyl chloride (PVC) to recycled polyethylene terephthalate (PET), including our Command™ and Post-it® product lines. This not only increases the recycled content of our plastic packaging, but it also increases the recyclability potential since PET is much more readily accepted at recycling facilities than PVC.

Because of this change in 2019, a total of

41  **more metric tons**

in North America had the potential of being recycled, rather than ending up in a landfill.

Packaging for a line of hearing protection was moved from a plastic clamshell to a paperboard carton, resulting in nine metric tons of plastic being removed from the global waste stream. The carton is made from renewable resources and is readily accepted for recycling at material recovery facilities.

For more examples, see our feature story, [“Collaborating for a circular economy.”](#)

Packaging for our products

In 2019, we continued our long-standing commitment to efficient packaging design by optimizing product protection with the least amount of materials. We did this by removing and light-weighting material and maximizing product-to-package ratios (removing as much empty air space as possible from the package).

Efforts this year yielded a reduction of packaging weight by more than



1,300
metric tons.

To support our circularity efforts, we work to prioritize materials on the front end so that they can be recovered after use rather than being discarded on land or in waterways. We continue to increase recycled content, make our packaging easier to recycle, encourage reusable packaging where appropriate, and increase the use of renewable materials.

Waste reduction designed into our products

We develop waste-saving opportunities for our customers. Examples include metal-free Filtrete™ Basic and Clean Living Air Filters; abrasives that cut faster and last longer, increasing efficiency with less waste; and aircraft paint preparation that reduces paint and solvent usage.

To learn how we partnered with one customer to understand, in part, how to reduce waste and to gain insight into a product’s journey through a health care system, see the [Our customers](#) section.

For more examples, see the [Our products](#) section and our feature story, [“Collaborating for a circular economy.”](#)

Circularity in our communities

Reusable, renewable, and recyclable materials in our communities

One business’s surplus material may be another business’s raw material. When we expand outside of our own value chain, the opportunities can be endless. In 2019, we continued with our company-wide strategy on reuse, reduction, and internal recycling, as well as collaboration with our own technical community, channel partners, and civic and conservation leaders in communities where 3M operates.

Ellen MacArthur CE100

In 2019, 3M joined the [Ellen MacArthur Foundation](#) Circular Economy 100 (CE100) Network to accelerate the movement toward using recycled and renewable raw materials in our product and package design. To help propel the initiative within 3M, eight internal cross-functional circular economy working groups have been formed in different areas, including polymers, chemicals, packaging, cloths/fibers, and other key materials.

One business’s surplus material may be another business’s raw material. When we expand outside of our own value chain, the opportunities can be endless.


Minnesota Sustainable Growth Coalition

As a founding member, 3M supports the newly developed Materials Vision of the Minnesota Sustainable Growth Coalition, which was finalized at the Coalition’s quarterly meeting held at the 3M Innovation Center in St. Paul, Minnesota in October 2019. The goal is to eliminate the concept of waste and thus create a circular materials economy. The Materials Vision lays the groundwork for future systems-focused projects. To start, the Coalition will identify one key project to advance as a collective group and create project teams with specialists from across member companies to further define and execute the prioritized project.



The Recycling Partnership

The Recycling Partnership wants to build the bridge to circularity by “putting the new plastics economy into practice in the United States.” One of the keys to making the circular economy work is curbside recycling — and although it might feel like access to recycling is everywhere, only half of all U.S. households have access to it at home. As a result, only about half of all recyclable materials are captured.¹ That reality inspired 3M, along with 40 other major U.S. brands, to become a supporting member of The Recycling Partnership, a national nonprofit organization that is working to bring curbside recycling to towns across America. Since 2015, The Recycling Partnership has leveraged more than \$55 million in funding for new infrastructure, impacted 60 million households, and

provided
600k 
curbside recycling carts to more than 1,300 communities.

With support from 3M and 40 other major U.S. brands, The Recycling Partnership is also partnering with the Sustainable Packaging Coalition[®] on ASTRX: Applying Systems Thinking to Recycling, an initiative to build a stronger recycling industry through product and packaging design that reflects the ideals of the circular economy.

¹The Recycling Partnership <https://recyclingpartnership.org/circularity/>

Minnesota Multifamily Recycling

The Recycling Partnership, with support from 3M and the Washington/Ramsey County Recycling and Energy Control Board, will engage with select multifamily properties and residents in Ramsey and Washington counties in Minnesota to improve recycling collection. Results from the work will be used to create best practices for waste management, collection, and hauling organizations that can be replicated in other cities and states.

Closed Loop Partners

3M initiated our partnership with Closed Loop Partners in 2014 through a \$5 million commitment to invest in the collaborative social impact fund that gives cities access to the capital needed to build comprehensive recycling programs and to build access to recycled materials for use in packaging.

In 2019, 3M also sponsored Closed Loop Partners’ Accelerate Circular Supply Chain Initiative. The overarching goal of this initiative is to evaluate and scale technologies that can meaningfully shift plastics supply chains toward more circular material flows. In 2018, Phase 1 of the initiative launched, defining the scope and landscape of technologies that could transform post-consumer plastics into building blocks for new materials and countless end uses. The results indicate that there is a role for these technologies, but significant challenges remain before these solutions can become commercially viable.

For Phase 2 of this work, the Closed Loop Foundation and its sister organizations require external support to lead specific project workstreams. The Foundation requested and was granted \$50,000 from 3M to bring on one NGO advisor who will serve as a key thought leader on the project and assess the environmental impacts and tradeoffs of the chemical recycling technologies under evaluation.

Water conservation and quality in our communities


The Nature Conservancy (TNC)

3M granted a total of \$250,000 in 2019 to TNC for projects that TNC has implemented to improve river systems health in California, Alabama and the Mississippi River Basin through efforts such as development of natural infrastructure to absorb and filter rain and urban runoff, tree planting, and restoration efforts.

Packaging in our communities

Sustainable Packaging Coalition[®]

The Sustainable Packaging Coalition (SPC) is a membership-based collaborative led by an independent nonprofit organization that believes in the power of industry to make packaging more sustainable. 3M’s commitment to the SPC mission includes representation on the executive committee. The executive committee provides perspective and expertise on industry trends, acts as ambassadors for the SPC, and provides strategic guidance on issues related to SPC goals and activities.

3M granted a total of
\$250k 
to The Nature Conservancy for projects TNC has implemented to improve river systems health.



Collaboration has many forms, and one of the forms is advocacy.

Advocacy

Collaboration has many forms, and one of the forms is advocacy. Our packaging team is committed to sharing its knowledge with the external community to create a collaborative network that will accelerate packaging circularity. This is demonstrated by engaging and participating in industry panels as well as guest lectures at universities and colleges.

Waste reduction in our communities

3M Impact

3M Impact is a skills-based service program where employees lend their business skills, experience, and energy to make a difference in global communities, while also developing leadership, problem-solving, and interpersonal communication skills.

One 3M Impact project was with ANCON — an environmental non-governmental organization in Panama. Waste management is in its early stages in Panama. ANCON recently began implementing a project called “Integrated Waste Management Project for the Taboga Island.” The essential objective of the assignment is to design a roadmap for a waste management system on Taboga Island. The island did not have a strong environmental focus but recent investments from Taboga’s government in tourism have made them more aware of the need to participate in ANCON’s project to keep the island clean for tourists. Tourists that visit the island are mainly backpackers or Panamanians with limited resources who spend the day on the island and consume large numbers of plastic bottles and aluminum cans. If this project is successfully managed, it will help Taboga become a more sustainable tourist destination, supporting one of the few economic activities of the island. It will also help prevent inhabitants from having to migrate to Panama City, as well as set a standard to be replicated in similar areas of Panama.

To learn more about 3M Impact, see the [Communities](#) section.

Looking forward

We will continue applying our scientific expertise to improve the lives of our employees, our customers, and everyone on the planet. Our Strategic Sustainability Framework directs our efforts to areas where we can make the biggest impact.

Within the Science for Circular pillar of this framework, we will continue to focus on initiatives that will create a more circular economy, driving solutions in our operations, in our products, and in communities around the world.

In our operations, 3M will continue to mitigate waste to landfill through reduction, reuse, and recycling of our surplus materials; actively manage and work toward reducing our water usage; and work with suppliers to reduce or reuse surplus materials from packaging of our raw materials.

For our customers, we will develop and launch products to help them reach their Sustainability goals by increasing our use of recycled raw materials; creating reusable, renewable, and/or recyclable products and packaging; and we will reduce both their water usage and waste through the use of our products. We will also be updating our packaging Sustainability roadmap to include a continued focus on plastics.

Within our communities, we will continue to focus on advocacy, support, and partnerships in our efforts to fuel a global circular economy.

Get updates and learn more about our ongoing work aligning to the [3M Strategic Sustainability Framework](#).



Climate and energy

Science-based innovation for decarbonization.

Our commitment

Through the years, 3M has led industry in addressing both the challenges and opportunities presented by climate change and energy conservation.

Our proactive leadership is best defined by five areas of action:

- Executive-level commitment to these important topics and our related principles, commitments, and risk-mitigation planning efforts
- Industry-leading efforts to measure and reduce our own greenhouse gas (GHG) emissions
- Extensive public policy engagement on both climate change and energy conservation
- A decades-long track record of improving energy efficiency at our sites
- Serving our customers through a wide range of innovative products that help them improve energy efficiency and reduce their greenhouse gas emissions

Executive-level commitment

We are committed to innovate to decarbonize industry, accelerate climate solutions and improve our environmental footprint. This commitment is part of the Science for Climate pillar of our Strategic Sustainability Framework. In 2019, 3M CEO Mike Roman announced a new commitment to renewable electricity by joining [RE100](#).

As a science-based company, 3M uses the World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) GHG Protocol Corporate Accounting and Reporting Standard to set GHG emission reduction targets.

For this reason, we are incorporating the findings of the Special Report on Global Warming of 1.5°C, published by the Intergovernmental Panel on Climate Change (IPCC), in setting our goals and actions.¹ This report, prepared by 91 authors from 40 countries and based on over 6,000 scientific references, finds that limiting global warming to 1.5°C (2.7°F) above pre-industrial temperatures would require “deep emissions reductions” and “rapid, far-reaching and unprecedented changes in all aspects of society.” Achieving this goal also would “reduce challenging impacts on ecosystems, human health and well-being.”

¹Special Report on Global Warming of 1.5°C (Report). Incheon, South Korea: Intergovernmental Panel on Climate Change (IPCC). 7 October 2018.

Through the years, 3M has led industry in addressing both challenges and opportunities presented by climate change and energy conservation.



Public policy engagement

3M is in alignment with the Task Force on Climate-related Financial Disclosures’ (TCFD) recommendations for helping businesses disclose climate-related financial information. We understand the need for increased focus and transparency of financial risks related to climate change. Our climate risk process, as described in the proceeding section, includes disclosures recommended by TCFD.

3M endorses voluntary approaches to GHG emissions management. Any mandatory GHG emission reductions should be developed through international negotiations and follow these policy principles:

- Apply broadly to countries or groups of countries and GHG emission sources
- Be guided by science-based decision-making
- Utilize a consistent, market-based approach
- Encourage investment and protect intellectual property to facilitate technology breakthroughs
- Include provisions for carbon emissions trading and/or alternative investment and compliance programs
- Provide full credit for early reductions in GHG emissions
- Balance multiple country-level priorities, including energy reliability and independence, national security, and economic growth and employment

- Include provisions that promote the efficient allocation of emissions reductions and assure all sectors contribute to reduction targets, with the effect of allowing fair competition and avoiding market distortions within industrial sectors or across national boundaries

3M is actively engaged in public policy development to address climate change concerns. In addition, we’ve been involved with the Intergovernmental Panel on Climate Change (IPCC) since 2005.

Risk-mitigation planning

Severe weather and long-term trends could affect 3M’s operations and supply chain. To address these and other risks, 3M maintains a formal Enterprise Risk Management Analysis to review enterprise-level risk. Additionally, 3M has a Business Continuity and Planning Process as well as a Crisis Management Program to coordinate the efforts of local crisis management teams maintained at each 3M site and international subsidiary.

Corporate and local plans consider the risk of natural disasters, infectious disease, employee safety, protection of assets, customer service, and other business continuity requirements. See [3M’s Annual Report on Form 10-K, Item 1A](#) for risk factors applicable to the company. Additional details on our climate risk process can be found in the following table:

Climate risk process			
Governance	<p>The highest level of climate risk governance is the responsibility of the 3M Science, Technology & Sustainability Committee of the Board of Directors, formed in 2019 as one of four committees of the Board of Directors. The committee will oversee the twin demands of developing products to meet the ever-changing needs of our customers while doing so in an environmentally responsible way. One of the committee's roles and responsibilities is to review the company's policies and programs on Sustainability, identifying and analyzing significant Sustainability, materials vulnerability, and geopolitical issues that may impact our overall business strategy, global business continuity, and financial results.</p> <p>Specific to enterprise risk, the 3M Audit Committee of the Board of Directors has responsibility to discuss policies and procedures with respect to risk assessment and risk management, the company's major risk exposures, and the steps management has taken to monitor and mitigate such exposures. For the purposes of discussing climate-related risks, "substantive financial impact" means an event or circumstance that would individually or in the aggregate have a material adverse effect on the consolidated financial condition or operations of 3M and its subsidiaries and affiliates taken as a whole.</p>		
Integration into enterprise risk	<p>3M operates in more than 70 countries and derives approximately 60% of its revenues from outside the United States. Our company results are impacted by the effects of, and changes in, worldwide economic, political, regulatory, capital markets, and other external conditions.</p> <p>In addition, natural occurrences and human activities are increasingly releasing greenhouse gases into the atmosphere, contributing to changes in the earth's climate. Climate change, as well as related environmental and social regulations, may negatively impact 3M or its customers and suppliers, in terms of availability and cost of natural resources, sources and supply of energy, product demand and manufacturing, and the health and well-being of individuals and communities in which we operate.</p> <p>Additional details on our enterprise risk assessments can be found in the Enterprise risk section of this report and in our Annual Report on Form 10-K, Item 1A.</p>		
Timeframes	Short-term, 0-1 years	Medium-term, 1-5 years	Long-term, 5+ years
Board oversight	<p>3M's Science, Technology & Sustainability Committee of the Board of Directors assesses and advances strategic growth areas, long-term investments, and inspired innovation opportunities.</p> <p>The 3M Audit Committee of the Board of Directors discusses policies and procedures with respect to risk assessment and risk management, the company's major risk exposures, and the steps management has taken to monitor and mitigate such exposures.</p>		
Frequency on Board's agenda	<p>As of November 2019, 3M's Science, Technology & Sustainability Committee of the Board of Directors will meet with the frequency, and at intervals, it determines necessary to carry out its duties and responsibilities, but in any case, not less than three times a year.</p> <p>The Audit Committee will meet with the frequency, and at intervals, it determines necessary to carry out its duties and responsibilities, but in any case, not less than four times a year.</p>		
Corporate officer's oversight	<p>In addition to the members of 3M's Science, Technology & Sustainability Committee of the Board of Directors, the 3M CEO has the highest level of direct responsibility for assessing and managing climate-related issues. The CEO will carry on the company's history of proactive leadership in addressing both the challenges and the opportunities presented by climate change and energy conservation.</p>		

Climate risk process		
Identification and assessment	<p>Managing risk requires integrating a multidisciplinary, company-wide risk identification, assessment, and management process. The Vice President and General Auditor, Corporate Auditing, whose appointment and performance is reviewed and evaluated by the Audit Committee, is responsible for leading the formal risk assessment and management process within the company.</p> <p>Climate-related risk is also assessed as part of our analysis of physical risk to our manufacturing sites. For example, our analysis of physical risk to our manufacturing sites from sea level rise is based on modeling for 1.5°, 2°, and 4°C temperature increases. Based on our analysis of physical risks to individual 3M manufacturing sites, none are deemed to create overall enterprise risk due in part to the diversity of 3M's global capabilities and our robust business continuity plan.</p>	
Frequency of monitoring	<p>3M continually evaluates aspects of risk. The General Auditor, consulting with the company's senior management, annually assesses the major risks facing the company and works with those executives responsible for managing each specific risk. The General Auditor periodically reviews with the Audit Committee the major risks facing the company and the steps management has taken to monitor and mitigate those risks. The Audit Committee meets not less than four times a year.</p> <p>3M will assess climate-related risks as a part of our analysis of physical risk to our manufacturing as climate modeling advances and as acquisitions or divestitures require. 3M's business continuity planning process and our Corporate Crisis Management Program review help manage risks facing the Company's physical operations and supply chains. Programs are reviewed at least annually. In addition, the 3M Science, Technology & Sustainability Committee of the Board of Directors will meet not less than three times a year.</p> <p>In addition to our Board of Directors' Committees, climate risk is reviewed throughout the year within our executive-level Innovation Steering Committee and our Science for Climate Leadership Team.</p>	
Risk factors	Regulatory	<p>3M continually evaluates aspects of regulatory risk during regular business through new product development and continuous business improvement. 3M's operations are affected by national, state, and local laws around the world. 3M has made, and plans to continue making, necessary expenditures for compliance with applicable laws. 3M is also involved in remediation actions relating to environmental matters from past operations at certain sites.</p>
	Technology	<p>3M's four business groups bring together common or related 3M technologies, enhancing the development of innovative products and services and providing for efficient sharing of business resources. We have operations in over 70 countries, bringing together a combination of our 51 unique Technology Platforms to produce over 55,000 products in nearly every country. Any risks from technology would be identified and mitigated through our New Technology Introduction (NTI) process, New Product Introduction (NPI) process, and continuous improvement program.</p> <p>This product diversity enables 3M to identify unique solutions to help solve our customers' challenges. In 2019, 3M invested \$1.91 billion in research and development to build upon our existing technologies to find innovative solutions to our customers' challenges. This unique combination of diversity and investment enables 3M to remain on the cutting edge of science while supporting our customers' future needs as the climate changes. In 2019, we introduced the requirement for each product entering our NPI process to have a Sustainability Value Commitment demonstrating how it drives impact for the greater good.</p>

Climate risk process		
Risk factors (cont.)	Legal	The company's future results may be affected by various legal and regulatory proceedings and legal compliance risks, including those involving product liability, antitrust, intellectual property, environmental, the U.S. Foreign Corrupt Practices Act and other anti-bribery and anti-corruption laws, and other matters. The outcome of these legal proceedings is often difficult to reliably predict. For a more detailed review of this topic, see the discussion in Note 16 "Commitments and Contingencies" within the Notes to Consolidated Financial Statements in the company's Annual Report on Form 10-K .
	Market	Results are impacted by the effects of, and changes in, worldwide economic, political, and capital markets conditions. 3M operates in more than 70 countries and derives approximately 60% of its revenues from outside the United States. The company's business is subject to global competition and geopolitical risks and may be adversely affected by factors that are beyond our control, such as slower economic growth, disruptions in financial markets, economic downturns, inflation, elevated unemployment levels, sluggish or uneven recovery, government deficit reduction, natural disasters, and other factors in specific countries or regions, or in the various industries in which 3M operates.
	Reputation	Around the world, customers rely on 3M to provide innovative solutions to advance companies, enhance homes, and improve lives. We are defined by more than just what we make — we are defined by how we do business: the 3M Way, always striving to make the right choices for our company and our customers and protecting our reputation in all we do.
	Physical (acute and chronic)	Every year, local crisis management teams at every 3M site and international subsidiary must review and update their Business Resilience Plan to reflect current conditions. They also perform a tabletop or actual crisis response exercise. 3M Corporate Auditing and Corporate Security monitor site compliance with the Corporate Crisis Management Program. For more information, see the Enterprise risk section.
	Upstream	<p>3M depends on various components, compounds, raw materials, and energy (including oil and natural gas and their derivatives) supplied by others for the manufacturing of its products. It is possible that any of its supplier relationships could be interrupted due to natural and other disasters and other events or be terminated in the future. Risks from upstream suppliers are identified at the product level through the New Product Introduction (NPI) and continuous improvement processes at 3M. An on-site assessment may be conducted by 3M or a third party, and any deficiencies are ultimately corrected through an SRC Corrective Action Preventive Action (CAPA) process.</p> <p>3M mitigates supply chain risks through a variety of management practices, including multisourcing raw materials, prequalifying potential outsource manufacturers, and maintaining appropriate stocks of raw materials and contingency plans with key suppliers to assure allocation to 3M in the event of supply disruption.</p>
	Downstream	Risks from downstream product use are identified at the product level through the life cycle management (LCM) process at 3M, which evaluates the planned use and disposal of 3M products and identifies hazards and risks associated with the use and disposal of 3M products. Mitigation of these risks is highly diverse and product-specific.

Climate risk process		
Financial risks	<p>At 3M, we continually evaluate our approach to opportunity and risk. We believe the whole concept of risk appetite and tolerance is an essential component of strategic planning. This includes broad risk oversight by the Board and its committees, with committee-level risk analyses reported to the full Board and executive-level internal General Auditor and Chief Ethics & Compliance Officer appointed by and reporting directly to the Audit Committee.</p> <p>3M has operations in over 70 countries, with regionalized supply chains that enable more localized and diversified production of our products. This helps reduce our risk from local climate impacts on our operations. 3M's four business groups bring together common or related 3M technologies, enhancing the development of innovative products and services and providing for efficient sharing of business resources. Our operations bring together a combination of our 51 unique Technology Platforms to produce over 55,000 products, which are sold in nearly every country.</p> <p>We believe this governance of risks by Board committees, who share information with the full Board, is appropriate for a diversified technology and manufacturing company like 3M. 3M's Annual Report on Form 10-K, Item 1A outlines risk factors applicable to the company.</p>	
Financial opportunities	Financial opportunities include products and services, and resource efficiency. Access to dependable energy supplies and energy efficiency directly affects all businesses and communities. Energy usage and climate concerns require systemic change. 3M is a diversified technology company providing innovative solutions to address these and other physical climate opportunities.	
Metrics	We have established key Sustainability metrics to measure and manage climate risk that go beyond compliance to thinking holistically about our operations and products. We report on historical periods to allow for trend analysis with a clear description of the methodologies we use to calculate or estimate limitations and assumptions.	
Principles	Science for Climate goals	
	Relevance	Clearly define boundaries
	Completeness	Strive to calculate and report data coverage to 99% of inventory for Scope 1 and Scope 2 GHG emissions. We will continue to develop and support advances in Scope 3 calculation methodology
	Consistency	Base our data on approved methodology
	Accuracy	Develop corporate systems and auditing procedures
	Transparency	Report on emissions and activities in a way that is relevant to stakeholders

Science for Climate

Goal: Improve energy efficiency, indexed to net sales, by 30% by 2025.

Energy-efficiency improvements help reduce energy use, energy-associated costs, and GHG emissions. 3M energy management goes beyond energy-efficiency efforts in factories and buildings. It is a team effort guided by the global [3M Corporate Energy Policy](#) and coordinated by the Corporate Energy Management Team, with oversight by 3M's Corporate Energy Leader and Engineering Director, and active support from the CEO.

3M has taken a broad approach to managing our energy footprint, which includes evaluating the impact of our products, manufacturing processes, equipment, and sites as well as by reducing the energy footprint of our existing manufacturing and administrative sites. In addition, we actively share information about our energy management program with external stakeholders, such as suppliers, customers, and other interested organizations.

Science for Climate

Goal: Increase renewable energy to 50% of total electricity use by 2025.

