

Advancing our **impact**

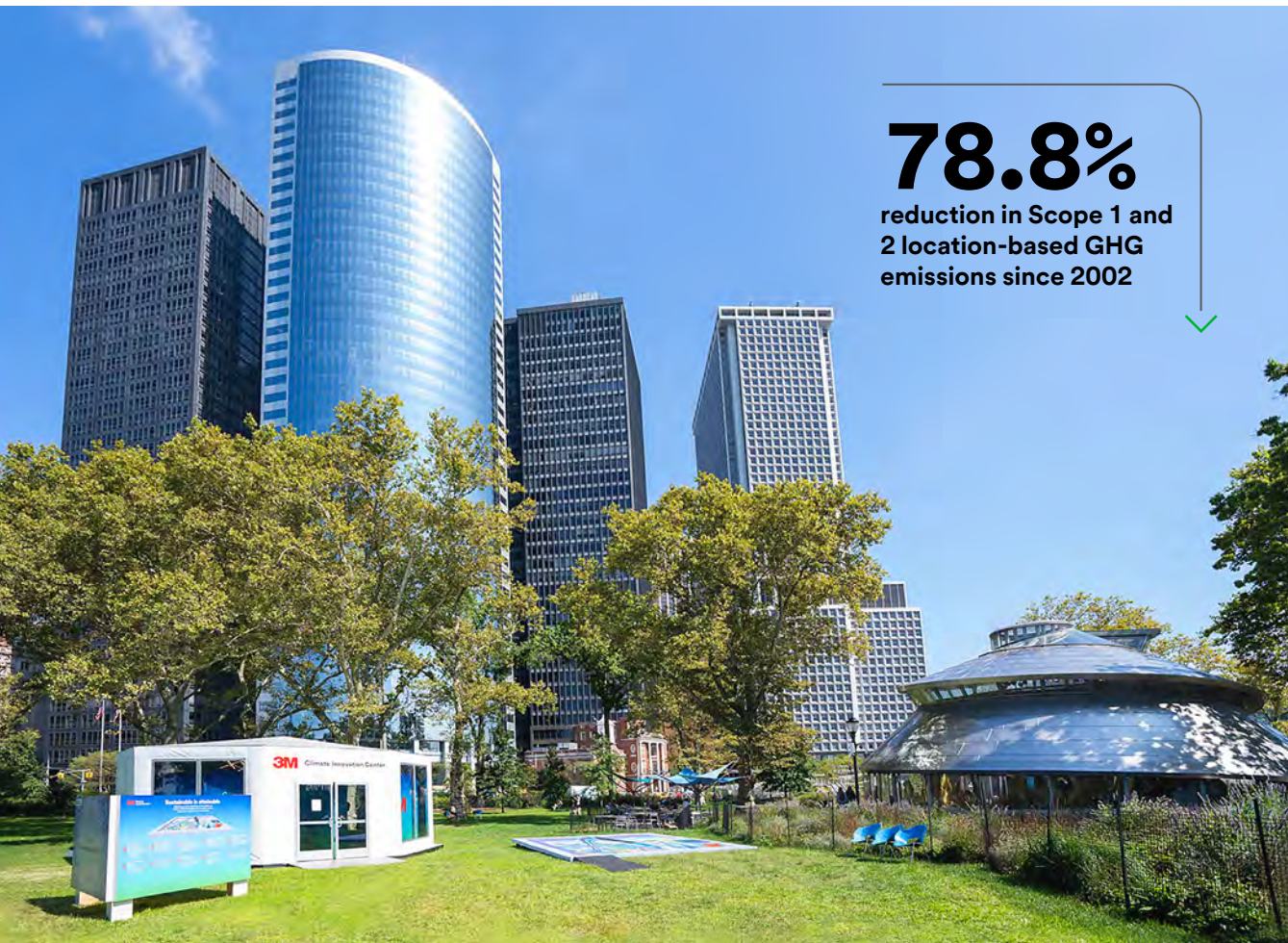
2023 Global Impact Report



On the cover

Cover image of Battery Park in New York City, site of Climate Week NYC, September 2022. We hosted the 3M Climate Innovation Center to showcase some of our recent solutions that help combat climate change and advance our ambitious carbon neutrality goal. 3M innovations for decarbonization, electrification, waste reduction, and more were presented in an interactive display.

Watch attendees interact with our solutions (video, 0:59)



78.8%

reduction in Scope 1 and
2 location-based GHG
emissions since 2002

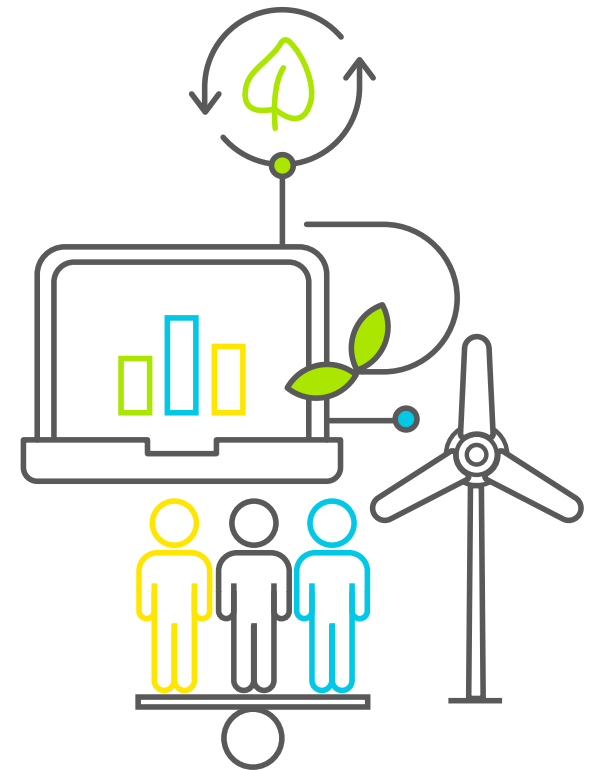
Our carbon neutrality goal

Reduce Scope 1 and 2 market-based GHG emissions by at least 50% by 2030, 80% by 2040, and achieve carbon neutrality in our operations by 2050

➤ **Reduced**

37.8%

since 2019



Visit our **Global Impact website** to access digital content.



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Leadership messages

**Mike Roman**

Chairman of the Board and Chief Executive Officer

Last year marked the 120-year anniversary of 3M. Many successful companies are founded on one big idea: for us, it was the power of material science to change the world. That's our purpose as an enterprise, and it continues to drive us today.

[Read the rest of Mike Roman's letter.](#)

**Gayle Schueller**

Senior Vice President and Chief Sustainability Officer

Looking back on 2022, I'm proud of the strides 3M made toward our sustainability commitments. We hit major milestones, strengthened important collaborations, engaged meaningfully with the public, and sharpened our focus for the future.

Having set several ambitious goals the prior year, in 2022 we pursued them with urgency and intent. In collaboration with internal and external partners, we made progress on multiple fronts for our carbon, water, and waste footprints.

Among our accomplishments, we achieved 50% renewable energy across our global operations — two years ahead of our 2025 timeline. We also made substantial reductions in our carbon footprint: a 37.8% reduction of our greenhouse gas emissions since 2019, building on our 78.8% reduction since 2002. We reduced our use of virgin fossil-based plastic by 35.7 million pounds and further affirmed our commitment to plastics reduction by endorsing the Business Coalition for a Global Plastics Treaty. We're ahead of our 2022 water usage goal with a reduction of more than 10%, and we continue to engage with the Water Resilience Coalition to help define net water positive and drive progress as a member of the leadership committee.

To advance our social commitments, we created the position of director of environmental justice. With a dedicated leader in this important area, we now have a full complement of equity-based community initiatives, which include programs for STEM education, workforce upskilling, social justice, and giving and volunteering. At the same time, we press forward with our diversity goals for 3M's workforce through our recruitment, hiring, and retention processes.

As we expand research and development into emerging technologies, we're creating new climate-focused innovations, including for green hydrogen production and low-carbon-intensity energy separations. We were delighted to introduce some of these new technologies at Climate Week NYC in September 2022. At the 3M Climate Innovation Center, participants had the opportunity to interact with our latest solutions for decarbonization, electrification, energy efficiency, waste reduction, and sustainable infrastructure.



In November we had a robust presence at COP27. Along with a variety of 3M stakeholders, I participated in several sessions through our partnerships with the United Nations Framework Convention on Climate Change (UNFCCC) and other industry groups and nongovernmental organizations. It was also my pleasure to speak on clean energy, energy security, and collaborating for climate solutions. Climate Week NYC and COP27 represent two of many engagements we participated in last year. We know that 3M's impact is best amplified when we work with others, sharing knowledge and resources to strengthen our collective action toward a more sustainable future.

While we celebrate our progress, we continue to act with urgency. 3M has the capability and responsibility to create positive impact well beyond our own footprint. We'll partner with customers, nongovernmental organizations, and other thought leaders to design and lead an equitable and sustainable tomorrow. With science at our heart, we're positioned to leverage innovation, technology, and collaboration with our customers and other stakeholders to create solutions not yet imagined as we strive to solve the world's greatest challenges.

2023 will be a transformative year for 3M. We're preparing for the spinoff of our Health Care business and the emergence of two world-class public companies poised for continued growth. We're evaluating the sustainability contexts for both companies and preparing them to advance along their respective paths for the greatest possible impact.

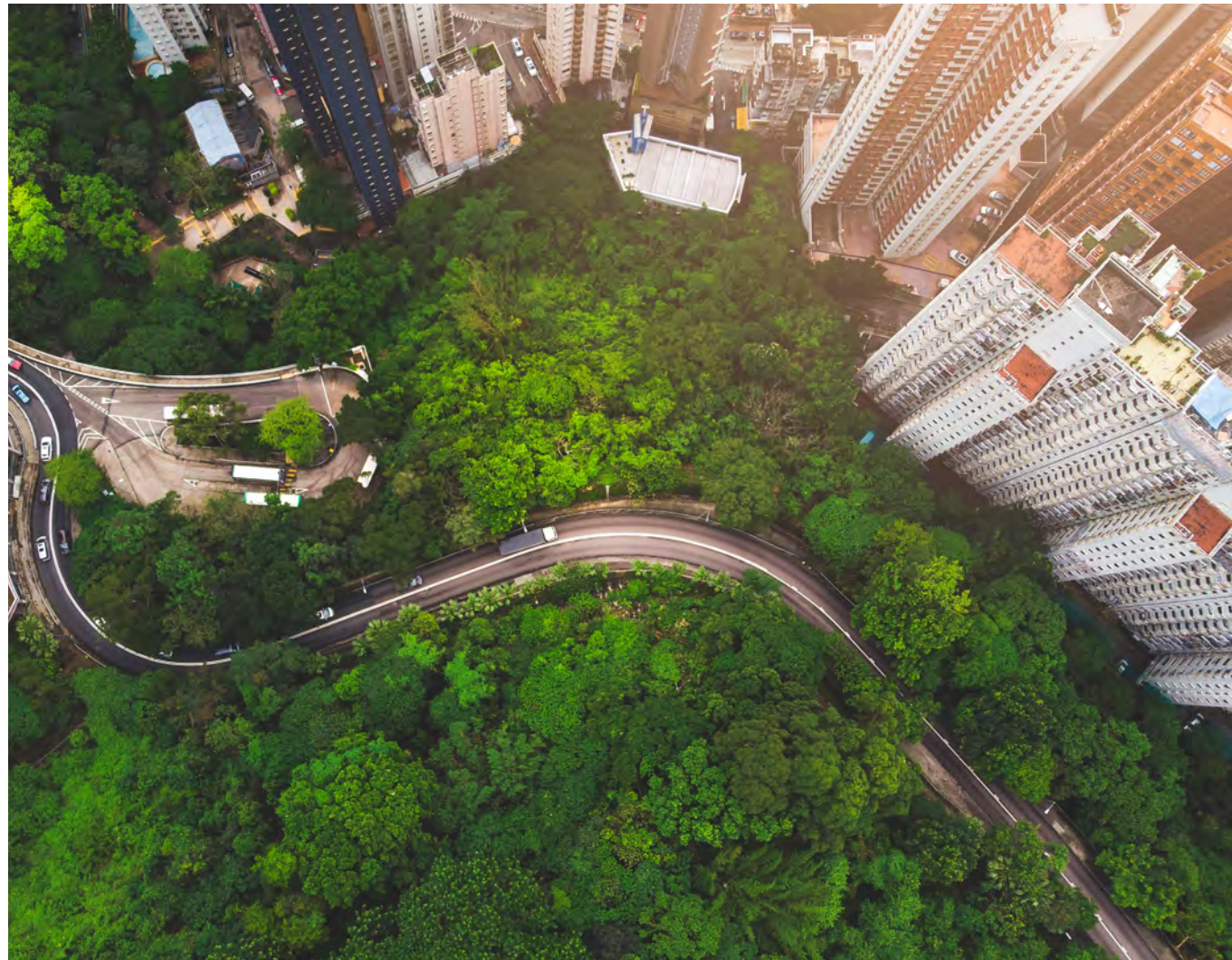
It's never been more important for 3M to focus on our sustainability commitments and take action. In this transformational moment, the foundation we build going forward will be critically important. For the future of 3M, for the future of our planet, and for future generations, we must continually reimagine what's possible.



Achieved over

50%

renewable energy across our global operations — two years ahead of our 2025 timeline





Who we are



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3M at a glance

\$34.2B
in sales

Sales in
~200
countries

100+
straight years of dividends

\$1.7B
in capital investments



>200
sites

51
Technology Platforms

92K
employees globally

One of
30
companies on the Dow Jones
Industrial Average



>132K
patents

More than
800
brands and trademarks

Over
55K
products

\$1.9B
in R&D spend



Our purpose:

Unlock the power of people, ideas, and science to reimagine what's possible

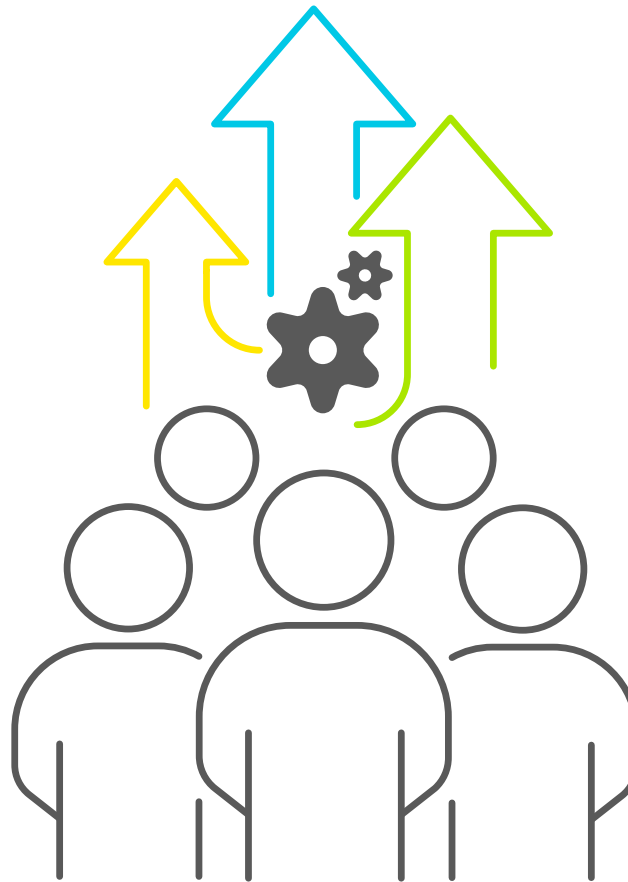
Leading with **purpose**

Our **commitment**

We use a science-based approach to reimagine what's possible as we rise to the challenges that are most material to 3M and critical to our planet and its people. Our goals and environmental, social, and governance (ESG) metrics reflect a heightened commitment to thinking holistically about how our people, products, and operations can all contribute to a better and brighter future.

Our **impact**

In 2022, we continued to build momentum around science and collaboration in our operations and our communities. We acted with urgency to implement solutions that help us achieve our sustainability goals for the environment, our communities, and — most importantly — the people they impact.



For over 120 years, 3M has been dedicated to science and exploration, taking on global challenges and developing solutions for our customers. As a company, we're guided by our Purpose, Promise, and Principles as we create unique and differentiated value for our customers, shareholders, and stakeholders.

Our Purpose

Unlock the power of people, ideas, and science to reimagine what's possible

Our Promise

Improve lives by helping solve the world's greatest challenges

Our Principles

Science-based performance
Unparalleled expertise, extraordinary outcomes
Makers of what's next
Strength in collaboration
Change for good

These bind us together as one 3M, unified in our ambitions and empowered to drive long-term growth, reputation, and impact with every action. These collective ideals correspond to expectations from our customers, investors, and employees.

Unique and differentiated value

The power of 3M is in the way we connect our fundamental strengths of technology, manufacturing, global capabilities, and brand to our customers. These strengths define us as an enterprise and combine to build a business greater than the sum of its parts.

We possess a 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 while operating in multiple industries and countries. Robust intellectual property supports our technology, positioning us to do unique things with and for our customers. Read about 3M's four business groups on pages 4–5 of our [2022 Annual Report on Form 10-K](#).

3M is also about manufacturing capability. We have a competitive advantage through in-house manufacturing site ownership. A quarter of our intellectual property sits in manufacturing, much of it in trade secrets, allowing us to deliver higher-quality, better-performing, and more competitive products to the marketplace.

True global capabilities require more than just presence in markets around the world. They require the skills of our global organization to execute our business models so we can enter those markets successfully — and take our fundamental strengths almost anywhere in the world — as we apply science to improve every life.

2022 global capabilities

Sales in
200
countries/regions

Manufacturing & converting in
29
countries/regions

Laboratory & application engineering in
47
countries/regions

Sales & marketing operations in
66
countries/regions



Connected
fundamental
strengths:

Technology | Manufacturing | Global capabilities | Brand

Our Strategic Sustainability Framework

3M's corporate Purpose expresses our ambition to leverage our passion for science to reimagine what's possible. Together with our Promise and Principles, it drives and informs our approach to sustainability. As we build on our global capabilities and diverse technologies, we have clear commitments and bold ambitions to shape a sustainable future within our Strategic Sustainability Framework and its three organizing pillars: Science for Circular, Science for Climate, and Science for Community. Within these pillars, we build partnerships, implement projects, and develop processes that move us forward in the areas where we can make the greatest impact.

Science for Circular

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

We must reimagine our traditional global economy's linear business model that strains ecosystems by depleting natural resources faster than they can be replenished. In its place, a circular model uses these essential resources only while having a net positive impact on supply, and it eliminates reliance on nonrenewable finite resources altogether. It measures business success in large part on the ability to do more with less, keeps products and materials in use, designs out waste and pollution, and restores and regenerates natural systems and biodiversity.

At 3M, we understand the urgency of this issue, and we see the circular economy as an opportunity to create impactful solutions, inspire leadership, and implement disruptive change across all industries.

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

Science for Climate

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

The impacts of global climate change on our planet and its people have never been clearer. Extreme weather events, rising sea levels, urban heat islands, elevated pollution levels, poor air quality, and scarce resources have underscored how urgently corporations must act to try to slow these harmful effects to both our natural and built ecosystems.

At 3M, we're advancing our impact through more significant intermediate and long-term goals and actions that align with the latest findings by the Intergovernmental Panel on Climate Change (IPCC). We expect to invest heavily both in our efforts to meet our environmental goals, which include achieving carbon neutrality by 2050, and in our innovation, adapting our business to grow in sectors that support decarbonization.

We believe that by working together with our employees, customers, suppliers, government, and communities, we can help drive systemic change.

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.

Leveraging science, innovation, and collaboration, we help solve global challenges like climate change, public health and safety, health care inequality, and other inequities in communities around the world.

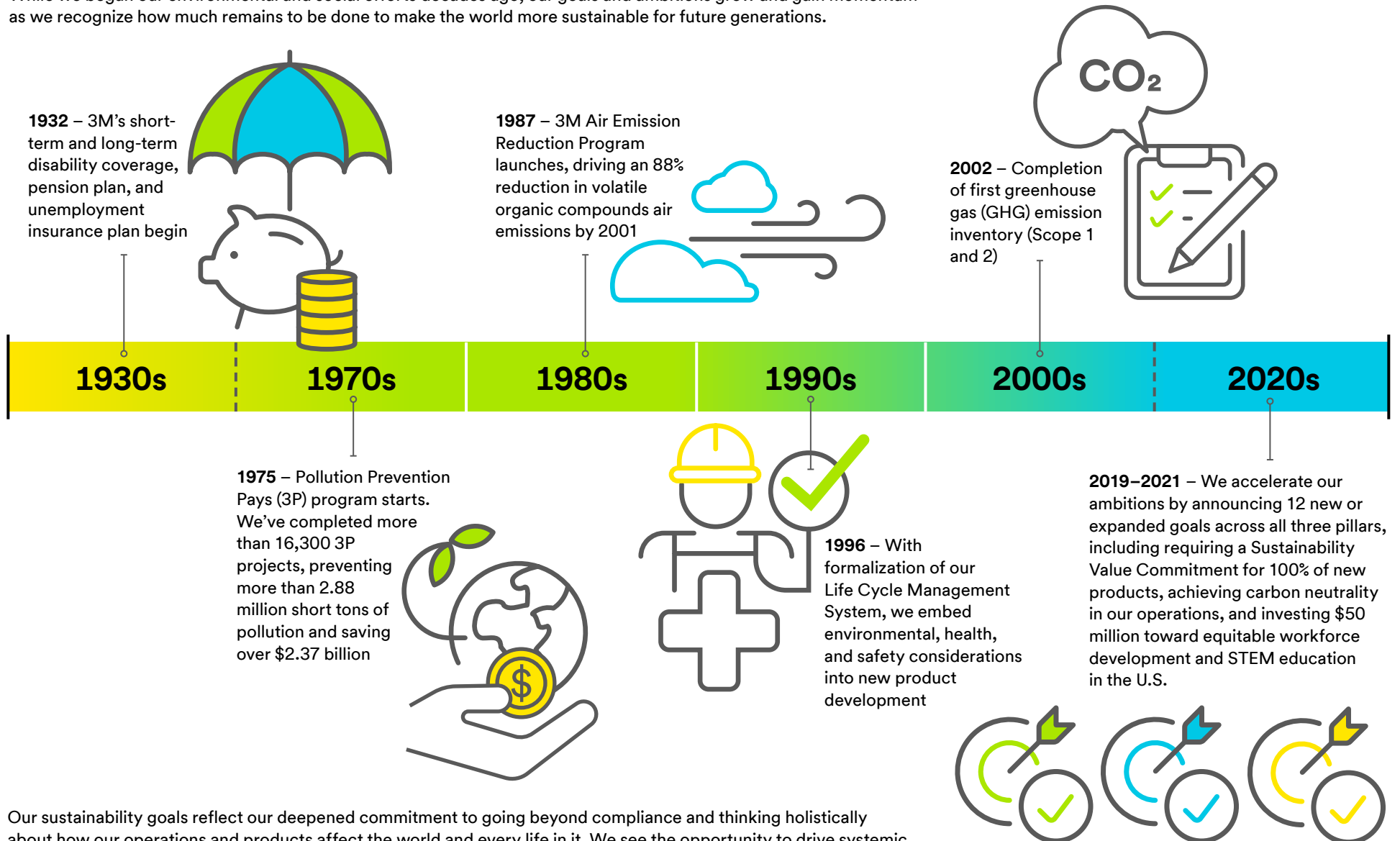
We recognize the importance of equal access to science, technology, engineering, and mathematics (STEM) education and careers. Equitable opportunities in STEM lead to stronger communities, a stronger 3M, and a brighter collective future. We also commit to advancing diversity, equity, inclusion, and social and environmental justice within our company and community.

Together with our partners, we will advance an equitable and sustainable future for all.

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

Transforming aspirations into action

While we began our environmental and social efforts decades ago, our goals and ambitions grow and gain momentum as we recognize how much remains to be done to make the world more sustainable for future generations.



Our sustainability goals reflect our deepened 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 to drive systemic change within our Strategic Sustainability Framework, its three pillars, and their corresponding goals.



Science for Circular

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

➤ 2022 goal results

100% Sustainability Value Commitment for new products

On pace – Require a Sustainability Value Commitment (SVC) for every new product¹



[Learn more ▶](#)

54.2 million pounds of plastic reduced

On pace – Reduce dependence on virgin fossil-based plastic by 125 million pounds by the end of 2025



[Learn more ▶](#)

0.58% manufacturing waste reduced

Behind – Reduce manufacturing waste by an additional 10%, indexed to sales



[Learn more ▶](#)

16.8% increased water efficiency

On pace – Reduce global water usage by the following amounts: 10% by 2022, 20% by 2025, and 25% by 2030, indexed to sales²



[Learn more ▶](#)

44.9% of sites achieved zero landfill

Outpacing – Achieve zero landfill status at more than 30% of manufacturing sites



[Learn more ▶](#)

We are ahead of schedule in installing state-of-the-art filtration technologies

On pace – For 3M's global manufacturing operations, enhance the quality of water returned to the environment from industrial processes by 2030.^{3,4} Our initial focus is on implementing state-of-the-art water purification technology at the largest water use locations globally and having them fully operational by 2024



[Learn more ▶](#)

457 completed supplier assessments

On pace – Drive supply chain sustainability through targeted raw material traceability and supplier performance assurance



[Learn more ▶](#)

17 identified manufacturing sites

On pace – Engage 100% of water-stressed/scarce communities where 3M manufactures on communitywide approaches to water management



[Learn more ▶](#)

¹ For projects passing a 'gate' in our new product commercialization process; an SVC describes how the product drives positive impact for our stakeholders in alignment with our Strategic Sustainability Framework.

