3M Science. Applied to Life.™

Improving every life

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

Our world faces unprecedented and accelerating challenges

As the world's population marches towards 9 billion people, with the greatest growth concentrated in emerging economies, the global community must seek solutions to limited natural resources, lack of access to education and healthcare, inadequate food supplies, rapid urbanization, stressed water systems, and a global climate crisis. It is clear that these global dynamics are challenging the sustainable growth of future generations.

Imagine a world where every life is improved

At 3M, we look at Sustainability in terms of shared global needs. The challenges we must solve for a sustainable future don't always follow clear rules or methods — but we see them clearly. And we understand the impact we make in improving our business, our planet, and every life can be far greater if done in partnership with our customers, communities, and partners.

At 3M, we believe science is just science until you use it to change the world

On the cover: Chinese school children participate in the Smile Around the World program in partnership with the World Dental Federation, the Chinese Stomatological Association and 3M Oral Care. For more on this story please see page 8.

Photo: 3M™ Diamond Grade™ Flexible Prismatic Reflective Markings Series 973

A framework for the greater good

At 3M we know that science is just science, until you apply it to change the world. Our ambition is to grow our business by collaborating to help solve some of humanity's greatest challenges.

Our customers, employees, investors, and stakeholders are asking for bigger commitments and stronger actions. In 2018 we announced a new Strategic Sustainability Framework to direct our efforts to areas in which we can contribute the greatest impact. 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.

Science for Climate

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

Science for Community

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

These priority areas guide business decisions and strategy, as well as how we focus our efforts for local and global community impact.

Science for

Circular

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

Worldwide, 73 percent of beach litter is plastic: bottles, bottle caps, food wrappers, grocery bags, and polystyrene containers; and by 2050, virtually every seabird species on the planet will be eating plastic.[1]

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 re-purposing 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.

Our commitment:

Every new product that enters 3M's new product commercial-ization process must have a Sustainability Value Commitment, demonstrating how it drives impact for the greater good. The impact is global in scale as 3M launches approximately 1,000 new products each year.

[1] National Geographic
www.nationalgeographic.com/environment/plastic-facts/

3M™ Thinsulate™ Insulation offers a sustainable, cruelty-free alternative to natural down. Made with up to 100% recycled content, the product reduces the need to manufacture virgin materials, consuming less energy and creating lower air and water emissions. 3M manufacturing plants that produce Thinsulate™ insulation are also recycling 100% of their polyolefin waste material, selling it to companies that use it for everything from oil booms to furniture.

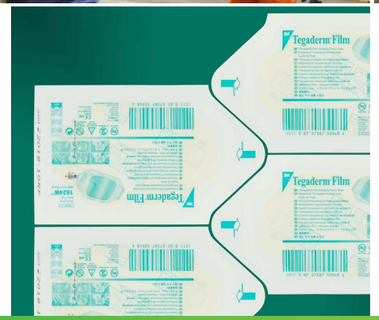
Designing with circularity in mind

With industry-leading performance and durability, **3M™ Floor Pads** are washable and reusable, lasting up to four times longer than competitive products, meaning fewer end up in landfills. Even more, 3M floor pads contain up to 50% post-consumer recycled materials.

The green scrubbing layer of select **3M™ Scotch-Brite®** products is now made with 100% recycled content (including an average of 35 percent post-consumer recycled content).

The world's first non-PVC, high-performing wrap film — **3M™ Envision™ Films** offer dimensional stability and versatility whatever the size of your vehicle. The GREENGUARD™ Gold certified film is manufactured with less solvent and made in part with bio-based material.

The **3M™ Disposable Respirator Stockpile Maintenance Program** offers disposal options for aging and expired respirators. The program allows recycling (components are recycled into new plastic products); waste-to-energy; and donation (products with 12 months of shelf life remaining can be donated and used until expiration).