In 2019, we raised the bar as part of our strategic focus on empowering Science for Climate. We increased our interim target from 25% to 50% renewable electricity by 2025, toward our ultimate goal of 100% renewable electricity by 2050.

Science for Climate

Goal: Help our customers reduce their GHGs by 250 million tons of CO₂ equivalent emissions through the use of 3M products by 2025.

While 3M has made significant GHG emission reductions across our global operations, we realize we can make far greater contributions by helping our customers reduce their GHG emissions through the use of our products.

Science for Climate

Goal: Ensure GHG emissions at least 50% below our 2002 baseline, while growing our business, by 2025.

3M is in a leadership position due to our early actions to reduce our GHG emissions, which started in 2000. We are committed to continuing that leadership even as we grow the company in order to help our customers address the issue of climate change.

By improving energy efficiency and processes, reformulating products, switching to renewable electricity, and prioritizing opportunities, 3M has been able to achieve industry-leading GHG emission reductions. Other companies are setting goals to move closer to the achievements we have already realized.

Joining RE100 with a commitment to 100% renewable energy by 2050

In 2019, we joined RE100. RE100 is a global renewable electricity leadership initiative, led by The Climate Group in partnership with CDP (formerly the Carbon Disclosure Project), that brings together influential businesses committed to sourcing 100% renewable electricity for their worldwide operations by 2050. For more information on this effort, see our feature story [“Flipping the switch on renewable energy.”](#)

Clean Air Asia

In 2019, during Climate Week and the United Nations Climate Action Summit, we announced a new partnership with Clean Air Asia. 3M will collaborate with the international non-governmental organization on science-based air quality solutions for New Delhi, India, and Metro Manila, Philippines. To achieve this goal, we will spend the next five years assisting Clean Air Asia in its efforts to assess baseline air quality conditions, design capacity-building programs for air quality management, implement awareness and education campaigns, develop clean air action plans with selected city and district governments, and measure the resulting impact on air pollution levels.

According to the World Health Organization (WHO), air pollution causes seven million premature deaths each year. The health impact of poor air quality is particularly notable in the South-East Asia Region, where people in 99% of cities are exposed to pollution levels that exceed WHO guidelines.¹ This partnership aims to create healthier, more livable cities in Asia.

¹World Health Organization. https://www.who.int/health-topics/air-pollution#tab=tab_1





Our actions

Energy management, inside and out

3M reviews its Strategic Energy Management Plan annually to prioritize programs and meet global goals. The plan uses input from stakeholders, including manufacturing directors, site managers, operations employees, and executive management. Goals of the plan include continuously improving results, leveraging engineering expertise and advances, driving site-level efficiency improvements, maintaining top management support, and protecting 3M's reputation.

Public speaking engagements and partnerships are integral elements of the plan. In 2019, 3M experts spoke at several energy industry conferences, including the Association of Energy Engineers (AEE), the U.S. Department of Energy (DOE), Industrial Energy Technology Conference (IETC), National Association for EHS & Sustainability Management (NAEM), World Energy Engineering Congress (WEEC), Western Electricity Coordinating Council (WECC), and the Better Buildings Summit. We are also one of 30 businesses and organizations that have formed the Minnesota Sustainable Growth Coalition — which has formulated a clean energy vision for Minnesota.

In 2019, 3M introduced the safe and sustainable centrally coordinated investment fund to mitigate risk and facilitate energy efficiency via engineering to align with our Strategic Sustainability Framework. For more information, visit the [Health and safety](#) section.

Photo credit: Avangrid Renewables

A focus on energy from naturally replenishable sources

In early 2019, 3M transitioned to

100%

renewable electricity at our headquarters in St. Paul, Minnesota, 

which helped raise our total global renewable electricity usage to over 30% for the year. 3M became the largest company in Xcel Energy, Inc.'s service area across eight Western and Midwestern states to make a comparable achievement. 3M's headquarters is a 409-acre campus with about 12,000 employees across 30 buildings and research labs.

In 2018, 3M's 2025 goal of 25% renewable electricity was surpassed, and starting in 2019, a new interim goal of 50% was set.

Our renewable efforts don't stop at our headquarters in St. Paul, Minnesota. Our sites actively seek alternative energy sources, including active combined heat and power, solar, wind, and other projects, such as utilized excess steam. For example, in 2019, the 3M IMPD site in California installed a new solar farm that provides 20% of the site's total electricity, and 3M Canada's headquarters in London, Ontario, installed a 10-kilowatt solar panel system on their rooftop. Read more about 3M's commitment to RE100 in our feature story, ["Flipping the switch on renewable energy."](#)

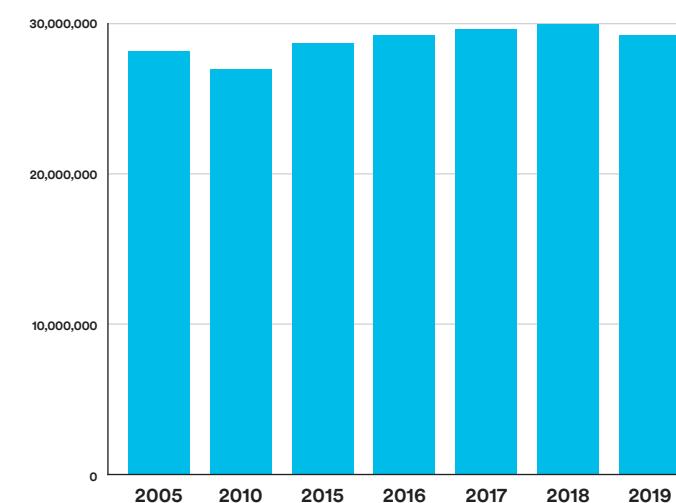
While 3M takes actions to help convert its operations to renewable electricity sources, the company continues to support the global renewable energy sector by producing solutions for customers that help improve the reliability and efficiency of renewable electricity, including solar and wind.

ISO 50001 and SEP™ certification

The internationally recognized ISO 50001 standard and the DOE's Superior Energy Performance (SEP™) certification program help 3M sites become attuned to recognizing and seizing opportunities to increase energy efficiency in site operations and move from delivering energy projects in a loosely organized fashion to a structured system of management. By integrating the systemic ISO-based framework of "plan-do-check-act" for the management of energy in on-site operations, our sites have seen savings in energy costs and consumption, expansion of employee engagement, and increased visibility to the tracking of site energy performance. 3M has been busy increasing its ISO 50001 and SEP-certified profile, with 31 sites certified globally and 10 working toward certification under these two programs.

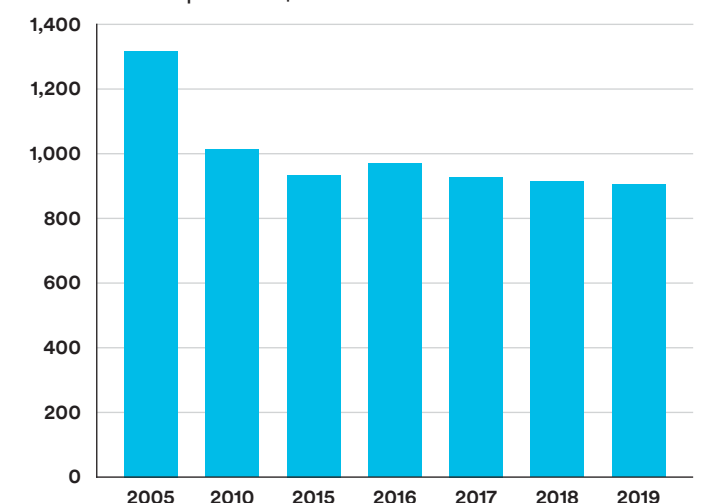
Global energy use

MMBtu



Indexed global energy use

MMBtu per MM \$USD net sales



Identifying ways to save energy

Throughout the year, employees conducted energy walk-throughs, held energy Treasure Hunts, collaborated with the Corporate team or external partners, and integrated employee ideas at sites to find conservation opportunities. Globally, 3M sites identified approximately \$7.6 million in opportunities over the next year and delivered \$11.8 million in energy savings in 2019. Building, maintaining, and executing our energy project hoppers continues to be a priority at 3M.

Energy Excellence Awards

The Energy Excellence Awards honor individuals and teams that incorporate the goals of the Corporate Energy Program in engineering projects. The nominated projects and individuals actively demonstrate their commitment to include energy efficiency in the design of projects, in equipment selection, or in the use of alternative energy supplies. The award is one of global recognition within the 3M engineering community. In 2019, out of a total of 29 projects, four awards were given to individuals from 3M Tuas, Singapore; 3M Alexandria, United States; 3M Woodlands, Singapore; and 3M Naju, Korea.

2019 Site Energy Award

At the conclusion of each year, the Corporate Energy Management Team recognizes the top sites in our program for their results in achieving energy metrics. To qualify, these sites must demonstrate an active culture of energy management practices on site, as evidenced by their delivered project savings, their energy team assessment score, and the resulting improved efficiency in energy intensity on-site. Nine platinum awards, four gold awards, and seven silver awards were presented to sites with the most impressive results.


2019 Energy Recognition

- 3M received the Award of Excellence in Energy Management, and 3M Canada received the Energy Management Insight Award from the Clean Energy Ministerial
- 3M received the 2019 Corporate Energy Management Award from the Association of Energy Engineers®
- 3M Energy Engineer Prasath Vinayagamoorthy was selected to receive the Association of Energy Engineers® Canada Region Energy Engineer of the Year Award for 2019 in recognition of outstanding work in energy
- 3M Corporate Energy Manager Andrew Hejnar was honored to become a fellow member of the Association of Energy Engineers® in recognition for making significant contributions to the energy management and alternative energy industry

- The 3M Singapore Tuas site won the Best Practices (Honorable Mention) in the prestigious Energy Efficiency National Partnership (EENP) Award 2019 for their outstanding commitment and achievements in energy savings

Direct (Scope 1) and indirect (Scope 2) greenhouse gas emissions

Since 2002, 3M has

reduced Scope 1 GHG emissions by **75.9%** 

providing a direct and immediate reduction of our carbon emissions. During this same timeframe, we have achieved a 68.1% reduction in absolute Scope 1 and 2 location-based GHG emissions.

Since 2002, the 3M EHS Laboratory has calculated 3M's GHG inventory in accordance with the World Resources Institute (WRI) / World Business Council for Sustainable Development (WBCSD) GHG Protocol Corporate Accounting and Reporting Standard. The 3M EHS Laboratory maintains an accreditation to ANSI/ISO/IEC 17025 through A2LA — a signatory to the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement (ILAC MRA).

Although it is not possible to put 3M's GHG inventory methodology on the lab's scope of accreditation, our calculation methodology has been improved by incorporating several quality system elements from the ANSI/ISO/IEC 17025 Standard, including:

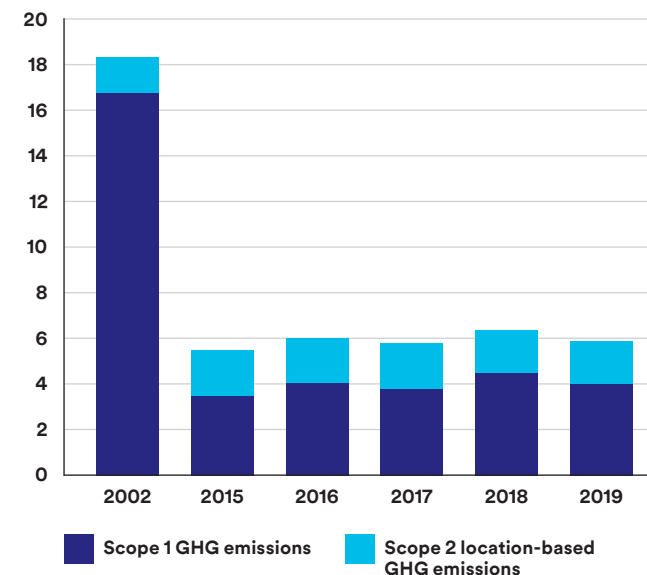
- Defined responsibilities and interrelationships of all key staff
- Documentation of key personnel qualifications
- Control over quality system documents and procedures
- Control of records
- Corrective and preventive action system
- Internal audit program
- Documented and approved calculation procedures

Every year, 3M calculates our GHG inventory according to approved internal procedures that are updated as needed to agree with current calculation methodologies. However, whenever a methodology change is implemented, 3M will, wherever possible, recalculate prior year's GHG inventories to assure that past and current-year GHG inventories are comparable. Where this is not possible, 3M will either call this out or assure that the difference is not material. These quality system elements and procedures, coupled with a robust internal and third-party review of our emissions, help assure that 3M's GHG inventory is aligned with the core principles of relevance, completeness, consistency, accuracy, and transparency.

GHG emission reductions are achieved through a variety of methods: improving process and equipment efficiency, upgrading equipment, reducing our demand for energy use, increasing our use of renewable electricity, and implementing and maintaining pollution control technologies. These methods, and more, are integral to the company's overall success and assist us with the challenge of helping to address global climate change concerns.

Greenhouse gas emissions, Scope 1 and Scope 2

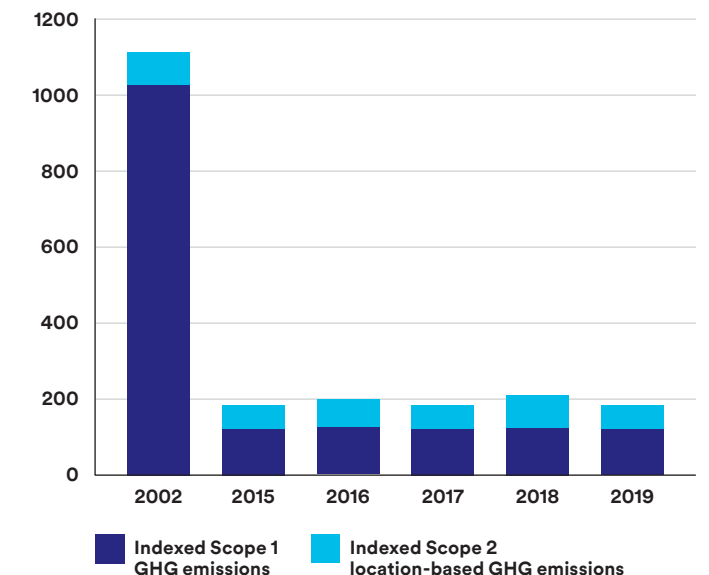
Million metric tons CO₂ equivalents, absolute



For methodology, please refer to the [About report](#) section: base year and other adjustments, and greenhouse gas metric table.

Indexed greenhouse gas emissions, Scope 1 and Scope 2

Million metric tons CO₂ equivalents per MM \$USD net sales



For methodology, please refer to the [About report](#) section: base year and other adjustments, and greenhouse gas metric table.

GHG emissions attributable to our suppliers and customers (Scope 3)

3M has been developing our Scope 3 GHG emissions inventory since publication of the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard in September 2011. We place a high value on decision-making based on sound science. When the complexity of the supply chain does not allow for direct calculation, an input/output model calculation method is used.

Due to our diverse manufacturing operation, 3M was not required to calculate Scope 3 categories 9–12. The methodology did not exist. However, we were determined to understand our complete Scope 3 profile. In 2019, we developed methodologies around Scope 3, categories 9 (downstream transportation and distribution), 10 (processing of sold products), 11 (use of sold products), and 12 (end-of-life treatment of sold products). Due to the new extensive calculations, quality assurance processes are being developed in 2020. From these efforts, we can better understand opportunities to reduce our downstream GHG emissions and to consider the establishment of new goals. Calculating Scope 3 categories 9–12 is a challenging task and will complete our map of Scope 3 relevant categories. Our 55,000-plus products are heavily diversified across a large variety of use cases. We look forward to reporting these values in the 2021 Sustainability Report.

For more information, see our feature story, [“Taking inventory of greenhouse gas emissions.”](#)

Evaluating customer GHG emissions reductions

To track progress toward our 2025 GHG customer goal, 3M has a process in place to develop reasonable estimates for avoided emissions associated with use of select 3M products. This estimation procedure is based on the ISO 14064-2 standard for determining GHG emissions reductions. It provides a framework for the estimation of emissions from the 3M product scenario (referred to as the “project scenario”) in relation to a baseline scenario.


We start by defining the boundary of the 3M product scenario as extraction from nature through the end of the product use phase (product end-of-life or disposal is included where reliable information is available). The GHG emissions for this scenario are then estimated using high-level estimates and average data. For example, manufacturing emissions may be determined based on the average energy use per pound of all products produced at a manufacturing site, rather than by determining the emissions through detailed calculations using product-specific information.

The same boundary is then used for the estimation of GHG emissions for the baseline scenario. Because the data sources may be different than the 3M product scenario, we apply conservative assumptions as needed, where conservative is defined as a choice that results in the minimum GHG emissions for the baseline scenario. For example, if emissions data is not available for the production of a material included in the baseline scenario, we assume the emissions for this material to be zero.

In some cases, there is no equivalent to the 3M product. In these cases, the baseline scenario is the absence of the 3M product entirely. The result is a comparison that conservatively estimates the potential impact of the 3M product.

Due to the estimated nature of the data used, the uncertainty for these studies is plus or minus 50%, which approximates data of fair to good quality as defined in the WRI/WBCSD Product Life Cycle Accounting and Reporting Standard Quantitative Inventory Uncertainty Guide.


According to our calculations, in 2019 alone, **our customers avoided emitting nearly**

17 million  **metric tons CO₂ equivalents**

through use of select 3M product platforms as calculated in accordance with ISO 14064-2 and 3M developed procedures.

We place a high value on decision-making based on sound science.

Since 2015, this has resulted in an **avoidance of over**

58 million  **metric tons of CO₂ equivalent emissions**

through use of select 3M product platforms. This avoidance represents only a portion of our product portfolio. Various films and food safety products are examples of the select products included in this evaluation. In the future, the list will likely expand as a result of the new [Sustainability Value Commitment](#).

Air quality management

An important component of 3M's Sustainability strategy is our commitment to improving air quality globally.

As a company that uses many solvent-based materials, 3M inherently releases volatile organic compounds (VOCs) from many of our manufacturing processes. Because of this, many of our sites require permits with rigorous VOC tracking requirements. Even where tracking is not required from a regulatory perspective, 3M voluntarily tracks VOC usage and emissions from major sources of emissions in order to identify further opportunities for reduction. 3M has developed internal programs to minimize its VOC emissions. We track and report emissions based on raw material usage, engineering estimates, and stack test data.



For many 3M manufacturing processes, nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), hazardous air pollutants (HAPs), persistent organic pollutants (POPs), and particulate matter (PM) are emitted as products of combustion. These pollutants, which are listed on many environmental permits for specific site operations, are tracked and reported externally, where required by federal, state, or local regulations for individual sites. 3M internally tracks all fuel usage and calculates the combustion emission rates using accepted emission factors.

Main VOC by source type

- 3M’s VOC emissions are primarily attributed to coating lines
- Reactors and mixing are also significant sources of VOC emissions

VOC by sites

- 90% of our sites emit less than 100 tons per year VOC
- 34% of our sites emit less than 1 ton per year VOC

An important component of 3M’s Sustainability strategy is our commitment to improving air quality globally.

Implementing and maintaining pollution control

3M has made significant progress in reducing air emissions — at the source and by improving process efficiencies. Where emissions cannot be reduced within the process, 3M installs and maintains air emission control equipment as required by federal, state, and local regulations. We evaluate all equipment options, select those that are the most environmentally effective and cost-efficient, and strive to properly operate emission control equipment. Technologies include thermal oxidization, solvent recovery, carbon adsorption, biofiltration, electrostatic precipitators, baghouses, scrubbers, and cyclones.

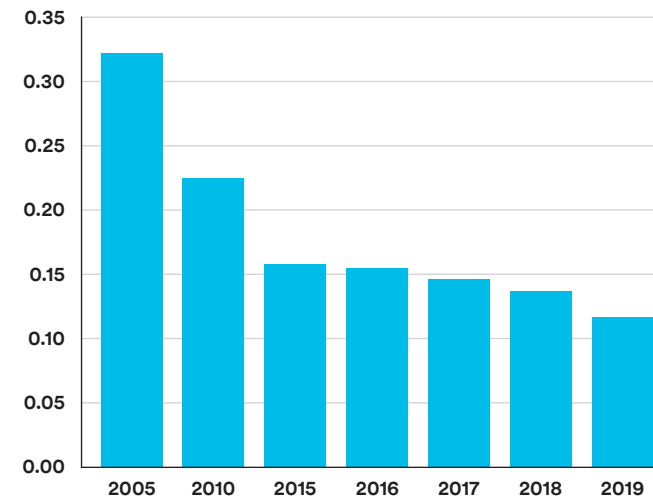
Ozone depleting substances

The Montreal Protocol is the first worldwide agreement designed to protect human health and the environment against the adverse effects of the depletion of the stratospheric ozone layer. The agreement identifies the list of ozone depleting substances (ODS) that are targeted for control practices, reductions, or total phaseouts and provides a phaseout schedule. In addition, some countries have established regulations regarding the management of refrigeration appliances.

3M has set forth [requirements](#) in order to provide a framework for how 3M operations are to manage their refrigeration appliances containing ODS in the context of applicable international protocols, local regulations, and current and future economic impacts. These requirements include conformance to the Montreal Protocol when applicable.

Global volatile organic compound (VOC) emissions

Metric tons per MM \$USD net sales



Looking forward

We believe that climate change is one of the greatest challenges we face as a society and now is the time to lead and take action — for our climate and our communities. Our Strategic Sustainability Framework directs our efforts to areas where we can make the biggest impact.

Within the Science for Climate pillar of this framework, we will continue to focus on innovating to decarbonize industry, accelerating global climate solutions, and improving our environmental footprint. We’ll continue to drive climate solutions in our operations, in our products, and in communities around the world.

In our operations, we will continue to advance toward 100% renewable electricity at all global sites. Specifically, we will continue to evaluate what will improve additional aspects of energy efficiency, what organizations can help us move to a total renewable electricity portfolio, and what partnerships with utility companies can help us reach our ultimate destination.

For our customers, we will develop and launch products to help them reach their Sustainability goals by improving energy efficiency, increasing renewable electricity, reducing emissions, and more.

For our communities, we will continue to partner with others to help drive climate solutions globally.

Get updates and learn more about our ongoing work aligning to the 3M [Strategic Sustainability Framework](#).

Suppliers

Our supply chain is an extension of our commitment to Sustainability.

Our commitment

Each step in the supply chain includes benefits (like employment and community-building) as well as the potential for negative impacts (such as pollution or unsafe or unfair labor practices). Our commitment, from top leadership down, is to maximize the positives and mitigate the potential negatives by aligning our supplier expectations with our own corporate values. We expect our suppliers to be transparent about their environmental and social practices, provide improvement ideas, and work with us to transform our shared value chain.

At 3M, we set a high bar for our company regarding environmental and social governance, and we expect the same from our suppliers. 3M follows the Organization for Economic Co-operation and Development (OECD) Due Diligence framework for all of our responsible sourcing activities. The [3M Supplier Responsibility Code](#) (SRC) is based on 3M's corporate values for sustainable and responsible operations and aligns with the 10 Principles of the United Nations Global Compact, of which 3M is a participant. The SRC is also consistent with the Code of Conduct of the Responsible Business Alliance (RBA).




Our Due Diligence Management System consists of the following elements, which inform our continuous improvement efforts.