² Expands our previous commitment, which aimed to reduce water use by 10% between 2015 and 2025. 2019 is the baseline measurement year.

³ By improving the weighted average of priority constituents, including select metals, biochemical oxygen demand (BOD), chemical oxygen demand (COD), cyanide compounds, fluoride, total nitrogen, oil & grease, fluorochemicals (PFAS), total dissolved solids (TDS), total suspended solids (TSS), sulfate, and others.

⁴ Water used by manufacturing or industrial processes, including all water use not defined as domestic (sanitary, cafeteria, etc.).



Science for Climate

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

➤ 2022 goal results

37.8% Scope 1 and 2 GHG emissions reduced

On pace – Reduce Scope 1 and 2 market-based GHG emissions by at least 50% by 2030, 80% by 2040, and achieve carbon neutrality in our operations by 2050¹



[Learn more](#) ➤

51.9% renewable energy

Outpacing – Increase renewable energy to 50% of total electricity use by 2025 and to 100% by 2050



[Learn more](#) ➤

121M metric tons CO₂ equivalent

On pace – Help our customers reduce their GHGs by 250 million tons of CO₂ equivalent emissions through the use of our products



[Learn more](#) ➤

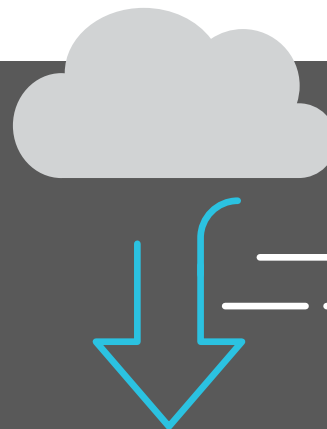
13.1% improved energy efficiency

Behind – Improve energy efficiency, indexed to net sales, by 30%



[Learn more](#) ➤

¹ Expands our previous 2025 goal to stay below 50% of our 2002 baseline, meaning 3M's 2030 Scope 1 and 2 emissions will now be reduced by more than 85% from 2002 levels. 2019 is the baseline measurement year.



78.8%

reduction in Scope 1 and 2 location-based GHG emissions since 2002



Science for Community

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

➤ 2022 goal results

45.1% diverse talent in management

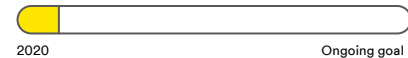
On pace – Double the pipeline of diverse talent in management globally to build a diverse workforce by 2030¹



[Learn more ▶](#)

9.02% workforce diversity

On pace – Double the representation of underrepresented groups from entry-level through management in our U.S. workforce²



[Learn more ▶](#)

6.39% workforce diversity

On pace – Double the representation of underrepresented groups in management positions in our U.S. workforce²



[Learn more ▶](#)

100% pay equity globally

On pace – Maintain or achieve 100% pay equity globally



[Learn more ▶](#)

\$23.6M workforce development and STEM investment

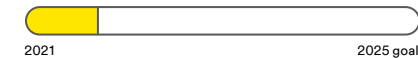
On pace – Invest \$50 million to address racial opportunity gaps in the U.S. through workforce development and STEM education initiatives by the end of 2025



[Learn more ▶](#)

1.04M learning experiences

On pace – Advance economic equity by creating 5 million unique STEM and skilled trades learning experiences for underrepresented individuals by the end of the 2025-26 school year³



[Learn more ▶](#)

\$82.1M invested in cash and products

On pace – Invest cash and products for education, community, and environmental programs



[Learn more ▶](#)

81.8K skills-based work hours

On pace – Provide 300,000 work hours of skills-based volunteerism by 3M employees to improve lives and help solve society's toughest challenges by the end of 2025⁴



[Learn more ▶](#)

4.91M training instances

Outpacing – Provide training to 5 million people globally on worker and patient safety



[Learn more ▶](#)

¹ In 2021, 3M updated the goal maturity date to 2030 from 2025. See [3M's 2021 Global Diversity, Equity & Inclusion Report](#) for more details.

² Underrepresented groups in our 3M U.S. workforce include Black/ African American and Hispanic/Latino employees.

³ 3M defines underrepresented individuals in the U.S. using National Science Foundation research. For global definitions, we rely on gender diversity and local context for marginalized populations.

⁴ Goal was initiated in 2019. Skills-based volunteering is primarily delivered through the 3M Impact program.

Stakeholder engagement

Stakeholder engagement and collaborative efforts on our priority topics are core to how we drive our strategy and actions within our Strategic Sustainability Framework. We continually look to our stakeholders to help us increase our understanding and awareness, seek technical input and expertise, and evaluate possible collaborations and strategic relationships.

We believe stakeholder engagement should be based on candid and authentic dialogue — grounded in 3M's Principles — and should help us evolve 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 priority topics.

How we work with stakeholders

Stakeholder	How we engage	More information
Employees and job seekers	<ul style="list-style-type: none"> Respecting human rights and diversity, equity, and inclusion Providing a safe and healthy work environment Providing competitive compensation and benefits Attracting and retaining the highest talent by being a company employees are proud to work for 	Employee programs Diversity, equity, and inclusion Communities Human rights
Investors and shareholders	<ul style="list-style-type: none"> Delivering profitable returns on investment Disclosing timely, concise, and relevant information (related to economic, environmental, and social issues) Responding to inquiries Upholding corporate values 	Investor relations webpage ESG metrics
Customers and partners	<ul style="list-style-type: none"> Providing diverse innovative product solutions that help our customers deliver on their promises Offering a diversified portfolio of high-quality products Providing products with sustainability attributes to address and help solve global challenges 	Innovation management Customer-inspired innovation
Government/regulators, nonprofit organizations, NGOs and experts	<ul style="list-style-type: none"> Complying with laws, regulations, and policies Supporting and engaging on development and modification changes Providing support to advance and solve global issues Partnering to understand societal concerns 	Corporate governance Climate and energy Diversity, equity, and inclusion Communities Circular materials Suppliers
Local communities and consumers	<ul style="list-style-type: none"> Supporting and engaging in citizenship activities across our value chain Providing economic and social value to communities while minimizing environmental impact Supporting communities to help them thrive 	Communities Environmental, health, and safety management
Academic/scientific organizations	<ul style="list-style-type: none"> Engaging on technical scientific research to develop innovative solutions for society 	Circular materials Climate and energy Innovation management Customer-inspired innovation
Suppliers	<ul style="list-style-type: none"> Partnering with suppliers and contractors that meet or exceed expectations Supporting collective efforts to deliver business results Collaborating to identify, resource, and amplify sustainability initiatives Respecting human rights for workers 	Suppliers Human rights Circular materials Climate and energy

Materiality assessment

Every other year starting in 2014, 3M has commissioned an independent research consultancy to help us better understand our stakeholders' perspectives on key issues and assess our corporate reputation and leadership opportunities. The 2022 materiality assessment defined our current priority topics from two angles, called "double materiality." It assessed how environmental and social issues impact 3M's financial performance and value, as well as how 3M's activities impact a broad range of stakeholders. The materiality assessment also explored stakeholder perceptions of our sustainability strategy and its three pillars: Science for Circular, Science for Climate, and Science for Community.

Stakeholders included customers, employees, suppliers, nongovernmental organizations, corporate/private sector, academics, consultants, government, media, finance, trade associations, and think tanks, and they represented 3M's four business groups and all areas of operation.

Following the 2022 assessment, we analyzed the insights and inputs from stakeholders and developed our Sustainability Priority Matrix. The matrix shows our priority topics and demonstrates how our sustainability goals align with the United Nations 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDGs).

The matrix categorizes topics into three priority tiers:

Tier 1 – Greatest potential for 3M to have impact

Tier 2 – High potential for 3M to have impact

Tier 3 – Moderate potential for 3M to have impact

2022 priority tiers at a glance

Tier	Topic
1	<ul style="list-style-type: none"> Product innovation to solve climate, health, and safety challenges¹ Sustainable products and services Climate change and GHG emissions Energy usage and use of renewables Ethical and transparent business practices Chemical management² Safety of products and services¹ Health and safety of employees and contractors
2	<ul style="list-style-type: none"> Employee diversity, equity, and inclusion Infectious disease and public health issues Plastic and packaging waste Water quality Designing products and packaging with less or no waste¹ Manufacturing waste Community health, safety, and well-being¹ Responsible sourcing and supplier sustainability¹ Human rights and labor practices in the supply chain¹ R&D investment¹ STEM education, training, and workforce development Employee training, development, and well-being¹
3	<ul style="list-style-type: none"> Collaboration and partnerships¹ Biodiversity and ecosystems¹ Water usage and availability Employment and reskilling for underresourced or marginalized communities² Access to safe and affordable drinking water¹ Racial justice and inequality¹ Air quality Advocacy, public policy, and engagement to support and promote social justice, science, health, environment, and safety Supplier diversity¹




¹ New topic for 2022.

² Topic modified from 2020 materiality assessment.

3M Sustainability Priority Matrix: Science for Circular

Priority topic & tier	Our actions	Additional information	Goals & commitments	Related SDG
<p>Product innovation to solve climate, health, and safety challenges</p> <p>1</p> <p>Sustainable products and services</p> <p>1</p> <p>R&D investment</p> <p>2</p> <p>Designing products and packaging with less or no waste</p> <p>2</p>	<p>Since 2019, we've required every product entering our new product commercialization process to have a Sustainability Value Commitment (SVC), which embeds sustainability into the pipeline that produces 3M's diverse global products. Considerations include reusability, recyclability, waste reduction, energy and water savings, and responsible sourcing or use of renewable materials appropriate to the specific product throughout its life cycle. In 2022, R&D developed SVC training materials to empower product development teams to account for social equity in their process.</p> <p>We serve our customers through a wide range of innovative products that help them improve energy efficiency and reduce their GHG emissions. 3M is at the forefront of the global effort to bring science and innovation to workplace safety.</p> <p>In 2022, 3M invested \$1.9 billion in research and development.</p>	<p><u>Circular materials</u></p> <p><u>Climate and energy</u></p> <p><u>Customer-inspired innovation</u></p> <p><u>Innovation management</u></p> <p><u>3M Sustainability Value Commitment</u></p>	<p>Require a Sustainability Value Commitment (SVC) for every new product¹</p> <p>Help our customers reduce their GHGs by 250 million tons of CO₂ equivalent emissions through the use of 3M products by 2025</p>	<p></p> <p>12.2, 12.5</p> <p></p> <p>8.4</p> <p></p> <p>9.4</p>
<p>Safety of products and services</p> <p>1</p> <p>Chemical management</p> <p>1</p>	<p>Product safety, quality, and stewardship must always be primary considerations during the design, manufacturing, marketing, and sale of 3M products, as outlined by our Product Safety, Quality, and Stewardship Principle.</p> <p>3M's Chemicals Management Policy reflects the values of 3M and our stakeholders. To continually 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.</p>	<p><u>Innovation management</u></p> <p><u>Circular materials</u></p> <p><u>Product Safety, Quality, and Stewardship Principle</u></p> <p><u>Chemicals Management Policy</u></p>	<p>Require a Sustainability Value Commitment (SVC) for every new product¹</p>	<p></p> <p>3.9</p>





3M Sustainability Priority Matrix: ● Science for Circular (cont.)

Priority topic & tier	Our actions	Additional information	Goals & commitments	Related SDG
<p>Water quality 2</p> <p>Water usage and availability 3</p> <p>Access to safe and affordable drinking water 3</p>	<p>In 2021, 3M became a leadership member of the Water Resilience Coalition to join a CEO-led network of over 25 companies committed to collectively accelerating the scale of proven solutions to global water challenges including water quality.</p> <p>We know we can make a difference by creating systems to promote a future of water circularity, a future where water stress is eliminated, resources are circulated, and nature is regenerated.</p> <p>We will continue to build on our strong foundation, advance our strategy, and invest in science-based commitments toward our water reduction goal. Through collaboration and application of 3M technology, we are improving the availability of water globally, including a 16.8% reduction in our water usage, indexed to sales, since 2019.</p>	<p>Circular materials</p> <p><u>3M commits to achieving carbon neutrality, reducing water use, and improving water quality</u></p> <p><u>3M joins Water Resilience Coalition, CEO Water Mandate</u></p>	<p>Reduce global water usage by the following amounts: 10% by 2022, 20% by 2025, and 25% by 2030, indexed to sales²</p> <p>For 3M's global manufacturing operations, enhance the quality of water returned to the environment from industrial processes by 2030.^{3,4} Our initial focus is on implementing state-of-the-art water purification technology at the largest water use locations globally and having them fully operational in 2024</p> <p>Engage 100% of water-stressed/scarce communities where 3M manufactures on communitywide approaches to water management by 2025</p>	 <p>6.3, 6.4, 6.b</p>
<p>Plastic and packaging waste 2</p>	<p>To support our circularity efforts, we work to select packaging materials on the front end so they can be recycled after use rather than discarded on land or in waterways. We also continue to increase recycled content, make our packaging easier to recycle, encourage reusable packaging where appropriate, and increase the use of renewable materials.</p>	<p>Circular materials</p> <p><u>3M Sustainable Packaging Solutions</u></p>	<p>Require a Sustainability Value Commitment (SVC) for every new product¹</p> <p>Reduce manufacturing waste by 10%, indexed to sales, by 2025</p> <p>Reduce dependence on virgin fossil-based plastic by 125 million pounds by the end of 2025⁵</p>	 <p>12.5</p>
<p>Manufacturing waste 2</p>	<p>We believe it is our responsibility to carefully assess renewable and recycled materials, water, packaging, and waste as we focus on designing solutions that do more with less material, advancing a global circular economy.</p> <p>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.</p>	<p>Circular materials</p>	<p>Reduce manufacturing waste by 10%, indexed to sales, by 2025</p> <p>Achieve zero landfill status at more than 30% of manufacturing sites by 2025</p>	 <p>12.5</p>

3M Sustainability Priority Matrix: ● Science for Circular (cont.)

Priority topic & tier	Our actions	Additional information	Goals & commitments	Related SDG
Biodiversity and ecosystems 3	<p>In our supply chain, we prioritize forest products for additional formal expectations because of potential environmental risks such as deforestation and habitat loss. As a global paper purchaser and sustainability leader, we're well-positioned to positively influence practices throughout the forest products supply chain.</p> <p>Within our operations, we focus on incorporating circularity across all our business decisions. We have a role to play in carefully integrating renewable and recycled materials and enhancing the circularity of water, packaging, and waste.</p> <p>3M and 3M Foundation help build sustainable communities through strategic investments aimed at restoring natural ecosystems.</p>	<p><u>Environmental, health, and safety management</u></p> <p><u>Circular materials</u></p> <p><u>Suppliers</u></p> <p><u>Sustainable Forestry</u></p>	<p>Reduce Scope 1 and 2 market-based GHG emissions by at least 50% by 2030, 80% by 2040, and achieve carbon neutrality in our operations by 2050⁷</p> <p>Reduce global water usage by the following amounts: 10% by 2022, 20% by 2025, and 25% by 2030, indexed to sales²</p> <p>Reduce manufacturing waste by 10%, indexed to sales, by 2025</p> <p>Reduce dependence on virgin fossil-based plastic by 125 million pounds by the end of 2025⁵</p> <p>Engage 100% of water-stressed/scarce communities where 3M manufactures on communitywide approaches to water management by 2025</p> <p>Invest cash and products for education, community, and environmental programs by 2025</p> <p>Drive supply chain sustainability through targeted raw material traceability and supplier performance assurance by 2025</p>	<div> 6.4, 6.b </div> <div> 8.4 </div> <div> 9.4 </div> <div> 12.2, 12.5 </div> <div> 13.1 </div> <div> 15.2 </div>





3M Sustainability Priority Matrix: Science for Climate

Priority topic & tier	Our actions	Additional information	Goals & commitments	Related SDG
Climate change and GHG emissions 1	<p>We are committed to innovate to decarbonize industry, accelerate climate solutions, and improve our environmental footprint.</p> <p>In 2021, 3M announced that we expect to invest approximately \$1 billion over the next 20 years to support environmental goals, including achieving carbon neutrality in our operations by 2050.</p>	<p>Climate and energy</p> <p><u>3M commits to achieving carbon neutrality, reducing water use, and improving water quality</u></p> <p><u>3M and UN Climate Change start new strategic partnership</u></p> <p><u>3M Invests in TPG Rise Climate Fund</u></p> <p><u>Innovating to address climate change</u></p>	<p>Reduce Scope 1 and 2 market-based GHG emissions by at least 50% by 2030, 80% by 2040, and achieve carbon neutrality in our operations by 2050⁷</p> <p>Help our customers reduce their GHGs by 250 million tons of CO₂ equivalent emissions through the use of 3M products by 2025</p>	 13.1
Energy usage and use of renewable energy 1	<p>We are committed to continually improving energy efficiency, leveraging engineering expertise and advances, driving site-level efficiency improvements, maintaining top management support, and protecting 3M's reputation.</p> <p>We serve our customers through a wide range of innovative products that help them improve energy efficiency and reduce their GHG emissions.</p>	<p>Climate and energy</p> <p><u>Innovating to address climate change</u></p>	<p>Improve energy efficiency, indexed to net sales, by 30% by 2025</p> <p>Increase renewable energy to 50% of total electricity use by 2025 and to 100% by 2050</p> <p>Help our customers reduce their GHGs by 250 million tons of CO₂ equivalent emissions through the use of 3M products by 2025</p>	 7.3
Air quality 3	<p>An important component of 3M's sustainability strategy is our commitment to improving air quality globally while delivering on our customers' needs and expectations for high-performance products. 3M has developed internal programs to minimize our air emissions.</p> <p>We collaborate with the international nongovernmental organization Clean Air Asia on science-based air quality solutions for New Delhi, India, and metro Manila, Philippines.</p>	<p>Climate and energy</p> <p><u>Our partnership with Clean Air Asia</u></p>	<p>Require a Sustainability Value Commitment (SVC) for every new product¹</p>	 3.9  11.6

3M Sustainability Priority Matrix: Science for Community

Priority topic & tier	Our actions	Additional information	Goals & commitments	Related SDG
<p>Health and safety of employees and contractors</p> <p>1</p> <p>Human rights and labor practices in the supply chain</p> <p>2</p> <p>Responsible sourcing and supplier sustainability</p> <p>2</p> <p>Supplier diversity</p> <p>3</p>	<p>3M's approach to managing and assuring human rights, workplace safety, and well-being within our workplace and supply chain is derived from the 3M Code of Conduct. We implement these programs through our global policies, management system, assessments, audits, training, and metrics tracking.</p> <p>At 3M, we set a high bar for environmental and social governance, and we expect the same from our suppliers. We expect our suppliers to be transparent about their social practices including labor, health, safety, environmental, ethics, and management systems; provide improvement ideas; and work with us to transform our shared value chain as stated in our Supplier Responsibility Code.</p>	<p>Environmental, health, and safety management</p> <p>Human rights</p> <p>Suppliers</p> <p>3M's Code of Conduct</p> <p>Responsible Minerals</p> <p>Supplier Responsibility Code</p> <p>Supplier Diversity</p> <p>Sustainable Forestry</p> <p>3M named as one of the World's Most Ethical Companies by Ethisphere Institute for 10th consecutive year</p>	<p>Drive supply chain sustainability through targeted raw material traceability and supplier performance assurance by 2025</p> <p>Provide training to 5 million people globally on worker and patient safety by 2025</p>	<p>8 DECENT WORK AND ECONOMIC GROWTH</p> <p>8.7, 8.8</p> <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p> <p>16.5, 16.7</p>
<p>Community health, safety, and well-being</p> <p>2</p> <p>Infectious disease and public health issues</p> <p>2</p> <p>Employee training, development, and well-being</p> <p>3</p>	<p>We identify potential risks to the environment and to the health and safety of our employees and communities, and we take steps to update processes, product design, and standards to address these risks.</p> <p>For the global health care industry, we take a patient-centered approach to innovation and develop reliable, quality products and solutions. In 2020, we launched 3M Impact Health Care to use our health care expertise to help address health care inequities.</p> <p>3M is committed to developing employees and building a purpose-driven culture. Throughout the organization, we reinforce behaviors that foster an inclusive workplace, and we provide competitive benefits and recognition programs to support employees throughout their career. Work Your Way is our trust-based flexible work model that drives well-being and productivity in ways that enable our business and performance goals.</p> <p>3M promotes a culture of health and well-being for our employees through disease prevention programs, on-site clinical services, employee assistance programs, and comprehensive health care benefits.</p>	<p>Communities</p> <p>Customer-inspired innovation</p> <p>Environmental, health, and safety management</p> <p>Employee programs</p> <p>Innovation management</p> <p>Our partnership with Clean Air Asia</p> <p>3MSM Health Care Academy</p> <p>Helping the world respond to COVID-19</p> <p>Mitigating the Risk of Infectious Disease Spread Through Contamination Prevention</p>	<p>Invest cash and products for education, community, and environmental programs by 2025</p> <p>Provide training to 5 million people globally on worker and patient safety by 2025</p> <p>Provide 300,000 work hours of skills-based volunteerism by 3M employees to improve lives and help solve society's toughest challenges by the end of 2025⁶</p>	<p>3 GOOD HEALTH AND WELL-BEING</p> <p>3.c, 3.8</p>

3M Sustainability Priority Matrix: Science for Community (cont.)

Priority topic & tier	Our actions	Additional information	Goals & commitments	Related SDG
<p>Employee diversity, equity, and inclusion</p> <p>2</p> <p>STEM education, training, and workforce development</p> <p>2</p> <p>Employment and reskilling for under-resourced or marginalized communities</p> <p>3</p> <p>Racial justice and inequality</p> <p>3</p>	<p>We advance meaningful actions toward a more equitable future for our global employee base, including training, development, and recruitment efforts focused on underrepresented populations. We foster an inclusive culture that supports and appreciates differences and provides fair and equal opportunities for everyone. And we continue our efforts toward building a diverse workforce around the world.</p> <p>3M empowers the next generation of scientists and engineers by supporting education initiatives that advance equitable outcomes in STEM for underrepresented students globally. As a science-based manufacturing company, we're motivated to support a more equitable pathway to science, manufacturing, and skilled trades jobs.</p>	<p>Diversity, equity, and inclusion</p> <p>Communities</p> <p>3M Diversity, Equity & Inclusion (DEI) Report</p> <p>Equity & Community website</p> <p>3M helps 'industrial' athletes chase their skilled trade dreams</p> <p>Not the Science Type spotlights STEM equity at Brand Storytelling 2022</p> <p>Young Scientist Challenge</p> <p>Science at Home</p>	<p>Invest \$50 million to address racial opportunity gaps in the U.S. through workforce development and STEM education initiatives by the end of 2025⁵</p> <p>Double the pipeline of diverse talent in management globally to build a diverse workforce by 2030⁸</p> <p>Double the representation of underrepresented groups from entry-level through management in our U.S. workforce^{9,10}</p> <p>Double the representation of underrepresented groups in management positions in our U.S. workforce^{9,10}</p> <p>Advance economic equity by creating 5 million unique STEM and skilled trades learning experiences for underrepresented individuals by the end of the 2025-26 school year¹¹</p> <p>Invest cash and products for education, community, and environmental programs by 2025</p>	<p></p> <p>4.4, 4.5, 4.c</p> <p></p> <p>5.5</p> <p></p> <p>10.2</p>
<p>Advocacy, public policy, and engagement to support and promote social justice, science, health, environment, and safety</p> <p>3</p>	<p>At 3M, we believe in fair treatment, access, and opportunity for all individuals, and we're committed to removing barriers to equity.</p> <p>3M advocates for environmental, health, and safety policies and regulations that are guided by science-based decision-making and encourages the adoption and implementation of innovative solutions.</p>	<p>Communities</p> <p>Diversity, equity, and inclusion</p> <p>Corporate governance</p> <p>Climate and energy</p> <p>Environmental, health, and safety management</p> <p>Innovation management</p> <p>Lobbying and Political Activities Governance</p> <p>Equity & Community website</p> <p>State of Science Index Survey</p>		<p></p> <p>17.14</p>

3M Sustainability Priority Matrix

Priority topic & tier	Our actions	Additional information	Goals & commitments	Related SDG
Collaboration and partnerships 3	<p>In collaboration with our employees, customers, partners, government, and communities, we apply our expertise and technology to help solve shared global challenges. We continually look to our stakeholders to help us increase our understanding, broaden our awareness, seek technical input and expertise, and evaluate possible collaborations and strategic relationships. We rely on their counsel and expertise to help guide us.</p> <p>We focus on advocacy, support, and collaboration in our efforts to inspire leadership, innovation, and disruptive change, all driving impact for a more sustainable future.</p>	<p>Communities</p> <p>Circular materials</p> <p>Climate and energy</p> <p>Customer-inspired innovation</p> <p>Diversity, equity, and inclusion</p> <p>Climate and energy</p> <p>Environmental, health, and safety management</p> <p>Innovation management</p> <p>Equity & Community website</p>		 17.16
Ethical and transparent business practices 1	<p>Acting with unwavering integrity and transparency is core to who we are. Our commitment to transparency is evident in many ways, including the publication of this annual Global Impact Report and our Diversity, Equity & Inclusion (DEI) Report; and by providing annual communication on progress as part of our commitment to the UN Global Compact.</p>	<p>About report</p> <p>Corporate Code of Conduct</p> <p>3M's Code of Conduct</p> <p>3M Diversity, Equity & Inclusion (DEI) Report</p> <p>3M named as one of the World's Most Ethical Companies by Ethisphere Institute for 10th consecutive year</p>		 16.6

¹ For projects passing a 'gate' in our new product commercialization process; an SVC describes how the product drives positive impact for our stakeholders in alignment with our Strategic Sustainability Framework.