Sometimes a new design or a whole new way of packaging products is the best way to reduce impact. **3M™ Tegaderm™ Dressings** are packed using an innovative nested design that reduces material by 30% compared to rectangular packaging. The carton is also made of 100% recycled materials.

Science for

Climate

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

There is no question: 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. Warmer temperatures are lengthening the season and geographic range of many diseases.[1] Extreme weather events are growing in frequency rendering significant economic impacts. Ecosystems face collapse and biodiversity is threatened as nearly one million species are currently facing extinction.[2]

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.

Our commitment:

3M's global headquarters is now powered by renewable electricity. This is the first step in our commitment to move our entire global operations to

100% renewable

sources of power, and innovating for a carbon-free future.

[1] United Nations Framework Convention on Climate Change unfccc.int/news/climate-change-impacts-human-health

[2] The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) www.ipbes.net/

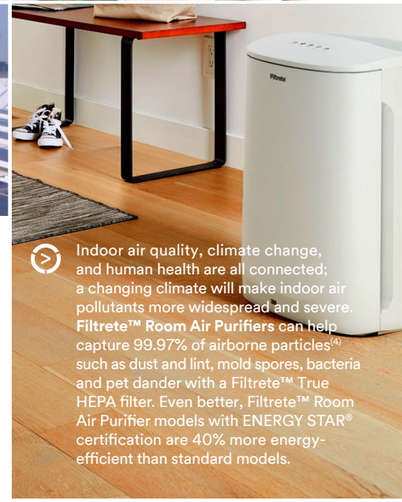
Imagine the lightest of particles helping to reduce the weight of the airplanes we travel in and the cars we drive, giving us better overall fuel economy or battery range. **3M™ Glass Bubbles** — hollow glass microspheres — help shed pounds per vehicle. That means filling up at the pump less often or holding a charge longer. Across an entire fleet, manufacturers can more easily meet weight reduction targets and emissions standards.

Designing solutions for adaptation and mitigation

3M™ Sun Control Window Films reject up to 97% of the sun's infrared rays to keep interiors cool, and reduce the load on cooling systems to save energy. 3M's window films provide comfort when occupants need it the most.

Fight food-borne illnesses while contributing to Sustainability goals with double duty **3M™ Petrifilm™ Plates**. These "little red dots" simplify the process of microbial indicator testing: and use 75% less energy, 80% less water, emit 75% less greenhouse gases and produce 68% less waste (as compared to traditional agar methods.)

Using tapes, films, and adhesives, 3M is building the next generation of renewable energy systems. **3M™ Solar Light Redirecting Film** is a reflective film that is applied to recapture a significant portion of light that would otherwise be reflected away from the solar panel, increasing efficiency. **3M™ Wind Protection Tapes** stand up to sand, rain, hail and wind-borne debris; preventing costly damage and erosion of turbine blades and improving performance and energy production.



Indoor air quality, climate change, and human health are all connected; a changing climate will make indoor air pollutants more widespread and severe. **Filtrete™ Room Air Purifiers** can help capture 99.97% of airborne particles[4] such as dust and lint, mold spores, bacteria and pet dander with a Filtrete™ True HEPA filter. Even better, Filtrete™ Room Air Purifier models with ENERGY STAR® certification are 40% more energy-efficient than standard models.

[3] time.com/collection/best-inventions-2018/5454381/3m-smog-reducing-granules/

[4] From the air passing through the filter media. Initial efficiency value

Named one of the best inventions in 2018[3], **3M™ Smog-reducing Granules** harness the power of the sun to turn roofing shingles into a pollution-fighting surface. When the sun hits the granules, their photocatalytic coating transforms the smog pollution (nitrogen oxides) into water-soluble ions that safely wash away with rain. Each ton of these granules used in shingles has the capacity to mitigate the smog created annually by one car driven 3,000 miles.

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 9 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 14,025 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 communities 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 math (STEM) graduates and the critical need for a diverse workforce with advanced manufacturing and vocational skills. We believe in the power of science, lending our expertise, and investing in the bright minds of tomorrow — together we will lead and design a sustainable future for all.