Strong policies aligned with our values

The SRC outlines 3M's foundational social and environmental expectations in the following areas:

- **Labor:** Requirements align with the [3M Human Rights Policy](#) and include important concepts like freely chosen employment (no forced, bonded, or trafficked labor), restrictions on working age (no child labor), and appropriate working hours and wages. Setting these expectations helps assure our suppliers' actions will reflect 3M's values on human rights as well as the values underlying the International Labour Organization (ILO) and laws, such as the California Transparency in Supply Chains Act, the United Kingdom Modern Slavery Act 2015, and the U.S. Federal Acquisition Regulation (FAR) on forced labor and human trafficking. To learn more about these topics, see the [Human rights](#) section
- **Environment, health, and safety (EHS):** We expect our suppliers to care as much about the health and safety of their workers and their communities as 3M does and to implement proper procedures and controls to protect them as well as the environment in which we live
- **Ethics:** Expectations align to the [3M Code of Conduct](#) and hold our suppliers to the same high standards of honesty and integrity. Suppliers must prohibit any form of bribery and corruption and prevent conflicts of interest
- **Management systems:** We expect our suppliers to establish processes to systematically conform to the 3M SRC as well as all legal requirements and to commit to continuous improvement

3M supply chain Due Diligence Management System

Values	Transparency	Transformation	Verification	Report
				
Establish strong policies and management systems	Identify and assess risks in the supply chain	Design and implement a strategy to respond to identified risks	Audit supply chain due diligence	Report on supply chain due-diligence activities

The SRC establishes 3M's expectations for new and existing suppliers anywhere in the world and for any supplied material or service. Our supplier vetting process includes a review of the SRC expectations and reinforcement that supplier programs and practices, as well as those of their subcontractors supplying products and/or services, conform to standards consistent with the SRC. Our global supplier contract agreements have incorporated SRC expectations.

The SRC is currently available in

15  languages.

We expect our suppliers to establish and implement their own relevant policies and programs in alignment with this SRC and to enforce these expectations with their own suppliers, thereby promoting our high Sustainability standards up our supply chains.

3M's Vice President of Strategic Sourcing and Packaging Solutions (SS&PS) is accountable for 3M's Responsible Sourcing program. The leader of our global responsible sourcing activities reports to the Vice President of SS&PS. Executive leaders including EHS, Ethics & Compliance, Corporate Auditing, Strategic Sourcing, Legal, Sustainability, and Human Resources are provided program updates at least twice a year, and Strategic Sourcing leadership is updated quarterly on the program's status. Both groups have the opportunity to provide input on the various program activities. In 2019, 3M formed the Science, Technology & Sustainability (STS) Committee of the Board of Directors.

This committee reviews company Sustainability and EHS policies and programs for compliance with all applicable laws and regulations.

Supplier risk assessment and supply chain transparency

As stated in our supplier contracts, in addition to full compliance with all applicable environmental laws, we expect our suppliers to integrate environmental responsibility into their operations. Suppliers should work to minimize adverse effects on the community, environment, and natural resources while safeguarding the health and safety of workers and the public. Additional information can be found at [3M Supplier Direct](#).

Our general supplier performance verification process begins with a self-assessment questionnaire (SAQ). The SAQ helps 3M understand supplier programs and determine whether they conform to 3M expectations. An on-site assessment may be conducted by 3M or a third party to assess the supplier's level of conformance with 3M's expectations. If deficiencies are identified, they will be addressed through an SRC Corrective Action Preventive Action (CAPA) process. Follow-up on the CAPA may include announced or unannounced assessments.

If the assessment identifies gaps or findings, and if a supplier is not able or willing to resolve them, the CAPA would escalate to a corporate Supplier Corrective Action Request (SCAR) that would involve sourcing, area manufacturing, and supply chain or business personnel engagement.

This assures appropriate resolution and conformance with 3M's requirements. If a supplier is unwilling to work with 3M on the identified gaps or is unable to close the issues within a reasonable timeframe, alternative actions are determined with a cross-functional business team to elevate and resolve the situation.

The SRC outlines supplier expectations relating to grievance mechanisms. Anyone who has a concern involving 3M can use the [3MEthics.com](#) site as an alternative way to report a concern.

Additional expectations for higher-risk value chains

In addition to the global SRC expectations for all suppliers, certain areas warrant additional and specific formal expectations to drive more sustainable, responsible practices. This includes our use of certain minerals with the potential to be sourced from conflict-affected and high-risk areas, our use of timber-based products and other plant materials (pulp and paper), and all new suppliers in higher-risk countries, in areas such as Asia Pacific, Latin America, or parts of the Europe, Middle East, and Africa regions. See more on our risk identification in [Responding to risks and transforming our supply chains](#).

“As a key business partner to 3M, we are proud to say that we have modeled our own Social Responsibility, Code of Conduct, and Paper Sourcing Policies to ensure that the key concepts regarding human rights, labor, ethics, and environmental risks outlined in 3M’s Supplier Responsibility Code and Pulp & Paper Policy are part of our own core standard beliefs and behaviors.

3M was instrumental in positively challenging Loparex to make sure our policies had all the requisite elements. Today, we have policies in place that we are proud to hold ourselves and our suppliers accountable to, and this would not have been possible without the help of 3M.”

- Loparex

Focus: responsible minerals sourcing

A prioritized area in our raw material supply network is the responsible sourcing of minerals. 3M deplors the violence and inhumane treatment that has occurred in the Democratic Republic of Congo, adjoining countries, and other conflict-affected and high-risk regions as defined by global regulatory bodies and is committed to supporting responsible sourcing of minerals that contain, but are not limited to, tin, tantalum, tungsten, gold, and cobalt, from all such regions. Additional information can be found in our [Responsible Mineral Sourcing Policy](#) and in [Supplier Direct, Supplier Requirements](#).

Focus: pulp and paper

3M has prioritized pulp and paper products as an area that warrants additional formal expectations because of potential environmental risks, such as deforestation and habitat loss; potential human rights issues, such as infringement of indigenous peoples’ rights; and potential unsafe labor practices. As a global paper purchaser and Sustainability leader, 3M is well-positioned to positively influence practices throughout the forest products supply chain. We adopted our [Pulp and Paper Sourcing Policy](#) in 2015 to set standards of excellence for our suppliers through all tiers of supply from the forest. Our Pulp and Paper Sourcing Policy and guidance document is available in seven languages. Additional information can be found on the [3M Sustainable Forestry](#) website.

Supplier diversity

3M is committed to diversity and inclusion, and we strongly encourage using diverse suppliers across our sourcing organization. This includes working with small businesses. We back up our commitment through initiatives that directly seek out diverse companies to support 3M’s business needs. Equally important, we recognize that diversity is a core value that helps strengthen our competitiveness and provides opportunities for new ideas and fresh perspectives.

3M has a long-standing commitment to sustainable business practices and to supporting the economic success of our communities, including working with both diverse and small-business suppliers. 3M considers a diverse supplier to be any supplier who qualifies for one or more of the following classifications: Minority-owned business, Women-owned business, and Small Business (including Small Disadvantaged, HUBZone, Woman, Veteran, or Service-Disabled Veteran).

3M proactively reaches out to various organizations, including the National Minority Supplier Development Council (NMSDC), Women’s Business Enterprise National Council (WBENC), Metropolitan Economic Development Association (MEDA), Small Business Administration (SBA), and others. We also have a supplier portal that allows businesses to provide a portfolio of their capabilities, which is distributed to 3M’s sourcing organization.

3M establishes goals and regularly tracks the dollar value of goods and services purchased from small businesses and diverse suppliers in concert with goals set annually with the U.S. federal government as part of our subcontracting plan for federal government contracting.

To achieve our goals, 3M has implemented a four-part strategy that aims to:

- Increase our spending with current diverse suppliers by reviewing our existing diverse suppliers by diversity category
- Identify additional diverse suppliers in our existing supply base by reviewing our top non-diverse suppliers by spending category
- Find “new-to-3M” diverse suppliers
- Further disrupt the status quo by working to move some of our Tier 2 spending to Tier 1 and focusing on diverse suppliers in our request for proposal (RFP) activity

In 2019, 3M spending with small businesses represented

26.7%

of which

6.71%

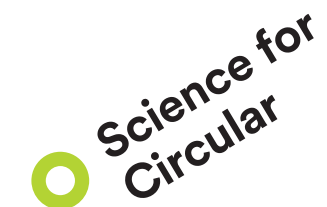
went to diverse suppliers.



Our progress is routinely communicated to leadership across the organization.

We remain committed to supporting small businesses and diverse suppliers by continuing to reassess elements of our approach, working across the industry to assure best practices.

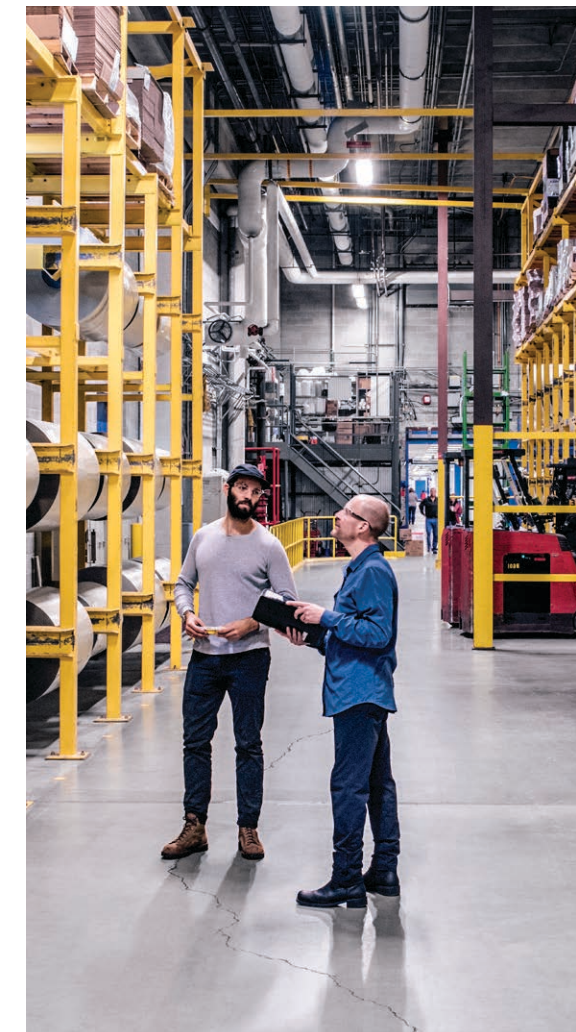
More on our supplier diversity program can be found on the [Supplier Diversity](#) website.



Goal: Drive supply chain Sustainability through targeted raw material traceability and supplier performance assurance by 2025.

We understand that our Sustainability impacts extend beyond our own operations. By purchasing raw materials and services from small and large companies all over the world, we participate in a global, complex supply chain. And it doesn’t stop there. Our suppliers have their own suppliers, extending back to the original source of each material we use.

3M is committed to diversity and inclusion, and we strongly encourage using diverse suppliers across our sourcing organization.



Our actions

3M works with a broad, complex supply chain, consisting of over 63,900 suppliers in over 270 subcategories in

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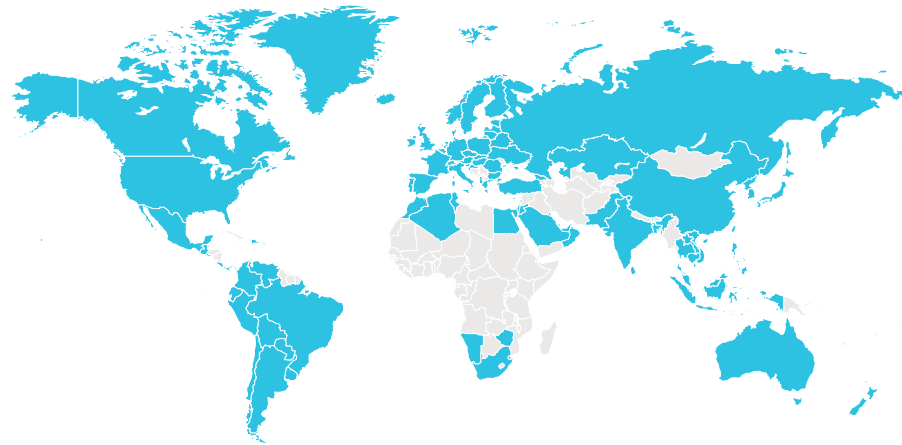
countries around the world.

In 2019, the SRC Steering Team provided refresher training for more than 300 assessors and sourcing professionals globally to assure a detailed understanding of 3M's SRC expectations, processes, and supporting tools.

Employees received access to online training materials that covered each of the elements of the SRC, including labor and human rights, EHS, ethics, and management systems requirements. 3M's business partners website also provided training materials for suppliers to expand their knowledge on topics such as global bribery and corruption awareness, eliminating forced labor, slavery, and human trafficking from the global supply chain, and preventing corruption and mitigating compliance risk for distributors and business partners.



Supplier locations



Responding to risks and transforming our supply chains

We are constantly managing changes in supply markets, both where there is an opportunity to extract value, and defensively, where necessary to mitigate risk and secure supply. As described earlier, we focus efforts on the salient issues in categories where human rights and environmental risks are the greatest. More broadly, we conduct robust risk prioritization to determine other suppliers we will engage via an assessment against our SRC, which includes policy and contract conformance.

3M uses industry indices to identify higher-risk supply chains in conjunction with Lean Six Sigma (LSS) tools to optimize and strengthen its risk management processes. The criteria matrix helps rank global suppliers using multiple factors such as geographic, category, and business-critical elements to determine where assessments should be performed.

Beyond risk, we aim to utilize our supply chains in our overarching goals for Sustainability. 3M recognizes that many of the world's greatest challenges can be solved through collaboration. We are currently exploring supply chain integration opportunities with some of our key suppliers in effort to advance circularity. And, in 2019, we asked suppliers to partner with us to help advance our aspirational Sustainability goals in [3M's Circular Economy Supplier Letter](#).

Verifying our supplier performance

Although applicable to all suppliers, our supply chain risk assessment process focuses on prioritized suppliers, each of which must complete an SAQ and/or be subject to an on-site assessment as specified in our SRC. In the past nine years, we have conducted over 6,900 self-assessments or on-site audits of suppliers in prioritized countries. Along the way, our assessment process has become more evolved and more comprehensive.

In 2019, 3M completed over

550 
assessments

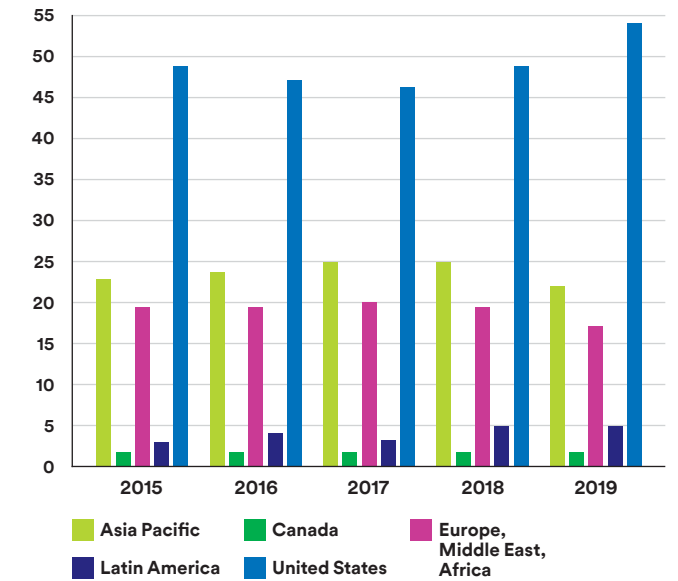
which included the comprehensive RBA framework and expanded from 18 to 31 countries, covering every region of the world.

Forced labor and human trafficking

3M's efforts to eradicate forced labor and human trafficking from its direct supply chains are discussed in more detail in our [transparency in supply chains and modern slavery disclosures](#). These disclosures communicate our commitment to legal and ethical practices as exhibited by our membership in the United Nations Global Compact, the implementation of 3M's Code of Conduct, and cooperative efforts working with others to abolish human rights atrocities, especially in regard to human trafficking, forced labor, modern slavery, and other related crimes. 3M is committed to doing our part to eradicate human trafficking in any form from the global supply chain. We have robust policies and systems in place to control these practices in our own operations and with our suppliers. 3M sets a high bar for our company regarding labor and employment, and we expect the same from our suppliers as articulated in the SRC.

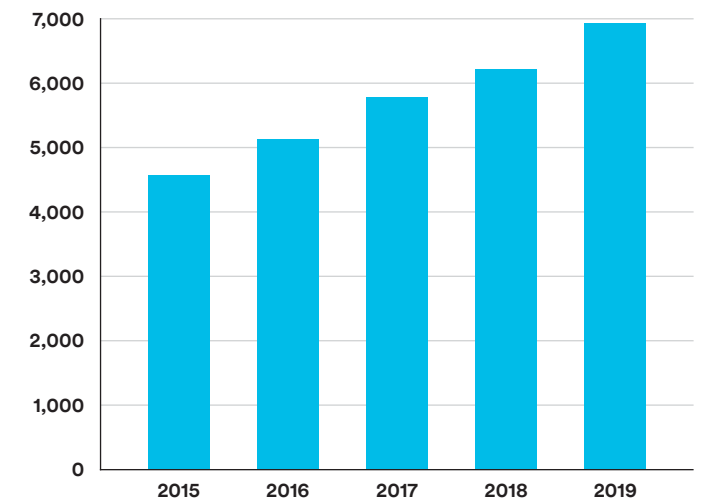
Supplier spend by region

2019 percentage



Cumulative supplier assessments, since 2008

Total number



In 2018, we updated our assessment progress and increased the scope of each assessment

Responsible minerals actions

Forging ahead with continuous improvement

3M's Responsible Minerals Sourcing program, now in its seventh year, has gone through continuous improvements, based on insights from past campaigns as well as external benchmarking that provided ways to optimize and increase the effectiveness of program activities.

In 2019, as part of our responsible sourcing expectations, 3M expanded its responsible minerals sourcing to include how cobalt is sourced in order to support industry expectations and 3M's Values and Human Rights policies. 3M expects our suppliers to adopt a similar policy and due-diligence management system, and we require the same of their suppliers in order to proliferate responsible sourcing practices throughout the supply chain.

In addition, 3M is an active member of the Responsible Minerals Initiative (RMI), which develops tools and provides guidance for companies regarding conflict minerals. Our membership in RMI and various sub-teams, such as the Smelter Engagement Team (SET), Due Diligence Practice Team, and Plenary Team, enable 3M to be involved in activities supporting RMI's Code of Conduct and due-diligence practices. The teams provide useful venues for 3M to offer their ideas and learn from other member companies as we all work together on this important journey of transforming our supply chains.

In October 2019, 3M attended the RMI Annual Conference to discuss strategies and best practices regarding the expansion of a market-driven responsible sourcing supply chain.

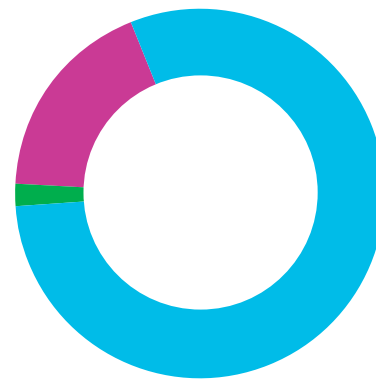
3M's membership in RMI provides insights into emerging risk and assessments in raw materials supply chains utilizing the Risk Readiness Assessment (RRA) tool. RRA is the basis for corporate assessments of material risks in 3TG (tantalum, tin, tungsten, and gold) supply chains, specifically related to social and environmental risks.

With the evolution of conflict minerals programs, 3M partnered with a third party to manage our 2019 program outreach and data collection. The third-party platform automates the collection, validation, and centralization of data to support 3M's Responsible Minerals Sourcing program. Suppliers entering the portal are linked to training resources with access to topics and webinars such as "Smelter Validation in 2019: Hot Topics," "The Evolving Regulatory Landscape: Top 10 Trends for 2020," and "Responsible Minerals Compliance: Leveraging the OECD Due Diligence Guidance."

Additional information can be found in the 3M Conflict Minerals Securities and Exchange Commission filings found on 3M Supplier Direct, Supplier Requirements, [Responsible Minerals](#).

Conflict mineral supply chain traceability

2019 percentage



- RMAP conformant 78.4%
- RMAP active 1.7%
- RMAP not enrolled 17.5%

Based on Responsible Minerals Assurance Process (RMAP)

Pulp and paper actions

Pulp and paper policy implementation on the ground

Throughout our policy implementation, we have seen several examples of marked improvements in responsible pulp and paper sourcing practices as a result of our engagement with suppliers. These include:

- Meeting with suppliers' senior corporate executives about the importance of assuring responsible and sustainable supply chains, and agreeing to collaborate on that goal
- Suppliers establishing new positions within their companies
- Significant increases in supply chain traceability and transparency
- Increased engagement by our suppliers with their upstream supply chain
- Suppliers adopting pulp and paper policies for the first time
- Suppliers enhancing existing policies to meet the requirements of 3M's policies
- Supplier invitation to sourcing area for our pulp and paper products to understand challenges around responsible sourcing and to create a path forward (see November 2019 [3M Pulp and Paper Sourcing Policy Progress Report](#) for more information on this topic)

Through an online survey, 3M suppliers can provide complete supply chain information all the way to the forest sources, or they can easily forward parts of the online survey to their suppliers (paper or pulp mills, for example) for completion.

We aim to work with suppliers and peer companies to document as much of our global paper supply chain as possible, amplify our efforts to mitigate risks, improve efficiencies, and drive sustainable practices throughout the supply chain.

Pulp and paper supply chain traceability

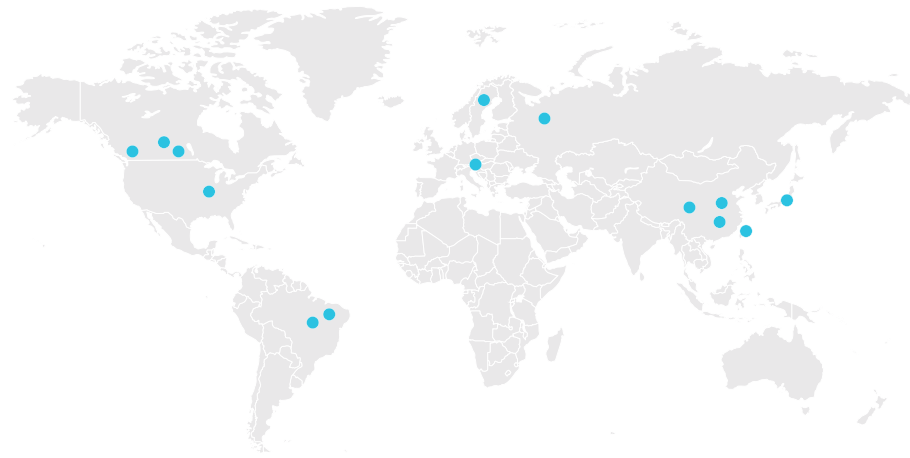
2019 percentage



- Traceable to forest source or 100% recycled 56%
- Traceable to pulp mill 22%
- Traceable to paper mill 8%
- Not yet engaged or traceable 14%




Pulp and paper field assessments



● Completed

We partner with a third-party provider, Earthworm Foundation (EF), to help us review the information we obtain from our supplier surveys and combine that with geography and industry-specific knowledge to conduct “desktop” risk assessments of our supply chains. We use these assessments to prioritize further engagement and to learn more about our suppliers’ responsible sourcing and sustainable forestry practices. This deeper engagement could take the form of a series of web conferences, in-person meetings, or field assessments at the mill and/or forest level. We do not limit this engagement to our direct suppliers. In fact, as appropriate, we will work directly with indirect (Tier 2 and Tier 3) suppliers on policy conformance verification work, with a goal of involving our direct (Tier 1) supplier(s) in these activities whenever possible.