² Expands our previous commitment, which aimed to reduce water use by 10% between 2015 and 2025. 2019 is the baseline measurement year.

³ By improving the weighted average of priority constituents, including select metals, BOD, COD, cyanide compounds, fluoride, total nitrogen, oil & grease, PFAS, TDS, TSS, sulfate, and others.

⁴ Water used by manufacturing or industrial processes, including all water use not defined as domestic (sanitary, cafeteria, etc.).

⁵ Established in 2021.

⁶ Goal was initiated in 2019. Skills-based volunteering is primarily delivered through the 3M Impact program.

⁷ Expands our previous 2025 goal to stay below 50% of our 2002 baseline, meaning 3M's 2030 Scope 1 and 2 emissions will now be reduced by more than 85% from 2002 levels. 2019 is the baseline measurement year.

⁸ In 2021, 3M updated the goal maturity date to 2030 from 2025. See **3M's 2021 Global Diversity, Equity & Inclusion Report** for more details.

⁹ Established in 2020 to drive trend and trajectory progress over time. 2020 is the baseline measurement year.

¹⁰ Underrepresented groups in our 3M U.S. workforce include Black/African American and Hispanic/Latino employees.

¹¹ 2021 is the baseline measurement year. 3M defines underrepresented individuals in the U.S. using National Science Foundation research. For global definitions, we rely on gender diversity and local context for marginalized populations.

Past, present, and future ESG priority topics

From 2014 to 2022, we've seen stakeholder priorities shift in the following ways:

- From 2014 to 2022, climate-related issues have increased in importance for 3M, with a new topic of product innovation to solve climate, health, and safety challenges being the most material to 3M
- Emerging issues new to 2022 include product innovation to solve climate, health, and safety challenges; safety of products and services; R&D; designing products with less or no waste; employee training, development, and well-being; collaboration and partnerships; biodiversity and ecosystems; access to safe and affordable drinking water; racial justice and inequality; and supplier diversity
- Health and safety of employees and contractors and ethical business moved from Tier 2 to Tier 1 in 2022
- Employee diversity moved from Tier 3 to Tier 2 in 2022
- Plastic and packaging waste, water quality, human and labor rights moved from Tier 1 to Tier 2 in 2022
- Air quality moved from Tier 1 to Tier 3 in 2022
- Water usage and availability moved from Tier 2 to Tier 3 in 2022

The emergence of biodiversity and ecosystems as a new priority topic in 2022 has validated a category of work we've engaged in for years across all three pillars. For example, some of our water and carbon projects have revolved around restoring natural ecosystems and many of our partnerships have been a channel for us to support and invest in similar nature-based solutions. In our communities, projects have been funded by 3M and 3M Foundation, while we've partnered with Earthworm Foundation to implement projects in our supply chain.

Stakeholder feedback

The materiality assessment also gave us a broad and deep range of stakeholder feedback that will help us refine our goals and efforts.

In-depth qualitative interviews with external stakeholders were conducted to vet the priority topics that emerged from the survey analysis. They generally agreed with the placement of Tier 1 issues but felt that the following Tier 2 and 3 issues were worthy of higher priority:

- Biodiversity and ecosystems
- Social issues like: racial justice and inequality, supplier diversity, human and labor rights, reskilling of marginalized communities, and STEM education
- Plastic packaging and waste
- Air and water quality

The interviewed stakeholders further suggested that the priorities validated the importance of all three pillars.

Beyond the priority tiers, a common theme we heard is a desire to see 3M leverage our history and culture of innovation to help move the needle on sustainability. This can be seen in the placement of “product innovation to solve climate, health, and safety challenges” as the most material issue for 3M and “sustainable products and services” as the next most material issue. While we're always engaged in product innovation and have achieved notable milestones in innovating for sustainability, we're positioned to advance our impact significantly in the coming months and years.

We see opportunities across all three pillars of our Strategic Sustainability Framework, and external stakeholder feedback will continue to help inform our strategy.

Risk management

3M's Enterprise Risk Management (ERM) process addresses priority topics from our materiality assessment. This process provides recognition and ownership of the most significant potential risks to the company's shareholder value and our communities. For example, climate change is one of the most important topics stakeholders think 3M should address. Within the ERM process, climate change risk was previously integrated as part of several existing high-risk areas, such as material vulnerability, product stewardship, and operating safety, but in 2022 we added it as a discrete risk to proactively monitor, measure, and manage.

Learn more about 3M's overall risk management in [the Enterprise risk section](#) and more about [how we mitigate climate risk](#), including TCFD (Task Force on Climate-Related Financial Disclosures) recommendations, in the Climate and energy section.



Sustainability governance

Data provided in this Global Impact Report includes information focusing on items with high potential to impact 3M's reputation and items that are of the greatest importance to internal and external stakeholders as defined by the materiality assessment.

Because we are a diversified company, several other ESG-related topics and performance indicators relevant to various sectors of the company are also included in the report. 3M's executive-level Corporate Environmental Responsibility and Sustainability Committee reviews and approves priority topics covered in this Global Impact Report.

In addition, the 3M Science, Technology & Sustainability Committee of the Board of Directors annually reviews the company's Global Impact Report. Priority topics defined within this report apply to each entity within 3M. Prioritization for the different aspects may vary within 3M operations and geographies, but they're still a priority. Insights from the 2022 materiality assessment have informed 3M's long-term strategies and helped direct our efforts to areas where we can have a significant impact across our value chain.

Learn more about 3M's overall governance in [the Corporate governance section](#).

As a global science, technology, and manufacturing company, we believe 3M is positioned to bring our full capabilities to bear in advancing meaningful impact.



Looking forward

We need science now more than ever, and our sustainability pillars — Science for Circular, Science for Climate, and Science for Community — will continue to shape our actions as we pursue a sustainable future — one in which ecosystems thrive, communities are safe and healthy, and opportunities are equitable and accessible to all.

In 2023, our stakeholders' priorities will help guide us as we work to reinvent the products, processes, and systems that will help solve the world's greatest challenges. As we continue to integrate insights into our strategy, we'll be responding to the most critical concerns of our employees, customers, suppliers, and investors.

In late 2023, we anticipate the planned spinoff of our Health Care Business Group, which **3M announced in July 2022**. This will establish two strong independent enterprises focused on their respective business areas. We're currently assessing how this will affect our sustainability strategy and goals. We look forward to sharing details in future communications.

As a global science, technology, and manufacturing company, we believe 3M is positioned to bring our full capabilities to bear in advancing meaningful impact. As we act with urgency, we know systemic change requires resources and long-term dedication. Our customers, employees, and communities deserve it. People around the world are motivated by it — and our future will be better for it.



Communities

Our commitment

Building and nurturing meaningful connections with our local communities is fundamental to our sustainability strategy. We're committed to leveraging our people, products, and philanthropy to support communities through science, technology, engineering, and mathematics (STEM) education, workforce development, and community and environmental programs — with a focus on underrepresented populations and underserved communities.

Our impact

3M listens to and engages with communities to understand and identify ways to maximize our impact. In our multifaceted approach to community support, we identify key areas where we're uniquely positioned to have the most impact through cash and product donations, research and development investments, volunteerism and skills sharing, and more.

Our sustainability goals

Invest \$50 million to address racial opportunity gaps in the U.S. through workforce development and STEM education initiatives by the end of 2025¹

➤ Invested
\$23.6M

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

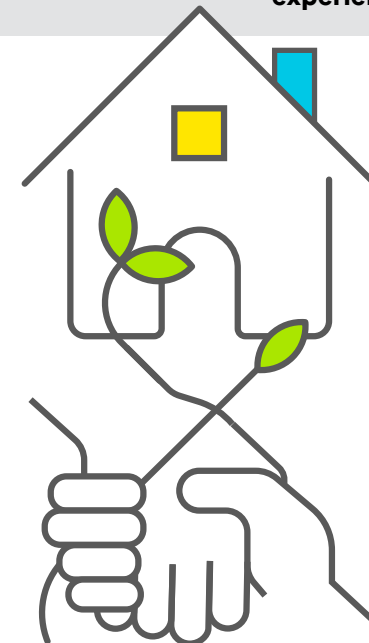
➤ Invested
\$82.1M

Advance economic equity by creating 5 million unique STEM and skilled trades learning experiences for underrepresented individuals by the end of 2025²

➤ Created
1.04M
experiences

Provide 300,000 work hours of skills-based volunteerism by 3M employees to improve lives and help solve society's toughest challenges by the end of 2025³

➤ Provided
81.8K
hours



¹ Established in 2021.

² 2021 is the baseline measurement year. 3M defines underrepresented individuals in the U.S. using National Science Foundation research. For global definitions, we rely on gender diversity and local context for marginalized populations.

³ Goal was initiated in 2019. Skills-based volunteering is primarily delivered through the 3M Impact program.



As part of our Science for Community pillar of 3M's Strategic Sustainability Framework, we help address social and economic disparities around the world. Through a variety of new and existing programs, we invest to build a strong foundation for equitable outcomes far into the future. To optimize our actions, we leverage research on social impact to inform investment decisions and collaborate with our community partners to track outcomes, minimize barriers, and expand future opportunities for 3M engagement.

In addition to the below, more information about our efforts to support equitable communities, including key highlights and actions taken in 2022, can be found by visiting our [Diversity, Equity & Inclusion \(DEI\) Report](#).

Investing in more equitable communities

Through the work of 3M and 3M Foundation, we help build sustainable communities through strategic investments and the thoughtful involvement of 3M employees worldwide who volunteer to make a difference. Since 1953, 3M and 3M Foundation have invested \$1.98 billion in cash and product contributions in communities where 3M operates.

3M and 3M Foundation develop and implement strategies and partnerships with leading community organizations committed to advancing equitable outcomes in our community. The 3M Foundation Board of Directors and Corporate Contributions Committee govern this work and are comprised of a diverse set of senior-level company executives.

To assure our support benefits the communities being served, 3M and 3M Foundation provide financial support to key partners and initiatives to help evaluate the outcomes of prospective grants and employee engagement initiatives.

\$50 million commitment over five years

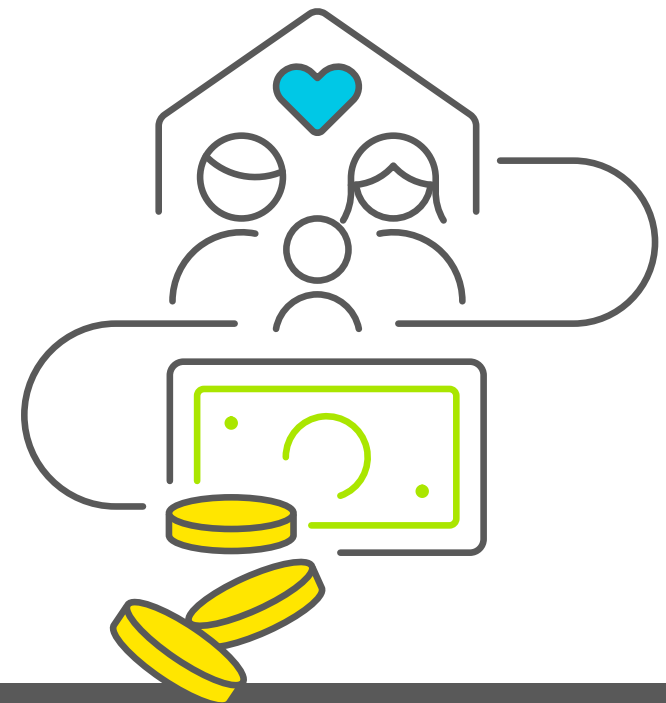
In 2022, 3M continued to work toward our goal to invest \$50 million to address racial opportunity gaps in the U.S. through workforce development and STEM education initiatives by the end of 2025. This investment is in addition to our existing corporate philanthropy. Contributions for 2022 totaled \$11.6 million.

To measure our impact and inform future investments, we worked with Ecotone Analytics to capture our social return on investment (SROI) using data from evidence-based research. This analysis demonstrated that every \$1 we invest in our community generates nearly \$3 worth of social impact — exceeding our initial internal target of \$2.50 return for every dollar invested. This amplifies our estimated impact from \$12 million invested to a projected \$35 million in social value returns (increased wages, additional taxes paid, avoided justice system costs, etc.).

As a science-based manufacturing company, we're motivated to support a more equitable pathway to science, manufacturing, and skilled trades jobs. Education and workforce development are key to broadening access to these careers for all students, especially those from underrepresented groups.

But we also help fulfill basic needs that must be met

for educational experiences to gain traction. Students need a foundation of stable housing, consistent nourishment, and necessary school supplies if they're to truly benefit from learning opportunities. In 2021, we dedicated \$10 million to create the 3M Community Fund, which is invested through the Greater Twin Cities United Way and the Saint Paul & Minnesota Foundation, to provide culturally specific holistic support for diverse families in the community surrounding our headquarters.



Since 1953, 3M and 3M Foundation have invested

\$1.98B

in cash and product contributions in communities where 3M operates

Every
\$1 we invest in our community

generates nearly
\$3 worth of social impact

Community outreach

No organization can advance social justice and create racial equity on its own. At 3M, we believe those closest to a community's challenges are best equipped to design and inform the most equitable solutions. Championing the voices and perspectives of community members and leaders helps us offer solutions that are truly community-focused. Among our most significant partnerships:

- The **3M Community Coalition** is a group of diverse leaders from across Minneapolis and St. Paul. Formed in 2020, it helps guide our \$50 million investment with a focus on racial equity challenges in St. Paul. The coalition's input guided our decision to invest in students' basic needs, expand our internal equity initiatives, and leverage 3M's assets and competencies to advance equity.
- **Youthprise**, a Twin Cities-based nonprofit, focuses on increasing access to career development opportunities for Indigenous, low-income, and racially diverse youth in Minnesota. We work with Youthprise to bring student voices into our STEM support and programs.
- Globally, each **business group at 3M** works in partnership with community-led nonprofit organizations to address inequities related to their markets. The business groups focus on addressing gaps in homeownership rates (Consumer), increasing access to health care for underserved individuals (Health Care), improving school zone safety (Transportation & Electronics), and diversifying the pipeline for skilled trades workers (Safety & Industrial). Our business leaders continue to inform ways our philanthropy can bolster both community outcomes and business objectives.

- 3M was a founding member of the **Minnesota Business Coalition for Racial Equity (MBCRE)** in 2020, and our involvement continues across multiple pillars of the program. MBCRE works with the business community across Minnesota to help build an equitable, inclusive, and prosperous community for Black residents. The coalition continues to inform our equity practices at 3M.

Environmental justice

Throughout 2021 we accelerated our efforts around environmental justice, building our expertise and our relevant responsibilities as an organization. In 2022 we created the new role of director of environmental justice to develop and elevate a global environmental justice program. We've advanced a cohesive strategy for working alongside underserved communities and are starting to implement it at initial sites.

3M leverages philanthropy to supplement our commitment to operational change for environmental justice. For example, since 2020 we've supported the American Forest Foundation's Sustainable Forestry and African American Land Retention (SFLR) Program, which helps African American families generate income from their land. This can turn land into an asset to be shared across generations while also keeping forests as forests. Learn more at [Sustainable Forestry](#).

3M uses the Environmental Protection Agency's definition of environmental justice: "Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys:

- The same degree of protection from environmental and health hazards
- Equal access to the decision-making process to have a healthy environment in which to live, learn, and work"

Empowering the next generation

3M empowers the next generation of scientists and engineers by supporting education initiatives that advance equitable outcomes in STEM for underrepresented students globally. This will help lead to economic equity, especially for individuals from marginalized populations. Since 2021, we've supported over 1 million unique STEM and skilled trades learning experiences, putting us well on track to deliver on **our goal to create 5 million such experiences by the end of the 2025-26 school year.** Data from **3M's State of Science Index** helps guide our strategic STEM investments with insights from across the globe.

Learn more by watching **A More Equitable Future: Inspiring New STEM and Skilled Trades Talent** (video, 1:54).

In December 2022, Dr. Jayshree Seth, 3M's chief science advocate and a corporate scientist, represented 3M at the White House Summit on Equity and Excellence in STEMM (science, technology engineering, mathematics and medicine). The summit kicked off a partnership between The White House Office of Science and Technology, the American Association for the Advancement of Science, and the STEMM Opportunity Alliance. These entities will form an Advisory Council to help create a national strategy for increasing equity in STEMM. James Momon, 3M's chief equity officer, will represent 3M as an advisor on the council.



3,800+

girls attended summer
STEM lab camps
across the U.S.

Supporting STEM experiences

Science at Home – The COVID-19 pandemic continues to affect our communities, including the learning loss that's been experienced by many students. Existing learning gaps only widened during the pandemic. In 2022, our Science at Home online program, created in partnership with the Bakken Museum in Minneapolis in April 2020, continued to provide accessible hands-on science-related content. 3M also continues to provide grant funding for participating teachers through the Donors Choose platform, which provides school supplies to help support STEM education.

Science Encouragement Programs – We've reinvigorated this set of volunteer programs designed to connect students with 3M scientists and engineers and inspire them to pursue science careers.

- **3M TWIST** (Teachers Working in Science and Technology), a six-week paid summer research program for teachers
- **3M STEP** (Science Training Encouragement Program) for St. Paul public high school juniors and seniors from diverse backgrounds pairs students with a 3M mentor and offers hands-on experience in a 3M lab over the summer
- **3M Visiting Wizards**, in partnership with the Bakken Museum, where volunteers provide science demonstrations and hands-on experiments to K-12 students
- **3M Tech Talks**, a program connecting students, especially women and minorities, with 3M role models from a variety of technical job positions, degree levels, and backgrounds

In 2022, we increased program expectations and due diligence by standardizing our processes, making the programs more robust and replicable. 3M Visiting Wizards, traditionally a Minnesota-based program, has expanded globally, and 3M Tech Talks is set to expand in 2023.

National Society of Black Engineers (NSBE) –

In 2022, we supported NSBE's SEEK program, a hands-on summer engineering experience for African American students in grades 3 to 5.

Project Scientist – In 2022, 3M supported over 3,800 learning experiences for girls participating for free in summer STEM lab camps across the U.S.

3M Young Scientist Challenge – The premier U.S. science competition for students in grades 5 to 8, this one-of-a-kind competition seeks to spark curiosity in students and empower them to solve real-world problems that help improve lives. The winner receives a \$25,000 scholarship and the annual title of "America's Top Young Scientist."

STEM programs around the world – Our global teams actively foster diversity and equity in STEM careers through programs including:

- **FIRST® Robotics** – This program helps young people discover and develop a passion for STEM through team sponsorship with the support of 3M volunteers, FIRST® LEGO® League, and FIRST® Robotics competition teams. 3M also makes significant product donations to support high-performing robots in the competitions.
- **Local STEM initiatives** – 3M sites in countries around the world build partnerships for STEM education with schools and nonprofit organizations in their local community. Learn more about these initiatives at 3M's [**Diversity, Equity & Inclusion \(DEI\) Report**](#).

Opening doors to the skilled trades

Community training resources – As manufacturing evolves and companies like 3M invest in facilities of the future, it's essential to help our local technical schools and high schools access appropriate technologies and training. To keep the workforce pipeline flowing, we continue to invest in programs including the **3M Manufacturing and Academic Partnership**, Skills USA and WorldSkills, and Teach For America.

St. Paul Public Schools career pathway – In collaboration with the Minnesota State College and University system and St. Paul Public Schools, 3M has helped ease the way toward a rewarding career in the skilled trades for St. Paul Public School students. A new program now gives students college or certification credits — and sometimes certifications — for skilled trades classes. With the growing need for skilled trades in manufacturing, this helps build out 3M's hiring pipeline and gives more students a path to a well-paying job.

National Coalition of Certification Centers (NC3) – 3M and NC3 awarded 50 \$1,000 scholarships to students who participated in the NC3 National Career and Technical Education Letter of Intent Signing Day. Learn more at **3M and the National Coalition of Certification Centers award national scholarships**.

Inspiring employees to change the world

3M Impact

Our portfolio of skills-based volunteer programs allows employees to use their business skills, experience, and energy to make a difference in local and global communities while also developing critical professional skills like empathy, problem-solving, and interpersonal communications. Focused on working with social enterprises and nonprofit organizations that are addressing the world's toughest challenges, we invest in volunteer programs that promote a circular

economy, fight against climate change, and create a more positive world through science to inspire and empower our employees to drive change. In 2022, we resumed our global activity after a two-year hiatus due to COVID-19. We provided 30,100 work hours of skills-based volunteerism by 3M employees in 2022.

Programs include:

- **3M Impact Global** – Employees are sent to communities around the world to work on-site with local nonprofit organizations and social enterprises for two weeks.
- **3M Impact Local** – Employees work with a nonprofit organization or social enterprise in their own community.
- **3M Impact Health Care** – Employees use health care expertise to address health care inequities and build the capacity of nonprofit and community health organizations that serve historically disadvantaged populations. **A national study conducted by 3M** in 2022 highlights the pervasiveness of health care inequities and the importance of this work.

Big hearts, matched

With the 3M Volunteer Match program, 3M donates money to eligible nonprofit organizations when a U.S.-based 3M employee or retiree volunteers in our community. In 2022, 3M offered a \$20 volunteer match for each hour of service, up to \$500. Since 2000, 3M and 3M Foundation have donated \$12.2 million in 3M Volunteer Match dollars, and in 2022 Volunteer Match grants supported 1,350 unique schools and nonprofit organizations throughout the U.S. In addition, 3M expanded its support of 3M employees serving on nonprofit boards of directors with a new 3M Board Service Match program in 2022.

3M and NC3 awarded 50

\$1,000

scholarships to students in the skilled trades





Giving that starts at home

3M amplifies employees' philanthropic impact through relevant matching gift programs. In the United States, the 3M Community Giving Match and College & University Match programs matched up to \$1,000 per employee gift in 2022 plus an added level of matching gifts to higher education institutions. In 2022, global employees contributed \$3.25 million in donations and pledges through the 3M matching gift programs.

When combined with the match, this totaled more than \$5.5 million in donations to help solve our communities' greatest needs, supporting more than 4,020 organizations.

Product donations

We work to provide 3M products to a multitude of U.S. nonprofit organizations, from hospitals to schools to shelters. A large part of this effort involves donating excess inventory to leverage life-improving products in meaningful ways. In 2022, 3M donated \$31.4 million in products globally. For example, our strategic partnership with the Kids in Need Foundation helped to provide 3M products to under-resourced K-12 teachers and students across the U.S.

Humanitarian aid

3M works with strategic community partners Direct Relief, MAP International, and American Red Cross to provide financial support and product donations to communities in times of need. For an example of our efforts, see [3Mers push Ukraine giving past \\$2M](#).

Looking forward

We believe 3M is positioned to bring our full capabilities to advance equity and inclusion in our communities. We're continuing to deliver on our \$50 million community commitment and to partner with organizations dedicated to assuring justice and equity.

In the next year, we'll continue to monitor and measure the impact of our initiatives to advance equity in STEM and skilled trades. Our focus will be to build closer relationships with our partners and continue to expand and invest in areas where we can lend our unique expertise and technologies.

We're committed to advancing environmental justice by working alongside marginalized communities to co-create sustainable solutions. And we'll continue to leverage the skills and passion of our people to meet the needs of our communities in new ways in 2023.





2022 giving in review



Total giving: 2022

\$82.1M

compared with 2021 corporate median of \$25.8M¹

0.78%

in cash giving as a percentage of pre-tax profit, compared to 2021 corporate median of 0.62%¹

\$23.9M

invested in education

73% U.S. giving | **27%** international giving

Supporting 3M communities in all 50 states, Puerto Rico, the U.S. Virgin Islands, and over

28 countries

3M and 3M Foundation work to improve lives in 3M communities with investments that drive equity in STEM and skilled trades, volunteer activities that leverage the skills and talents of 3M employees, and the deployment of 3M products for social impact.

Advance economic equity

We help advance economic and racial equity by supporting increased participation of underrepresented populations in STEM and skilled trades careers.

1,040,000

learning experiences for underrepresented groups

Since 2021, we've supported over 1 million unique STEM and skilled trades learning experiences, putting us well on track to deliver on our goal to create 5 million learning experiences by the end of the 2025-2026 school year.