Our commitment:

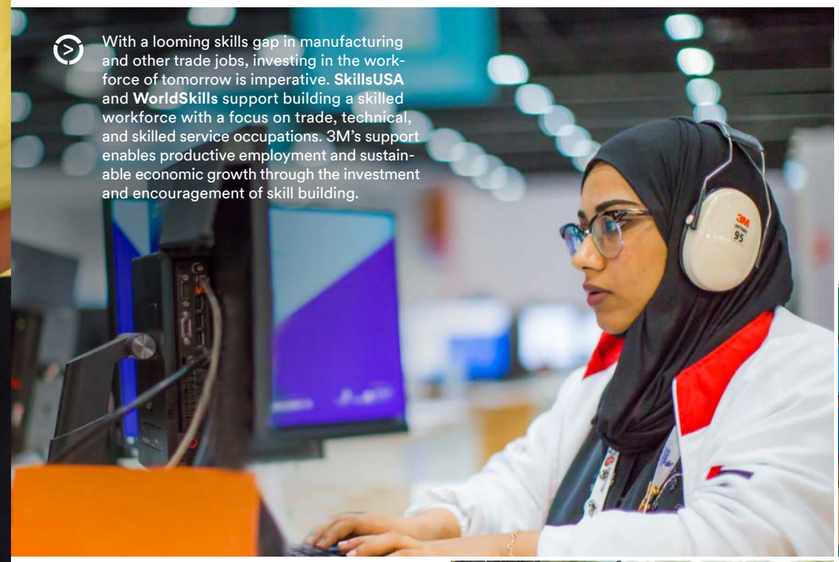
Contribute our passion and expertise through our global skills-based volunteering program, 3M Impact. Teams of 3Mers travel around the world working with local NGOs or government agencies, helping design solutions for a pressing social or environmental issue.

Photo: Suyac Island Mangrove Eco-Park, Philippines

In partnership with the **World Dental Federation** and the Chinese Stomatological Association, **3M Oral Care** implemented an educational program to increase oral health knowledge and skills among schoolchildren, teachers and oral health professionals. Smile Around the World involved over 3,000 elementary schoolchildren and 90 teachers in China. After the program was completed, 99.1 percent of children said they believed it is very important to brush their teeth every day.

Empowering community vibrancy around the world

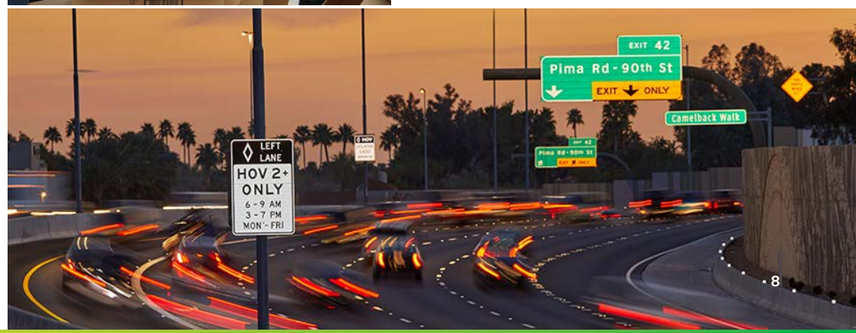
With a looming skills gap in manufacturing and other trade jobs, investing in the workforce of tomorrow is imperative. **SkillsUSA** and **WorldSkills** support building a skilled workforce with a focus on trade, technical, and skilled service occupations. 3M's support enables productive employment and sustainable economic growth through the investment and encouragement of skill building.



3M is a participant of the United Nations Global Compact, and takes part in the United Nations climate summits, including COP23 and COP24, and the **Intergovernmental Panel on Climate Change** (IPCC). For 13 years 3M scientists have supported the work of the IPCC through research and industry expertise. The 3Mers' work was formally acknowledged when the IPCC received the Nobel Peace Prize in 2007.