With the help of EF, we have so far conducted

14 
field assessments across all regions covering more than 16 million hectares.

Some of those assessments reviewed Tier 2 pulp mills and were also attended by a Tier 1 supplier. 3M’s participation in supplier field assessments with EF helps us to understand firsthand the challenges faced by pulp and paper companies and forest managers around the world. This, in turn, enables us to participate actively in developing solutions and advancing conversations about responsible sourcing and sustainable forestry.

Each assessment results in a comprehensive report detailing the supplier’s performance compared to our policy requirements and provides action items to address any performance gaps. We expect each supplier to develop corrective action plans with reasonable timelines and concurrently continue to collaborate with 3M on the resolution of identified opportunities. More information on these assessments and other collaborative efforts can be found in our [Pulp and Paper Sourcing Policy Progress Reports](#), including:

- **Training in Brazil:** In April 2019, EF, 3M, and other EF members brought together six major Brazilian forestry companies for an intensive training course, “Free, Prior, and Informed Consent (FPIC): From Theory to Practice.” FPIC is a specific right that pertains to indigenous peoples — it allows them to give or withhold consent to a project that may affect them or their territories. With a better understanding of the theory behind FPIC, as well as the formal FPIC protocols, companies can greatly improve how they engage with communities to prevent and/or resolve social conflicts
- **Great Northern Boreal Forest:** 3M and EF are committed to working with suppliers to promote the protection of high conservation values in the Great Northern Forest (the northernmost forests of the globe) and the ability of the forests to provide wildlife habitat, ecosystem services, and natural beauty for generations to come

Working on overall policy conformance for suppliers

In 2016, 3M and EF created a Policy Conformance Self-Assessment Tool with the purpose of having the 3M Tier 1 suppliers assess themselves against all aspects of the 3M Pulp and Paper Sourcing Policy. Since the creation of this tool, we have been partnering with our Tier 1 suppliers to have them complete this self-assessment. In addition to the self-assessment, we have created and implemented a Pulp and Paper Sourcing Policy Scorecard, which will allow 3M to evaluate a supplier against all aspects of the 3M policy. We began rolling out this scorecard with prioritized suppliers in 2019, completing evaluations of suppliers in each region. The results of the evaluation provide 3M further insight into each suppliers’ conformance status while also highlighting opportunities and areas to focus improvement. The goal is that the evaluation results create a path to work together to further advance the Sustainability of the global pulp and paper supply chain.

Through this partnership and engagement with our suppliers, we have seen many suppliers make significant progress in their own programs, ranging from enhancing their own policy(s) and due diligence management systems to creating policies that did not previously exist.



We have seen many suppliers make significant progress in their own programs.

Conservation in the Carolinas

In May 2017, 3M helped launch the Carolinas Working Forest Conservation Collaborative (CW FCC) along with the American Forest Foundation (AFF), International Paper, and Procter & Gamble. The biggest accomplishment to date has been the ability to assemble and mobilize the right local partners who have a keen sense of the challenges family forest owners are facing and the expertise to reach and motivate them to take forest stewardship actions to enhance habitat. Find more details on [AFF's website](#).

Family Forest Carbon Program

In 2019, 3M became a proud partner of the Family Forest Carbon Program (FFCP), a new approach to climate change mitigation developed by the American Forest Foundation and The Nature Conservancy. The FFCP aims to increase the carbon storage of family-owned forestland while creating a new market and source of income for the families that dedicate time and effort to their forest management. Our support will expedite family forest owner outreach and enable family forest owners to take action on their land, providing measurable carbon benefits as well as important co-benefits that improve wildlife habitat, water quality, wildfire risk reduction, and more.

Collaboration for change

3M Brazil is a signatory to the National Pact to Eradicate Slave Labor and joined InPACTO — the Institute for the National Pact — a trade association focused exclusively on collaborative efforts among members, including 3M, and committed to the goals of the National Pact.

Supplier recognition

Our supplier recognition program seeks to recognize those outstanding suppliers that help us succeed in accomplishing our Vision of 3M Technology Advancing Every Company, 3M Products Enhancing Every Home, and 3M Innovation Improving Every Life.

Each year, 3M sourcing professionals nominate exemplary suppliers to be recognized for world-class performance based on strategic support, contract compliance, actions taken to improve 3M's competitiveness, and overall supplier performance.

In 2019, 3M formally recognized

26

suppliers among thousands

in its global supply base for world-class performance in providing products and/or services.

Learn more about the [Supplier of the Year Award](#).



Looking forward

We recognize the supply chains of many materials involve both risks and opportunities. By collaborating with strategic partners, we are continuing to improve our supply chain management systems:

- 3M is conducting a LSS project to expand the use of our third-party resources to conduct more assessments. The project is global in scope and will positively impact the methodology, resources, and results of our efforts
- We will increase efforts with providers of pulp and paper to improve and evaluate their understanding and conformance with 3M's environmental and social expectations, which may include field visits. We are investing in transformation projects that will enhance the global pulp and paper supply chain
- 3M is committed to expanding our due-diligence efforts for higher-risk materials to further mitigate risk to our business and advance responsible supply chains
- 3M will continue to streamline and improve its supplier diversity program
- We look forward to continuing 3M's new partnership with the Family Forest Carbon Program
- In October 2020, 3M will host a sustainable supplier expo, featuring dozens of supplier Sustainability solutions that will help accelerate our Sustainability Value Commitment

In 2021, the EU Conflict Minerals Regulation will take effect and will expect companies to take a wider view of their sourcing practices. 3M's Conflict Minerals program will expand to focus explicitly on regions beyond the Democratic Republic of the Congo. 3M's SRC covers foundational expectations for our suppliers by taking a holistic approach to supply chain due diligence in areas of labor, environmental health and safety, ethics, and management. Members of our European Government Affairs Team have been closely aligned with industry and government to understand the scope, impacts, and timing of the new European regulation. The team has proactively assessed potential applicability, so 3M will be best prepared to implement the new rule.

What we create

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Our customers' challenges are our challenges.

Using our 51 [Technology Platforms](#) and collaborative culture, our people apply their talent to combine our technologies across businesses, creating unique solutions for our customers and society, all in support of the greater good.

We have established aggressive goals, ranging from requiring

100%  of new products to obtain a Sustainability Value Commitment

to energy efficiency, to community-wide approaches to water management and to helping our customers reduce their greenhouse gas emissions. We have also set Sustainability goals around building a diverse workforce and educating individuals on worker and patient safety in health care and industrial settings.

We are committed to connecting our fundamental strengths to our customers.

3M Science.
Applied to Life.™

Ab Abrasives													
Ad Adhesives	Em Electronic Materials									Di Display Components	Hd Healthcare Data Management		
Bi Biomaterials	Fi Films	Nw Nonwovens							Ms Modeling & Simulation	Ac Acoustic Management	Ec Energy Components	Lm Light Management	
Ce Ceramics	Fl Fluoro-materials	Pm Performance Materials	Am Additive Manufacturing	Pc Precision Coating & Web Processing	Rp Radiation Processing	An Analytical Science	Pr Process Design & Control	Cv Computer Vision	Ro Advanced Robotics	Bd Biodetection & Microbial Management	Eg Engineered Graphics	Mf Mechanical Fasteners	
Co Advanced Composites	Mm Metamaterials	Po Porous Materials & Membranes	Mo Molding	Pd Particle & Dispersion Processing	Su Surface Modification	Cp Converting & Packaging	Sd Sustainable Design	Ds Data Science & Analytics	Se Sensors	Cs Connected Systems	Fe Flexible Electronics	Sw Skin & Wound Management	
Do Dental & Orthodontic Materials	Nt Nano-technology	Rm Release Materials	Mr Micro-replication	Pp Polymer Processing	Tf Thin Film & Plasma Processing	In Inspection & Measurement	We Accelerated Weathering	Es Electronic Systems	Ss Software Solutions	Dd Drug Delivery	Fp Filtration & Purification	Tm Thermal Management	
Materials			Processing				Capabilities		Digital		Applications		

Our customers

Partnering with customers to innovate and grow.



Our commitment

Whether it's technology, manufacturing, global capabilities, or our brand, we are committed to connecting our fundamental strengths to our customers. We engage them and delve into their processes, their problems, and their promises to their customers. We bring our technology to them, along with a deep domain of expertise, and we deepen it further by working side by side with them as partners.

Throughout the process, we not only meet their expressed needs — we are often able to identify and address unarticulated needs. In both cases, we create solutions for them and, at the same time, innovative growth platforms for 3M.

Additional details can be found in the [Innovation management](#) section.

Creating competitive advantages for customers and for 3M

At 3M, many of our products are either specified (designed for the customer) or regulated (meeting specific performance and other requirements). Working in both categories carries us through multiple commerce channels, distribution models, direct models, retail models, and, increasingly, e-commerce. In every channel, we maintain a customer-first focus, making sure we're in a position to deliver value when, where, and how they want it.

Building Sustainability into all new products

In 2019, we strengthened our 2025 goal (invest to develop more sustainable materials and products to help our customers reach their environmental goals) by requiring that 100% of our products entering the new product commercialization process include a Sustainability Value Commitment (SVC) that demonstrates how it drives impact for the greater good.

By embedding Sustainability into our R&D process, our brands, and the mindset of our customers and suppliers, we're able to move 3M's growth to new levels and advance our commitment to improving our business, our planet, and every life. For that reason, we are combining the reporting of our 2025 goal with our new Science for Circular Sustainability Value Commitment goal.

Additional details can be found in the [Innovation management](#) section.



Goal: Provide training to five million people globally on worker and patient safety by 2025.

We will continue to support empowerment and enrichment for global health and safety issues through our commitment to improve the health and safety of people worldwide. To measure progress against this goal, we will track the number of training experiences delivered by our Health Care and Personal Safety Academies.

Our actions

Four strategic priorities deliver value for our customers: portfolio management, transformation, innovation, and people and culture.

In all, we work to understand our customers' business models, what they have promised their customers, what our role is in the value chain, and how we can help them deliver on their promises. It is our Vision, as we aspire to advance every company, enhance every home, and improve every life.

Portfolio management

To enable our company to better serve global markets and customers, 3M realigned from five to four business groups in April 2019.

This new structure supports and advances our four strategic priorities. We are strengthening our ability to meet the fast-moving needs of our customers. Our new alignment will leverage our business transformation progress, accelerate growth, and deliver greater operational efficiencies.

Portfolio management continues to be a key to the way we are prioritizing businesses to emphasize the greatest value creators in our portfolio and how we're looking at potential acquisitions, divestitures, and partnerships.

Transformation: continuing a critical journey

In 2019, we made great progress on our transformation journey, which leverages our strengths in technology, manufacturing, global capabilities, and brand to provide a more positive overall experience for our customers. Specific accomplishments include:

- Successfully deployed ERP (enterprise resource planning) systems in Europe and the United States
- Simplified, standardized, and redesigned business processes
- Advanced streamlined, end-to-end engagement with customers
- Created value through new service models

Moving forward, we will work to enhance customer service, increase value creation, leverage ERP capabilities, streamline deployments, and expand the utilization of data and analytics.

Customer-inspired innovation

Technology itself is not sufficient to create differentiated products and solutions. Our innovation truly comes from the confluence of customer and market insights, technology, and a culture of collaboration and entrepreneurship. We strive to invent products that are not only new but useful. That is why 3M scientists work directly with customers to solve their unique challenges. We take the time to get to know them, learn how they live and work, and understand what we can do to improve their lives. Collaborating with customers assures us we are in tune with their needs. Our most successful products are infused with strategic customer insights throughout the entire product development process.

Collaborating and creating locally

When collaboration results in meaningful innovation — solving real problems — it can be awe-inspiring. To get there, we believe it's essential to be close to our customers.

That's why 3M has 56 customer technical centers across the globe, where our customers can experience firsthand the breadth of 3M technologies and how they can benefit from them. We also have laboratories and application engineering capabilities in 50 countries where our scientists work closely with our customers to develop solutions for their specific problems.

Some of the problems addressed in our technical centers and labs are connected to regional and local issues. Globally, for example, rapid population growth in urban areas is creating challenges related to energy efficiency, clean water, and environmental protection. Our local scientists leverage 3M technologies to develop relevant solutions that are unique to their region, often collaborating with local customers. See how 3M India addressed a local public safety issue in our feature story, [“Cooler trains.”](#)

3M Design Centers are located in the United States (at 3M's headquarters in St. Paul, Minnesota), Italy, Japan, India, and, new in 2019, China. The centers provide 3M employees with new ways to incorporate design thinking into graphic and industrial design, user experience, and design research. Bolstered by a global design organization with

140 

designers around the globe,

3M's Design Centers help spark new ways to enhance the brand experience, advance innovation, and create customer-driven solutions that positively impact the world.

We find that collaborating with customers in their own spaces can be extremely beneficial. For example, in 2019, 3M partnered with a major academic health system based in the Midwest on a project designed to drive insights for service and solutions. Together, we tracked a high-volume medical product through every stage of the supply chain to understand their needs related to Sustainability. The immersive three-day research activity involved a multidisciplinary team representing Sustainability, Packaging, Engineering, Tech Service, Front End Innovation, Industrial Design, Supply Chain Management, health care providers, and facility operations. The team followed the journey of a 3M medical product from the inventory center to the supply rooms within the hospitals to the recycling and disposal centers. At each step, the team observed the flow of materials, had conversations with the stakeholders in each department, and conducted in-depth interviews.

One notable finding was that while those in Purchasing at the hospital are aware of a product's Sustainability benefits, the health care providers who use the products are not. A key recommendation was to incorporate relevant Sustainability information into product training — a helpful insight for both the customer and 3M.

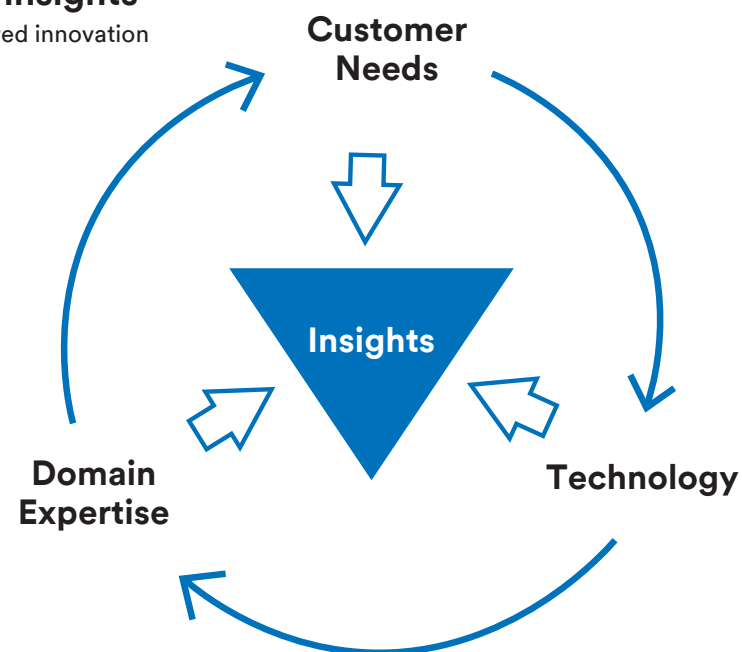
Understanding the full life cycle of medical products within a health care system, the touchpoints along the journey, and the different waste streams they enter has brought valuable learnings back to 3M, helping us make continuous improvements to the solutions we deliver to our customers.

“We focus so much on the doctor, nurse, and patient — but everyone from the dock worker to the waste handler interacts in some way with our products.”

— Heather Webb
Innovation Strategy Manager
3M Medical Solutions Division

Customer insights

Customer-inspired innovation



Education that raises everyone's bar

Proper use of health and safety products is critical for infection prevention, personal safety, and overall health. Building on our existing customer education programs, 3M has created training libraries that are accessible to customers anytime and anywhere, including on-demand education, live webinars, in-person events, and education resources.

We deliver educational content to health care professionals at hospitals and clinics, professional conferences, and via online webinars — all around the world, through [3MSM Health Care Academy](#). This not only helps customers get the most out of our products; it is part of our commitment to help professionals improve outcomes for their patients and customers.

Continuing education is available in areas including medical, dental, orthodontics, health information systems, food safety, health care Sustainability, drug delivery systems, and consumer health and wellness. Many professionals utilize our training courses to accrue continuing education credits toward their professional certification. This online training is a convenient option for busy health care professionals.

Our purpose is the same for our [Personal Safety Division](#). In a rapidly evolving business and occupational health and safety environment, our education and training programs can instruct workers on workplace safety hazards and health risks, personal protection equipment (as regulated by the Occupational Safety and Health Administration, or OSHA), and the proper use and maintenance of 3M products.

Our health and safety training takes place on the road, on the manufacturing floor, and online.

In several parts of the world, we use mobile vehicles to bring training and education directly to companies and workers at their job sites. This enables us to reach more people and provide more training instances. The [3M Safety Roadshow](#) is a fully-equipped mobile training center that showcases 3M's industrial safety expertise and personal protective equipment. It travels to multiple locations each year and provides in-person safety training, education, and demonstrations. Supported by 3M's highly credentialed technical service staff, the Safety Roadshow partners with industrial facilities across the United States and India to promote safety and build confidence.

Our Roadshow can't reach everyone, so in China, we launched a series of cartoon game-based trainings to help workers increase their understanding of health and safety concepts related to personal protective equipment. Workers scan a QR code to access the training where they can view content and complete a training quiz from their mobile phones.

In 2019, the total number of training instances was



589,000.

This includes our e-learning platforms and in-classroom events.

Looking forward

As a large and diverse global science company with customers spanning many industries and global markets, we have the opportunity to make an even greater impact in Sustainability. As part of our strategic focus on empowering Science for Circular, Science for Climate, and Science for Community, we will work to design a world where 10 billion people can thrive by applying boundaryless, collaborative science to reinvent the products, processes, and systems that improve every life.

We will continue to leverage our diversified technology portfolio to create innovative solutions for our customers and markets. Our Technology Platforms continue to evolve — addressing the changing and anticipated needs of high-growth markets.



Innovation management

Applying science to create Sustainability solutions.

Our commitment

At 3M, we apply science to improve lives.

But just as society's challenges continue to evolve, so does our science. We are relentlessly evolving and adapting our technologies in order to help solve the problems of today and tomorrow. We created our 3M Periodic Table of Technology Platforms 13 years ago, and in 2019, we updated it to assure it accurately reflected our focus and investment in technologies for the future. The new 3M Periodic Table has a total of [51 Technology Platforms](#). Most of our Technology Platforms are unchanged. We added nine new Technology Platforms, changed eight, and two were divested. The result is 51 Technology Platforms aligned with our future growth opportunities.

Our 51 Technology Platforms are shared and combined across businesses and regions to invent unique products for a variety of industries. No single business owns any of these platforms.

They are managed by the company and can be leveraged by any of the businesses to serve their respective customers or markets.

All of our businesses are connected by our fundamental strengths — technology, manufacturing, global capabilities, and brand — which allows us to invent, build, and sell products across our vast global network.

R&D is our heartbeat.

We continue to invest in scientific research and product development in close partnership with our customers and the marketplace. R&D fosters a constant stream of unique and cutting-edge products that drive organic growth.

In fact, in 2019, we invested



\$1.91B
or nearly 5.9% of our sales back into R&D.

Our [15% Culture](#) — instituted six decades ago — inspires creativity, risk-taking, and collaboration. It gives employees the freedom to take risks and learn from mistakes. That freedom is essential to scientific discovery. Employees can spend 15% of their time on projects that interest them. These projects and ideas might eventually become successful new 3M products.

All of our businesses are connected by our fundamental strengths — technology, manufacturing, global capabilities, and brand.

3M has earned more than 120,000 patents over the years, a testament to the strength of our innovation engine.

Over the past 5 years, 3M has earned an average of



3,780
patents per year.

The policies and standards that guide the design, manufacturing, marketing, and sale of 3M products share a common foundation: the [3M Code of Conduct](#). [The Code of Conduct](#) is an overarching guide to the appropriate decisions and actions of 3M individuals and teams as they go about their work. It defines our values and the responsibilities that 3M employees and 3M suppliers must meet.

Under this broad umbrella of values are principles, policies, standards, and guidelines that more specifically outline what 3M believes is the ethical approach to various work situations, including situations that involve innovation management of 3M products.

Product Safety, Quality, and Stewardship Principle

Our customers depend on 3M's products to advance, enhance, and improve their companies, homes, and lives — and we have a responsibility to live up to those expectations. For this reason, we must strive to produce only the highest-quality products.

Every item we sell must meet rigorous quality standards and must be safe for its intended use.

As detailed in our [Product Safety, Quality, and Stewardship Principle](#), located under [3M's Code of Conduct – Be Fair](#), product safety, quality, and stewardship must always be primary considerations during the design, manufacturing, marketing, and sale of 3M products. 3M employees must know and follow all applicable laws, regulations, and 3M policies, standards, and procedures for product safety, quality, and stewardship and must diligently report and respond to concerns. 3M management is responsible for addressing reported concerns and assuring that 3M employees are properly trained in applicable laws and regulations as well as 3M policies, standards, and procedures.

Further, we take it as our responsibility to produce products with superior environmental performance across their entire life cycle, including product reuse and repurpose, and to work with our suppliers and business partners so that their operations support these same objectives.

Product Safety, Compliance, and Stewardship Policy

[3M's Product Safety, Compliance, and Stewardship Policy](#) underscores our commitment to commercializing and selling products that are safe for their intended uses; compliant with all applicable environmental, health, and safety (EHS) regulations and 3M expectations; and developed with a goal to continuously improve the EHS performance of products and corresponding manufacturing processes.

Each 3M business must maintain processes for the effective global review of product safety, compliance, and stewardship requirements. This includes consideration of EHS aspects relevant throughout the life cycle of a product, including raw material selection, product design, formulation, manufacturing, marketing, sale, intended and anticipated use or misuse, recycling, reuse, repurpose, and disposal. The process must meet and maintain continuous compliance with applicable national, regional, and local regulations, as well as 3M expectations. These business processes must be incorporated into New Product Introduction (NPI) and product Change Management Process (CMP) procedures. Product safety, compliance, and stewardship requirements must be integrated into the development, commercialization, and sale of 3M products.

In addition, we have established an internal standard to assure uniform compliance globally for the manufacturing, sale, testing, and promotion of medical devices, food or drink, food or drink supplements, food or drink additives, drugs, and cosmetics for use in or with humans or animals.





Chemicals Management Policy

3M is a science-based company committed to applying our scientific expertise to improving lives. Helping people live safe and productive lives is important to 3M — for our employees, our customers, and everyone living on the planet. Chemicals are essential for producing 3M's broad range of products, and part of 3M's role in helping people live safely is effective and responsible chemical management.