3M Manufacturing and Academic Partnership program (MAP)

To build a pipeline of diverse talent in advanced manufacturing, 3M's MAP program helps our local technical schools and high schools access relevant technologies and training.

\$1 → \$3 amplified impact toward our \$50M goal

An external analysis demonstrated that every \$1 we invest in the community generates nearly \$3 in social impact. This amplifies our actions as we work toward our goal to increase racial equity in STEM education and the workforce.

Employee empowerment

We empower employees to support our communities through philanthropy and volunteer service.

192,000

volunteer hours globally

81,800

skills-based volunteer hours since 2019

Our employees shared their skills, experience, and energy to make a difference in our global communities.

\$3.98M total

employee contributions and 3M community giving match

Together, our employees supported over 3,020 community organizations throughout the U.S.

4,020

schools and nonprofits

3M employees and retirees volunteer in alignment with their passions, and we support them through 3M's Matching Gifts programs in the U.S.

3M product deployment

We make strategic financial and product donations in response to community needs.

\$9.4M

NAEIR and Kids in Need

We donated product to nonprofit organizations and schools in the U.S.

\$1.3M

FIRST® Robotics

Our donation of products for robotics kits enhanced student experiences.

\$12.2M

for humanitarian aid

We made product donations for humanitarian aid throughout the world.

¹ Chief Executives for Corporate Purpose.® Giving in Numbers: 2022 Edition™: cecp.co/home/resources/giving-in-numbers/

Diversity, equity, and inclusion

Our commitment

Recruiting and retaining a diverse global workforce is a core part of 3M's sustainability strategy. We recognize that different countries and cultures have different definitions of diversity. 3M aims to reflect the diversity of our customers, suppliers, and community partners. In addition, we're committed to advancing equity across our organization at all levels and to creating an inclusive culture where all feel welcome.

Our impact

We advance meaningful actions toward a more equitable future for our global employee base, including training, development, and recruitment efforts focused on underrepresented populations. We foster an inclusive culture that supports and appreciates differences and provides fair and equal opportunities for everyone. And we continue our efforts toward building a diverse workforce around the world.

Our sustainability goals

Double the pipeline of diverse talent in management globally to build a diverse workforce by 2030¹

> Increased to
45.1%

Maintain or achieve 100% pay equity globally²

> Achieved
100%
equity

Double the representation of under-represented groups from entry-level through management in our U.S. workforce^{2,3}

> Increased to
9.02%

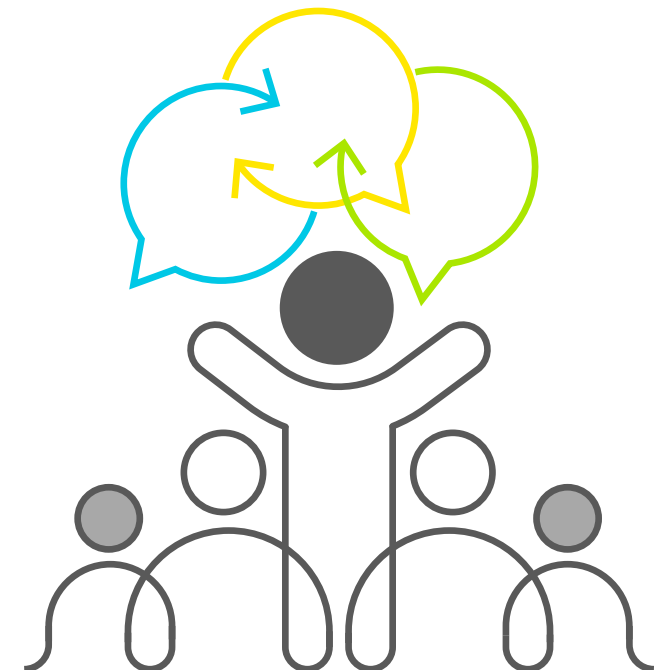
Double the representation of underrepresented groups in management positions in our U.S. workforce^{2,3}

> Increased to
6.39%

¹ In 2021, 3M updated the goal maturity date to 2030 from 2025.

² Established in 2020 to drive trend and trajectory progress over time.

³ Underrepresented groups in our 3M U.S. workforce include Black/ African American and Hispanic/Latino employees. 2020 is the baseline measurement year.



As a science-based company with a promise to help solve some of the world's greatest challenges, it's our imperative to become the most inclusive enterprise we can be. Inclusion leads to engagement, engagement fosters creativity, creativity sparks innovation, and innovation produces growth.

In addition to the below, learn more about our diversity, equity, and inclusion efforts, including key highlights and actions taken in 2022, at 3M's [Diversity, Equity & Inclusion \(DEI\) Report](#).

Diversity, equity, and inclusion governance

To foster a workplace that reflects the [3M Respectful Work Environment Principle](#), we follow U.S. 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 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.

To advance our social justice and impact agenda, we created a 3M Equity & Community organization to support our goals and commitments to progress equity in our workplaces, business practices, and communities globally. This holistic cross-functional organization connects our teams and strategies across the areas of diversity and inclusion in our workforce.

We also support our values with an internal CEO Inclusion Council, chaired by CEO Mike Roman, to advance diversity, equity, and inclusion initiatives.

A diverse and inclusive workplace

We know that people with different experiences, racial and ethnic backgrounds, ages, gender identities, sexual orientations, abilities, personalities, styles, and ways of thinking help us better understand the needs of 3M customers, suppliers, and community partners around the world.

Our diverse workforce

We're building on our foundation by taking steps to advance the representation of underrepresented groups at 3M. We continue to work toward bringing the demographics of 3M's workforce in line with broader workforce availability.

To measure progress against our goal to double the pipeline of diverse talent in management globally by 2030, we use 3M's global Diversity Index, which measures the percentage of 3M management that is diverse across a wide spectrum of dimensions, including gender, nationality, race/ethnicity, disability, U.S. military veterans, and LGBTQI+. Since 2015, we've improved our global Diversity Index by 12.5 points, moving from 32.6% to 45.1% as we progress toward our 2030 goal of 65.2% — or double our 2015 percentage. To see [historical progress](#), view our metric tables.

In addition, we've made good progress on our goal to double the representation of underrepresented employees in the U.S. Since 2020, we've improved our U.S. representation of underrepresented groups from entry-level through management by 0.92 points, moving from 8.13% to 9.02%. At the same time, we've improved our U.S. representation of underrepresented groups in management positions by 0.79 points, moving from 5.55% to 6.39%.

Improved our global diversity index by

12.5 points



We anticipate even more progress in the coming year as we continue to advance our efforts in hiring, retaining, and developing talent. Indeed, nurturing a talent acquisition pipeline is critical to achieving and maintaining our representation goals. To strengthen that pipeline, 3M has several programs that provide valuable research, work, and professional development opportunities to underserved STEM students in higher education. Learn [more about these programs](#) in the Innovation management section.

To help us monitor our progress and provide transparency, we share an internal quarterly scorecard of our progress on the global Diversity Index and hiring metrics, as well as data on supplier diversity and community investments.

Learn [more about 3M's diverse workforce](#) at our Diversity, Equity & Inclusion (DEI) Report.

Support for LGBTQI+ people

At 3M, we believe in fair treatment, access, and opportunity for all individuals, and we're committed to advocating for human rights and removing barriers to equity. 3M has signed the Human Rights Campaign's Business Coalition for the Equality Act, joining other leading U.S. employers in declaring support for U.S. federal legislation that would provide the same basic protections to LGBTQI+ people that are provided to other protected groups under federal law.



3M is also a signatory to a national Business Statement Opposing Anti-LGBTQ State Legislation, organized by the Human Rights Campaign and the Freedom for All Americans Education Fund. By signing, 3M and other companies are expressing support for LGBTQI+ employees and their need to feel safe and included — both in the workplace and in the surrounding community. The companies are also expressing concern over state bills that single out LGBTQI+ individuals for exclusion or different treatment.

In support of the United Nations LGBTI Standards of Conduct for Business, 3M has joined other companies in committing to processes, policies, and programs that promote equality and safety, prevent harassment and discrimination, and advance LGBTQI+ individuals in the workplace and the community.

Hear the **stories of two 3M employees** whose personal experiences make 3M's support especially meaningful.

Pay equity

3M's global pay philosophy, principles, and consistent implementation result in fair and equitable pay for our employees. We analyze pay equity by comparing employees in the same job category, job grade, and location, a process that's produced excellent results. In 2022, we continued to have 100% gender pay equity globally and 100% pay equity for racial/ethnic groups in the U.S.

Learn more in the [Compensation section](#).



Looking forward

As we advance our diversity, equity, and inclusion initiatives, we know systemic change requires resources and long-term dedication. We'll continue to focus on moving the needle on our representation goals and partnering with organizations dedicated to inclusion and equity.

We'll keep building our recruitment and hiring pipeline by supporting programs that provide research, development, and work experience to underrepresented STEM students in higher education. We stand with 3M's LGBTQI+ community and will continue to support initiatives that aim to include and protect LGBTQI+ individuals, both within 3M and in our operating communities.

All of these actions move us closer to being an enterprise where people are respected for exactly who they are and everyone feels a sense of belonging — both within and outside of our walls.





How we work



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Corporate **governance**

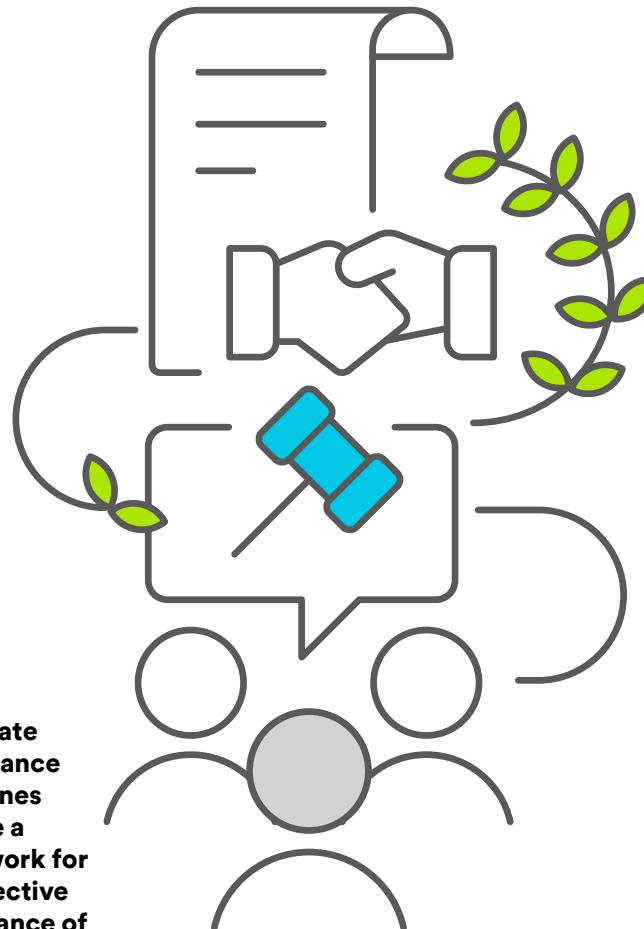
Our **commitment**

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

Our **impact**

Our corporate governance principles govern how 3M does business daily, enabling us to outperform and lead the way to sustainable growth.

Corporate Governance Guidelines provide a framework for the effective governance of the company



Our corporate governance principles define the roles, rights, and responsibilities of different groups within 3M as well as of our Board of Directors.

Governance oversight

3M's Board of Directors is comprised of a diverse group of experienced leaders that possess deep expertise in areas important to 3M. Shareholders, who have several options to nominate individuals to serve as 3M directors, choose those directors on an annual basis. The Board consists entirely of independent directors and 3M's CEO. 3M's Board serves as elected representatives of the shareholders, acts as an advisor and counselor to the CEO and senior management, and oversees management performance on behalf of shareholders. The Board also oversees 3M's strategic and business planning process; has general oversight responsibilities for our overall environmental, social and governance (ESG) and human resources strategies, goals, and results, including sustainability, environmental stewardship, and diversity, equity, and inclusion; and reviews and assesses management's approach to addressing significant risks facing the company.

3M's Board of Directors has adopted Corporate Governance Guidelines that provide a framework for the effective governance of the company. The guidelines address matters such as the respective roles and responsibilities of the Board and management, the Board's leadership structure, the responsibilities of the lead independent director, director independence, Board membership criteria, Board committees, succession planning, and the annual Board and committee evaluation process.



3M's Proxy Statement provides annual updates on governance topics, including:

- Qualifications, experiences, and diversity of our Board members
- Director independence
- Board and committee leadership structure, Board refreshment, and Board committee composition and responsibilities
- Shareholder outreach and engagement
- Board oversight activities, including with respect to strategy, risk management, management succession planning, human capital (including diversity, equity, and inclusion), and ESG (including sustainability)
- Executive compensation, including as it relates to environmental and social goals

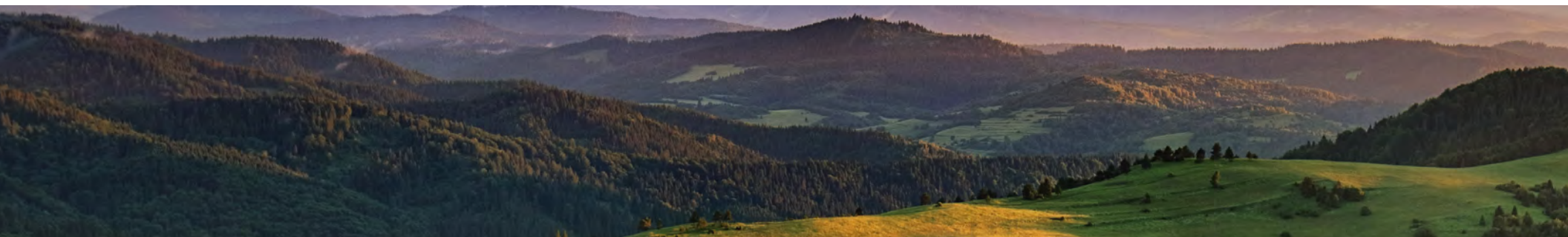
More information on 3M's corporate governance can be found at:

- [Corporate Officers](#)
- [Board of Directors](#)
- [Committee Composition](#)
- [Governance Documents](#)
 - [Certificate of Incorporation](#) and [Bylaws](#)
 - Committee Charters
 - [Corporate Governance Guidelines](#)
 - [Board of Directors Code of Conduct](#)
 - [Director Independence Guidelines](#)
- [Annual Reports & Proxy Statements](#)

Sustainability governance

Our robust sustainability governance structure includes oversight by our Board of Directors, which receives regular sustainability updates and reviews related risks as part of 3M's enterprise risk management. The Science, Technology & Sustainability Committee of the Board of Directors has primary oversight responsibility of 3M's sustainability and stewardship activities, including environmental and product stewardship efforts, environmental, health, and safety, and legal and regulatory compliance, among others. 3M's Environmental Responsibility and Sustainability Committee, comprising top 3M executive management, provides leadership, oversight, and strategy for sustainability and develops and monitors adherence with related policies and procedures.

Group	Function
Board of Directors	<ul style="list-style-type: none">• Receives regular sustainability updates at Board meetings• Reviews sustainability-related risks as part of 3M's enterprise risk program
Science, Technology & Sustainability Committee of the Board of Directors	<ul style="list-style-type: none">• Provides primary oversight of 3M's sustainability and stewardship activities• Reviews 3M's sustainability policies and program to identify and analyze significant sustainability, materials-vulnerability, and geopolitical issues that may impact 3M's overall business strategy, global business continuity, and financial results
Environmental Responsibility and Sustainability Committee	<ul style="list-style-type: none">• Provides leadership, oversight, and strategy to encourage and ensure sustainability opportunities are recognized• Develops and monitors adherence with strong sustainability-related policies and procedures• Includes 3M's CEO, CFO, CTO & EVP Environmental Responsibility, Group President Enterprise Operations, EVP & Chief HR Officer, EVP & Chief Legal Affairs Officer, SVP & Chief Strategy Officer, and EVP Country Governance & Services
Chief Sustainability Officer	<ul style="list-style-type: none">• Leads 3M's sustainability activities• Reports to the Environmental Responsibility and Sustainability Committee and other internal and external groups
Sustainability leaders in business groups, areas, and enterprisewide	<ul style="list-style-type: none">• Drives Strategic Sustainability Framework priorities and initiatives consistent with the scope of their role• Leads customer relationships to solve shared global challenges



Through engagement with our Board of Directors, executive leadership team, and business units, we're working across 3M's Strategic Sustainability Framework to advance progress toward our sustainability goals. Learn more in our [2023 Proxy Statement](#), Board's role in sustainability.

Public policy engagement

As a concerned member of our communities, 3M actively participates in public policy and legislative advocacy, or "lobbying." We believe that transparency with respect to the consideration, process, and oversight of our engagement with lawmakers is important to our shareholders, and we continually make efforts to give our shareholders useful information about our public policy engagement.

See details in our [2023 Proxy Statement](#), our [Lobbying and Political Activities Principle](#), and our [Lobbying and Political Activities Governance](#) document.

3M's approach to taxation

3M is committed to complying with all applicable tax laws, rules, regulations, and reporting and disclosure requirements through the implementation of standardized, simplified, cost-effective, and automated compliance processes. This means paying the right amount of tax in the right place at the right time and involves disclosing all relevant facts and circumstances to the tax authorities and claiming reliefs, incentives, and exemptions in line with and in the spirit of the applicable tax legislation. In addition, 3M's tax strategy is consistent with the principles set forth in [3M's Code of Conduct](#).

Approach to risk management and tax governance

At the highest level, responsibility for taxes resides with 3M's Global Tax Department based in our headquarters in the United States. The senior vice president for tax reports to 3M's executive vice president and chief financial and transformation officer and is a member of 3M's Finance Committee. The Tax Operating Committee, under the leadership and direction of the senior vice president for tax, has oversight over the material tax matters of 3M's worldwide business and supply chain.

3M assures the appropriateness of our accounting and tax records on an ongoing basis to enable us to meet our compliance obligations. In countries where we operate, we document and confirm with the respective authorities. Where required, 3M assures **public disclosures are published** according to the regulations.

Day-to-day management of 3M's taxes is overseen by the tax management responsible for the respective region and area of taxation. Processes relating to various taxes are allocated to the relevant process owners responsible for executing tax compliance controls. Appropriate training is carried out for staff who manage or process matters with tax implications.

Transactions between 3M companies are conducted on an arms-length basis in accordance with appropriate transfer pricing rules. This assures 3M's profits are taxed where economic activities are performed. Where there are any areas of uncertainty, 3M engages its external professional advisors to provide specialist advice as and when needed.

Reporting tax concerns

As with all instances of unethical or unlawful behavior, we encourage our employees to ask questions or report concerns about tax matters to

management, 3M's Ethics & Compliance Department, 3M legal counsel, [3MEthics.com](#), their assigned human resources manager, 3M's Corporate Audit Department, or the Audit Committee of the Board of Directors.

Learn more about [reporting concerns about unethical or unlawful behavior](#) in the Corporate Code of Conduct section.

3M's attitude to tax planning

3M engages in tax planning that's aligned with its commercial business activities or supply chain needs and in compliance with tax rules and regulations. 3M may engage in tax planning or other activities potentially perceived as tax planning. We do not engage in artificial tax arrangements that lack economic substance, one of the main purposes of which would be to obtain a tax advantage. We may, however, evaluate potential economic options resulting from business transactions with consideration of tax efficiency.





Risk management in relation to taxation

Our approach to tax risk follows principles similar to those that apply to our management of legal, compliance, and other business risks. Our internal framework supports compliance with tax laws and regulations to assure we identify, assess, and mitigate tax risks, including consideration of both internal and external stakeholders.

Approach toward engagement with tax authorities

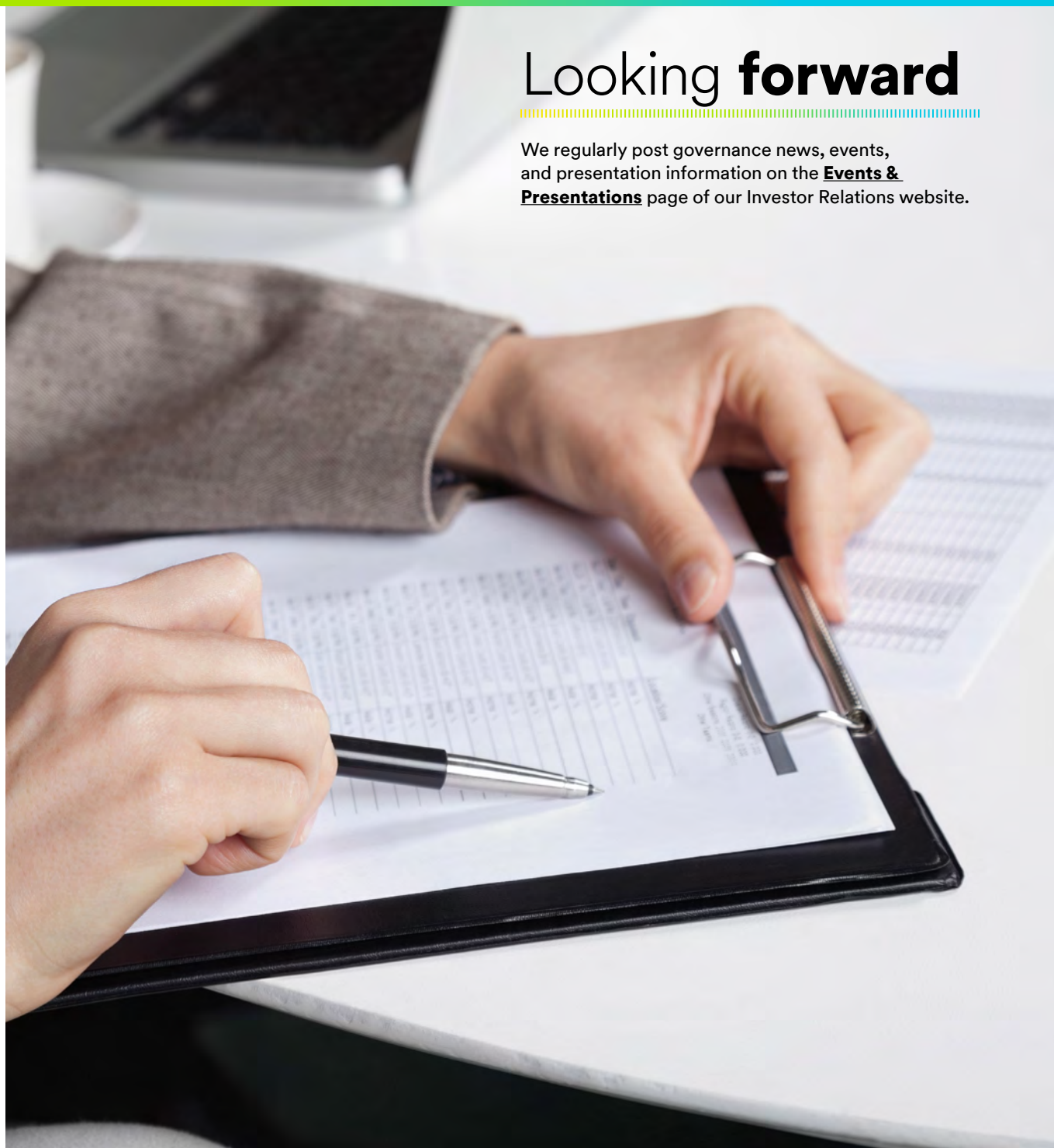
We strive to have an open, honest, and collaborative working relationship with tax authorities. 3M assures that specific tax authorities are kept aware of significant transactions and changes in the business and seeks to discuss at an early stage any tax issues that arise.

When submitting tax computations and returns to country tax authorities, 3M discloses all relevant facts and identifies any transactions or issues that we consider to have potential for uncertain tax treatment. We recognize there could be areas of differing legal interpretations between 3M and tax authorities, and where appropriate we'll engage in proactive discussion to conclude matters as quickly as possible.

Any inadvertent errors in the submission of tax returns and tax computations are fully disclosed as soon as reasonably practicable after they have been identified.

Looking forward

We regularly post governance news, events, and presentation information on the **Events & Presentations** page of our Investor Relations website.