In 2018 3M worked with the American Red Cross to distribute more than 500,000 **3M™ N95 respirators** across communities impacted by deadly forest fires in California. During the fires, air quality alerts were issued across large swaths of the state. Officials recommended residents remain indoors or wear an N95 respirator to reduce exposure to harmful airborne particulates. When used properly, N95 respirators filter out 95 percent of the particulates from smoke and ash.

From improving brightness of pavement markings for better visibility to envisioning a future of autonomous driving and connected roads, 3M is dedicated to improving traffic safety and mobility. Our mission is to make sure families, commuters, pedestrians and road workers all get home safely. 3M is a founding donor of the **United Nations Road Safety Trust Fund** which aims to accelerate improving global road safety by bridging the gaps in the mobilization of resources for effective action at all levels.



Our actions

More than four decades ago, 3M launched the groundbreaking Pollution Prevention Pays (3P) program. We have been setting global environmental goals since 1990, and in 2018 we entered the third year of an ambitious 10-year goal cycle. Our 2025 Sustainability Goals reflect a heightened commitment to thinking holistically about how our operations and products can drive change for a sustainable future.

Raw Materials

30.4%
(56 manufacturing facilities)
zero landfill

● *exceeding goal of 30% of manufacturing facilities*

Reduce manufacturing waste by 11.7% indexed

● *exceeding goal of 10% reduction*

Revised and re-launched our Supplier Responsibility Code

◒ *maintaining commitment to drive supply chain Sustainability through targeted raw material traceability and supplier performance assurance*

Education and Development

$66.3M investments in total global giving

◒ *toward goal of continuing to invest in global giving programs*

50+%
participation in employee development programs

◒ *toward goal of 100% participation*

Increased pipeline of diverse talent in management by 5.7%

◒ *toward goal of doubling the pipeline*

Water

100%
(25)
facilities located in water stressed/scarce areas engaged

● *100% engaged*

Increased water use by 0.7%, indexed

○ *behind goal of 10% reduction*

Health and Safety

Provided 98,900 training instances through eLearning platform

◒ *toward goal of 5 million training instances[1]*

Climate and Energy

Scope 1 and 2 GHG emissions 63.7% below baseline

● *ahead of goal for 50% below baseline[2]*

Improved energy efficiency by 2.8% indexed

○ *toward goal of 30% improvement*

Over 40 million metric tons CO_2 equivalent customer avoided emissions

◒ *toward goal of 250 million metric tons*

Increased renewable energy footprint 26.8%, total electricity use

● *exceeding goal of 25% increase*

Numbers reflect progress through 2018.
[1] 2002 baseline all year; all others have a 2015 baseline.
[2] Value represents 2018 relearning training instances only.

● exceeding goal ● toward goal
◒ maintaining goal ○ behind goal

More than a century

of innovation for the greater good...

1902
Minnesota Mining and Manufacturing Company founded in Two Harbors, MN

1932
3M begins providing short-term and long-term disability coverage, a pension plan, and an unemployment insurance plan

1951
International operations established in Australia, Brazil, Canada, France, Germany, Mexico and the United Kingdom

1953
3M Foundation established as one of the first corporate charitable foundations in the United States; the foundation will later be named **3Mgives**

1975
Pollution Prevention Pays (3P) is created; since inception 3M has completed more than 15,000 3P projects, preventing more than 2.5 million tons of pollution and saving nearly $2.2 billion

1987
3M Air Emission Reduction Program is launched; the program will drive an 88% reduction in volatile organic compounds air emissions by 2001

1988
3M Ozone Depleting Chemical Phase Out policy is adopted

1996
3M formalizes **Life Cycle Management System** embedding environmental, health, and safety considerations into new product development

2002
3M issues first greenhouse gas emission inventory (Scope 1 and 2) driving achievement of **63.7% absolute reduction** in location-based GHG emissions (to date)