[3M's Chemicals Management Policy](#) reflects the evolving values of 3M and our stakeholders. Under this policy, to continuously improve the environmental, health, and safety attributes of our products, 3M has identified specific chemicals whose use in products and manufacturing processes is subject to restrictions or specific management actions.

Advertising and Product Representation Principle

3M's reputation as a responsible company extends to the products and services we offer and how we represent them. 3M must communicate honestly and accurately about 3M's products and services. Learn more by visiting our [Advertising and Product Representation Principle](#).

It's our policy to represent our products truthfully, fairly, and accurately in all sales, advertising, packaging, and promotional efforts. All product claims must be substantiated and technically accurate, as specified by the [Advertising and Product Representation Policy](#).

As with our other policies, each business must maintain processes that assure the appropriate review of any advertising or claims about its products. This includes substantiation of claims through testing based on sound statistical and scientific principles.

Hazard communication

Communicating the potential hazards of 3M materials supports 3M's core values and is an integral part of keeping stakeholders informed about 3M materials. The vehicles for communicating these hazards and product chemical components include [safety data sheets](#) (SDS), product labels, product literature, instructions for use, transportation classification documentation, and other communications tools, including a newly launched [Ingredient Communication website](#) on 3M.com. Each business must use corporate processes that evaluate the potential hazards of 3M materials and transmit, in local country language(s), information about the hazards to employees, contractors, and customers; it must meet all regulatory requirements and 3M standards and guidelines; and it must promote informed decisions about the materials' proper and safe handling, use, and disposal.

Alternatives to animal testing

3M is a major advocate for the use, wherever practicable, of alternative test methods (non-animal) to help develop safe products. 3M is a strong contributor in this area and is currently utilizing many of these alternative methods, such as computational toxicology and in vitro testing using isolated tissues or cells. We are also investing in the internal and external development of new methodologies that replace animal testing, and we actively engage with governments, lobbying groups, and industry partners to help further the science for the appropriate use of non-animal methods. Where animal testing is required, we follow our [Animal Welfare in Testing and Research Policy](#).

Human Subject Research Policy

Our [Human Subject Research Policy](#) protects the rights, safety, and welfare of human subjects who participate in 3M-supported research. All supported research involving human subjects must be conducted in accordance with all applicable national, regional, and local ethical and legal rules and regulations and must be conducted in accordance with three principles, as described in the Belmont Report: respect for person, justice, and beneficence.

Helping people live safe and productive lives is important to 3M.



Goal: Every 3M product entering the new product commercialization process will include a Sustainability Value Commitment (SVC) that demonstrates how it drives impact for the greater good.

In 2019, we strengthened our 2025 goal (invest to develop more sustainable materials and products to help our customers reach their environmental goals) by requiring that 100% of our products entering the new product commercialization process include an SVC. Many companies view the topic of Sustainability in product development as a challenge, but at 3M, we welcome it and have taken an aggressive approach — working to identify and understand future Sustainability needs, and expanding our portfolio of products, filling them with Sustainability advantages.

By embedding Sustainability into our R&D process, our brands, and the mindset of our customers and suppliers, we're able to move 3M's growth to new levels and advance our commitment to improving our business, our planet, and every life.

Our actions

The challenges we must tackle for a sustainable future can seem nebulous, but we see them clearly. They are broad. They are interrelated. They are solvable — with the help of science. We at 3M have the unique opportunity to apply our passion for science and collaborate enterprise-wide to find solutions.

3M's SVC

In 2019, 100% of new products entering the new product commercialization process described their Sustainability impact and how they drove impact for the greater good.

An SVC is a clear demonstration of how the product incorporates environmental or social factors to contribute to our aspirations laid out in our Strategic

Sustainability Framework. Examples of considerations include reusability; recyclability; energy, waste, and water savings; and responsible sourcing or use of renewable materials appropriate to the specific product throughout its life cycle.

An SVC can also stem from a core purpose in which the product helps to solve an environmental or social challenge — such as improving air quality, reducing greenhouse gas emissions, or improving worker and patient safety in health care and industrial settings.

The impact of 3M's new product requirement is global in scale. Beyond 3M's own operations, a primary reason for the goal is to help customers achieve their Sustainability goals. This new product goal creates even more opportunities to collaborate with customers on solutions that help improve lives around the world.

Throughout 2019, we deployed our NPI process through a new system called 3M|Grow. This robust framework for developing products from idea to launch incorporates our SVC in each phase of our process.

Unique and differentiated value

The power of 3M is in the way we connect our fundamental strengths to customers. Those strengths are our technology, manufacturing, global capabilities, and brand. They define us as an enterprise and combine to build a business greater than the sum of its parts. The power of 3M arises from our deep understanding of what differentiates us in our performance across every business in our enterprise. It truly reflects how we're linked together in our portfolio, even though we might operate in multiple markets.

It's about our technology but not just stand-alone science: it is technology supported by deep intellectual property, combined with multiple other technologies to enable us to do unique things with and for our customers.

3M power is also about our manufacturing strength. We're differentiated and advantaged in the marketplace through in-house 3M manufacturing site ownership that also leverages 3M intellectual property. One-third of our intellectual property sits in manufacturing, much of it in trade secrets, enabling us to deliver higher-quality, better-performing, more competitive products in the marketplace.

True global capabilities require more than just presence in international markets. They require the skills of our international organization to execute our business models and enable us to enter those markets successfully — to take our fundamental strengths and applications almost anywhere in the world. We have sales in nearly all countries, with two-thirds of our workforce and sales professionals working outside the United States. By employing integration and collaboration across our businesses, geographies, and scientific disciplines, we effectively and efficiently bring new ideas and products from the lab to the factory to customers' homes and businesses everywhere.

Finally, it's our brand — 3M Science. Applied to Life.™ — that adds value to every one of our businesses across all our markets.

Leveraging these fundamental strengths — technology, manufacturing, global capabilities, and brand — is what truly creates the power of 3M.

Fundamental Strengths

Unique and differentiated value

- ▶ Technology
- ▶ Manufacturing
- ▶ Global capabilities
- ▶ Brand

Leveraging team collaboration and strategic partnerships

3M is able to transform diverse ideas and creativity into superior technologies, business assets, and innovative product platforms.

One of the many things that makes 3M a singular company is our commitment to collaboration. There are no silos here. We collaborate with each other across businesses, across technologies, and across oceans and continents.

Case in point: 3M Tech Forum, a self-directed and self-organized catalyst for the 10,000-plus people in 3M's technical community. Begun more than 60 years ago, Tech Forum gives 3M researchers the opportunity to compare notes with global colleagues, collaborate around the company's 51 Technology Platforms, and develop new ideas that fuel the 3M innovation pipeline. The collaboration takes place at an annual global event, spring symposium, recognition programs, and many chapter events held throughout the year.

Global Product Stewardship, Green Chemistry, and Climate are a few of the chapters within Tech Forum.

In 2019, Tech Forum showcased over **500** events

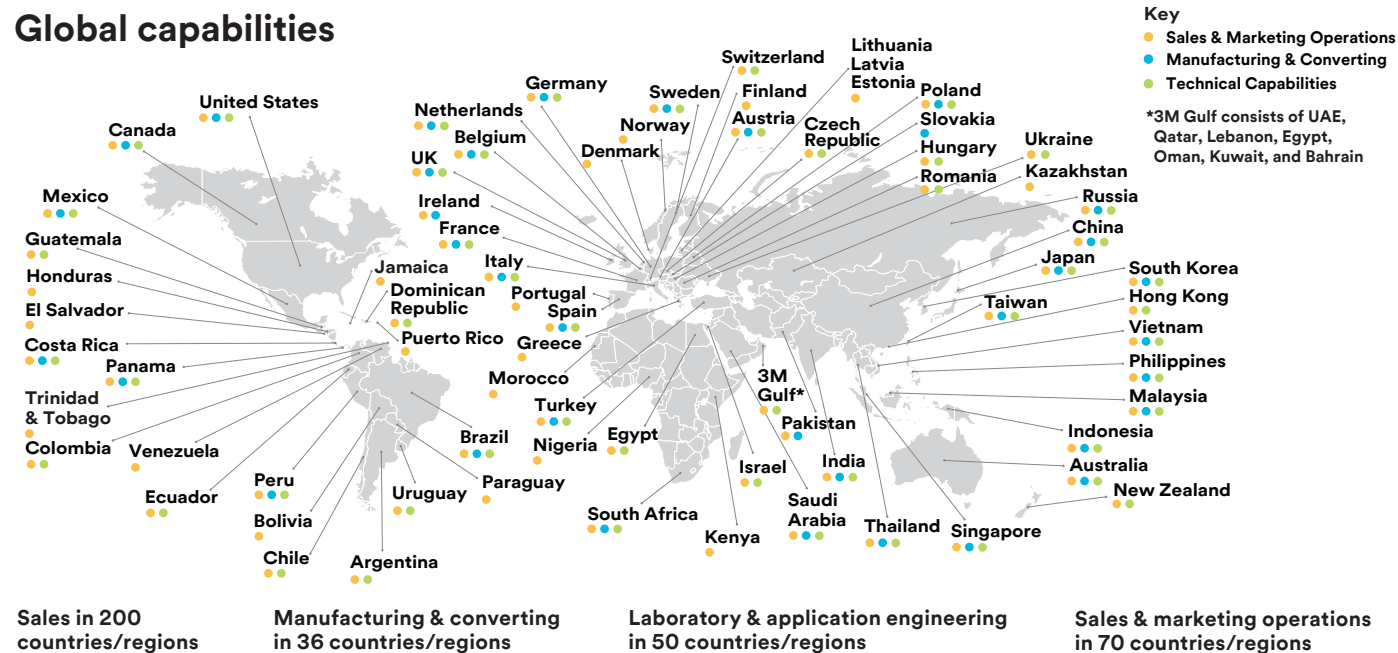
including topics such as Sustainable Polymers, Green Adhesives, Green Innovators, Sustainability Driven Innovation, Bioinspired Materials, and Advanced Materials for Energy Conversion and Storage.

To celebrate 3M's culture of collaboration between 3M employees in every field, Tech Forum hosts the annual Made by You event to connect employees and resources. Whether the item is made for 3M, with 3M products, or just for fun, it's the opportunity to highlight how the employee brings ideas to life at 3M.

3M Tech Forum isn't just spreading ideas internally. The group brings in ideas from strategic partners. In 2019, they featured BASF Sustainability Day at 3M, a presentation on Technology Challenges and Opportunities in Recycling Solar Panels with MN Pollution Control Agency, and a presentation on the World of Materials Research in The School of Materials Science and Engineering at the Georgia Institute of Technology.

Additional information on collaboration at 3M can be found in the [Our customers](#) section.

Global capabilities



A process built for innovation

New-to-the-world processes are primarily developed in 3M's Corporate R&D Process Laboratory, and the development of these new processes is captured in our New Technology Introduction (NTI) framework:

- **Explore:** Identify the market opportunity
- **Qualify:** Identify superior product concepts to meet customer needs
- **Deploy:** Develop the technical solution

Meanwhile, our NPI process provides the robust framework for developing products from idea to launch.

Together, 3M's NTI and NPI processes provide a common framework for technology and product commercialization for all global business. Information is required at every step, or gate, in the process, along with deliverable tasks. Having consistent practices throughout the company for technology and product creation assists in risk analysis by providing a common language from which to share tools and best practices and manage project portfolios.

Product innovation that takes the long view

3M works to produce products with superior environmental performance across their entire life cycle. We also work with our suppliers and business partners so that their operations support these same objectives. These efforts together help define, protect, and assure the long-term success of our company.

Life cycle management (LCM) is 3M's approach to assuring that EHS and associated regulatory considerations are integrated into the development and commercialization of 3M products through 3M's NPI process. During NPI, our business teams provide LCM deliverables. These include, at a minimum, raw material composition; assessments in human health and environmental toxicology, electrical and mechanical safety, and other disciplines, as appropriate; conformance to regulatory and customer EHS requirements; and hazard communication documents.

Likewise, we evaluate LCM impacts from product modifications through our corporate product CMP. We leverage these LCM processes to continuously improve the EHS performance of our products.

A product stewardship framework that continues to advance

Responsibility for product stewardship at 3M is shared across a broad spectrum of functions positioned within businesses, regions, and corporate staff groups. Together, individuals across this spectrum work to support 3M's core value of respect for our social and physical environment.

We have over 400 product stewards, embedded within 3M businesses and countries of operation, who act as champions of product EHS, regulatory compliance, and Sustainability. They help assure our products meet or exceed requirements stemming from 3M policies, governmental regulations, and from our customers.

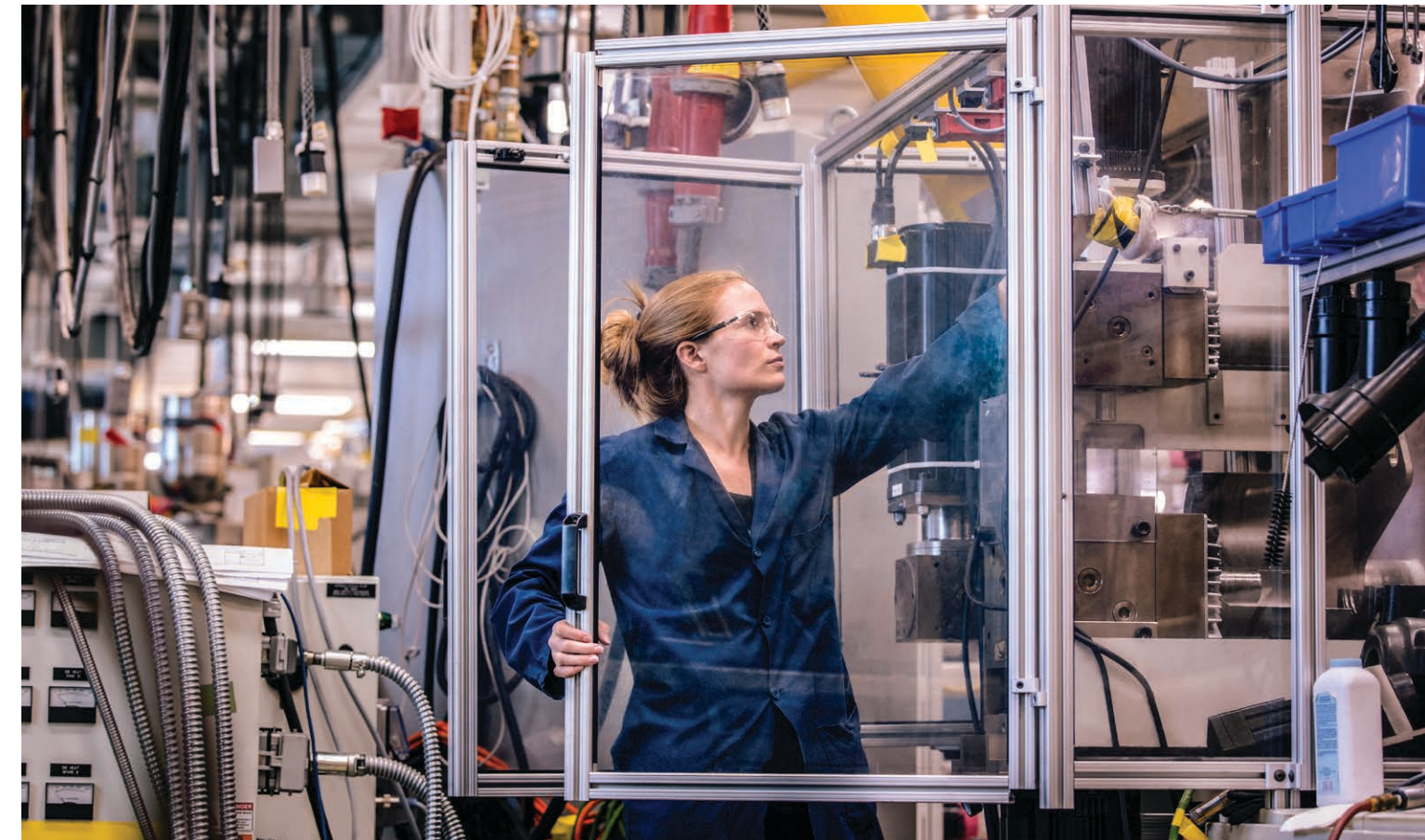
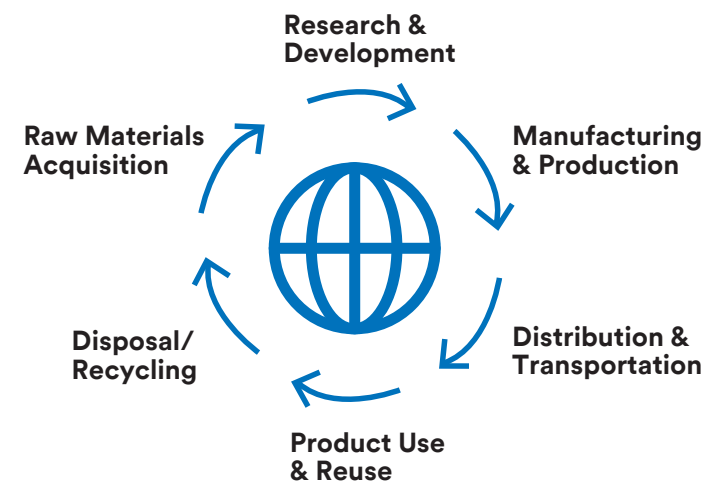
Our framework for product stewardship provides structure and consistency for overseeing daily activities in a proactive, not reactive, mode. For example, we have a self-auditing program to identify leading indicators instead of waiting until non-compliance. 3M has been on the leading edge of product stewardship audits, beginning with self-assessments in international regions in 2007, and incorporating global on-site audits in 2014. These audits evaluate, among other elements, product hazard and risk assessment, chemical control, life cycle management, and consumer product safety. The goal of these audits is to assure that regions and businesses are meeting corporate standards and to share best practices globally.

Our audit program is agile, and we have conducted deep dives into specialty topics as requested by our businesses who are seeking to improve their operations or meet evolving external standards, including audits for life cycle assessment and human subject research.

3M values the continued professional development of its product stewardship professionals. In addition to supporting attendance at a wide variety of external classes and conferences, we offer an internal education program covering regulatory updates, policies and standards, toxicology, systems and business processes, and orientation to product responsibility.

In 2019, the Sustainability and Product Stewardship Department offered 27 live programs and added 24 on-demand sessions to the educational catalog for the product stewardship network. The corporation sponsors a 750-page website containing over 1,200 reference documents dedicated to product stewardship and global regulatory requirements. We also publish a monthly global newsletter to keep the network informed of recent and upcoming regulatory and program changes.

Life Cycle Management



Life cycle assessments (LCA) where relevant and feasible

In addition to the LCM program, which applies to all 3M products, we also conduct LCAs for select 3M products. At 3M, our ISO 14040-compliant LCAs are typically cradle-to-gate, since our products often have use and disposal life cycle stages that are dependent on how our customers use these products. This often provides a unique opportunity for collaboration to help our customers understand and reduce their environmental impact.

We also complete ISO 14040-compliant cradle-to-gate LCAs for several internally produced materials. The evaluation of these intermediates allows us to better understand the potential environmental impacts of key components and processes used in the production of our products. Our LCA teams also conduct LCA screenings to help answer internal questions early in product development.

In 2019, 3M LCA teams in the United States and Europe renewed their process certifications from The International EPD® System to demonstrate that appropriate procedures are in place to produce scientifically sound, technically defensible LCAs and EPDs (Environmental Product Declarations).

The teams will continue to undergo an annual recertification process that evaluates conformance of the underlying management system with the program rules and ISO standards. This global certification of the LCA process for multiple parts of our organization is thought to be the first of its kind.

We realize that we can make far greater contributions to addressing climate change concerns by helping our customers reduce their greenhouse gas (GHG) emissions through use of our products. To calculate these customer emission reductions toward our Science for Climate goal, we have established a process based on life cycle thinking and the ISO 14064-2 standard for comparing emissions from the project scenario against a baseline scenario. Additional details of these efforts can be found in the [Climate and energy](#) section of this report.

Composition disclosure

In 2019, 3M launched an [Ingredient Communication website](#) to provide customers with complete ingredient information for over 550 consumer-formulated products. The website provides transparency into 3M formulations by identifying intentionally added ingredients and select contaminants. The function of each ingredient in the product is defined, thereby allowing customers to know exactly why a chemical is present in a specified product. The website also provides direct links to each product's SDS. The website pages are designed to be easily printable, allowing channel partners to quickly access the information and meet their workplace requirements.

We realize that we can make far greater contributions to addressing climate change concerns by helping our customers reduce their greenhouse gas (GHG) emissions through use of our products.



Looking forward

In 2020, our product stewardship professionals from across the globe will attend a week-long Global Product Stewardship Conference with workshops, customer presentations, external speakers, executive panels, and training. The main objectives of the conference are to:

- Advance our customer-driven focus within the global product stewardship organization
- Leverage systems and processes to assure compliance, improve customer response, standardize processes, and gain productivity
- Share solutions from country to country for addressing product stewardship challenge areas
- Raise global competency levels through training and workshops, with a focus on building high-performing and diverse global talent
- Integrate 3M's Strategic Sustainability Framework into the product stewardship role

In 2020, 3M will release its global product Change Management Process and application, consolidating more than 100 systems used today to capture product change history. Our priority is to assure changes are properly evaluated, communicated, and approved prior to implementation.

In 2021, 3M will launch its redesigned LCM system, called LCM Redesign. LCM Redesign will integrate multiple product stewardship systems and processes onto a single platform to achieve greater visibility, consistency, and productivity in managing the extensive product stewardship and Sustainability data for our more than 55,000 products.

Our products

Embedding a Sustainability Value Commitment in all business groups.

Our commitment

At 3M, we share technology, manufacturing, marketing, and other resources across our four business groups in order to increase our speed and efficiency and bring product solutions to different markets.

Starting in 2019, 100% of our products entering the new product commercialization process must describe their Sustainability Value Commitment (SVC), demonstrating how they drive impact for the greater good. This formal requirement is significant because it embeds Sustainability into the pipeline that produces 3M's diverse global products.

Examples of considerations in developing SVCs for new 3M products include recyclability, energy and water savings, responsible sourcing, renewable materials, and the appropriate reuse of a product.

Also included are products whose core purpose is helping to solve an environmental and/or social concern. Examples include improving air quality, reducing greenhouse gas emissions, improving patient outcomes, and enhancing worker safety in industrial settings.

3M's new product requirement will have a global impact on our operations in 70 countries where we operate and on the products we sell in nearly every country. It will also help our customers reach their own Sustainability goals.

It's another important step forward in our ambition to apply science to improve every life — through our [Strategic Sustainability Framework](#) and through each of our four business groups.

Most important, the new product requirement impacts 3M employees. When you work for 3M, you are changing the world.

For more information on our SVC, see the [Innovation management](#) section.

Our actions

In 2019, we delivered sales of \$32.1 billion.

\$32.1B*

2019 net sales

Our markets



● Safety & Industrial	\$11.6B
● Transportation & Electronics	\$9.60B
● Health Care	\$7.43B
● Consumer	\$5.09B

*In addition to our four business groups, \$32.1B includes elimination of dual credit, and corporate and unallocated business segments.

Safety & Industrial



Driving industrial performance — better, safer, connected

Our business focus

Our Safety & Industrial Business Group provides thousands of innovative solutions and products. By utilizing data from digitally connecting sources to connect workers, materials, and machinery, we help improve productivity and quality outcomes for our customers. Our products apply 3M science to help protect the health and safety of workers worldwide.