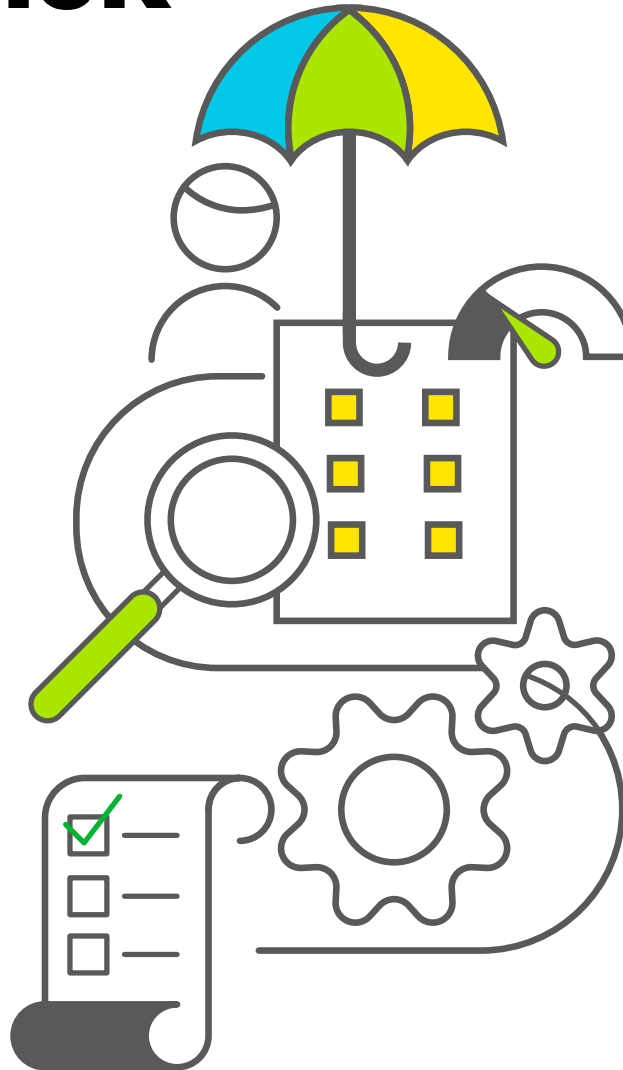
Enterprise **risk**

Our **commitment**

To assure 3M's long-term success, we're committed to identifying and preparing for material opportunities and threats impacting our ability to deliver on stakeholder expectations.

Our **impact**

3M's general auditor conducts an annual review of the major risks facing the company and works with executives to assess those risks and develop appropriate mitigation plans. To assure business continuity through global economic and geopolitical challenges, we prioritize the well-being of our workforce, resiliency of our global supply chain, environmental stewardship, and efficiency in our operations.



3M believes that good corporate governance practices serve the long-term interests of our stakeholders, strengthen 3M's Board of Directors and management, and further enhance the public trust we've earned from more than a century of operating with unwavering integrity.

Risk oversight

The concept of risk appetite and tolerance is an essential component of our strategic planning. The Board delegates 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 mitigate and monitor such exposures.

The Audit Committee has direct oversight of the work of two senior vice president positions, the general auditor and the chief ethics & compliance officer, that both report to the chair of the Audit Committee. The general auditor, Corporate Audit, is responsible for leading the formal risk assessment and management process within the company and annually reports the results to the full Board.



... we prioritized the well-being of our workforce, resiliency of our global supply chain, environmental stewardship, and efficiency in our operations.

Consulting with the company's senior management and the Board, the general auditor annually leads the assessment of the major risks facing the company and works with the executives responsible for managing each risk to develop appropriate mitigation and monitoring plans. The general auditor periodically reviews with the Audit Committee its findings and results from this work.

3M's 2022 Annual Report on Form 10-K, Item 1A summarizes risk factors applicable to the company. In addition, 3M's 2023 Proxy Statement provides details on Board oversight committees and members.

See our [2022 Annual Report and 2023 Proxy Statement](#).

1:1 risk management meetings

In 2022, the general auditor met individually with each independent 3M Board member and each member of the executive-level Corporate Operating Committee (COC) to discuss risk management in general, as well as specific risk-related topics facing the company. These meetings provided the COC and Board members the opportunity to share what risk issues were top of mind for them and which should be reviewed and addressed by management with oversight by the Board.

3M's Enterprise Risk Management initiative

Launched in 2001, our Enterprise Risk Management (ERM) initiative helps assure adequate recognition and ownership of the most significant potential risks to the company. ERM uses a process that proactively identifies and communicates enterprise risks within the company, including:

- Confirming that appropriate plans and oversight exist for material risks
- Providing for ongoing risk review and assessment

- Aiding in generating awareness and engagement of general risk matters throughout the company

Within the ERM process, we interview risk owners familiar with environmental, economic, and business aspects within the company and ask them to complete a thorough assessment for their respective risk(s). Together with subject matter experts and senior management, we map the outcomes to demonstrate the relative impact, likelihood, and velocity (speed of onset) of each risk. This shows us our highest-risk areas and where to focus our internal efforts.

In addition, we continually review external resources and data to help identify risk. We share the results of these various exercises with the COC and the company's full Board of Directors.

To learn how we manage risk at the site level, see [the Environmental, health, and safety management section](#).

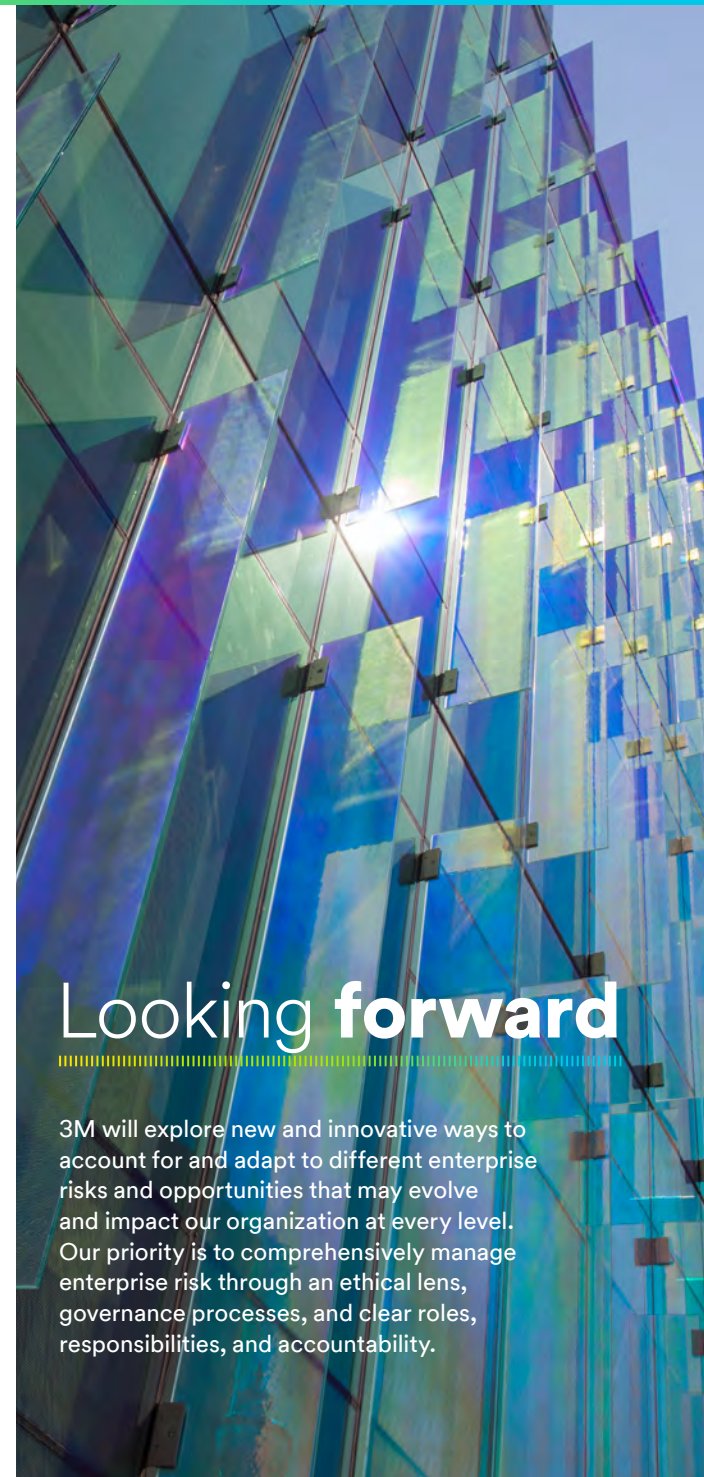
Monitoring emerging risks

3M places particular emphasis on protecting our company against emerging risks in an ever-changing world. For example, within the ERM process, climate change risk was previously integrated as part of several high-risk areas, such as material vulnerability, product stewardship, and operating safety. In 2022 we added it as a discrete risk to proactively monitor, measure, and manage.

We also continually cast an eye on the state of geopolitics and take any steps needed to protect the enterprise.

We continue to actively manage risk related to ongoing litigation. See our [2022 Annual Report on Form 10-K](#), Item 8 - Note 16: Commitments and Contingencies for more information, including around:

- [Chemicals stewardship](#)
- [Combat arms](#)



Looking forward

3M will explore new and innovative ways to account for and adapt to different enterprise risks and opportunities that may evolve and impact our organization at every level. Our priority is to comprehensively manage enterprise risk through an ethical lens, governance processes, and clear roles, responsibilities, and accountability.

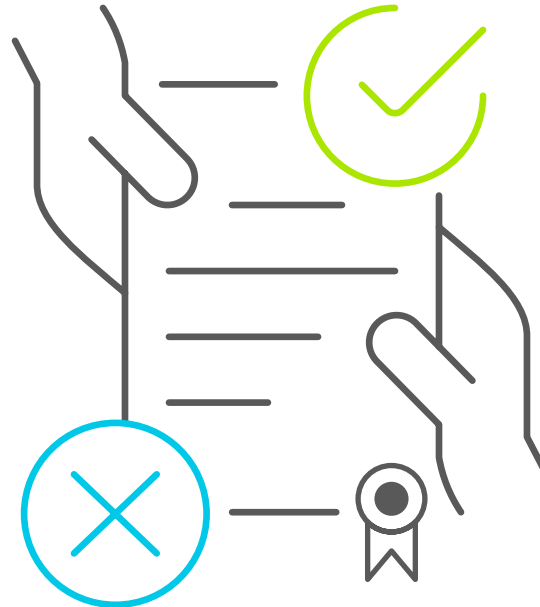
Corporate **Code of Conduct**

Our **commitment**

The Code of Conduct positions 3M for long-term growth and binds us together as 3M employees — across business groups and across geographies. Great companies are built on trust — from their 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.

Our **impact**

Again in 2022, all over the world, we held Ethics & Compliance Week events to further build employee engagement around the Code of Conduct. We continued our efforts to engage senior leaders, middle management, and employees, as well as to enhance our training program. And we continued to make strides in data science and various metrics dashboards, which drove the enhancement of several of our platforms.



We have one **Code of Conduct** that applies to our 92,000 employees in over 70 countries. 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.

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

The Code of Conduct is available in

22 languages

and sets clear expectations for employees, relevant stakeholders, and business partners

Be 3M

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



Be Good



Be Honest



Be Fair



Be Loyal



Be Accurate



Be Respectful

Global compliance program

3M's Ethics & Compliance Department manages and administers our global compliance program, which is led by our chief ethics & compliance officer, a senior vice president role. The department is staffed with compliance professionals around the world.

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

The program consists of:

- A core set of business conduct principles
- Awareness campaigns through education, training, and communication
- 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

Governance structure

The chief ethics & compliance officer reports directly to the Audit Committee of the 3M Board of Directors. The Audit Committee helps the Board oversee 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.

Several senior executives sit on the 3M Business Conduct Committee, which is chaired by 3M's chief ethics & compliance officer, senior vice president. This internal committee oversees 3M's efforts to assure that we have an effective world-class compliance program — one that's agile and anticipates changes in both internal business strategy and the external landscape. Similar business conduct committees exist at country, regional, and area levels to prioritize and operationalize compliance activities.

The chief ethics & compliance officer provides quarterly updates on compliance activities to the Audit Committee of the Board of Directors and the 3M Business Conduct Committee. The officer also meets quarterly with certain Corporate Operating Committee members to share initiatives and priorities for the quarter and discuss ethics and compliance key performance indicators.

Compliance training and education

3M offers a comprehensive online compliance training program to employees worldwide. Employees are assigned training modules based on their role and area of responsibility. Most courses are mandatory for approximately 50,000 global employees.

Each year we establish a training plan based on an assessment of internal and external factors that help prioritize topics and timing of deployment. Online courses are offered in 22 languages. Training modules cover all areas of our compliance program. Recent examples include Preventing Bribery & Corruption and Confidential Information & Computer Security. Each course starts with a series of questions that identify the employee's knowledge level. The employee is then presented with scenario-based questions tailored to this knowledge level. To successfully complete the course, the employee must demonstrate proficiency in the presented topic. On-demand online Ethics & Compliance training is also available.

Ethics & Compliance tracks on-time completion rates of our online courses. On-time completion is an indicator of a compliance culture in that employees prioritize this training. Our on-time completion rate remains strong at 99%. We continue to leverage training data, including performance scores and post-course survey inputs, to shape future training needs.

In addition to 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 on an annual schedule, while other training is as requested or when needed.

On-time completion rate remains strong at

99%



Training enhancements

Our online adaptive learning training platform continues to be well-received by employees. By analyzing data from our training platform, the Ethics & Compliance Department was able to identify and implement additional educational needs, such as mini-courses designed to educate intermittently on specific topics. Ethics & Compliance courses are now available through 3M Learn, 3M's corporatewide learning platform. This provides a one-stop-shop approach for employees to easily access their assigned training.

We continue to produce new job aids and infographics to communicate priority compliance topics in concise, easy-to-read formats. Topics in 2022 included retaliation, conflicts of interest, and business courtesies.

Reporting concerns: "Speak Up"

Upholding 3M's Code of Conduct is the responsibility of everyone acting on 3M's behalf. We encourage our employees to ask questions and report concerns to management, 3M's Ethics & Compliance Department, 3M legal counsel, **3MEthics.com**, their assigned human resources manager, 3M Corporate Audit Department, or the Audit Committee of the Board of Directors.

Our strong ethical culture requires and empowers employees to make the right choices every day. At 3M, we make it clear that speaking up is the right thing to do. The "Speak Up" poster that encompasses many of our most frequently used languages continues to be widely used globally.

Every quarter, the Ethics & Compliance Department recognizes 3M employees around the globe who have gone above and beyond to bring the 3M Code of Conduct to life in the work they do and the decisions they make. Recipients of the Living the Code Award

receive a letter from our chief ethics & compliance officer. New in 2022, recipients also receive points that can be redeemed through the 3M corporate employee recognition platform, Everyday Wins.

3MEthics.com is a 24-hour confidential and anonymous (where permitted by local law) helpline and online reporting system. It's 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. In further support of anonymous reporting, a feature was implemented to allow a reporter to enter their email address (not visible to anyone in the system) to receive communications from investigators. This enhancement increases reporters' visibility to case status and activity.

The Ethics & Compliance Department measures the health of our "Speak Up" culture by monitoring the number of calls to our reporting system and the anonymous call rate. We believe a healthy environment is one in which employees are comfortable raising their concerns, and we're proud that our call rate per 100 employees exceeds industry-published benchmarks. Our anonymity rate is lower than published benchmarks, indicating a higher level of trust in our investigation process.

The Ethics & Compliance Department is responsible for reviewing every reported business conduct concern and deciding which require an investigation. If an investigation is needed, the department assigns an appropriate investigative resource. Investigation results may indicate a need for focused employee training or process improvements. When this occurs, Ethics & Compliance works with key stakeholders to address those needs.

Substantiated matters may result in disciplinary actions. Discipline may take many forms consistent with similar past violations, from warnings to suspensions to termination. Disciplinary actions may impact one or more persons associated with a substantiated violation.



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

The **3M Global Allegations & Disciplinary Actions** graph illustrates business conduct-related reports raised in 2020, 2021, and 2022 using **3MEthics.com**. We use this data to prioritize resources and focus strategies.

The Ethics & Compliance Department maintains the corporate investigation case management system and reports metrics from a broad range of 3M functions that conduct investigations. This provides a complete view of the frequency and type of concerns reported globally and reflects the healthy “Speak Up” culture that exists within 3M.

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 identified reporters.

For anonymous reporters who use **3MEthics.com**, follow-up is handled through 3MEthics.com to maintain anonymity. If the reporter expresses concern that they’re a target of retaliation, the investigations team will start a separate investigation or take other action to assure the reporter is protected. 3M takes a strong position against retaliation, which is reflected in our Non-Retaliation Policy and within **3M’s Employee Obligations and Reporting Principle**.

Commitment to anti-corruption

As a participant in the United Nations Global Compact (UNGC), 3M is committed to supporting all principles, including Principle 10 on Anti-Corruption. Our commitment and involvement with the UNGC and our community of peer companies provide 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 nonproduction employees, specifically employees in higher-risk roles, including those in legal, audit, sales, marketing, export, and global trading.

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, the inclusion of relevant contractual terms, and other risk-mitigating controls. Once approved, we have an active monitoring program for third-party relationships, including risk-based negative media reviews and proactive audits of third parties. 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 and accelerate 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.



3M prohibits retaliation against anyone who raises a business conduct concern in good faith or cooperates in a company investigation.

Assessments

3M's Ethics & Compliance Department conducts periodic compliance and anti-bribery evaluations of various 3M businesses, business models, and locations each year. An evaluation includes a review of transactions and supporting documentation of transfers of value to third parties, compliance records, and in-depth interviews with a cross-section of employees of the entity being evaluated.

The team aims to interview at least 10% of nonproduction employees. Our evaluation planning and selection process considers objective and subjective risk factors and leverages data to prioritize business operations and locations for review.

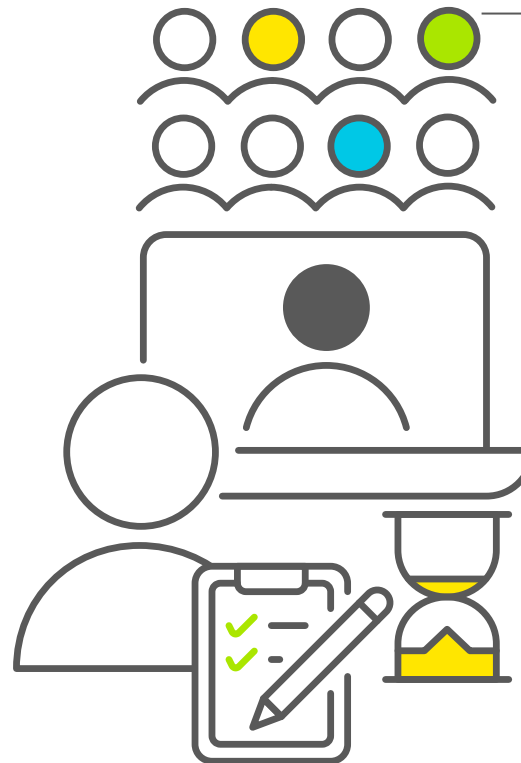
Our evaluation process continues to evolve. In 2022, the assessment of compliance culture continued to focus on “tone in the middle” and “tone at the top.” Middle managers and supervisors are critical in setting a tone of ethical business conduct for their teams. Evaluation interviews delve into understanding this and identifying opportunities for improvement. The pandemic pushed the evaluation program to reimagine its execution possibilities. Today, evaluations can be executed in person (on-site) or virtually, while still engaging employees in meaningful discussions that allow us to assess program maturity and opportunities for improvement.

Third-party awareness of 3M ethics and compliance expectations

To enhance our communications with third parties, including our expectations of ethical business conduct, 3M has an online training course and a brochure for our business partners, available in 30 languages. The brochure provides another way for 3M to communicate with our business partners regarding our commitment to combat global bribery.

“Our commitment to unwavering integrity in all that we do is clear and stems from the top of our organization. It has been the foundation of the company for more than a century.”

— Michael Duran, senior vice president and chief ethics & compliance officer



Global Ethics & Compliance Week

Again in 2022, all over the world, we held Ethics & Compliance Week events to further build employee engagement around the Code of Conduct and doing business the right way. These events engaged employees in business divisions and corporate functions across all levels of seniority in discussions and presentations related to our culture of compliance. In September 2022, the global corporate Ethics & Compliance Day was held virtually and showcased senior leaders from around the world discussing “The Elements of Compliance.”

The event featured our Chairman and CEO, Mike Roman, discussing the importance and value of compliance. Our human resources leader shared her perspectives on a respectful work environment during a virtual fireside chat with our chief ethics & compliance officer. In addition, we had a panel that included top leaders from the company who reflected on ethics and compliance at 3M.

To creatively engage employees for the week leading up to the virtual event, each day we highlighted an element of compliance, including “Speak Up” and our commitment to fairness. We used a variety of communication methods to reach employees, including videos, infographics, and a daily trivia contest. Winners of the trivia contest were recognized during the virtual event and received points to redeem prizes through our corporate recognition platform.

Communications to support our employees, leaders, and middle management

We engage with senior leadership by providing presentations and tools to talk to employees about ethics and compliance on a consistent basis. In 2022, we took a new approach to reach leadership and middle managers by creating five-minute manager toolkits, which provide talking points and a short infographic for supervisors to share with their teams. Ethics & Compliance publishes case studies that anonymize real-life situations of employees facing dilemmas in the work environment. In addition, we publish hotline reporting metrics for our employees, providing transparency around the number of concerns raised at 3M and disciplinary outcomes.

In 2022, each quarter's communication was centered around our training topics for the year, including conflicts of interest, retaliation, third-party risks, and managing business courtesies. We used data and collaborated with other departments to develop new tools and case studies to get information to our audiences more efficiently, avoiding gaps in time between observation and remediation.

We leverage our communication vehicles to reach all intended audiences — whether virtually, in person, or hybrid — in all locations, including labs, corporate offices, production sites, and warehouses, as well as to ensure we reach our sales and marketing employees who interact regularly with 3M business partners.

Data analysis and metrics

The Ethics & Compliance Department continues to make strides in data science. We created enhanced metrics dashboards for analyzing emerging issues across different employee populations (e.g., seniority, tenure, location, etc.). New dashboards were created for third-party due diligence and business courtesies (e.g., gifts, entertainment, and meals). We use metrics to monitor our evaluations and investigations. As we continue to function in a remote environment, the insights from this monitoring allow us to maintain the quality of our processes.

In 2022, the Ethics & Compliance Department continued to leverage data analytics to enhance our risk assessment process. By combining metrics with the Corporate Audit Department, we created a data model that looks at our geographies, businesses, and certain risk indicators. The output of this process informs our priorities for audits and evaluations.

We again implemented an ethical culture survey for 3M sales and marketing teams. Through analyzing the survey results, we were able to correlate the frequency of manager-employee engagement about ethics and compliance with other measures, including the willingness of employees to speak up and employees' perceptions of leaders as ethical role models. In addition, we identified trends that were unique to certain geographies. Based on the survey findings, we reinvigorated communications to address these concerns.



Platform enhancements

The Ethics & Compliance Department manages a centralized global system that automates the end-to-end process for preapproving and documenting the offering and receiving of gifts, entertainment, meals, sponsorships, and charitable contributions. In 2022, we implemented enhancements to improve management engagement in the notification of approval process, and we developed a dashboard to bring visibility and action to transactions that are noncompliant with policy.

In addition, we continued to evolve our third-party due diligence program by integrating the platform into 3M's customer relationship system and onboarding processes, creating a globally consistent diligence process, simplifying the user experience, and improving controllership. We implemented a comprehensive and formalized monitoring program, further standardizing the ways in which our third parties are reviewed for risk. Our third-party due diligence platform was enhanced to formalize the documentation and review of second-tier business partners.

Finally, in 2022 we moved to a new policy management platform that's more user-friendly and provides a refreshed look and feel.



We created enhanced metrics dashboards for analyzing emerging issues across different employee populations.



Looking forward

In 2023, ethics and compliance will remain at the core of what we do for our employees, customers, communities, and shareholders. The Ethics & Compliance Department will continue to evolve to reflect business operations and support our stakeholders throughout the company. We'll optimize opportunities to improve our program and platforms and, importantly, continue to find creative ways to engage with employees through new and different modalities. We will continue to advance third-party risk management by leveraging data to enhance monitoring activity for new and emerging risks. We'll continue to equip employees with guidance and tools to do business the right way.





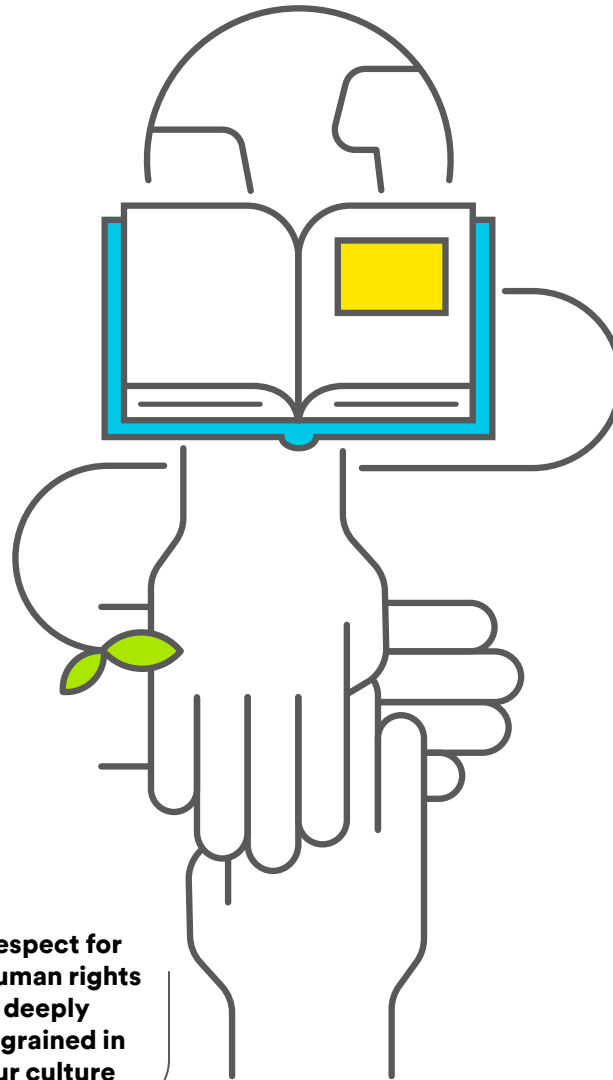
Human rights

Our commitment

Respect for human rights is deeply ingrained in 3M's culture. Within our own business, our approach to managing and assuring human rights is guided by the 3M Code of Conduct, which recognizes the right of 3M workers to a respectful work environment. We also expect our suppliers to share our commitment to complying with labor and human resource laws and upholding the human rights of workers.