2005
3M awarded the U.S. Environmental Protection Agency **Climate Protection Award** for outstanding efforts to protect the Earth's climate and stratospheric ozone layer

2015
2025 Sustainability Goals launched, expanding beyond 3M operations and environmental issues to include customers, suppliers, and social impact

2018
3M launches new strategic framework, **Science for Climate, Science for Community and Science for Circular**, and requires all new products have a **Sustainability Value Commitment**

2019
3M global headquarters powered by renewable electricity, the first step in a commitment to move global operations to **100% renewable sources of power**

Photo: 3M™ Thinsulate™ 100% Recycled Featherless Insulation

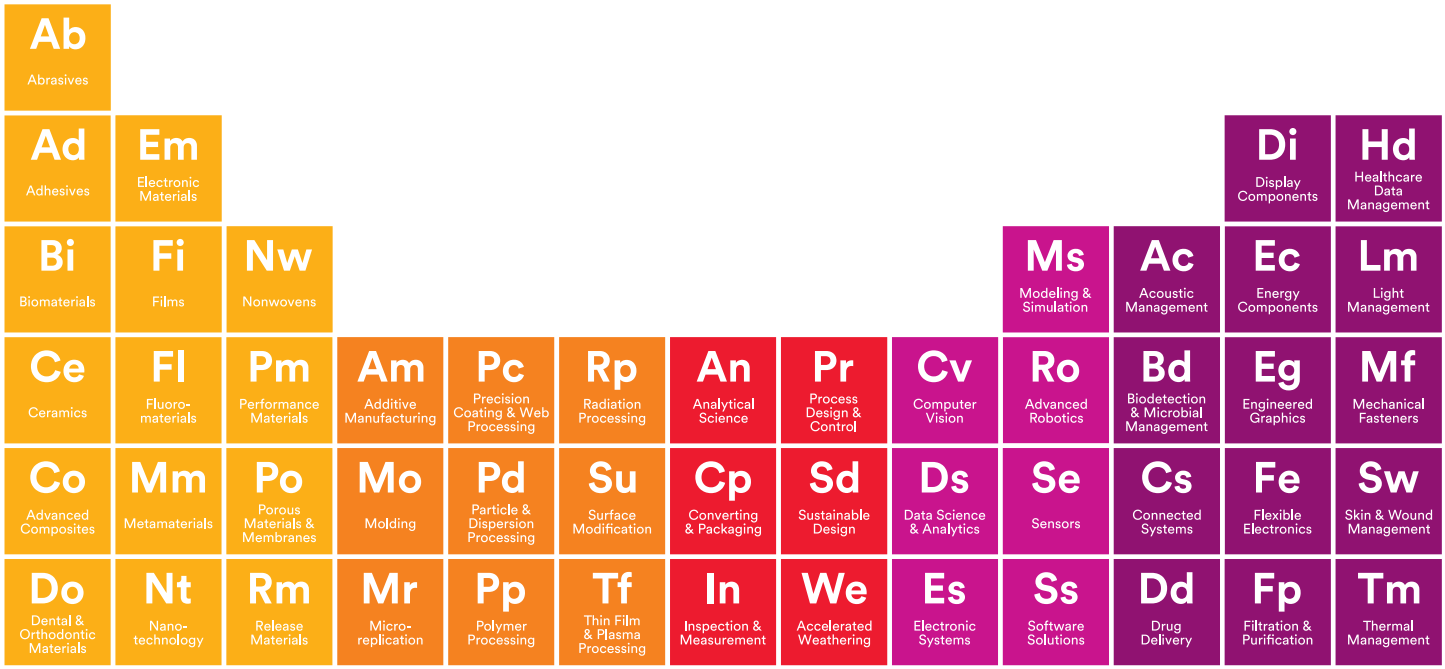
Join us

as we use science to advance every company, enhance every home, and improve every life.

Working in a 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.

Our technology platforms range from adhesives and abrasives, to microreplication and nonwovens, to computer vision and data science and analytics.

3M Technology Platforms



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