Sustainability examples

- Roofing granules that harness the power of the sun to help improve air quality
- Roofing granules that keep roofs cool and save on HVAC energy
- Light-redirecting films, tapes, and materials that enable high-efficiency solar panels
- Wind protection tapes that help improve turbine uptime

\$11.6B

2019 net sales

Our markets



● Abrasives	\$1.41B
● Automotive aftermarket	\$1.24B
● Closure and masking	\$1.11B
● Electrical markets	\$1.20B
● Industrial adhesives and tapes	\$2.74B
● Personal safety	\$3.51B
● Roofing granules	\$0.37B

Transportation & Electronics



Sustainability examples

- Light-weighting vehicles for fuel efficiency
- Energy-saving window films
- Water and chemical waste-reducing cleaning solutions
- [3M™ Envision™ Wrap Films](#) made in part with bio-based materials

Advanced transportation and a connected world

Our business focus

Our Transportation & Electronics Business Group helps our clients make the impossible possible. Our people lead innovation by developing new applications and technologies that help customers solve their most challenging problems. We are on the leading edge of building new platforms in emerging, high-growth electronics market segments, like data centers, grid modernization, and automotive electrification. We create solutions that power and connect cities, homes, cars, and people, providing real-time access to data — wherever it's needed.

\$9.60B

2019 net sales

Our markets



● Advanced materials	\$1.25B
● Automotive and aerospace	\$1.94B
● Commercial solutions	\$1.76B
● Electronics	\$3.71B
● Transportation safety	\$0.95B

Health Care



Sustainability examples

- Surgical, vascular, and wound care solutions improve health care outcomes, enhance the patient experience, and lower total cost of care through evidence-based solutions, education, and partnership
- 3M™ M*Modal CDI Engage One™ solution reduces the administrative burden on physicians and empowers the entire care team to drive better clinical outcomes by enabling the creation of a more complete, compliant, and accurate physician note
- Food safety solutions help protect the health of consumers by detecting food contamination and help assure the safety of our food globally while providing a significant reduction in waste, energy, and water compared to conventional methods
- 3M™ Lava™ Zirconia all-ceramic dental restorations are milled from a single zirconia disc, eliminating the need for the surrounding plastic frame and reducing steps required by the dentist

Using the power of 3M science to help make better health possible for people around the world

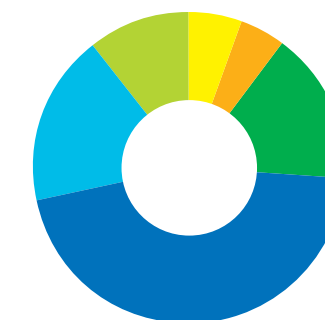
Our business focus

Our Health Care Business Group connects people, insights, science, and technology to solve problems and make better health possible. We deliver practical, proven solutions that enable our customers to protect and improve the health of people around the world.

\$7.43B

2019 net sales

Our markets



● Medical solutions	\$3.41B
● Oral care	\$1.32B
● Separation and purification sciences	\$0.79B
● Health information systems	\$1.18B
● Drug delivery	\$0.41B
● Food safety	\$0.34B

Consumer



Bringing 3M to the hearts and minds of consumers

Our business focus

Our Consumer Business Group is home to some of our most iconic brands, including Post-it®, Scotch®, Scotch-Brite™, Filtrete™, Nexcare™, Command™, ACE™, FUTURO™, and Meguiar's®. These products simplify managing a home or a business and make lives a little easier and more efficient. Our wide array of innovative products helps make our customers healthier and stronger and helps keep homes cleaner, offices organized, and buildings well-maintained.

Sustainability examples

- [3M™ Thinsulate™](#) 100% Recycled Featherless Insulation is made from plastic bottles
- Scrubbing fibers in Scotch-Brite® Heavy Duty and Non-Scratch Scrub Sponges are 100% recycled
- [Post-it® Super Sticky Notes](#) are made with plant-based adhesive (60% by weight)
- [Post-it® Flex Write Surface](#) can be written on with both dry-erase and permanent markers and can be wiped clean with water versus a chemical cleaning spray. With an adhesive backing that is 60% plant-based
- See more examples [here](#)

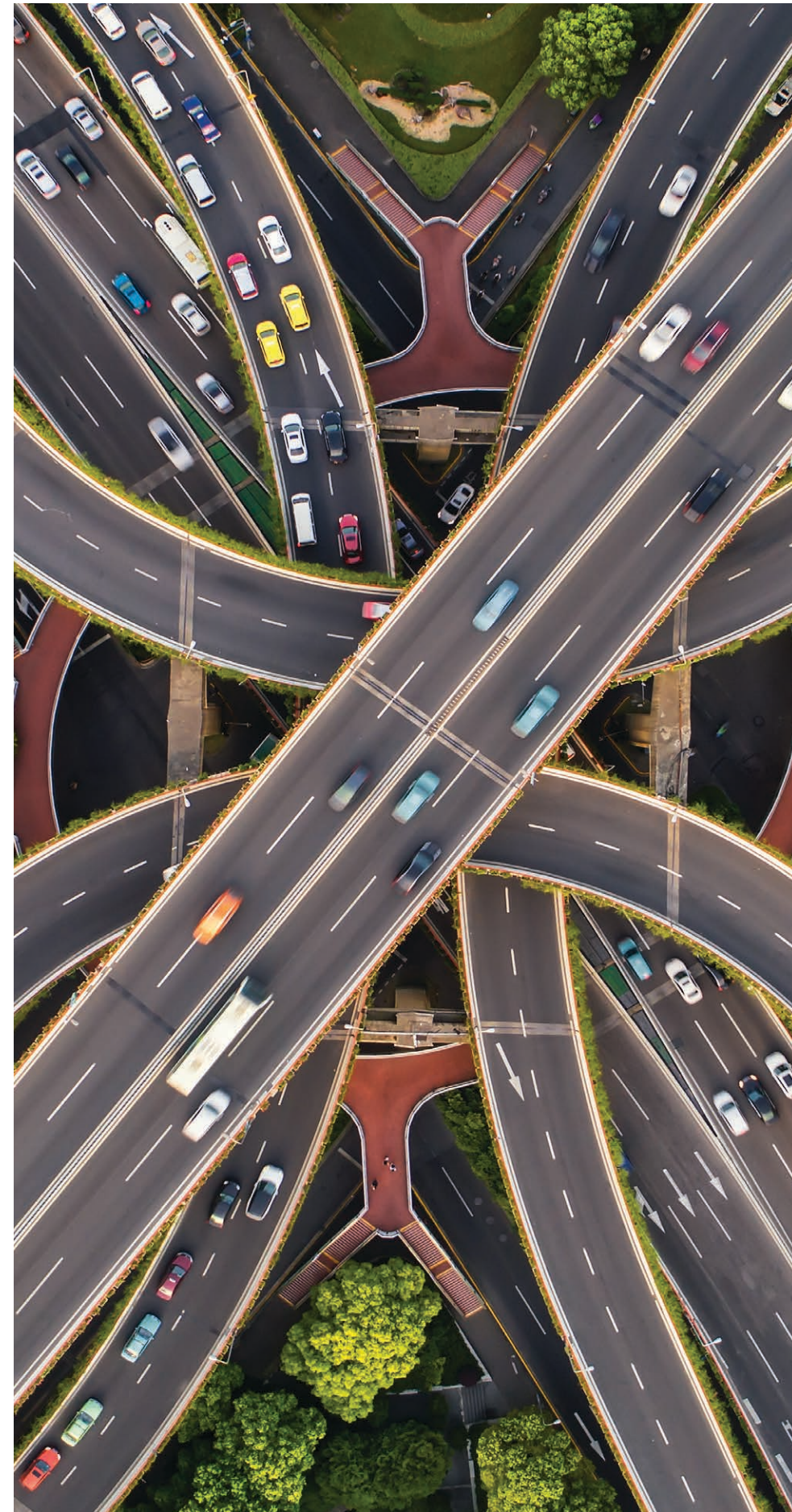
\$5.09B

2019 net sales

Our markets



● Consumer health care	\$0.38B
● Home care	\$0.99B
● Home Improvement	\$2.31B
● Stationery and office supplies	\$1.37B



Looking forward

Beyond financial results, in 2019, we continued to position 3M for long-term growth and value creation. This includes executing on our four priorities: portfolio management; transformation; innovation; and people and culture, as discussed in the [3M Value Model](#) and [Our customers](#) sections.

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About report, scope, and boundaries

Report schedule and period.

Current issue: May 12, 2020

Next issue: Scheduled for May 2021

Previous issue: May 14, 2019

Before 2010, the Sustainability Report was a fully integrated website. Therefore, copies before 2010 are not available.

This report provides a summary of the activities in fiscal year 2019 (January 1, 2019, to December 31, 2019).



Organizational boundaries

This report covers 3M's owned manufacturing facilities and leased facilities worldwide, including joint ventures (if greater than 50% 3M ownership) and partially-owned subsidiaries (if greater than 50% 3M ownership) where 3M has full operational control. Acquisitions are included in data sets once legally owned and fully integrated onto 3M systems. All data included in the report is global data unless otherwise specified. Any significant organization changes are identified in the [Annual Report 2019](#) and [2020 Notice of Annual Meeting & Proxy](#) statement.

Data collection, adjustments, and verification

The data provided in this report through facts and figures is based on activities during 3M's fiscal year 2019. For some performance indicators, the previous year's data are provided to allow for annual comparisons.

Report data collection

Due to the size and geographical extent of our operations, it is, at times, difficult to obtain all data points. Therefore, to the extent possible, limitations and assumptions are stated as information in the report. This report's data has been reviewed for accuracy and completeness, including the reliability of the systems used to obtain the data.

Unless noted below, corporate staff have also verified the implementation of policies and management systems through audits and self-reporting systems.

- **Financial data:** Financial information referenced in this report is collected and reported in accordance with the United States Securities and Exchange Commission through the Annual Report 2019

- **Environmental, health, and safety (EHS) data:** The EHS data in this report is related to the environment, safety performance, management systems, implementation, and regulatory compliance. Data collection systems are in place at applicable sites to track and collect environmental, health, and safety data through the corporate-wide EHS reporting systems (e.g., Environmental Targets Database, EHS 360, etc.)

- **Social data:** The data related to employee metrics, social practices, and community programs has been derived from various databases from within the Human Resources and 3M Foundation organizations. This data has been reviewed and verified by the departments responsible for maintaining the internal reporting systems

- **Responsible sourcing systems and data:** The policies and management systems implementation in this area have been reviewed and verified by the departments responsible for maintaining the internal reporting systems

Sites acquired by 3M are integrated into 3M programs and reporting systems via a prioritized functional integration schedule. Timeframe for integration varies depending on subject-matter reporting requirements and site systems before being acquired; however, on average, integration ranges between 1 to 3 years.

Base year and other adjustments

[3M's Annual Report 2019](#) and [Investor Relations](#) website document any changes to financial data. Several of 3M's environmental goals are normalized per net sales. 3M does not adjust sales data for inflation.

3M generally does not adjust its base-year environmental metrics data to reflect changes in 3M's organizational structure. As a result, 3M sets environmental targets that are normalized or indexed to production (tons emitted or net sales) to assure the environmental progress we report to the public is not unduly influenced by changes to our organizational structure. However, in the case of our greenhouse gas emissions data, 3M follows the World Resource Institute (WRI) and World Business Council for Sustainable Development (WBCSD) GHG Protocol. Consequently, we readjust our greenhouse gas emissions base-year data in the case of business acquisitions and divestitures.

Whenever feasible, 3M adjusts base-year and other years' data if data collection methods change or data errors are identified. Any significant changes in the measurement methods and/or data values applied to key environmental metrics from previous years are disclosed in the report. Significant changes are defined by this Sustainability Report as changes greater than 5% of the original data point.

Following the GRI Sustainability framework advances two important objectives: transparency and the ability to compare results from one organization to another.

Between 2005 and 2010, 3M adopted a holistic definition of waste to drive the company's waste reduction efforts toward more sustainable solutions, such as pollution prevention. 3M's waste reduction goal and progress during this period included recycling. In 2011, 3M returned to a more conventional definition of waste that considered recycling as neutral (contributing neither toward total waste nor toward good output).

3M's 2025 Sustainability Goals utilize 2015 as the base year. Starting in 2016, waste disposed and waste by disposal type do not include waste-to-energy. Total hazardous and total non-hazardous waste include waste-to-energy.

In 2018, we identified an opportunity for classification of our manufacturing sites for a portion of our greenhouse gas (GHG) emissions aligning to our 2002 inventory. This change impacted calculation methodologies for energy and waste GHG estimations. Therefore, limiting direct comparability of Scope 1, 2, and Scope 3 category 5 between reporting year 2017 and 2018. For this reason, reporting years 2017 and 2018 Scope 1 and 2 GHG emissions year-on-year comparison should be viewed as an estimate. The 2018 GHG inventory is fully comparable with baseline year 2002.

In 2019, updated emissions factors were identified and utilized for Scope 3, category 5. All historical values

have been recalculated for Scope 3 category 5 and Total Scope 3 emissions (upstream). The recalculated Scope 3 category 5 values are directly comparable. In addition, the 2019 value of GHG Scope 3, category 2 (capital goods) substantially increased due to updated emission factors and an increase in gross property, plant, and equipment put into service. This increase does not impact previously reported Scope 3 category 2 values, and the 2019 Scope 3 category 2 value is comparable with previous years.

In the 2019 Sustainability Report the GRI table, section 401-1, stated total turnover rate as less than 6%. The turnover rate of less than 6% was for voluntary turnover, not total turnover.

Data verification

Internal verification: 3M has conducted an internal verification of the information provided in this report. The objectives for our assurance process included:

- Accuracy and completeness of data
- Reliability of systems used to measure and record data
- Reliability of ratios compiled from underlying data
- Adherence to the GRI Standards
- Implementation of internal policies and related management systems as reported
- Presentation of a complete and fair picture in the report as a whole

Third-party verification: APEX Companies, LLC ["Assurance Provider" or "APEX"] provided independent third-party assurance for this report covering activities January 1, 2019, to December 31, 2019. APEX provided moderate-level assurance in accordance with AA1000AS-2008, Type 2. APEX's assurance letter can be found in the report under [Assurance statement](#).

Global principles and guidelines

Global Reporting Initiative

The Global Reporting Initiative (GRI) is a network-based organization that includes representatives from business, government, labor, third-party advocacy groups, and academia. The GRI organization has developed a framework for Sustainability reporting. Following the GRI Sustainability framework advances two important objectives: transparency and the ability to compare results from one organization to another. 3M has developed this report using GRI Standards. The [GRI index](#) outlines where specific GRI reporting elements and indicators are addressed in the report or other reporting sources, including the Annual Report 2019, 2020 Notice of Annual Meeting & Proxy, and/or other noted sources on 3M's Investor Relations website.

Our material aspects are identified in the GRI index and reflected in our Sustainability goals, with focus on Science for Circular, Science for Climate, and Science for Community. 3M self-declares this report has been prepared in accordance with the GRI Standards: comprehensive option.

United Nations Global Compact (UNGC) Communication on Progress (COP)

The UNGC is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labor, environment, and anti-corruption. 3M committed to the UNGC principles in early 2014. This report includes an index of our COP implementing the 10 principles as well as alignment with the United Nations 2030 Sustainable Development Goals (SDGs) within the content of this 2020 Sustainability Report.

Sustainability Accounting Standards Board (SASB)

For our Sustainability reporting strategy, we utilize multiple tools and frameworks to assure we are objective, transparent, and globally relevant in our public reporting process. This includes [GRI](#), [SASB](#), and the [SDGs](#).

With corporate operations in over 70 countries and sales in nearly all countries, our strategy is designed to be holistic. GRI was selected as the primary source referenced due to the global reach of the standard.

For SASB, our diversity of operations would not be represented by their [current industry standard classifications](#). 3M is grouped as a primary SICs Sector: Resource Transformation, primary SICs Industry: Containers & Packaging. Using our 51 Technology Platforms, our integrated team of scientists and researchers works with customers to create breakthroughs via our Consumer, Transportation & Electronics, Safety & Industrial, and Health Care business groups.

In this year's report, we detail our efforts on our 2018 materiality assessment. Before conducting this assessment, we reviewed and integrated SASB's approach to materiality and materiality map to help prioritize the most important focus areas.

UNGC Principles and 2030 SDGs

Refer to the GRI index table for cross-references of content in this report with the 10 Principles of the UNGC and alignment with the 2030 SDGs.

Refer to the Sustainable development goals tables for alignment between 3M's Sustainability goals and the 2030 SDGs.

Contact 3M










It is through collaboration and partnerships that 3M can accelerate Sustainability in our company to improve every life.





You can contact 3M Sustainability at Sustainability@mmm.com.



















Sustainable development goals



Science for Circular goal	UN SDG	SDG Targets
Reduce manufacturing waste by an additional 10%, indexed to sales.		12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.
Achieve zero landfill status at more than 30% of manufacturing sites.		12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.
Invest to develop more sustainable materials and products to help our customers reach their environmental goals. AND Sustainability Value Commitment.		8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead.
		9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
		12.2: By 2030, achieve the sustainable management and efficient use of natural resources and/or 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.
Drive supply chain Sustainability through targeted raw material traceability and supplier performance assurance.		12.2: By 2030, achieve the sustainable management and efficient use of natural resources and/or 12.7: promote public procurement practices that are sustainable, in accordance with national policies and priorities.
		15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests, and substantially increase afforestation and reforestation globally.
Reduce global water use by an additional 10%, indexed to sales.		6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
Engage 100% of water-stressed/scarce communities where 3M manufactures on community-wide approaches to water management.		6.5: By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate and/or 6.B: Support and strengthen the participation of local communities in improving water and sanitation management.

Science for Climate goal	UN SDG	SDG Targets
Improve energy efficiency indexed to net sales by 30%.		7.3: By 2030, double the global rate of improvement in energy efficiency.
Increase renewable energy to 50% of total electricity use (increased from 25%).		7.2: By 2030, increase substantially the share of renewable energy in the global energy mix and/or 7.A: By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
Ensure GHG emissions at least 50% below our 2002 baseline, while growing our business.		13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
Help our customers reduce their GHGs by 250 million tons of CO ₂ equivalent emissions through use of 3M products.		13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

Science for Community goal	UN SDG	SDG Targets
Invest cash and products for education, community, and environmental programs.		1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services, including microfinance.
		2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious, and sufficient food all year round.
		4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship.
		4.5: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.
		4.C: By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states.
		8.6: By 2020, substantially reduce the proportion of youth not in employment, education, or training.
		10.2: By 2030, empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, or economic or other status.
		11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
		12.A: Support developing countries to strengthen their scientific and technological capacity to move toward more sustainable patterns of consumption and production.

Science for Community goal	UN SDG	SDG Targets
100% participation in employee development programs to advance individual and organizational capabilities.		8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
Double the pipeline of diverse talent in management to build a diverse workforce.		5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.
		10.2: By 2030, empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, or economic or other status.
Provide training to 5 million people globally on worker and patient safety.		3.C: Substantially increase health financing and the recruitment, development, training, and retention of the health workforce in developing countries, especially in least developed countries and small island developing states.
		8.8: Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.
Provide 300,000 work hours of skills-based volunteerism by 3M employees to improve lives and help solve society's toughest challenges.		12.A: Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.
		17.16: Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology, and financial resources to support the achievement of the sustainable development goals in all countries, in particular developing countries.



GRI index

Global Reporting Initiative (GRI) content index and UN Global Compact Communication on Progress



This is our Communication on Progress in implementing the principles of the United Nations Global Compact and supporting broader UN goals.

We welcome feedback on its contents.

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
General Standard Disclosure				
GRI 102: General disclosures, organization profile				
102-1	Name of the organization	3M Company		
102-2	Activities, brands, products, and services	Our products Annual Report on Form 10-K , pages 4–6	208	
102-3	Location of headquarters	3M Company 3M Center St. Paul, Minnesota, 55144-1000, United States		
102-4	Location of operations	Operations in 70-plus countries Innovation management Names of countries, 3M.com Annual Report on Form 10-K , page 130	198	
102-5	Ownership and legal form	Annual Report on Form 10-K , page 4		
102-6	Markets served	Our customers Our products 3M.com Annual Report on Form 10-K , pages 4–6	192 208	
102-7	Scale of the organization	Employee programs Metric tables : historical metrics; social performance, employee and financial performance Annual Report on Form 10-K , pages 4–6	120 244	
102-8	Information on employees and other workers	Employee programs Health and safety Metric tables : social performance, employees Annual Report on Form 10-K , page 4	120 132 244	UNGC Principle 6 SDG 8
102-9	Supply chain	Suppliers	176	
102-10	Significant changes to the organization and its supply chain	Annual Report on Form 10-K , pages 71–74 Suppliers	176	
102-11	Precautionary Principle or approach	Advancing impact Environmental management Innovation management	56 140 198	
102-12	External initiatives	3M Value Model Advancing impact Human rights	48 56 106	
102-13	Membership associations	3M Value Model	48	
GRI 102: General disclosures, strategy				
102-14	Statement from senior decision-maker	Message from our Chief Executive Officer	4	
102-15	Key impacts, risks, and opportunities	Message from our Chief Executive Officer 3M Value Model	4 48	
GRI 102: General disclosures, ethics and integrity				
102-16	Values, principles, standards, and norms of behavior	Corporate Code of Conduct Compliance and Business Conduct at 3M	98	UNGC Principle 10 SDG 16
102-17	Mechanisms for advice and concerns about ethics	Corporate Code of Conduct Report a concern or ask a question	98	UNGC Principle 10 SDG 16

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
GRI 102: General disclosures, governance				
102-18	Governance structure	Corporate governance	86	
102-19	Delegating authority	Corporate governance	86	
102-20	Executive-level responsibility for economic, environmental, and social topics	Corporate governance	86	
102-21	Consulting stakeholders on economic, environmental, and social topics	3M Value Model	48	SDG 16
102-22	Composition of the highest governance body and its committees	Corporate governance 3M Board of Directors 3M Committee Composition 2020 Proxy Statement , page 14–19, 36–42	86	SDG 5, 16
102-23	Chair of the highest governance body	Michael F. Roman Chief Executive Officer Corporate governance	4 86	SDG 16
102-24	Nominating and selecting the highest governance body	Corporate governance Nominating and Governance Committee Charter	86	SDG 5, 16
102-25	Conflicts of interest	Corporate governance Corporate Code of Conduct 3M Company Code of Business Conduct and Ethics for Members of the Board of Directors	86 98	SDG 16
102-26	Role of highest governance body in setting purpose, values, and strategy	Corporate governance 3M Corporate Governance Guidelines	86	
102-27	Collective knowledge of highest governance body	Corporate governance	86	SDG 4
102-28	Evaluating the highest governance body's performance	Corporate governance Nominating and Governance Committee Charter	86	
102-29	Identifying and managing economic, environmental, and social impacts	Corporate governance 3M Value Model	86 48	SDG 16
102-30	Effectiveness of risk management processes	Corporate governance Enterprise risk	86 94	
102-31	Review of economic, environmental, and social topics	Corporate governance	86	
102-32	Highest governance body's role in sustainability reporting	Corporate governance 3M Value Model	86 48	
102-33	Communicating critical concerns	Corporate governance	86	
102-34	Nature and total number of critical concerns	<i>Confidentiality constraints, this information is considered business confidential; critical concerns would be taken into consideration during our enterprise risk management initiative: see Enterprise risk for additional information on our mechanism used to address and resolve critical issues. Annual Report on Form 10-K, pages 10–13</i>		