Our impact

We continue to implement our human rights program through our global policies, management system, assessments, audits, training, and metrics tracking. Our audit process provides us with a global perspective of our sites and supply chain.



Respect for human rights is deeply ingrained in our culture

Our **Human Rights Policy** applies to all 3M employees, contingent and contract workers, candidates for hire at 3M, anyone doing business with or on behalf of 3M, and others acting on 3M's behalf.

Strong support for human rights charters

3M continues to support several external human rights charters, including:

- 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
- Organisation for Economic Cooperation and Development (OECD) — Guidelines for Multinational Enterprises, including OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- United Nations Convention Against Corruption

Further, the 3M Code of Conduct and its underlying principles require compliance with all applicable laws and respect for internationally recognized human rights in all global operations.

Human rights in the workplace

3M's human resources principles, which have remained consistent for over a century and apply to all our employees globally, demonstrate our commitment to upholding human rights in the workplace:

- We respect the dignity and worth of all individuals
- We encourage the initiative of each employee
- We challenge individual capabilities
- We provide equal opportunity for development

A respectful work environment

We strive for a work environment where people treat each other with respect and conduct business activities in a way that protects health, safety, and the environment. See 3M's [Respectful Work Environment Principle](#).



To support this, we offer a comprehensive suite of employee benefits, including options for employees to work remotely and flexibly. Learn [more about benefits](#) and [our Work Your Way model](#) in the Employee programs section.

Working hours and wages

Not only does 3M comply with minimum wage legislation globally, but we aim to exceed the legal minimum wage. Our compensation reflects our practice of establishing competitive salary ranges based on actual pay data from benchmark peer companies in manufacturing. See [more on wages](#) in the Compensation section.

Freedom of association and the right to collective bargaining

Our Human Rights Policy's clause on the freedom of association states 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."

Approximately 25% of 3M employees are either represented by a collective labor organization or covered by a labor agreement. In some countries, collective bargaining rights are not protected or recognized. Nevertheless, 3M assures employees that the freedom of association and collective bargaining aspects of our Human Rights Policy apply to all 3M employees worldwide.

In the event of business operations changes, we follow all applicable local laws and regulations regarding consultation and notice periods for both represented and nonrepresented employees.

Modern slavery

Modern slavery encompasses several human rights issues including forced labor, bonded labor, child labor, human trafficking, and slavery-like practices. Our stance against these practices is robust.

Our [Modern Slavery Statement](#), the [3M Supplier Responsibility Code](#), and our labor, employment, and business conduct policies all reflect our commitment to acting ethically and with integrity in our business relationships and to implementing systems and controls so these practices do not occur within our organization or supply chains.

Child labor and minimum hiring age

Our commitment to helping abolish child labor is evident in our Human Rights Policy and Modern Slavery Statement. Although permissible hiring age may vary based on local laws, 3M has adopted global expectations regarding the hiring of minors. Even if local law permits it, 3M will not hire any employee or contingent worker below the age of 16 for any job. If the applicable laws impose a minimum age requirement higher than 16, we follow that stricter standard. See our [Supplier Responsibility Code](#) for details on supplier requirements.

Approximately

25% of 3M employees

are either represented by a collective labor organization or covered by a labor agreement

Forced and compulsory labor

3M complies with all applicable laws and employment regulations and does not engage or participate in forced labor. We expect the same of all our suppliers. In addition, we do not allow financial burden (withholding wages or imposing fees) to be placed on workers, recruiters, or suppliers.

Our trade compliance experts monitor trade laws and regulations, including those related to human rights. As we become aware of potential risks from specific regions or countries, we review our relationships and businesses to determine if we need to act further.

See our [Human Rights Policy](#), [Modern Slavery Statement](#), and [Supplier Responsibility Code](#) for details.

Human trafficking

Our approach to human trafficking is simple: We do not tolerate it. We are committed to using effective systems and controls to prevent human trafficking from taking place anywhere within our business or supply chains. This applies to 3M and its subsidiaries as well as to our federal contracts and subcontracts for either commercial or noncommercial items. Learn more about [our approach to human trafficking](#) in the Suppliers section and in our [Supplier Responsibility Code](#).

Raising and resolving workplace concerns

3M works diligently to create a culture where all employees can work without fear of intimidation, reprisal, or harassment, as well as an environment where employees' questions and concerns are addressed in a fair and timely manner.

When employees or others have concerns related to human rights, labor practices, or environmental or safety issues, we encourage them to raise questions or

report misconduct or potential misconduct. They can do so anonymously where local law permits.

Employees also receive training around channels for reporting and resolving concerns, such as:

- Employee's management
- 3M Human Resources
- 3M Legal Affairs
- 3M Ethics & Compliance Department
- 3MEthics.com (option for anonymity)
- 3M Corporate Audit Department
- 3M Audit Committee of the Board of Directors

Visit [Ethics & Compliance](#) for more information or to [report a concern](#). More information is also in [the Corporate Code of Conduct section](#).

3M prohibits retaliation against anyone who, in good faith, asks a question, reports a concern, or participates in a company investigation. Learn more in 3M's Employee Obligations and Reporting Principle.

Assessing human rights

In our view, human rights due diligence requires a holistic approach. We assess our own business as well as those acting on our behalf — in supply roles, government relationships, acquisitions, mergers, and divestitures — to identify salient human rights issues relevant to our business.

These 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.



Potential salient risks and prevention plans

We've proactively developed plans to prevent potential salient human rights risks.

Segment	Potential salient risk ¹	Prevention plan
3M employees and non-employees	Not adhering to all applicable laws, rules, and regulations	Prioritize and address enacted external employment labor law regulations
	Nonconformance with the 3M Code of Conduct	See <u>the Corporate Code of Conduct section</u>
	Unsafe working conditions, mistreatment of workers	See <u>Workplace Environmental, Health, and Safety Principle</u>
Suppliers	Nonconformance with 3M Supplier Responsibility Code expectations	See <u>the Suppliers section</u>
Government relations	Not adhering to all applicable laws, rules, and regulations	See <u>Lobbying and Political Activities Principle, Lobbying and Political Activities Governance, and Doing Business with Government Agencies and Contractors Principle</u>
Acquisitions, mergers, and divestitures	Failing to recognize human rights issues during the acquisition, merger, or divestiture diligence processes	Prioritize and address human rights issues relative to risk and compliance; see <u>Human Rights Policy, Respectful Work Environment Principle, EHS&PS Acquisitions, Mergers, and Divestitures Standard, and Workplace Environmental, Health, and Safety Principle</u>
Local communities	Inequitable opportunities to succeed in science, technology, engineering, and math (STEM) and skilled trades occupations	Assess community partnerships where we provide support to underrepresented populations so they have equal opportunity for success in STEM and skilled trade employment areas
	Inequitable and disproportionate consequences of climate change	Renew our focus on environmental justice and work toward a world where all people have an equal voice in crafting environmental regulation and no population is disproportionately affected See <u>the Communities section</u>
Customers	Failing to produce products that are safe for their intended uses, compliant with applicable laws and regulations, and meet 3M expectations	See <u>Product Safety, Quality, and Stewardship Principle</u> and <u>the Innovation management section</u>

¹ Risks as per our Human Rights Policy (safe and healthy workplace, respectful work environment, workplace security, work hours and wages, freedom of association, child labor, forced labor, human trafficking, or recruitment fees to obtain employment) and our Corporate Code of Conduct.

Human resource assessments and audits

To help protect our employees' rights, our Employee Relations (ER) Assessment tool enables any 3M location globally to assess its policies and practices. By using the tool and tracking data throughout the process, leaders can review practices related to 3M's Human Rights Policy, identify strengths and opportunities for improvement, and develop an action plan to address any potential gaps.

3M Corporate Audit periodically audits our human resource practices for employees and non-employees to assure compliance with 3M guidelines and external regulations (e.g., for hiring, timekeeping, payroll, benefits, etc.). It also promotes ethical business practices and investigates ethics-related concerns.

3M suppliers

Based on our assessment process, we've determined that in our spheres of influence (our own business and others acting on 3M's behalf), the greatest potential for human rights impact is within our supply chain. We want our suppliers to share our commitment to maintaining compliant, responsible, safe, and sustainable operations and practices.

In addition to compliance with 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 global community. This applies to all workers, including temporary, migrant, student, contingent, and employees.

For more information on 3M's supplier expectations and requirements, visit **Supplier Requirements**. Learn more about our **risk-based supplier assessment process** in the Suppliers section.



Government relations

3M is committed to being a responsible company with unwavering integrity in all dealings with local, state/provincial, and national governments and with their prime contractors and subcontractors around the world.

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 assigned legal counsel.

Human trafficking and forced labor related provisions are also included in 3M's government contract flowdown requirements for suppliers. In the United States, the federal government has adopted a regulation (Federal Acquisition 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. We've implemented processes to assure compliance with U.S. Federal Acquisition Regulation 52.222-50, 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 the [EHS&PS Acquisitions, Mergers, and Divestitures Standard](#) and [the Environmental, health, and safety management section](#).

Human rights training

We provide training globally to assure that 3M employees, including security employees and contractors, understand the requirement to comply with the law, 3M's Code of Conduct, and supporting policies, standards, and procedures, including around human rights.

Employees are assigned training modules based on their role and area of responsibility. We require most new employees to complete 3M's Code of Conduct and Ethical Decision-Making course, which includes content on 3M's Respectful Work Environment Principle, 3M's Global Human Rights Policy, and 3M's commitment to human rights. It also raises awareness of our expectation that employees report all suspected violations of law or 3M Code of Conduct and the channels available to do so.

See [the Corporate Code of Conduct section](#) for more information.

Security personnel procedures

With the rise in corporate cyber breaches and security incidents worldwide, our internal global security standards provide the controls required to achieve human resource security based on industry standards and best practices.

Roles and responsibilities of information security employees, contingent and contracted workers, and suppliers must be defined and documented in accordance with the 3M Information Security Management System (ISMS).

3M Supplier Responsibility Code addresses:

Labor

Environment

Health & safety

Ethics & management



Background checks for suppliers, contingent workers, and candidates for employment must be:

- Carried out in accordance with relevant laws and regulations
- Appropriate for the business requirements, classification of the information to be accessed, and the perceived risks

We require employees, workers, and suppliers in the United States to review, acknowledge, and apply 3M's Systems Access Control Standard and other 3M policies, procedures, and standards, as well as to receive appropriate training and updates.

Learn more about [workplace security](#) in the Environmental, health, and safety management section.

Looking forward

We are closely monitoring new and changing legislation globally on human rights and will continue to update our Modern Slavery Statement as we implement new requirements.

In 2023, we'll continue to empower our employees to raise human rights concerns in a way that is comfortable to them. For our suppliers and other third parties we work with, we'll strengthen our human rights training courses to help improve their understanding of our expectations.



Compensation

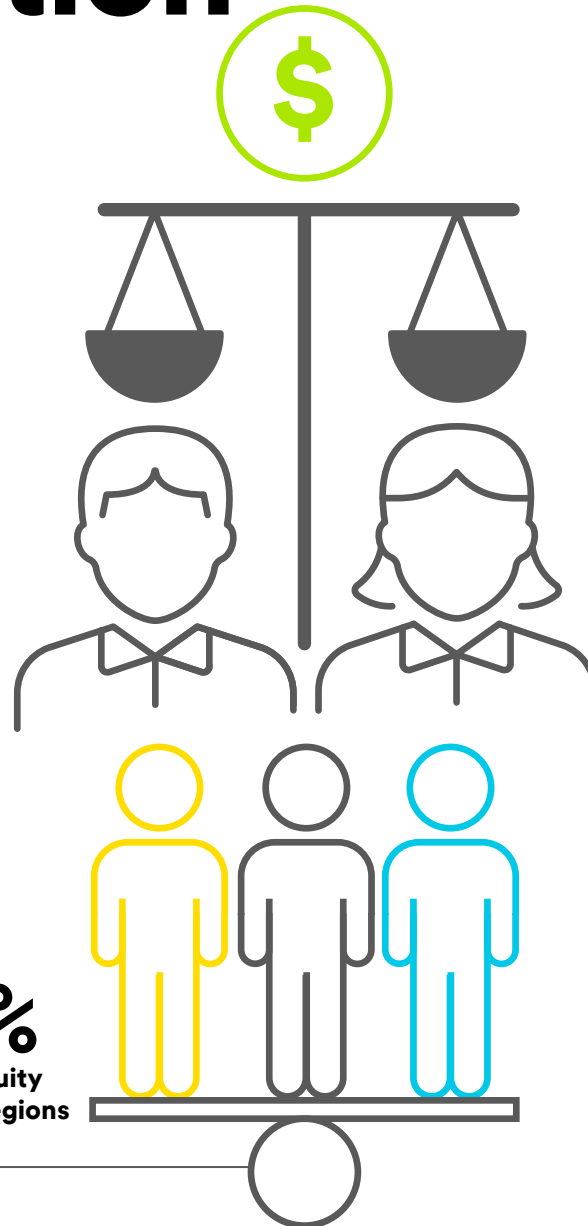
Our commitment

3M creates a professional work environment that promotes innovation and rewards performance. We rely on our global compensation principles to provide fair and equitable pay that's competitive in the current market.

Our impact

We appropriately benchmark compensation of our global sites and use consistent methods to assess our compensation position in the market. Our total compensation for employees includes a variety of components that support equitable and sustainable employment and the ability to build a strong financial future.

100%
gender pay equity
in our global regions



Director and executive compensation

Working with an independent compensation consultant, the Nominating and Governance Committee annually reviews the status of the Board of Directors' compensation in relation to peer companies and recommends to the Board any changes in compensation for non-employee directors.

The Compensation and Talent Committee regularly reviews all aspects of executive compensation. The committee, along with an independent compensation consultant, assesses the design of incentive compensation and the risks associated with it, recommending changes when appropriate. The committee also reviews stakeholder feedback relating to executive compensation.

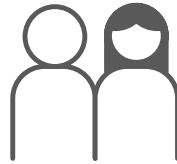
For more information on director and executive compensation, including how our incentive plans incorporate an environmental, social, and governance (ESG) modifier, see our [2023 Proxy Statement](#), our [Nominating and Governance Committee Charter](#), and our [Compensation and Talent Committee Charter](#).



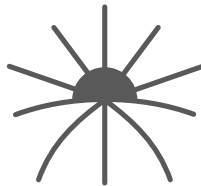
Performance, compensation, and culture

Our culture not only provides a framework for performance and compensation but more broadly exemplifies who we are when we're at our best. At 3M, we look to embody these culture elements:

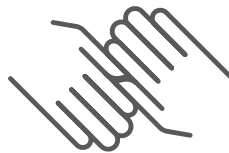
Customer at our core



Innovating boldly



Powered by inclusion



Winning with agility



Unwavering integrity



Our “Unwavering integrity” element specifically calls for us to deepen our dedication to sustainability and to our global communities.

We aim to advance all our culture elements by providing employees the opportunity to grow through challenging work — and rewarding them for their efforts. As a pay-for-performance company, 3M not only provides a competitive base salary but also compensates eligible employees for their contributions to the company's growth, profitability, and culture.

This additional compensation may be:

- Short-term cash incentives
- Long-term equity incentives in the form of annual restricted stock units (RSUs), stock options, stock appreciation rights (SARs), and/or performance-based awards

The proportion of total rewards aligned with incentive pay increases with job grade and reflects the job grade's influence on both short- and long-term company results.

For more information on 3M's compensation and benefits, visit [Working at 3M: Benefits](#).

Competitive, fair, and equitable compensation

Guided by our compensation philosophy and principles of competitive, fair, and equitable pay, we use a global compensation benchmarking process to drive consistency and transparency in our compensation practices across regions. Established in 2012, our process has led to excellent pay equity results in every country where we do business.

The process starts by gathering data from multiple surveys, conducting an analysis of average pay for males and females, and comparing the two (i.e., a raw pay gap). We then compare pay for males and females in each job and job grade. Finally, we compare by location and assess any disparity. Through consistent use of this process over the past decade, we've achieved 100% gender pay equity in our global regions.

An analysis comparing national average raw pay gap data between men and women with 3M's compensation data shows our raw pay gaps are below external benchmarks. The pay gap by gender across all 78 countries where 3M has employees is 0.25% when we consider grade, job code, and location. When analyzing the gender wage gap by area, we see a similar trend where all areas have a wage gap of less than 1%.

We conduct the same process in the U.S. for minorities aggregated as a group versus non-minorities, with the same result — 100% pay equity for racial/ethnic groups in the U.S.

As we work to achieve and maintain our goal of 100% pay equity globally, we leverage an annual salary adjustment process that continually supports and strengthens our pay equity results.



Looking **forward**

In the year ahead, we're looking forward to overall good health as a company due to the diversity of our businesses. This will support our ability to keep providing market-competitive pay. We'll continue to adhere to our established compensation principles — competitive pay, equitable pay, transparency, and pay for performance — as we work to maintain our global pay equity.



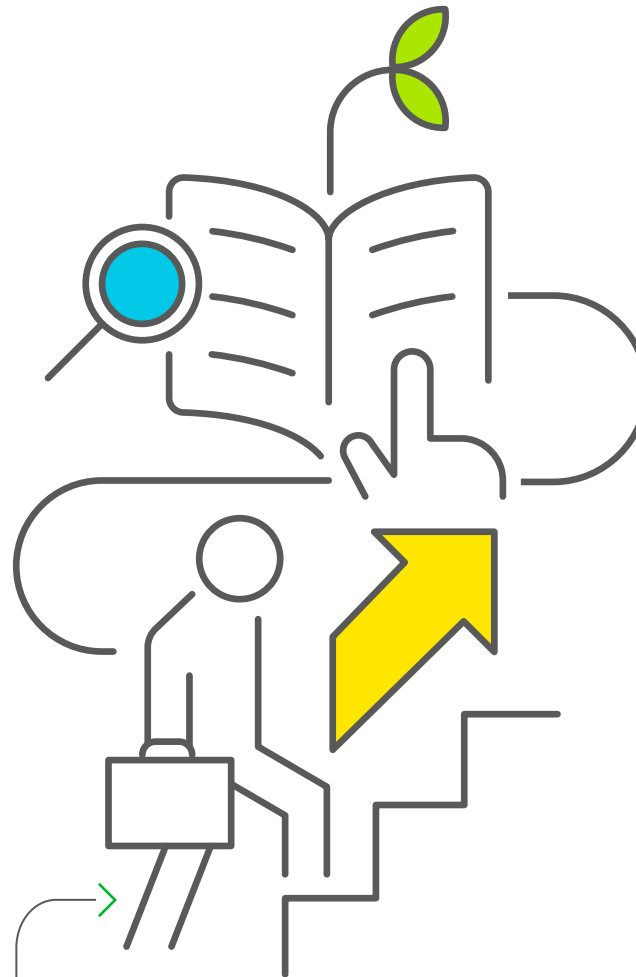
Employee programs

Our commitment

3M is committed to developing employees and building a purpose-driven culture. Throughout the organization, we reinforce behaviors that foster an inclusive workplace, and we provide competitive benefits and recognition programs to support employees throughout their career.

Our impact

We invest in our people's success by fostering a culture of continuous learning to help employees develop the skills of tomorrow. We empower our employees to bring innovation into their work and focus on making an impact in the world.



We aim to have
100% of employees engaging in
development activities

At 3M, we lead with culture. We know that engaged employees are more productive and committed, more satisfied with their work, and more likely to stay longer. Working at 3M provides a range of development opportunities few other companies can offer. Our people can live in different countries and develop a variety of skills across different industries. It's possible to go from the lab to a marketing role or from sales to business development — all the way up to the C-suite.

A learning-focused culture

In a rapidly evolving market, we understand that we need to prepare our employees with the skills of tomorrow so we can stay relevant, innovate, and grow. At 3M, we use a model of pervasive learning that balances three modes of learning: formal (courses, performance reviews, conferences), informal (mentoring, workshops, podcasts), and social (blogs, videos, social media).

In 2022, we introduced a new integrated learning and development platform called 3M Learn. 3M Learn replaces several disparate learning platforms and consolidates them into one flexible central system. By retiring many of our legacy platforms and streamlining the experience, we've made it easy for employees to access and explore personalized learning content and resources.

3M Learn contains tens of thousands of learning resources in more than 30 languages. Content is organized and aligned to directly support our organizational priorities, and employees receive recommended content based on their role. This customized, centralized environment lets employees own their development and find the resources they need to grow in their career. 3M Learn reaches our entire global workforce.

We aim to have 100% of employees engaging in development activities. In 2022 alone, we've seen 96% of our global production and nonproduction workforce engage in self-directed training on 3M Learn or through in-person or other virtual experiences. Employees completed almost 5 million online learning resource modules across 46,000 learning assets and attended over 25,000 in-person or virtual events in 2022 (approximately 610,000 hours of learning).

In 2022, for every full-time equivalent employee, we provided an average of 25 hours (not including compliance training) of learning and development experience with a focus on experiential learning and skill-building. However, the number of training hours and the training cost per employee are not our leading indicators of human capital performance. Instead, when assessing our development programs, we focus on whether the results help drive company success.



Employees
completed over
1M
online learning
experiences

Learning Tracks

3M Learn is the new home for Learning Tracks, our program for upskilling and reskilling all 3M employees. Created in response to feedback about career and development from 3M employees, Learning Tracks continually trains our entire workforce with culture-related skills, core or power skills, critical and emerging leadership skills, and business-specific functional and technical skills.

We regularly track engagement, consumption, and satisfaction of our learning programs. We aim for a 90% completion rate among participating employees.

Mentorships

We understand the important role that relationship-based development can play in helping employees navigate our culture and environment, take advantage of opportunities, and thrive in their career. That's why we offer mentorship opportunities to nearly every individual, from executive to entry-level. The nature of the relationship can be formal or informal, functional or cause-based. No matter what, when employees learn from each other and share their experiences, they accelerate collaboration and professional growth.



Read how one 3M leader mentored another.

Technical development and learning

3M's Tech Forum is a self-directed and self-organized catalyst for interaction, growth, and development among our technical community. Members benefit from an environment where they can share research and exchange ideas on any number of topics, whether related to their role at 3M or not. Learn **more about collaboration through Tech Forum** in the Innovation management section.

Inclusive, innovative culture

Inclusion advocacy

We build inclusive behaviors and create cultural agility through inclusion events and activities as well as training and leadership development programs. Learning Tracks now has modules on inclusive behaviors skills-building, including **REAL Allyship training**.

We also provide training content to our hiring managers and others on implicit bias and how to approach it. For example, 3M's Global Recruitment Standard establishes a common framework that reflects good practices free from bias and discrimination. This standard guides our recruitment process for all full-time equivalent positions, from defining the hiring need to onboarding. It provides consistency and transparency in the process for all locations, helping 3M hire the top diverse candidates.

In 2022 we also acted on certain challenges that arose from working in a virtual or hybrid format. While our flexible work options have been very popular among our employees, we've had to adjust to the new environment and how it may change the dynamics of an inclusive culture. We addressed these issues by updating our Respectful Workplace Principle, which we renamed the **Respectful Work Environment Principle**.

To learn more about 3M's racial inclusion advocacy, visit **3M's Diversity, Equity & Inclusion (DEI) Report**.



Internships

3M offers a variety of U.S. internship opportunities at undergraduate and graduate levels in key roles including engineering, research and development, sales, finance, IT, and more. 3M takes an adaptive approach by offering in-person, hybrid, and virtual internship formats. In 2022, 3M offered more than 300 internships in the United States.

We track our internships as part of our goal to create 5 million STEM and skilled trades learning experiences and our overall commitment to creating greater equity in our communities. [Learn more about our STEM goal](#) in the Communities section.

Setting new employees up for success

We invest in onboarding new employees so they have access to the tools, resources, and networks they need to succeed. Our onboarding process begins when a candidate accepts a job offer and continues through their first year on the job.

Our updated onboarding experience accelerates new employees' integration into our culture by helping align their personal purpose with 3M's purpose. When they feel welcome and supported in building their career, new employees are on track to reach their — and our — goals.

15% Culture

For over 70 years, **3M's unique 15% Culture** has encouraged our people to set aside 15% of their work time to pursue and cultivate ideas that excite them. Whether the time is used to experiment with a new technology, form a special interest group around a fresh idea, or improve a process, our 15% Culture gives employees in all areas the space to reimagine what's possible.

Leadership development

Leadership development is a competitive advantage for 3M, which we maintain by leveraging new technologies and delivery methods. We offer many development opportunities and programs throughout a leader's career, spanning every geographic area and 3M business. Programs include a range of self-paced online offerings that cover core skill development aligned to the 3M culture elements. They 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 Leading Edge portfolio, a series of learning experiences for high-potential leadership, gives us one consistent approach to developing leaders across all geographic areas, business groups, and functions. Each learning experience is designed to stretch participants to learn at their growth edge and strengthen their capability to lead with heart, purpose, curiosity, and intention.

We've also invested in external leadership coaches to support 3M leaders around the world. Options include one-on-one time with a coach to help employees apply new learning or on-demand coaching to work through a change. Coaches also work with teams on staying close to evolving stakeholder expectations.

Performance management

Our approach to performance management, called Performance Everyday, empowers employees to think about performance beyond mid-year and year-end through frequent, transparent conversations. Performance Everyday creates a continual feedback culture through one-on-one discussions between managers and employees to fuel meaning and purpose in everyday work, improve performance, discuss development, adjust priorities, learn from feedback, share recognition, and celebrate results.

3M strives to have 100% of regular nonproduction employees complete the entire performance review process. In 2022, all eligible employees were rated, and these employees and their supervisors received tasks to complete the year-end process in the performance system.



15%

Culture gives employees time to pursue and cultivate ideas that excite them

Learning from listening

For more than 50 years, 3M has conducted surveys to solicit employee observations, attitudes, and opinions. Our biggest survey, the 3M Voice of Employee Survey (3M VoE), is conducted every year and includes all global employees. In 2022, the response rate for the 3M VoE Survey was 57%.

The 3M VoE Survey approach provides a broad perspective across the enterprise. This serves as a baseline from which we can regularly assess employee engagement and other workplace factors critical to high performance. Feedback from the VoE survey around our learning and training resources drove the development of our centralized 3M Learn platform.

Group leaders must review their group's results, present them to their employees, and execute an action plan to address identified issues. The process includes supports that make it easier to bring about successful change, such as accountability checks and tools for acting on the results.

Outside of the 3M VoE Survey process, we deploy other relevant employee surveys, often focusing on major transformation initiatives, such as advancing our company culture or reinventing performance management.

In addition to the main survey system, we have and continue to use an innovative crowdsourcing platform that enables more direct input by employees through open-ended suggestions that can be themed and ranked by usefulness. This is a cycle of continual improvement: We measure, assess, and adapt year after year to assure our surveys support sustainable corporate success.

Employee footprint and staying power

Employee headcount as of December 31, 2022, was approximately 92,000. See [additional information](#) in our metric tables and the Employee demographics tab of [ESG metrics](#), which also includes more detailed analysis. Visit our [Diversity, Equity & Inclusion \(DEI\) Report](#) for diversity-related demographics.

Like most organizations, 3M experienced an increase in our global employee-initiated turnover rate in 2022. We continue to focus on steps to attract, retain, engage, and develop our employees, including inspiring through the purpose and promise of 3M, providing support for well-being, flexibility, and growth, creating a culture of belonging, and assuring competitive pay and benefits.

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

3M's Human Resources (HR) Department benefits from using 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.

Highly competitive pay, rewards, and services

The more an employee contributes to 3M's success, the more they contribute to their own success. We offer competitive base pay and, depending on the position, variable incentive pay linked to company and individual performance. Learn more in [the Compensation section](#) and at [Working at 3M](#): Your pay.

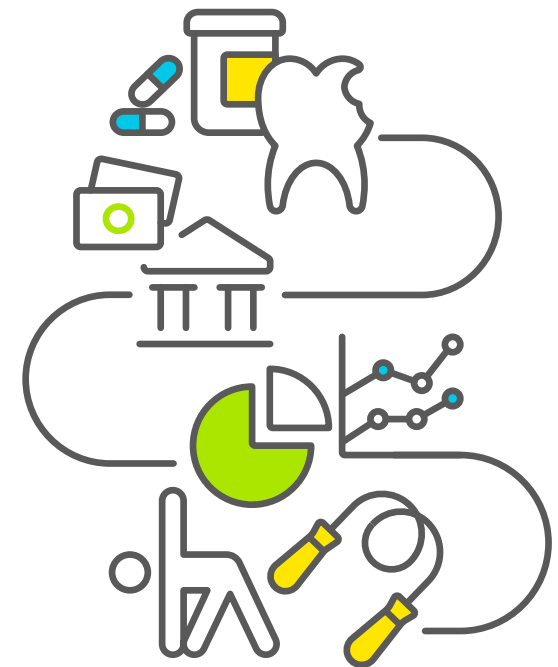
Benefits to support our employees

3M offers many resources to enhance employees' lives, including:

- Medical, dental, and vision plan options
- Savings and retirement plans
- 3M employee stock purchase plan
- 3M Healthy Living Program for wellness resources and discounts

All regular full-time employees in the United States are eligible, as well as regular part-time employees who work at least 20 hours a week. Depending on the benefit, employees' domestic partners and children may also be eligible. Some programs and benefits may differ in other countries due to local laws and regulations.

Learn more at [Working at 3M](#): Benefits.



Everyday Wins

Everyday Wins is 3M's global point-based recognition tool. It makes it easy and convenient to recognize fellow employees or groups at 3M when they embody our culture elements or go above and beyond. Our entire workforce, both production and nonproduction employees, can give and receive recognition points in real time on the platform.

In 2022, the equivalent of more than \$17 million in points was awarded by and sent to employees. The points can be redeemed for merchandise or gift cards or donated to charitable organizations.

Parental leave

At 3M, we support employees in both succeeding at work and thriving as a family. All U.S. salaried mothers and fathers of newborn or newly adopted children are eligible for up to 20 weeks (10 weeks paid and 10 weeks unpaid) of parental leave. In 2022, 1,240 U.S. eligible employees participated, including 366 women and 869 men.

U.S. employee parental leave

Usage of parental leave

In 2021:

1,270

total employees



384 female employees



888 male employees

In 2022:

1,240

total employees



366 female employees



869 male employees

Parental leave retention

In 2021:

1,280

total employees



388 female employees



895 male employees

In 2022*:

1,270

total employees



382 female employees



865 male employees

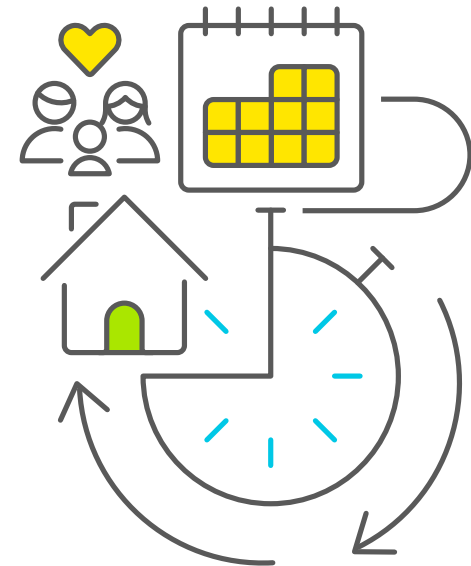
*2022 numbers may include those that left on leave in 2021 and came back in 2022. Some employees on leave in 2022 may return in 2023. Total values above have been rounded and therefore do not match the raw values exactly. All calculations on the tabulated data use the full precision of the number.

U.S. military leave

3M strives to be a premier employer for the military community, with paid leave benefits that reflect our commitment to veterans. 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.

Work Your Way and flexibility

COVID-19 forever changed the way we work. It taught us that we can and need to reimagine how 3M operates. We learned that a more flexible way of working is essential for 3M's continued growth and employee well-being. The result was Work Your Way, a trust-based work model that drives well-being and productivity in ways that enable our business and performance goals.



Guided by our culture and performance-focused approach, Work Your Way emphasizes four key pillars:

- **Founded in trust** – Employees are empowered to work in ways that support their role and preference
- **Built on virtual first** – Virtual collaboration through the use of technology is the standard
- **Meet with purpose** – Employees are encouraged to come together for moments that matter — virtually or in person
- **Based on impact** – Contribution to the organization and embodiment of our culture is valued above location

For **nonproduction employees**, Work Your Way offers three broad options (depending on local laws, regulations, work agreements, or other local conditions): mainly on-site, hybrid, or remote (near or distant). This approach also empowers employees to structure their day in a way that balances maximum productivity with personal preferences. Allowing 3M's workforce to make choices that benefit them, their work, their global team members, and their friends and family makes 3M more competitive and agile.



While flexibility looks different for **production employees** due to the nature of their responsibilities, our objective to help support well-being remains, and we continue to explore opportunities to offer flexibility for all. Many of our global production facilities provide opportunities for flexibility, including shift swapping, adjustable start/end times, part-time models, job rotations, flexible break times, and flexibility around vacations, volunteering, school events, etc., with some options varying by site and geography.

3M takes pride in how our employees have been able to adapt, innovate, and produce results while working their way. 3M continues to support flexible work arrangements, even as other companies try to apply one-size-fits-all approaches to where and when people work. It's just another way we innovate and experiment to attract and retain a high-quality workforce.

Looking forward

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're engaging our employees by continually broadening our listening strategies. We'll continue to refine our performance approach to improve the employee experience. And we'll keep focusing on creating space for authentic, respectful, and candid conversations as part of our efforts to build inclusive behaviors and continue our work on inclusion advocacy.



Environmental, health, and safety **management**

Our **commitment**

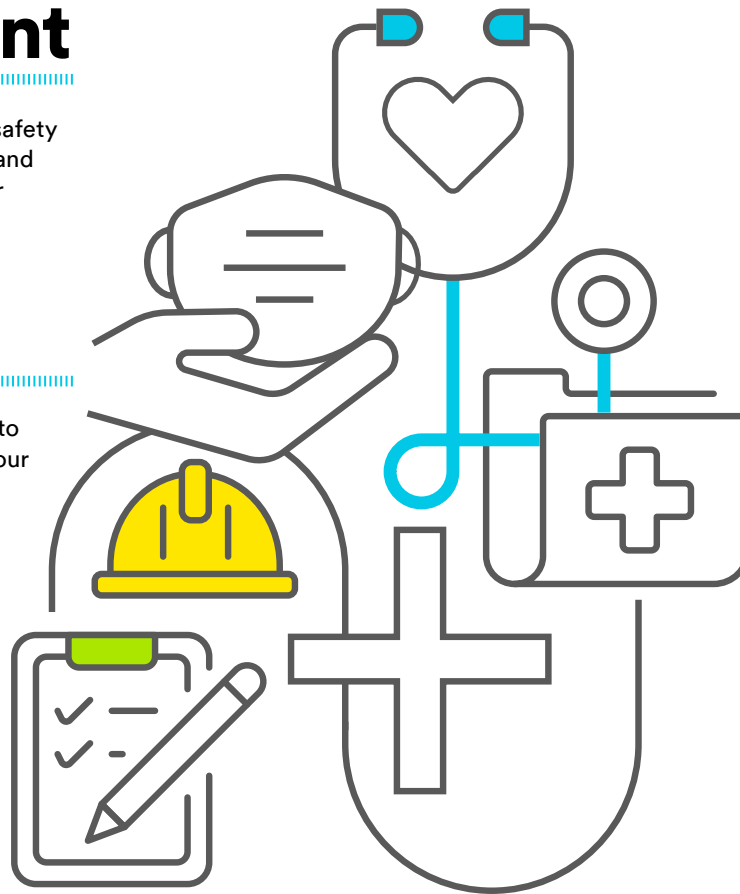
We're committed to environmental, health, and safety (EHS) improvements throughout our operations and products. Our highest priority is the safety of our employees and the public.

Our **impact**

In 2022, we continued to identify potential risks to the environment and to the health and safety of our employees and communities, and we took steps to update processes, product design, and standards to address these risks.

100%

of 3M global
manufacturing sites
have active cross-
functional EHS teams



3M is at the forefront of the global effort to bring science and innovation to workplace safety. We continually develop and implement global EHS policies, management systems, and key performance metrics to drive improvement in each of our business groups.

Global EHS team

3M's global EHS team sits within our global Environmental, Health, and Safety and Product Stewardship (EHS&PS) organization, which aligns the protection of our employees, our communities, and our customers.

Our EHS team helps sites identify and manage EHS risks, evaluate compliance with regulatory requirements and 3M policies and standards, identify opportunities for improvement, and share best practices internally and externally. In addition, the team works with 3M's Government Affairs organization to advocate for EHS regulations and help inform the development of proposed regulations.

We recognize that success comes through collaboration with all organizations throughout 3M, and we work to integrate cross-departmental functions to achieve EHS and operational priorities. Sites are ultimately accountable for our EHS performance, with the EHS team serving as coaching and technical experts available to any organization, at every level, within 3M. In 2022, 100% of 3M manufacturing sites worldwide had active cross-functional EHS teams.



Staff professional development

As part of our commitment to maintain high-quality EHS professional development of our teams, the global EHS team hosts topic-specific meetings and workshops where we share our knowledge and learn from our EHS cohorts. To maintain our expertise and help us stay up-to-date on the most current science, we provide scholarships and cover fees for professional certification training courses, exams, recertification dues, external conferences, and more.

Engaging employees in EHS culture

With our EHS Cultural Acceleration program, we work to engage our employees so our organization can create psychologically safe work environments, understand and reduce risks, adhere to safety practices, drive continual improvement, and be comfortable raising concerns to help address hazards. A key metric is leadership engagement with site employees.

In 2022, we used this proven culture initiative in a global effort to drive two priorities:

- Assure whole person health and promote psychologically safe work environments for 3M employees everywhere
- Evaluate and understand risks associated with high-hazard activities, including, but not limited to, nonroutine production and maintenance tasks

In 2022, more than 145,000 cultural acceleration engagements, or “see and acts,” were documented between leadership and employees across our manufacturing and supply chain operations. These engagements help us build trust and make improvements to our EHS practices.

In addition, we recognize sites that achieve sustained periods of EHS performance excellence with our quarterly CEO Environment, Health, and Safety Award, which recognizes sites that display excellence in employee safety, compliance, spill prevention, employee wellness, and advancing EHS culture. Other EHS awards include the 3M EHS Achievement Award for innovation and leadership, the 3M Noise Control Award, the 3M Applied Ergonomics Innovation Award, and the 3M Pollution Prevention Pays (3P) program.

EHS capital investments

In 2022, we integrated EHS risk into our capital expenditure process by implementing new system features:

- Engineers can flag EHS-related risks in capital requests within our capital expenditure process (Global Engineering Tools)
- Users of our risk assessment and incident management system (EHS 360) can flag capital needs
- Users of our Compliance and Auditing Management and Metric Systems (CAMMS) can flag capital needs

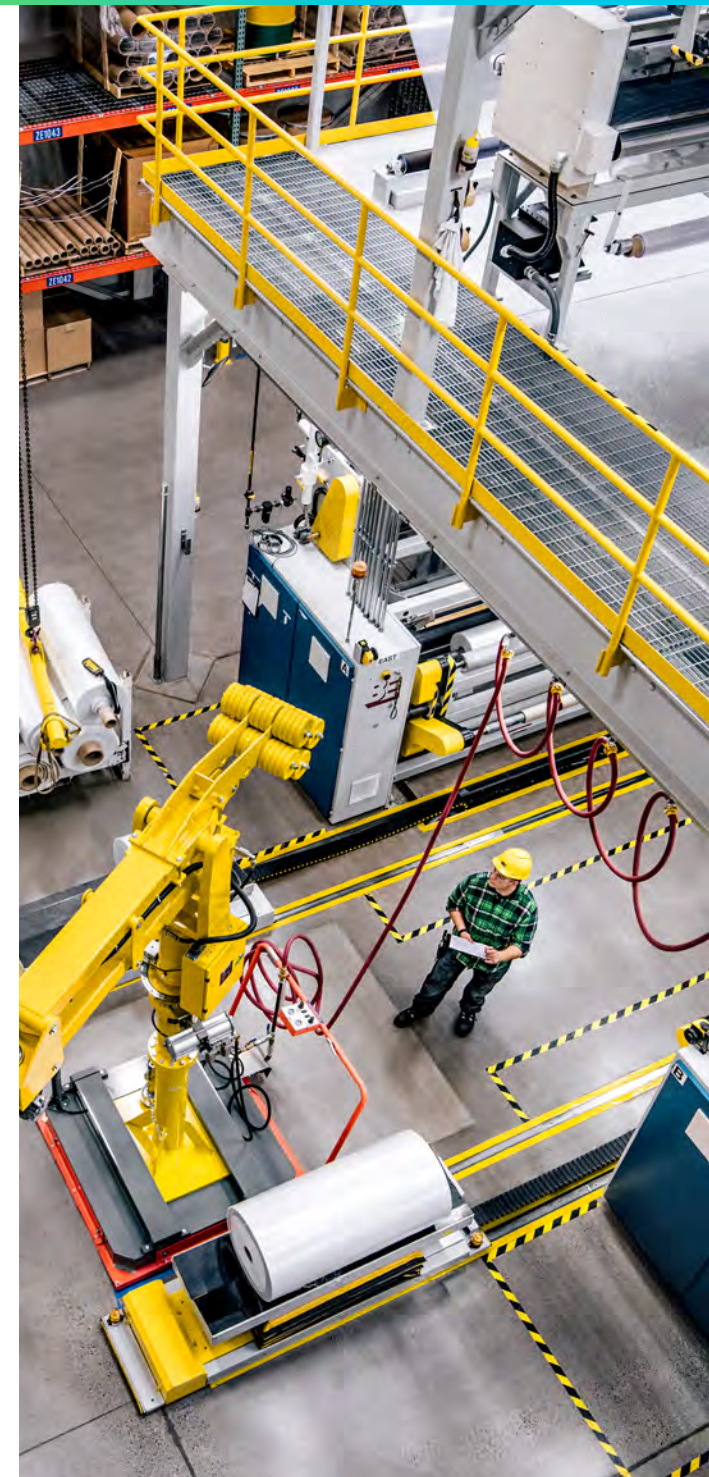
By leveraging key functions across these three systems, we’re able to prioritize risk when approving capital through the governance process.

For detailed expenditures on capital projects for environmental purposes, see our [**Annual Report on Form 10-K**](#), Item 1 – Government Regulation and Environmental Law Compliance.

In 2022, more than

145,000

cultural acceleration engagements,
or “see and acts” were documented



EHS policies, standards, and principles

3M's executive leadership approves our EHS policies and other commitments, which include:

- **3M's Environmental Policy**, created in 1975, established the framework for environmental management and conservation of resources, emphasizing prevention of pollution at the source
- **3M's Safety and Health Policy** applies to 3M operations everywhere, including new acquisitions
- **3M's Workplace EHS Principle** describes our EHS commitments, including how we contribute to the health, safety, and well-being of our communities
- **3M's Employee Obligations and Reporting Principle** describes our reporting requirement for suspected legal or ethical violations
- **3M's EHS Management Standard** defines EHS requirements that apply to manufacturing, supply chain, R&D operations, and service centers. This standard is the basis for our self-assessment and audit protocols
- **3M's EHS Management of Change Standard** is an expanded global standard that helps us track and manage change so as not to adversely impact EHS factors
- **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

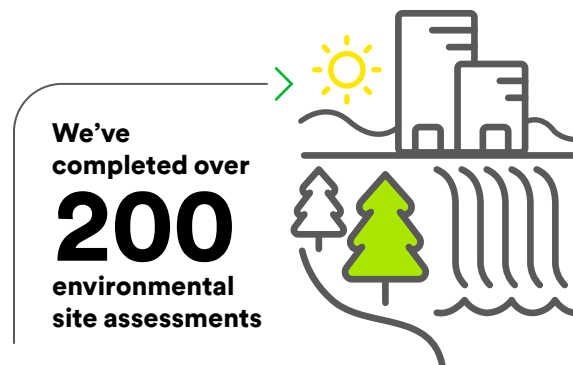
- **3M's EHS&PS Acquisitions, Mergers and Divestitures Standard** helps assure that potential EHS&PS issues are identified, evaluated, prioritized, addressed, and communicated for each real estate transaction and for each business that may be acquired or divested

Environmental management

Environmental Management System implementation

We continue to advance our global 3M Environmental Management System (EMS) framework, which provides structure and consistency for implementing our programs and helps us be proactive rather than reactive in our environmental focus. We have extensive global systems in place to identify, track, and manage relevant information on corporatewide EHS management and performance, including a full range of environmental compliance and operational performance metrics.

Learn more about our environmental efforts and goals, including our Water Management, Air Quality Management, and Waste Management Standards, in [the Circular materials section](#).



Environmental site assessments and enhancements

Outside of 3M's EMS framework, we've completed over 200 environmental site assessments in an effort to detect potential historical liabilities. These assessments help us identify sensitive biodiverse areas, such as rivers, creeks, and wetlands, on or near 3M properties. The environmental site assessments include a site visit and a search of public databases.

Our employees also participate in efforts to support biodiversity in nearby environments. Whether providing homes for bees and bats or clearing out non-native plants, this work to help protect local wildlife and ecology reflects our larger organizational commitment to improving our environmental stewardship.

Learn [more about biodiversity impacts](#) in the Suppliers section.

Applying ISO 14001

The ISO 14001 environmental management systems standard is an internationally recognized external approach to managing the immediate and long-term environmental impacts of an organization's products, services, and processes.

To help sites comply with the current ISO 14001 standard, 3M provides ISO 14001 training modules in our Global Learning System. We offer web-based courses on general awareness, internal auditors, leadership management, and more. Altogether, our ISO 14001-certified sites account for 66.9% of transfer value of shipments (TVOS) or the total value of all shipped unfinished and finished goods.

3M to exit PFAS manufacturing by end of 2025

People worldwide depend on everyday products that are made by many companies, including 3M, using PFAS (sometimes also called fluorochemicals). These substances are critical to multiple industries — including the cars we drive, planes we fly, computers and smartphones we use to stay connected, and more.

PFAS are used in everyday applications to promote durability, water resistance, and many other qualities. They are found in many important parts of modern life, including:

- **Automobiles**, including electric and conventional vehicles, to help protect fuel lines, seals, and batteries
- **Aerospace**, to help allow for interference-free communication from the cockpit to the wings, tail, and other equipment
- **Advanced communications networks**, including Wi-Fi and cellular data networks
- **Consumer goods**, including nonstick cookware, food packaging, cosmetics, and clothing
- **Electronics**, such as semiconductors and batteries, which are vital for everything from smartphones and wearable fitness trackers to national security technologies
- **Medical technologies and devices**, like catheters, stents, and needles, as well as transdermal patches that are used for medicine delivery
- **Medicines and pharmaceuticals**, including life-saving therapeutics that treat COVID-19, as well as common prescription medicines that treat conditions like anxiety or depression
- **Sustainable and renewable energy**, including solar panels, windmills, and fuel cells

3M's products, including those containing PFAS, are safe and effective for their intended uses in everyday life.

On December 20, 2022, 3M announced it would:

- **Exit all PFAS manufacturing by the end of 2025:** 3M will discontinue manufacturing all fluoropolymers, fluorinated fluids, and PFAS-based additive products. We will help facilitate an orderly transition for customers. 3M intends to fulfill current contractual obligations during the transition period
- **Work to discontinue use of PFAS across our product portfolio by the end of 2025:** We have already reduced our use of PFAS over the past three years through ongoing research and development and will continue to innovate new solutions for customers

3M's decision is based on careful consideration and a thorough evaluation of the evolving external landscape, including multiple factors such as accelerating regulatory trends focused on reducing or eliminating the presence of PFAS in the environment and changing stakeholder expectations.

How is 3M taking action today?

3M is committed to environmental sustainability at our sites that manufacture fluorochemistries today. While we plan to exit PFAS manufacturing, we remain committed to our planned investment of more than \$1 billion to achieve our corporate environmental goals, which include reducing our facilities' overall water use and improving the quality of water from our operations.

Employee health and medical services

Culture of health

We encourage employees to take advantage of our health and well-being programs, resources, and services. We aim to support healthy lifestyles and to create a psychologically safe work environment.

Our programs and services vary globally based on availability and need. Examples include free flu and COVID-19 vaccinations, health-conscious options in cafeterias, on-site fitness centers and medical care, telehealth, adoption and foster care support, and the Work Your Way program, which encourages a healthy balance between work and personal life. Learn more about **Work Your Way** in the Employee programs section.

Preventive approach

Our programs are designed to help prevent health-related conditions. Clinical services for illnesses and injuries are offered at 3M sites worldwide. Along with the 3M Healthy Living Program, we offer preventive programs including hypertension management, cardiovascular risk reduction, stress management, physical activity programs, smoking cessation, nutrition consultation, and cancer prevention.

CPR & AED training

3M supports volunteer first responder teams by providing CPR/Automated External Defibrillator (AED) training to employees. Our corporate headquarters and many of our distribution centers, R&D labs, and manufacturing sites around the world are staffed with AED-trained personnel and are supplied with AEDs.



International travel health

We help prepare 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 treatment while traveling outside their home country.

Employee health and safety during the pandemic

We're committed to continuing to respond to the ongoing and evolving health and safety challenges of the COVID-19 pandemic. 3M's global disease prevention coordinators, led by 3M's corporate occupational medicine team, stay well-apprised of the latest developments so they can provide education and up-to-date guidance.

In 2022, as part of our global framework of COVID-19 protocols, our facilities continued to follow a phased approach to using appropriate control measures based on a variety of local factors, including strain on the health care system and rates of vaccination, community transmission, and severe illness and death.