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
102-35	Remuneration policies	Compensation Committee Charter Compensation Proxy Statement , pages 11–12, 27, 42–45, and 50–71	116	
102-36	Process for determining remuneration	Compensation Committee Charter Compensation Proxy Statement , pages 11–12, 27, 42–45, and 50–71	116	
102-37	Stakeholders' involvement in remuneration	Compensation Committee Charter Compensation Proxy Statement , pages 11–12, 27, 42–45, and 50–71	116	SDG 16
102-38	Annual total compensation ratio	Proxy Statement , page 89		
102-39	Percentage increase in annual total compensation ratio	<i>Not applicable, disclosure does not cover the specific impacts that make the topic material. 3M has an established process to assure our commitment to fair and equitable pay. The breakdown to calculate the median percentage increase does not accurately reflect our workforce levels and process at 3M to assure equitable remuneration. Additional details on our process can be found in Compensation and Employee programs. Compensation Committee Charter</i>		
GRI 102: General disclosures, stakeholder engagement				
102-40	List of stakeholder groups	3M Value Model	48	
102-41	Collective bargaining agreements	Human rights	106	UNGC Principle 3 SDG 8
102-42	Identifying and selecting stakeholders	3M Value Model	48	
102-43	Approach to stakeholder engagement	3M Value Model	48	
102-44	Key topics and concerns raised	3M Value Model	48	
GRI 102: General disclosures, reporting practices				
102-45	Entities included in the consolidated financial statements	Annual Report on Form 10-K , pages 4–10 and 71–74 About report	214	
102-46	Defining report content and topic boundaries	3M Value Model About report	48 214	
102-47	List of material topics	3M Value Model	48	
102-48	Restatements of information	About report	214	
102-49	Changes in reporting	About report	214	
102-50	Reporting period	About report	214	
102-51	Date of most recent report	About report	214	
102-52	Reporting cycle	About report	214	
102-53	Contact point for questions regarding the report	About report Sustainability@mmm.com	214	
102-54	Claims of reporting in accordance with the GRI Standard	About report	214	
102-55	GRI content index	Indices to GRI and UNGC	226	
102-56	External assurance	Assurance statement	238	

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
Topic specific standards, 200 economic				
GRI 201: Economic performance				
103-1 to 103-3	Management approach disclosures	Annual Report on Form 10-K , pages 10–12 and 15–51		
201-1	Direct economic value generated and distributed	Annual Report on Form 10-K , pages 52–127 Metric tables : historical metrics, financial performance	244	SDG 2, 5, 7, 8, 9
201-2	Financial implications and other risks and opportunities due to climate change	Climate and energy Annual Report on Form 10-K , page 10–12	160	SDG 13
201-3	Defined benefit plan obligations and other retirement plans	Annual Report on Form 10-K , pages 15–50 and 90		
201-4	Financial assistance received from government	3M did not receive any significant financial assistance from any government in 2019.		
GRI 203: Indirect economic impacts				
103-1 to 103-3	Management approach disclosures	Communities	60	
203-1	Infrastructure investments and services supported	Communities	60	SDG 2, 5, 7, 9, 11
203-2	Significant indirect economic impacts	Communities	60	SDG 1, 2, 3, 8, 10, 17
GRI 205: Anti-corruption				
103-1 to 103-3	Management approach disclosures	Corporate Code of Conduct	98	
205-1	Operations assessed for risks related to corruption	Corporate Code of Conduct	98	UNGC Principle 10 SDG 16
205-2	Communication and training about anti-corruption policies and procedures	Corporate Code of Conduct	98	UNGC Principle 10 SDG 16
205-3	Confirmed incidents of corruption and actions taken	Corporate Code of Conduct	98	UNGC Principle 10 SDG 16
GRI 206: Anti-competitive behavior				
103-1 to 103-3	Management approach disclosures	Corporate Code of Conduct Antitrust and Competition Principle	98	
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Antitrust and Competition Principle Annual Report on Form 10-K , pages 109–121		SDG 16

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
Topic specific standards, 300 environmental				
GRI 302: Energy				
103-1 to 103-3	Management approach disclosures	Climate and energy	160	
302-1	Energy consumption within the organization	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, energy	160 244	UNGC Principle 7 and 8 SDG 7, 8, 12, 13
302-2	Energy consumption outside of the organization	Climate and energy Metric tables : environmental performance, greenhouse gas	160 244	UNGC Principle 8 SDG 7, 8, 12, 13
302-3	Energy intensity	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, energy	160 244	UNGC Principle 8 SDG 7, 8, 12, 13
302-4	Reduction of energy consumption	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, energy	160 244	UNGC Principle 8 and 9 SDG 7, 8, 12, 13
302-5	Reductions in energy requirements of products and services	Climate and energy Metric tables : environmental performance, greenhouse gas	160 244	UNGC Principle 8 and 9 SDG 7, 8, 12, 13
GRI 303: Water				
303-1	Interactions with water as a shared resource	Circular materials Metric tables : environmental performance, water	146 244	UNGC Principle 8 SDG 6
303-2	Management of water discharge-related impacts	Environmental management Circular materials	140 146	UNGC Principle 8 SDG 6
303-3	Water withdrawal	Circular materials Metric tables : environmental performance, water	146 244	UNGC Principle 8 SDG 6, 8, 12
303-4	Water discharge	Circular materials	146	UNGC Principle 8
303-5	Water consumption	Metric tables : environmental performance, water	244	UNGC Principle 8
GRI 305: Emissions				
103-1 to 103-3	Management approach disclosures	Climate and energy	160	
305-1	Direct (Scope 1) GHG emissions	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, greenhouse gas	160 244	UNGC Principle 7 and 8 SDG 3, 12, 13, 14, 15
305-2	Energy indirect (Scope 2) GHG emissions	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, greenhouse gas	160 244	UNGC Principle 7 and 8 SDG 3, 12, 13, 14, 15
305-3	Other indirect (Scope 3) GHG emissions	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, greenhouse gas	160 244	UNGC Principle 7 and 8 SDG 3, 12, 13, 14, 15
305-4	GHG emissions intensity	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, greenhouse gas	160 244	UNGC Principle 8 SDG 13, 14, 15
305-5	Reduction of GHG emissions	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, greenhouse gas	160 244	UNGC Principle 8 and 9 SDG 13, 14, 15
305-6	Emissions of ozone depleting substances (ODS)	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, air emissions	160 244	UNGC Principle 7 and 8 SDG 3, 12, 13
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	Climate and energy Metric tables : historical metrics, environmental footprint; environmental performance, air emissions	160 244	UNGC Principle 7 and 8 SDG 3, 12, 13, 14, 15

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
GRI 306: Effluents and waste				
103-1 to 103-3	Management approach disclosures	Environmental management Circular materials	140 146	
306-2	Waste by type and disposal method	Environmental management Circular materials Metric tables : historical metrics, environmental footprint; environmental performance, waste	140 146 244	UNGC Principle 8 SDG 3, 6, 12
306-3	Significant spills	Environmental management Metric tables : environmental footprint, environmental management system Annual Report on Form 10-K , pages 109-124	140 244	UNGC Principle 8 SDG 3, 6, 12, 14, 15

GRI 307: Environmental compliance				
103-1 to 103-3	Management approach disclosures	Environmental management	140	
307-1	Non-compliance with environmental laws and regulations	Environmental management Metric tables : environmental footprint, environmental management Annual Report on Form 10-K , pages 109-124	140 244	UNGC Principle 8 SDG 16

GRI 308: Supplier environmental				
103-1 to 103-3	Management approach disclosures	Suppliers Supplier Responsibility Code	176	
308-1	New suppliers that were screened using environmental criteria	Suppliers Supplier Responsibility Code	176	UNGC Principle 8
308-2	Negative environmental impacts in the supply chain and actions taken	Suppliers Supplier Responsibility Code	176	UNGC Principle 8

Topic specific standards, 400 social

GRI 401: Employment				
103-1 to 103-3	Management approach disclosures	Employee programs	120	
401-1	New employee hires and employee turnover	Employee programs <i>Confidentiality constraints, we can provide total turnover rate of 13.1% but not able to provide breakdown by age group, gender, and region.</i>	120	UNGC Principle 6 SDG 5, 8
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employee programs	120	SDG 8
401-3	Parental leave	Employee programs	120	UNGC Principle 6 SDG 5, 8

GRI 402: Labor/management relations				
103-1 to 103-3	Management approach disclosures	Employee programs	120	
402-1	Minimum notice periods regarding operational changes	Employee programs	120	

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
GRI 403: Occupational health and safety				
403-1	Occupational health and safety management system	Health and safety	132	SDG 8
403-2	Hazard identification, risk assessment, and incident investigation	Health and safety Corporate Code of Conduct	132 98	SDG 3, 8
403-3	Occupational health services	Health and safety	132	SDG 3, 8
403-4	Worker participation, consultation, and communication on occupational health and safety	Health and safety	132	SDG 8
403-5	Worker training on occupational health and safety	Health and safety	132	
403-6	Promotion of worker health	Health and safety	132	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Health and safety Innovation management	132 198	
403-8	Workers covered by an occupational health and safety management system	Health and safety Employee programs	132 120	
403-9	Work-related injuries	Health and safety Metric table : health and safety	132 244	
403-10	Work-related ill health	Health and safety Metric table : health and safety	132 244	

GRI 404: Training and education				
103-1 to 103-3	Management approach disclosures	Employee programs	120	
404-1	Average hours of training per year per employee	Employee programs	120	UNGC Principle 6 SDG 4, 5, 8
404-2	Programs for upgrading employee skills and transition assistance program	Employee programs	120	SDG 8
404-3	Percentage of employees receiving regular performance and career development reviews	Employee programs	120	UNGC Principle 6 SDG 5, 8

GRI 405: Diversity and Equal Opportunity				
103-1 to 103-3	Management approach disclosures	Corporate governance Employee diversity and inclusion Employee programs	86 70 120	
405-1	Diversity of governance bodies and employees	Corporate governance Corporate Officers Board of Directors Employee diversity and inclusion Employee programs	86 70 120	UNGC Principle 6 SDG 5, 8

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
GRI 406: Non-discrimination				
103-1 to 103-3	Management approach disclosures	Human rights Respectful Workplace Principle	106	
GRI 407: Freedom of association and collective bargaining				
103-1 to 103-3	Management approach disclosures	3M Supplier Responsibility Code Human rights Suppliers	106 176	
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	3M Supplier Responsibility Code Human rights Suppliers Supplier Responsibly Expectations	106 176	UNGC Principle 3 SDG 8
GRI 408: Child labor				
103-1 to 103-3	Management approach disclosures	3M Supplier Responsibility Code Human rights Suppliers Supplier Responsibility Expectations	106 176	
408-1	Operations and suppliers at significant risk for incident of child labor	Suppliers Human rights 3M Supplier Responsibility Code	176 106	UNGC Principle 5 SDG 8, 16
GRI 409: Forced or compulsory labor				
103-1 to 103-3	Management approach disclosures	3M Supplier Responsibility Code Human rights Suppliers	106 176	
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	3M Supplier Responsibility Code Human rights Suppliers Supplier Responsibility Expectations	106 176	UNGC Principle 4 SDG 8
GRI 410: Security practices				
103-1 to 103-3	Management approach disclosures	Human rights	106	
410-1	Security personnel trained in human rights policies or procedures	Human rights	106	UNGC Principle 1 SDG 16
GRI 411: Rights of indigenous peoples				
103-1 to 103-3	Management approach disclosures	3M Supplier Responsibility Code Human rights Suppliers	106 176	
411-1	Incidents of violations involving rights of indigenous peoples	To the best of our knowledge, there were no incidents reported to Ethics & Compliance Department related to the rights of indigenous people in 2019.		UNGC Principle 1 SDG 2
GRI 412: Human rights assessment				
103-1 to 103-3	Management approach disclosures	Human rights	106	
412-1	Operations that have been subject to human rights reviews or impact assessments	Human rights	106	UNGC Principle 1
412-2	Employee training on human rights policies or procedures	Human rights	106	UNGC Principle 1

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	Connections to United Nations Initiatives*
GRI 413: Local communities				
103-1 to 103-3	Management approach disclosures	Communities Human rights Environmental management Circular materials Climate and energy Suppliers	60 106 140 146 160 176	
413-1	Operations with local community engagement, impact assessments, and development programs	3M Value Model Communities Corporate Code of Conduct Human rights Environmental management Circular materials Climate and energy Suppliers Our customers	48 60 98 106 140 146 160 176 192	UNGC Principle 1
413-2	Operations with significant actual and potential negative impacts on local communities	Corporate Code of Conduct Enterprise risk Human rights Environmental management Circular materials Climate and energy Suppliers	98 94 106 140 146 160 176	UNGC Principle 1 SDG 1, 2
GRI 414: Supplier social assessment				
103-1 to 103-3	Management approach disclosures	Suppliers	176	
414-1	New suppliers that were screened using social criteria	Suppliers	176	UNGC Principle 2 SDG 5, 8, 16
414-2	Negative social impacts in the supply chain and actions taken	Suppliers	176	UNGC Principle 2 SDG 5, 8, 16
GRI 415: Public policy				
103-1 to 103-3	Management approach disclosures	Corporate governance Lobbying and Political Activities	86	
415-1	Political contributions	Corporate governance Lobbying and Political Activities Political Activities and Issue Advocacy	86	UNGC Principle 10 SDG 16
GRI 416: Customer health and safety				
103-1 to 103-3	Management approach disclosures	Innovation management Product Safety, Quality, and Stewardship Principle	198	
GRI 417: Marketing and labeling				
103-1 to 103-3	Management approach disclosures	Innovation management Product Safety, Quality, and Stewardship Principle	198	
GRI 418: Customer privacy				
103-1 to 103-3	Management approach disclosures	Data Privacy Principle 3M Global Privacy Policy		
GRI 419: Socioeconomic compliance				
103-1 to 103-3	Management approach disclosures	Corporate Code of Conduct	98	
419-1	Non-compliance with laws and regulations in the social and economic area	Significant legal actions for non-compliance with laws and regulations in the social and economic area would be discussed in our Annual Report on Form 10-K , pages 109–124		SDG 16

*United Nations Global Compact Principles and United Nations Sustainable Development Goals

SASB index

Sustainability Accounting Standards Board

SASB index				
Dimension	General issue category	Cross-reference (hyperlinks) or direct answer	Page (.pdf)	
Environment	GHG emissions	Climate and energy Metric tables : historical metrics; environmental performance, greenhouse gas and energy	160 244	
	Air quality	Climate and energy Metric tables : historical metrics; environmental performance, air emissions	160 244	
	Energy management	Climate and energy Metric tables : historical metrics; environmental performance, greenhouse gas and energy	160 244	
	Water and wastewater management	Environmental management Circular materials Metric tables : historical metrics; environmental performance, water and environmental management system	140 146 244	
	Waste and hazardous materials management	Environmental management Circular materials Metric tables : historical metrics; environmental performance, waste	140 146 244	
	Ecological impacts	Environmental management Circular materials Climate and energy Suppliers Metric tables : historical metrics; environmental performance	140 146 160 176 244	
	Social capital	Human rights and community relations	Corporate Code of Conduct Suppliers Human rights Ethics & compliance	98 176 106
		Customer privacy	Corporate Code of Conduct Enterprise risk 3M Global Privacy Policy Annual Report on Form 10-K , page 12	98 94
		Data security	Enterprise risk Annual Report on Form 10-K , page 12	94
		Access and affordability	Our customers	192
Product quality and safety		Our customers Innovation management Our products	192 198 208	
Customer welfare		Our customers Innovation management Product Safety, Quality, and Stewardship Principle	192 198	
Selling products and product labeling		Our customers Innovation management Product Safety, Quality, and Stewardship Principle Advertising and Product Representation Policy	192 198	

Dimension	General issue category	Cross-reference (hyperlinks) or direct answer	Page (.pdf)
Human capital	Labor Practices	Corporate Code of Conduct Human rights Suppliers Ethics & compliance Supplier Responsibility Code	98 106 176
	Employee health and safety	Health and safety Metric tables : historical metrics; health and safety	132 244
	Employee engagement, diversity and inclusion	Communities Employee diversity and inclusion	60 70
	Product design and life cycle management	Innovation management	198
	Business model resilience	Enterprise risk Our customers Innovation management Our products	94 192 198 208
	Supply chain management	Suppliers Supplier Responsibility Code	176
Business model and innovation	Materials sourcing and efficiency	Circular materials Suppliers Annual Report on Form 10-K , page 24	146 176
	Physical impacts of climate change	Climate and energy Annual Report on Form 10-K , page 10	160
	Business ethics	Corporate Code of Conduct Ethics & compliance	98
	Competitive behavior	Corporate Code of Conduct Antitrust and Competition Principle	98
Leadership and governance	Management of legal and regulatory environmental	Environmental management Annual Report on Form 10-K , page 7, 13, 109–124	140
	Critical incident risk management	3M Value Model Corporate governance Enterprise risk Environmental management Health and safety Suppliers	48 86 94 140 132 176
	System risk management	Enterprise risk Annual Report on Form 10-K , page 10–13, 109–124	94

For additional details on SASB integration for this report, see the [About report](#) section.

Assurance statement



INDEPENDENT ASSURANCE STATEMENT

Introduction and objectives of work

Apex Companies, LLC (Apex) was engaged by 3M Corporation (3M) to conduct an independent assurance of its 2020 3M Sustainability Report (the Report). This Assurance Statement applies to the related information included within the scope of work described below and within the boundaries specified in the Report. The intended users of the assurance statement are the stakeholders of 3M. The overall aim of this process is to provide assurance to 3M's stakeholders on the accuracy, reliability and objectivity of the information included in the Report as described in the scope of work. The assurance process also evaluated 3M's management of sustainability in accordance with the principles of inclusivity, materiality and responsiveness.

The information that was assured and its presentation in the Report are the sole responsibility of the management of 3M. Apex was not involved in the drafting of the Report. Our sole responsibility was to provide independent assurance on its content.

Scope of work

3M requested Apex to include in its independent assurance the following:

- Data included in the Report for the calendar year 2019 reporting period as shown in the attached Summary of Assured Information;
- Appropriateness and robustness of underlying reporting systems and processes, used to collect, analyze and review the data subject to the assurance process; and
- Evaluation of the Report in accordance with the Assurance Standard AA1000AS (2008)¹ Type 2 assurance.

Excluded from the scope of our work is any assurance of information relating to:

- Text or other written statements associated with the Report;
- Activities outside the defined assurance period; and
- Financial data and data reported that are not included in the Summary of Assured Information.

Reporting Criteria

- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard (Scope 1 and 2 Greenhouse Gas Emissions)
- WRI/WBCSD Greenhouse Gas Protocol Corporate Value Chain Accounting and Reporting Standard (Scope 3 Greenhouse Gas Emissions)
- GRI Standards, Core Option for the assured metrics
- 3M reporting protocol.

Methodology

Apex undertook the following activities during the assurance process:

1. Interviews with relevant personnel of 3M (including managers and staff members at the corporate and site level);
2. Review of internal and external documentary evidence produced by 3M;

¹ Published by AccountAbility: The Institute of Social and Ethical Accountability

3. Audit of performance data presented in the Report including a detailed review of a sample of data;
4. Visits to manufacturing sites located in Columbia, Missouri, Corona, California, Nevada, Missouri, Springfield, Missouri;
5. Remote data reviews for manufacturing sites located in Blacktown, NSW, Australia, Clitheroe, United Kingdom, Kuan-Yin, greater China Region;
6. Remote review at 3M headquarters office located in Maplewood, Minnesota (remote review conducted due to restrictions from COVID-19); and
7. Review of 3M data and information systems for collection, aggregation, analysis and internal verification and review.

The work was planned and carried out to provide a moderate level of assurance and we believe it provides a sound basis for our conclusions.

Our findings

On the basis of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the reviewed information within the scope of our assurance is not materially correct in accordance with the Reporting Criteria.
- It is our opinion that 3M has established appropriate systems for the collection, aggregation and analysis of quantitative data, including energy use, direct and indirect greenhouse gas (GHG) emissions, water consumption, waste quantities and disposition, injury and illness rate, lost day rate, severity rate and number of environmental violations.

A summary of data within the scope of assurance for 2019 is attached.

Adherence to the AA1000 Accountability Principles

Based on the work undertaken during this assurance process, we are of the opinion that 3M adheres to the Accountability Principles of inclusivity, materiality and responsiveness as discussed below.

Inclusivity

Based on discussions with 3M, their processes appear to be inclusive of stakeholders. In 2018, 3M commissioned a third party provider to update their materiality assessment and used that assessment to identify and engage stakeholders. Some of the stakeholder groups that 3M identified to include in their sustainability processes were 3M employees, customers, non-governmental organizations, investors and the public.

Materiality

During the 2018 materiality assessment stakeholders indicated that 3M should take a leadership role. The Chief Technology Officer and Chief Sustainability Officer report annually to the Board's Science, Technology and Sustainability Committee regarding sustainability efforts. In addition, corporate leadership appear to support embedding sustainability principles throughout the company. Background information can be found in the 3M proxy statement. 3M is planning to update the materiality statement in 2020.

Responsiveness

3M receives questions regarding sustainability from customers, investors, non-governmental organizations and others through various channels. The company has guidance for responding to customer inquiries on sustainability issues and uses this guidance for responding to other groups as well. Responses to surveys are coordinated by the corporate sustainability group. Each business group also has sustainability leads who assist with responding to stakeholders. In addition, through the materiality assessment, 3M is building out a strategy for future sustainability efforts. External community partnership relationships have been tied to the sustainability pillars.

Key Observations for 2019

- Data systems at 3M allow for consolidation and review of environmental, safety, energy, training, and supply chain data at the corporate level for reporting. Automatic data compilation from the site levels and other data sources assist accurate data collection and compilation.
- Manufacturing plants in water stressed areas have developed water plans and 3M is working to continue to improve the plans through standardization and working with regional groups.
- 3M has made commitments to decrease the overall carbon footprint as evidenced by purchasing power from renewable sources for the corporate facilities as well as renewable energy credits.
- 3M continued to work within their supply chain, specifically with paper providers and minerals suppliers, to engage higher Tier suppliers to ensure sustainable practices are being followed.
- Starting in 2019, each new product will have a Sustainability Value Commitment that will embed sustainability into every product.
- Community outreach and support is aligned with the 3M sustainability pillars to demonstrate overall commitment and direction to social and sustainability goals. Corporately, the 3M Foundation provides funding to targeted non-profit organizations in the U.S. and within their global footprint. 3M engagement extends to the facility level and local communities.

Statement of independence, integrity and competence

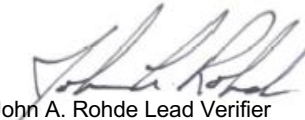
Apex is an independent professional services company that specializes in Health, Safety, Social and Environmental management services including assurance with over 30 years history in providing these services.

No member of the assurance team has a business relationship with 3M, its Directors or Managers beyond that required of this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest.

Apex has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities.

The assurance team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes, has over 20 years combined experience in this field and an excellent understanding of Apex standard methodology for the Assurance of Sustainability Reports.

Attestation:


John A. Rohde Lead Verifier
Lead Assuror

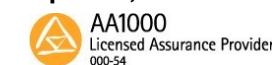
Sustainability and Climate Change Services


Trevor Donaghu, Technical Reviewer
Technical Reviewer

Climate Change Services



Apex Companies, LLC
Denver, Colorado
April 10, 2020



Summary of Assured Information
Reporting Year 2019
3M Company



Summary of Assured Information
Reporting Year 2019
3M Company



Demographic Metrics			Waste Metrics			Energy Metrics			Air Emissions Metrics		
	Units	Value		Units	Value		Units	Value		Units	Value
Total Global Full-time Equivalent (Headcount)	Total Number	96,200	Zero Landfill	% of Total Manufacturing Sites	35.4%	Total Energy Use (Absolute)	MMBTUs	29,100,000	Absolute Scope 1 Emissions (Direct)	Metric Tons CO2e	4,050,000
Total Global Employees at Year-End (Headcount)	Total Number	96,800	Waste Disposed: Landfill, Treatment and Incineration (Absolute)	Metric Tons	147,000	Total Energy Use (Absolute)	MWh	8,540,000	Absolute Scope 2 Location-based Emissions (Indirect)	Metric Tons CO2e	1,780,000
Total Number Part-Time Employees	Total Number	1,950	Waste by Disposal Type, Incineration	Metric Tons	41,600	Total Fuel Oil #1, #2, #6	MMBTUs	1,020,000	Absolute Scope 2 Market-based Emissions (Indirect)	Metric Tons CO2e	1,320,000
Total Number Full-Time Employees	Total Number	94,900	Waste by Disposal Type, Landfilled	Metric Tons	106,000	Total Jet Fuel	MMBTUs	99,000	Absolute Scope 1 and Scope 2 Market-based Emissions (Indirect)	Metric Tons CO2e	5,370,000
Percentage of Female Employees to Total Employees	%	36.2	Total Hazardous Waste (Absolute)	Metric Tons	50,800	Total Propane	MMBTUs	143,000	Total Scope 3 GHG Emissions (Upstream)	Metric Tons CO2e	8,920,000
Percentage of Female Employees in Management Positions	%	31.1	Total Nonhazardous Waste (Absolute)	Metric Tons	185,000	Total Gasoline and Diesel	MMBTUs	150,000	Category 1 - Purchased Goods and Services	Metric Tons CO2e	6,140,000
Environmental Management System Metrics			Total Waste Diverted (Absolute)	Metric Tons	317,000	Total Coal	MMBTUs	0	Category 2 - Capital Goods	Metric Tons CO2e	556,000
Total Number of Significant Spills (Spills reported in 10K reporting)	Total Number	0	Waste-to-Energy	Metric Tons	88,100	Total Natural Gas	MMBTUs	15,700,000	Category 3 - Fuel and Energy Related Activities	Metric Tons CO2e	578,000
Number of Significant Fines (Fine or penalty >\$10,000)	Total Number	0	Onsite Recycle & Reuse	Metric Tons	56,900	Total Electricity Consumption	MMBTUs	10,400,000	Category 4 - Upstream Transportation and Distribution	Metric Tons CO2e	1,070,000
Total Monetary Value of Significant Fines	Million \$USD	0	Offsite Reuse	Metric Tons	28,900	Total Steam Consumption	MMBTUs	1,240,000	Category 5 - Waste Generated in Operations	Metric Tons CO2e	192,000
			Offsite Recycle	Metric Tons	143,000	Renewable Energy	% Total Electricity Use	32.6	Category 6 - Business Travel	Metric Tons CO2e	52,800
									Category 7 - Employee Commuting	Metric Tons CO2e	336,000
									Category 13 - Downstream Leased Assets	Metric Tons CO2e	<1000
Health and Safety Metrics			Water Metrics			Other Metrics					
	Units	Value		Units	Value		Units	Value			
Global Lost Time Incident Rate	Per 100 3M employees (200,000 work hours)	0.31	Total Water Use (Absolute)	Million Cubic Meters	41.9	Customer GHG Avoidance through 3M Product Use	Million Metric Tons CO2e	17	Total Volatile Organic Compound Emissions (Absolute)	Metric Tons	3,940
Global Recordable Incident Rate	Per 100 3M employees (200,000 work hours)	1.1	Sites located in Water Stress/Scarce Areas; water sources significantly affected by withdrawal of water with water	Total Number	18	Total Training Instances - 2019		589,000			
Work Related Fatalities - 3M Employees	Total Number	0	Supplier Responsibility Metrics								
Work Related Fatalities - 3M Contractors	Total Number	0	Total Number of Suppliers	Total Number	63,900	Percent New Projects Passing a "Gate" with Sustainability Value Commitment		100%			
Work Related Fatalities - Total Number	Total Number	0	Total Number of Supplier Reviews	Cumulative Number since 2008	6,920						

Metric tables

Five-year metric table

Social performance, employees

Financial performance

Community engagement

Environmental performance

- Environmental management system — metric
- Greenhouse gas — metric
- Air emissions — metric
- Energy — metric
- Waste — metric
- Water — metric

Health and safety

Supplier responsibility

3M historical metrics table

Environmental footprint

Health and safety

In 2018, we identified an opportunity for classification of our manufacturing sites for a portion of our greenhouse gas (GHG) emissions aligning to our 2002 inventory. This change impacted calculation methodologies for energy and waste GHG estimations. Therefore, limiting direct comparability of Scope 1, 2, and Scope 3, category 5 between reporting year 2017 and 2018. For this reason, reporting years 2017 and 2018 Scope 1 and 2 GHG emissions year-on-year comparison should be viewed as an estimate. The 2018 GHG inventory is fully comparable with baseline year 2002.

Metric	Metric units	RY-2015	RY-2016	RY-2017	RY-2018	RY-2019	2018-2019 annual change, %	2015-2019 five-year change, %
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Social performance, employees

Global full-time equivalent employees	Total number	89,400	91,600	91,500	93,500	96,200	2.89	7.61
Global employee (headcount)	Total number	90,400	92,500	92,400	94,300	96,800	2.65	7.08
Total number part-time employees	Total number	2,520	2,390	2,330	2,100	1,950	-7.14	-22.6
Total number full-time employees	Total number	87,900	90,100	90,000	92,200	94,900	2.93	7.96
Percentage of female employees to total employees	%	33.9	34.8	34.7	35.4	36.2	2.26	6.78
Percentage of female employees in management positions	%	26.9	27.8	29.1	30.3	31.1	2.64	15.6

Financial performance

Net sales	Million \$USD	30,300	30,100	31,700	32,800	32,100	-2.13	5.94
Operating income ¹	Million \$USD	6,980	7,030	7,690	7,210	6,170	-14.4	-11.6
Research, development, and related expenses ¹	Million \$USD	1,760	1,760	1,870	1,820	1,910	4.95	8.52
Total operating expenses ¹	Million \$USD	23,300	23,100	24,000	25,600	26,000	1.56	11.6
Net income attributable to 3M	Million \$USD	4,830	5,050	4,860	5,350	4,570	-14.6	-5.38
Per share-basic	Actual \$USD	7.72	8.35	8.13	9.09	7.92	-12.9	2.59
Per share-diluted	Actual \$USD	7.58	8.16	7.93	8.89	7.81	-12.1	3.03
Capital expenditures	Million \$USD	1,460	1,420	1,370	1,580	1,700	7.59	16.4
Payments to providers of capital	Million \$USD	2,700	2,870	3,000	3,510	3,690	5.13	36.7
Provision for income taxes	Million \$USD	1,980	2,000	2,680	1,640	1,130	-31.1	-42.9

¹ Amounts for operating income; research, development, and related expenses; and total operating expenses were reclassified back to 2015 to reflect the adoption of an accounting standard (ASU No. 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost) effective January 1, 2018 on a retrospective basis.

Community engagement

Total global giving	Million \$USD	72.8	67.3	73.5	66.3	73.3	10.6	0.687
Total cash donations	Million \$USD	34.1	34.8	35.9	35.6	32.4	-8.99	-4.99
Total in-kind donations	Million \$USD	38.4	32.5	37.6	30.7	40.9	33.2	6.51
3M Impact	Volunteer hours					20,600		

Metric	Metric units	RY-2015	RY-2016	RY-2017	RY-2018	RY-2019	2018-2019 annual change, %	2015-2019 five-year change, %
Environmental performance								
Environmental management system — metric								
Total number of significant spills	Total number	0	0	0	0	0		
		Significant spill: Spills included in the organization's financial statement						
Number of significant fines	Total number	0	0	2	0	0		
		Significant fine: Fine or penalty over \$10,000						
Total monetary value of significant fines	Million \$USD	0	0	0.0900	0.000	0.000		
Environmental liability accrued at year end	Million \$USD	See our Annual Report, 10-K, pages 121–122						
Greenhouse gas — metric								
Absolute Scope 1 emissions (direct)	Metric tons CO ₂ e	3,770,000	4,140,000	3,960,000	4,790,000	4,050,000	-15.4	7.4
Absolute Scope 2 location-based emissions (indirect)	Metric tons CO ₂ e	1,860,000	1,840,000	1,880,000	1,860,000	1,780,000	-4.30	-4.30
Absolute Scope 2 market-based emissions (indirect)	Metric tons CO ₂ e		1,780,000	1,650,000	1,480,000	1,320,000	-10.8	
Total Scope 1 and 2 GHG emissions: market-based accounting	Metric tons CO ₂ e		5,920,000	5,610,000	6,270,000	5,370,000	-14.4	
Total GHG emissions (indexed to net sales, location-based)	Metric tons per net sales (MM \$USD)	186	199	184	203	182	-10.3	-2.15
Customer GHG reduction through use of various 3M product platforms	Million metric tons CO ₂ e		13.4	13.0	14.9	17.0	14.1	
Net GHG emissions based on the categories evaluated. Due to change in boundaries, Scope 3 upstream emissions should not be compared on a year-on-year basis. Additional changes occurred to calculation methods for Scope 1 and 2 limiting comparison between reporting year 2018 and other inventory years; see About report section for additional information.								
Total Scope 3 emissions (upstream)	Metric tons CO ₂ e	8,550,000	9,420,000	9,280,000	9,530,000	8,920,000		See notes in Scope 3, Category 5.
Total Scope 3 emissions (downstream)	Metric tons CO ₂ e	All downstream categories were not evaluated or are de minimis.						
Scope 3, Category 1 (purchased goods and services)	Metric tons CO ₂ e	6,200,000	7,120,000	6,570,000	6,840,000	6,140,000		Methodology updated to calculate values based on 3M spend using U.S. EPA EEIO factors.
Scope 3, Category 2 (capital goods)	Metric tons CO ₂ e	452,000	423,000	436,000	369,000	556,000		
Scope 3, Category 3 (fuel- and energy-related activities; not including Scope 1 or Scope 2 emissions)	Metric tons CO ₂ e	621,000	607,000	631,000	596,000	578,000		Calculated from 3M primary data on energy consumption.
Scope 3, Category 4 (upstream transportation and distribution)	Metric tons CO ₂ e	780,000	699,000	1,050,000	1,170,000	1,070,000		

Metric	Metric units	RY-2015	RY-2016	RY-2017	RY-2018	RY-2019	2018-2019 annual change, %	2015-2019 five-year change, %	
Greenhouse gas — metric (cont.)									
Scope 3, Category 5 (waste generated in operations)	Metric tons CO ₂ e	167,000	180,000	197,000	171,000	192,000		Calculated from 3M primary data on waste by facility size or number of employees. In 2019, the emissions factors changed. All historical values recalculated, see About report section for details.	
Scope 3, Category 6 (business travel)	Metric tons CO ₂ e	Insufficient data	59,300	60,700	61,600	52,800		Calculated from 3M primary data on business travel.	
Scope 3, Category 7 (employee commuting)	Metric tons CO ₂ e	325,000	332,000	332,000	327,000	336,000		Methodology updated to calculate values based on 3M employee headcount with U.S. EPA GHG emission factors. All historical values recalculated.	
Scope 3, Category 8 (upstream, leased assets)	Metric tons CO ₂ e	Included in Scope 1 or Scope 2 emissions reporting.							These emissions are included in Scope 1 and 2, because they are all under 3M operational control.
Scope 3, Category 9 (downstream transportation and distribution)	Metric tons CO ₂ e	Not evaluated; most of 3M's products are intermediates with many potential end uses. According to the GHG Protocol Scope 3 Calculation and Guidance, a company that produces intermediate products with many potential downstream applications, each with a potentially different GHG emission profile, cannot reasonably estimate the downstream emissions associated with the various end uses of the intermediate products.							
Scope 3, Category 10 (processing of sold products)	Metric tons CO ₂ e								
Scope 3, Category 11 (use of sold products)	Metric tons CO ₂ e								
Scope 3, Category 12 (end of life treatment of sold products)	Metric tons CO ₂ e								
Scope 3, Category 13 (downstream leased assets)	Metric tons CO ₂ e	<1,000	<1,000	<1,000	<1,000	<1,000		Prior to 2015, 3M reported facilities leased to third parties under Scope 1 and 2.	
Scope 3, Category 14 (franchises)	Metric tons CO ₂ e	0	0	0	0	0		No franchises under this scope of boundary.	
Scope 3, Category 15 (investments)	Metric tons CO ₂ e	0	0	0	0	0		No investments under this scope of boundary.	
Biogenic CO ₂ emissions, Scope 1 and Scope 2	Metric tons CO ₂ e				3,080	2,530			
The data reported is in accordance to the World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Corporate Value Chain (Scope 3) Accounting and Reporting Standard.									
Estimated Scope 3 data uncertainty is ±50% (WRI/WBCSD, GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, 2011). A baseline reporting year had not been established for Scope 3 emissions.									
Scope of boundary for the GHG metric is determined using the control approach to GHG emissions accounting as defined in the GHG Protocol Corporate Reporting and Accounting Standard. Additional information can be found in the About report section.									

Metric	Metric units	RY-2015	RY-2016	RY-2017	RY-2018	RY-2019	2018-2019 annual change, %	2015-2019 five-year change, %
Air emissions — metric								
Total volatile organic compound emissions (absolute)	Metric tons	4,840	4,690	4,620	4,420	3,940	-10.9	-18.6
Total volatile organic compound emissions (indexed to net sales)	Metric tons per net sales (MM \$USD)	0.160	0.156	0.146	0.135	0.123	-8.89	-23.1
Energy — metric								
Total energy use (absolute)	MMBtu	28,400,000	29,000,000	29,600,000	29,900,000	29,100,000	-2.68	2.46
Total energy use (absolute)	MWh	8,320,000	8,490,000	8,670,000	8,750,000	8,540,000		
Total energy (indexed to net sales)	MMBtu per net sales (MM \$USD)	937	962	935	911	907	-0.44	-3.20
Renewable energy	% of total electricity use	0.50	7.60	17.9	26.8	32.6		
Total fuel oil #1, #2, #6	MMBtu	1,330,000	1,200,000	1,130,000	1,110,000	1,020,000	-8.11	-23.3
Total jet fuel	MMBtu	153,000	159,000	138,000	104,000	99,000	-4.81	-35.3
Total propane	MMBtu	170,000	190,000	177,000	194,000	143,000	-26.3	-15.9
Total gasoline and diesel	MMBtu	270,000	155,000	155,000	182,000	150,000	-17.6	-44.4
Total coal	MMBtu	0	0	0	0	0		
Total natural gas	MMBtu	14,700,000	15,400,000	15,700,000	16,200,000	15,700,000	-3.09	6.80
Total electricity consumption	MMBtu	10,600,000	10,700,000	11,100,000	10,800,000	10,400,000	-3.70	-1.89
Total steam consumption	MMBtu	1,130,000	1,180,000	1,220,000	1,260,000	1,240,000	-1.59	9.73
Total heating consumption	MMBtu	17,700,000	18,300,000	18,500,000	19,000,000	18,400,000		
Total heating consumption	MWh	5,190,000	5,360,000	5,430,000	5,570,000	5,390,000	-3.16	3.95
Scope of boundary for the energy metric includes 3M locations larger than 30,000 square feet. Additional scope information can be found in the About report section.								

Metric	Metric units	RY-2015	RY-2016	RY-2017	RY-2018	RY-2019	2018-2019 annual change, %	2015-2019 five-year change, %
Waste — metric								
Zero landfill	% of total manufacturing sites	28.2	26.6	27.9	30.4	35.4	16.4	25.5
Waste disposed: landfill, treatment, and incineration (absolute)	Metric tons	158,000	161,000	160,000	151,000	147,000	-2.65	-6.96
Waste disposed: landfill, treatment, and incineration (indexed to net sales)	Metric tons per net sales (MM \$USD)	5.23	5.33	5.07	4.62	4.57	-0.866	-12.6
Waste by disposal type, incineration	Metric tons	45,200	44,100	45,200	43,600	41,600	-4.59	-7.96
Waste by disposal type, landfilled	Metric tons	112,000	116,000	115,000	108,000	106,000	-1.85	-5.36
% data coverage total waste (absolute), normalized to sales value of production (SVOP)	%	97	98	98	99	99	0.000	2.06
Starting in 2016, waste disposed and waste by disposal type does not include waste-to-energy. Total hazardous and total nonhazardous waste below includes waste-to-energy.								
Total hazardous waste (absolute)	Metric tons	45,600	43,600	43,900	43,400	50,800	17.1	11.4
Total nonhazardous waste (absolute)	Metric tons	172,000	180,000	188,000	187,000	185,000	-1.07	7.56
Total waste diverted (absolute)	Metric tons	297,000	284,000	307,000	312,000	317,000	1.60	6.73
Waste-to-energy	Metric tons	60,100	63,100	71,600	79,100	88,100	11.4	46.6
Onsite recycle and reuse	Metric tons	65,500	56,700	60,400	63,300	56,900	-10.1	-13.1
Offsite reuse	Metric tons	31,300	27,600	31,500	32,900	28,900	-12.2	-7.67
Offsite recycle	Metric tons	139,000	137,000	143,000	137,000	143,000	4.38	2.88
Deep well injection	Per 3M's Waste Management Program Standard, deep well injection is not acceptable waste management practice for use by any 3M location.							
Scope of boundary for the waste metric includes 3M manufacturing locations with total output over 4.54 metric tons per year (10,000 pounds). Additional scope information can be found in the About report section.								

Metric	Metric units	RY-2015	RY-2016	RY-2017	RY-2018	RY-2019	2018-2019 annual change, %	2015-2019 five-year change, %
Water — metric								
Total water use (absolute)	Million cubic meters	42.2	44.8	46.0	45.8	41.9	-8.52	-0.711
Total water use (indexed to net sales)	Million cubic meters per net sales (MM \$USD)	0.00139	0.00149	0.00145	0.00140	0.00131	-6.43	-5.76
Scope of boundary for the water metric includes 3M manufacturing locations with total output over 4.54 metric tons per year (10,000 pounds). Additional information can be found in the About report section.								
Sites located in water stress/scarcie areas; water sources significantly affected by withdrawal of water with water conservation planning efforts	Total number	25	25	25	25	18	-28.0	-28.0
Scope of boundary for water stressed or scarce areas includes 3M locations with annual water use equal to or greater than 1,000 cubic meters were in water-stressed areas defined by the extremely high baseline water stress value according to the World Business Council for Sustainable Development (WBCSD) Global Water Tool™ for years prior to 2019. Starting in 2019, we utilized the World Resources (WRI) Aqueduct tool with the same scope of boundary.								

Health and safety

Global lost time incident rate	Per 100 3M employees (200,000 work hours)	0.321	0.304	0.341	0.292	0.311	6.51	-3.12
Global recordable incident rate	Per 100 3M employees (200,000 work hours)	1.22	1.20	1.16	1.10	1.11	0.909	-9.02
Work related fatalities — 3M employees	Total number	0	1	0	0	0		
Work related fatalities — 3M contractors	Total number	0	0	1	1	0		
Work related fatalities — total number	Total number	0	1	1	1	0		
Health and Safety Training Academies	Customer training instances			121,000	528,000	589,000		

Supplier responsibility

Total number of suppliers	Total number	98,500	88,200	85,100	78,700	63,900	-18.8	-35.1
Total number of supplier reviews	Cumulative number (since 2008)	4,570	5,120	5,790	6,350	6,920	8.98	51.4

Metric	Metric units	RY-2002	RY-2005	RY-2010	RY-2015	RY-2019	Historical reporting change, %
3M historical metrics							
Net sales	Million \$USD	16,300	26,700	29,600	30,300	32,100	96.9
Environmental footprint							
Absolute Scope 1 emissions (direct)	Metric Tons CO ₂ e	16,800,000	10,100,000	4,280,000	3,770,000	4,050,000	-75.9
Absolute Scope 2 location-based emissions (indirect)	Metric Tons CO ₂ e	1,540,000	1,700,000	1,940,000	1,860,000	1,780,000	15.6
Total Absolute Scope 1 and Scope 2 GHG emissions: location-based accounting	Metric Tons CO ₂ e	18,300,000	11,800,000	6,220,000	5,630,000	5,830,000	-68.1
Total Scope 1 and Scope 2 greenhouse gas emissions (indexed to net sales, location-based)	Metric Tons per net sales (MM \$USD)	1,120	559	233	186	182	-83.8
2012-2016 U.S. EPA GHG-MRR/IPCC AR5 based inventory accounting is not directly comparable to 2002-2011 WRI/IPCC TAR, AR4 based GHG accounting. 2002 inventory recalculated according to U.S. EPA GHG-MRR/IPCC AR5 methodology (2.7% increase in absolute emissions over original reported value).							
Total volatile organic compound emissions (absolute)	Metric tons		6,800	6,070	4,800	3,940	-42.1
Total volatile organic compound emissions (indexed to net sales)	Metric tons per net sales (MM \$USD)		0.321	0.228	0.158	0.123	-61.7
Total energy use (absolute)	MMBtu		27,900,000	26,800,000	28,400,000	29,100,000	4.30
Total energy use (absolute)	MWh		8,170,000	7,860,000	8,320,000	8,540,000	
Total energy (indexed to net sales)	MMBtu per net sales (MM \$USD)		1,320	1,010	937	907	-31.3
Waste disposed: landfill, treatment, and incineration (absolute)	Metric tons		145,000	136,000	158,000	147,000	1.38
Waste disposed: landfill, treatment, and incineration (indexed to net sales)	Metric tons per net sales (MM \$USD)		6.83	5.09	5.21	4.58	-32.9
Starting in 2016, waste disposed and waste by disposal type does not include waste-to-energy. Total hazardous and total nonhazardous waste below includes waste-to-energy.							
Total hazardous waste (absolute)	Metric tons		47,700	42,300	45,600	50,800	6.50
Total nonhazardous waste (absolute)	Metric tons		132,000	134,000	172,000	185,000	40.2
Total water use (absolute)	Million cubic meters		49.0	43.0	42.2	41.9	-14.5
Total water use (indexed to net sales)	Million cubic meters per net sales (MM \$USD)		0.00231	0.00161	0.00139	0.00131	-43.3
Health and safety							
Global lost time incident rate	Per 100 3M employees (200,000 work hours)		0.594	0.364	0.321	0.311	-47.6
Global recordable incident rate	Per 100 3M employees (200,000 work hours)		1.85	1.56	1.22	1.10	-40.4



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