Workplace safety

To help protect our most valuable asset — our people — we offer a variety of safety programs and tools at 3M sites around the world. We also offer programs and services for employees working remotely.

Ergonomics

3M's Ergonomics Risk Reduction Process is a comprehensive global program that applies ergonomics risk assessment tools to identify and assess ergonomic risk in the industrial and office environment.

In 2019, we required all manufacturing sites to complete an ergonomic footprint assessment and establish yearly reduction targets. In 2022, we eliminated over 1,200 high exposures, exceeding our internal target. Online office ergonomics training, available 24/7 to any employee with access to 3M's intranet, encourages employees working remotely or at a 3M location to improve their workspace.

Machine guarding

To help identify potential hazards related to contact with objects and equipment in our global facilities, we use a Guarding Assessment and Prioritization (GAP) tool as part of our machine guarding assessment process. GAP assesses worker exposure to machine hazards and provides a relative risk score for each machine. This helps us identify machines or process components with the greatest risk of injury and prioritize actions to improve safeguarding performance. Our coordinated EHS capital investment system is designed for exactly this kind of risk identification and resulting capital prioritization.

Radiation protection

To help protect 3M employees, our customers, and the public, our Corporate Radiation Protection and Compliance group provides hazard evaluations and training for both radiation source users and site radiation safety officers. This includes ionizing and non-ionizing radiation sources used in both manufacturing and R&D.

Periodic program audits evaluate sites' performance in managing hazards during routine use and maintenance of radiation sources, security of radiation sources, training of personnel, and regulatory compliance. As we work to align our U.S. and non-U.S. radiation safety programs, we're using a module within EHS 360 called Radpro to help us maintain a global inventory of radiation devices and progress toward a truly global standard.

Process safety

3M is committed to rigorously managing the risks associated with hazardous processes, such as those that could result in catastrophic fires, explosions, and the sudden release of toxic materials.

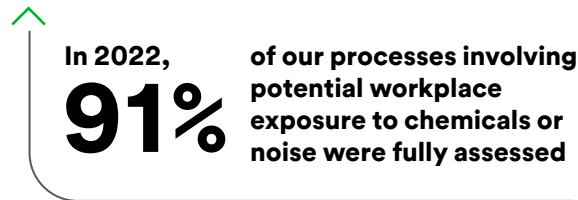
We have a variety of tools to assess and manage process hazards:

- We use a Hazardous Process Evaluation Tool (HazPET) to categorize hazardous processes.
- To assess how effective existing safeguards are, we use process hazard analyses (PHAs).
- To give more attention to independent protection layers when evaluating safety-critical devices and systems, we use Layers of Protection Analysis (LOPA).
- Mechanical integrity programs help our manufacturing sites manage critical process equipment and assure they're operated and maintained as effectively and safely as possible.
- Facility siting assessments help us identify and mitigate "maximum credible event" scenarios that could impact workers at some sites.

In addition, our Combustible Particulate Solids Standard contains global principles and practices for managing hazards through the design, operation, and maintenance of facilities that handle and store combustible dust.

Chemical and noise exposure

Our exposure assessment and management programs follow the comprehensive approach outlined by the American Industrial Hygiene Association (AIHA). In alignment with our commitment to follow the science around exposure risk, we adhere to the American Conference of Governmental Industrial Hygienists' (ACGIH) chemical and noise exposure limits unless more stringent local requirements apply.



Following our EHS Management Standard, we've also conducted proactive assessments of dermal exposure, engineered nanoparticles, hazard communication, personal protective equipment, respirator protection, and ventilation. These assessments help us understand if we need to make any changes to our exposure management programs.

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, we established others to meet 3M standards.

Epidemiology program

3M epidemiologists provide research and consultation to business units and corporate functions regarding health-related questions around potential occupational exposures. They also evaluate published human health and epidemiology research related to chemicals and products used or produced by 3M.

Psychosocial hazards

A growing body of research identifies psychosocial hazards as significantly impacting people in today's workplace. Psychosocial hazards are factors in the design or management of work, e.g., high job demands, poor supervisor support, role ambiguity, etc.,

that increase the risk of work-related stress and can lead to psychological or physical harm.

With the potential to affect every employee — their health and well-being as well as their productivity — these hazards can contribute to high absentee rates, increased injury rates, disability rates, and unplanned early retirement. Our corporate occupational medicine team, in partnership with other key 3M stakeholders, leads an ongoing process to identify and mitigate these hazards at an organizational level.

EHS site self-assessments and audits

3M's EHS Management Standard defines EHS requirements that apply to all 3M sites and is designed to bring more consistency to EHS self-assessments and EHS audit protocols. Data from the assessments is validated through audits, site visits by subject matter experts, and other data systems.

Self-assessments

As part of our EHS Management Standard, we expect our operations, including new acquisitions, to complete a self-assessment at least once a year. This self-assessment has multiple categories that address various areas and standards related to the environment, health, and safety, as well as their respective training requirements.

Audits

As a global manufacturer, 3M aims to have a best-in-class EHS and chemicals management audit program. We verify regulatory compliance and alignment with the EHS Management Standard, conducting EHS-related audits on a standard schedule based on site-specific EHS complexities. Our multifaceted strategy for implementing our EHS Management Standard and global auditing of EHS compliance for our operations is key to understanding and resolving any potential gaps.

In 2022, our EHS site audits covered sites that manufactured 63.1% of transfer value of shipments (TVOS). Key objectives of audits included:

- Preemptively discover and correct potential noncompliance with 3M and government EHS requirements
- Identify and manage EHS risks
- Promote an EHS culture of self-discovery and continual improvement
- Share exemplary practices among all 3M sites and operations
- Proactively roll out solutions to all applicable sites, not just the site with an identified issue

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
- Internal EHS compliance experts from around the company who conduct regular formal evaluations to review EHS requirements and identify opportunities for process improvements
- External EHS consultants, as needed, to provide additional expertise and third-party verification
- One comprehensive holistic system of record for audit processes, enabling complete and robust documentation of audits
- Findings with assignments of responsibility, due dates for closure, tracking to completion, and verification
- Data visualization software to communicate audit progress enterprisewide

All EHS auditors are required to take a certification test covering the most 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.

3M's Corporate Audit Department periodically audits our EHS auditing program. These audits fully address all in-scope sites and the verification of EHS audit findings, and they help us improve the audit program.

On a regular basis, the EHS&PS executive committee reviews audit findings and the 3M Science, Technology & Sustainability Committee of the Board of Directors is updated on the overall status of the audit program. This helps ensure teams have the necessary resources to close out high-risk priority findings.

Compliance analysis, documentation, and verification

In an effort to create more consistency in management of EHS requirements at 3M sites, we use an electronic system — Compliance and Auditing Management and Metric Systems (CAMMS) — for 3M's EHS Management Standard self-assessments and audits.

CAMMS allows 3M to conduct and track self-assessments and audits in the context of applicable U.S. environmental regulatory requirements and company policies and standards. Other global sites are being implemented on a priority basis in a multiyear plan. In addition, CAMMS uses a risk assessment tool to prioritize resources for implementing corrective actions.

EHS incident management

Since 2010, all 3M sites globally have been required to internally report, investigate, and assign action items for actual and potential incidents involving employees and contractors through one dedicated system, EHS 360. Actual and potential incidents include but are not limited to injury or illness, fire or explosion, environmental exceedances, spills, agency notices, and fines. EHS 360 has led to continual improvements relating to the awareness of responsibilities, understanding of the holistic system, and more consistent reporting requirements for 3M's global operations.

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 our operational control, 3M employees and contingent employees are covered by our injury and illness recordkeeping rules. See **incident rate data** in our metric tables and the Employee health & safety tab of **ESG metrics**, which also includes more detailed analysis.

Live dashboards report EHS data at the site, division, business group, and corporate levels. Dashboards are reviewed by executive management for performance on selected indicators, enabling us to monitor and identify successes, risks, and opportunities for performance improvements and footprint reductions worldwide.



Significant Injuries and Events (SIE) rates

Over the last five years, we've conducted over 97,000 internal risk assessments, resulting in the identification and reduction of risk associated with more than 26,000 activities — including 7,430 associated with higher-risk activities that have greater potential to result in an SIE.

SIE is broadly defined by impairment, disability, and other considerations. It also includes significant non-injury and illness events, such as fires, spills, and non-COVID-19 communicable disease outbreaks like measles or mumps. We track SIEs not only for 3M employees but also contractors and contingent workers.

Every week, any SIEs and potential SIEs identified in our global operations are reviewed by executive management and EHS. Certain SIEs prompt broad-based executive communication to site leaders about the incident and shareable insights that can help us improve our EHS performance metrics around the world.

Since 2019 we've been clarifying how we define environmental criteria for SIEs. With clearer, more quantitative definitions, sites have a better understanding of when they should report relevant incidents. As our definitions have moved from qualitative to quantitative, we've seen an increase in the incidents we classify as SIEs. For that reason, it's not possible to provide a year-over-year comparison.

Incident management for contractors and visitors

We require all visitors, vendors, contingent workers, and contractors at 3M sites to follow all applicable 3M workplace EHS requirements.

For example, contractors must complete a prequalification process before they perform work

on 3M premises. This process includes reviewing the contractor's employee injury/illness rates, experience modification rates, employee training records, and safety committee activities. Contractor performance evaluations include EHS reviews. Preconstruction 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 EHS issues. We ask contractors to submit notice of worker hours and any EHS incidents experienced while working under a 3M contract. Any contractor incidents are reported in the 3M EHS 360 incident management system.

Workplace and employee security

3M Global Security has invested in security intelligence monitoring systems, resources, and other tools, including geolocations, to help gather risk intelligence and provide threat mitigation to protect 3M's people, property, assets, and operations. As threats are identified, 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. It has indicators for early detection of escalations such as riots, protests, weather events, crime, etc., and supports local operations in severe situations. The GSOC also facilitates travel safety and security and coordinates emergency care and support for workers.

3M sites are accessible with badge access and protected by other physical security mechanisms. Uniformed security personnel support and assist workers and visitors in both emergency and nonemergency situations, such as incidents, loss or theft, and suspicious items or behaviors.

Incident and crisis management

We look carefully at each 3M site and new acquisition and perform a risk assessment that includes 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 we take necessary steps to minimize potential risks. We especially focus on bringing acquisitions into alignment with our protocols, standards, and training.

Each manufacturing site, distribution center, and administrative site has a business resilience plan that covers EHS, security, IT continuity, business continuity, and medical response. While we hope to never use them, it's critically important to have current plans in place and for employees to understand what to do in an emergency.

Local incident management teams use their business resilience plan to help prevent and prepare for, respond to, and recover from incidents, emergencies, and serious, severe, or crisis situations. We prepare all plans in accordance with standard practices, approval of management, and regular audits or assessments, and we conduct periodic scenario exercises at sites to evaluate their effectiveness.

3M's GSOC can access local business resilience plans, which helps guide notification and communication processes. When a significant EHS event or security threat arises, a message informs workers and provides a response mechanism to confirm their well-being after a severe or catastrophic event. 3M's Corporate Crisis Action Team provides global leadership, coordination, and direction in crisis situations. Severe or crisis situations are reported into EHS 360, our incident management system.



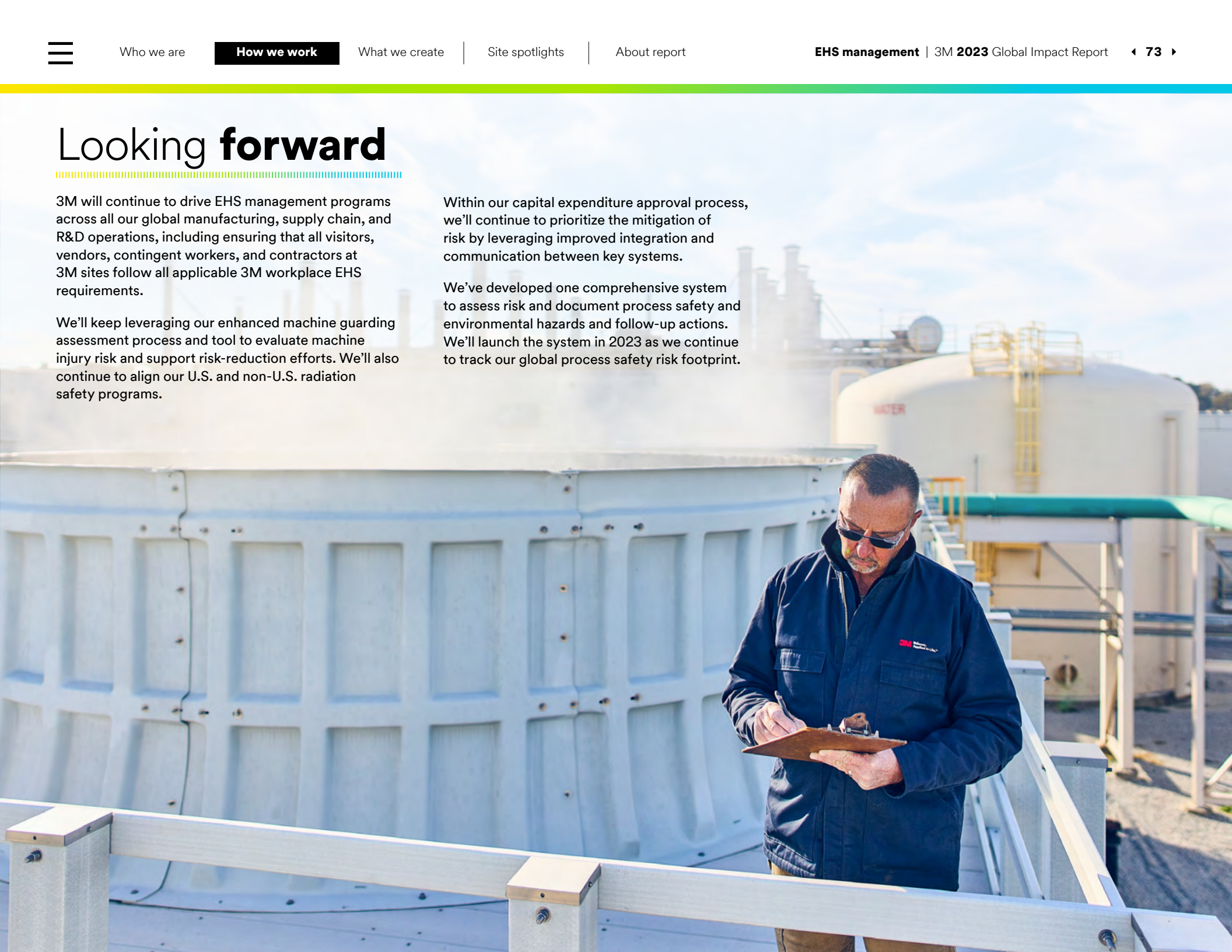
Looking **forward**

3M will continue to drive EHS management programs across all our global manufacturing, supply chain, and R&D operations, including ensuring that all visitors, vendors, contingent workers, and contractors at 3M sites follow all applicable 3M workplace EHS requirements.

We'll keep leveraging our enhanced machine guarding assessment process and tool to evaluate machine injury risk and support risk-reduction efforts. We'll also continue to align our U.S. and non-U.S. radiation safety programs.

Within our capital expenditure approval process, we'll continue to prioritize the mitigation of risk by leveraging improved integration and communication between key systems.

We've developed one comprehensive system to assess risk and document process safety and environmental hazards and follow-up actions. We'll launch the system in 2023 as we continue to track our global process safety risk footprint.





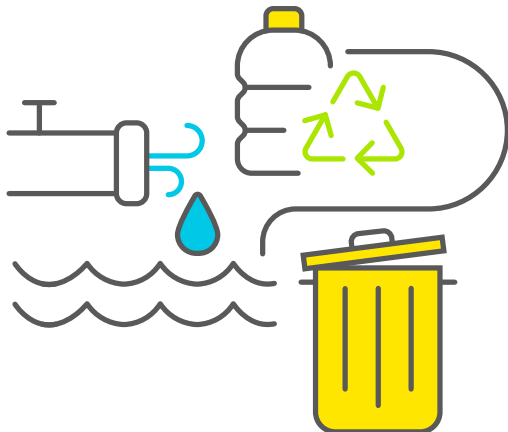
Circular materials

Our commitment

We're committed to advancing a global circular economy by designing solutions that do more with less material. We believe it's our responsibility to design circularity into 3M products and packaging while also enhancing the circularity of water, packaging, and waste in our own operations.

Our impact

We carefully manage waste and water, reducing where possible and reusing and recycling as alternative options. We continue to develop products and packaging that are reusable, renewable, recyclable, or made with more recycled material. We continually design with a focus on durability.



Our sustainability goals

Reduce dependence on virgin fossil-based plastic by 125 million pounds by the end of 2025¹

> Reduced by
54.2M lbs.

Reduce manufacturing waste by an additional 10%, indexed to sales, by 2025

> Reduced
0.58%

Achieve zero landfill status at more than 30% of manufacturing sites by 2025

> Achieved
44.9%

Reduce global water usage by the following amounts: 10% by 2022, 20% by 2025, and 25% by 2030, indexed to sales²

> Reduced
16.8%

Engage 100% of water-stressed/scarc communities where 3M manufactures on communitywide approaches to water management by 2025

> Engaged
17

For 3M's global manufacturing operations, enhance the quality of water returned to the environment from industrial processes by 2030.^{3,4} Our initial focus is on implementing state-of-the-art water purification technology at the largest water use locations globally and having them fully operational by 2024

> Ahead of schedule in installing state-of-the-art filtration technologies

¹ Established in 2021.

² Expands our previous commitment, which aimed to reduce water use by 10% between 2015 and 2025. 2019 is the baseline measurement year.

³ By improving the weighted average of priority constituents, including select metals, BOD, COD, cyanide compounds, fluoride, total nitrogen, oil & grease, PFAS, TDS, TSS, sulfate, and others.

⁴ Water used by manufacturing or industrial processes, including all water use not defined as domestic (sanitary, cafeteria, etc.).



The global economy is at a crossroads. Corporations have an opportunity to embrace new circular business models — ones that are regenerative and replenish rather than deplete natural resources. Instead of current linear business models, organizations could measure success on the ability to accomplish more with fewer resources — selecting renewable and recycled materials and packaging, keeping products and materials in use, and designing out waste and pollution. We see the circular economy as an opportunity to inspire leadership, innovation, and disruptive change across all industries, meeting the needs of current and future generations.

Reusable, renewable, and recycled materials

Plastic stewardship

Plastic pollution is a pressing global challenge, and the production of fossil-based plastics negatively impacts the global climate through the release of greenhouse gas emissions. Compounding the issue is the management of plastic waste. The UN Environment Programme reports that, globally, less than 10% of all plastic waste ever produced has been recycled.¹

3M uses plastics and has a responsibility to address this challenge. As we work toward gaining a better understanding of our total plastic footprint and anticipate potential future regulations, we're advancing our actions accordingly.

We continue to work toward our sustainability goal to reduce our dependence on virgin fossil-based plastic by 125 million pounds by the end of 2025. To that end, we're always innovating new product and packaging solutions that use less virgin fossil-based plastic and increase the use of recycled or bio-based plastic where appropriate.

We've reduced our use of virgin fossil-based plastic by

54.2M lbs.



Since 2021, we achieved a 54.2-million-pound reduction in the use of virgin fossil-based plastic in our packaging and products toward our goal of 125 million pounds by the end of 2025. We've incorporated recycled and bio-based materials and reduced plastic use in products and packaging such as tapes and dispensers, sponges, packaging, workspace solutions, insulation, optical films, floor pads, sorbents, and more.

The materials and infrastructure that support a global transition away from petroleum-based plastics are rapidly transforming, and there's palpable momentum for change. We have a clear line of sight on our path forward and have created a measurement system to track our progress toward our plastics goal.

Reusable, renewable, and recycled materials in our products

We strive to design products with recycled or renewable materials, using only one material when possible, to facilitate recycling. For example:

- Our **Post-it® 100% Recycled Paper Super Sticky Notes** are made with 100% recycled paper in a zero-waste-to-landfill plant, and the product and packaging are both curbside-recyclable.
- Our **Scotch™ Cushion Lock™ Protective Wrap** is an alternative to plastic that's both recyclable and made from 100% recycled paper. In 2022, this product received a lot of recognition, including a Platinum Award in Dow's 2022 Packaging Innovation Awards and finalist status in the consumer products category of Fast Company's World Changing Ideas Awards.
- **3M™ Thinsulate™ 100% Recycled Featherless Insulation** is made with 100% post-consumer recycled material and is engineered to replicate natural down.



¹ UN Environment Programme:
<https://www.unep.org/interactive/beat-plastic-pollution/>



Keeping materials in play

To help keep materials in play, we design products for durability, offer repair options when possible, and create products that can refurbish structural surfaces, delaying the need for replacement.

- Our **Scotch-Brite® Swift Scrub Bathroom Buildup Remover** is designed to be durable — so durable it won Best Bathroom Scrubber in Better Homes & Gardens 2022 Clean House Awards. This product outlasts four eraser pads.¹
- With 300,000 electronic devices in the field, 3M's Health Care Service Group (HCSG) aims to keep them working instead of in landfills. The HCSG provides service and support for more than 50 different 3M health care products with repair locations in 18 countries.
- **3M™ DI-NOC™ Architectural Finishes** can contribute to LEED credits by maintaining existing walls, doors, frames, and built-ins with its innovative architectural finishes that keep them in use longer.

Reusable, renewable, and recycled materials in our communities

Surplus material from one business may be the raw material for another. When we expand outside our own value chain, the opportunities can be endless. We continue our companywide strategy on reuse, reduction, and internal recycling as well as collaboration with our own technical community, channel partners, and civic and conservation leaders in our communities.

- In 2022, we renewed our membership with the **Ellen MacArthur Foundation** to accelerate the movement toward using recycled and renewable raw materials in our product and package designs.

- From 2022 to 2023, 3M is partnering with **Closed Loop Partners' Center for the Circular Economy** and relevant stakeholders to conduct a 20-month study of food grade polypropylene. The study is qualifying and quantifying the polypropylene resin stream flowing through a material recovery facility to help in evaluating the feasibility of new end markets.
- In 2022, 3M continued to engage with **The Recycling Partnership** as a corporate partner and founding member of the Recycling Inclusion Fund. The Recycling Partnership is a mission-driven NGO committed to advancing a circular economy by building a better recycling system in the U.S.
- 3M continues to support the **Recycling Inclusion Fund**, which addresses racial disparities and delivers an equitable recycling system for all people, especially in Black, Indigenous, and people of color (BIPOC) communities across the U.S.
- As Ocean Stewards for **Plastic Bank**, 3M, through our partner Global Giving, provided a \$100,000 grant to an ethical collection community in Brazil, helping to stop 181,818 kg of plastic — the equivalent of 9 million 500 ml plastic bottles — from entering the ocean. The plastic is exchanged for life-improving benefits such as groceries, cooking fuel, and medical insurance. Collected material is reused in products and packaging.
- In September 2022, 3M was one of 85 global businesses, financial institutions, and NGOs to endorse the **Business Coalition for a Global Plastics Treaty**, a common vision that will guide policy engagements with governments in an effort to end plastic pollution and accelerate progress toward a circular economy.
- We're a member of the **Association of Plastic Recyclers**, which promotes the advancement and development of the plastics recycling industry by providing leadership for sustained long-term industry growth.

Packaging

3M's product diversity, markets, and global multichannel distribution systems create a complex landscape that does not lend itself to a one-solution-fits-all approach for product packaging. Our Packaging Sustainability Roadmap takes into consideration the requirements and needs that are quickly evolving around the world and our responsibility to meet those needs.

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



¹ Compared with Mr. Clean® Magic Eraser Extra Durable pads on tough soils. Mr. Clean Magic Eraser is a trademark of The Procter & Gamble Company.

Packaging for our products

We're committed to protecting our products with an efficient, minimal amount of packaging. We remove or lightweight packaging materials and maximize product-to-package ratios (reducing empty air space) wherever possible. We also continue to increase recycled content, make our packaging easier to recycle, encourage reusable packaging where appropriate, and increase the use of renewable materials.

To support 3M's goal of reducing our use of virgin fossil-based plastic, we've increased recycled content in our plastic packaging by 38 metric tons.

Our Packaging Sustainability Roadmap places a special focus on circular package design. We train all packaging engineers on a toolkit that clearly defines circularity terms and highlights which packaging materials to select for specific aims, such as designing for reusability and recyclability, increasing recycled content, or transitioning to renewable packaging materials. The toolkit includes a Packaging Recyclability Guide, which references global industrial aids and presents them in an easy-to-use format that simplifies selection of recyclable materials in different packaging components.

In 2022, our package engineers consistently used the toolkit and guide to help them make key design decisions that reduce or eliminate packaging where possible and improve the circularity of our packaging.

Examples include:

Packaging reduction progress

- We removed large paper inserts from our 3M Filtrete™ products manufactured in Clinton, Tennessee, resulting in a paper reduction of 151.6 metric tons.
- We reduced 8.9 metric tons of plastic film out of our packaging for 3M Scotch-Brite® Scouring Pad products made in Mexico.

- By using a QR code, we eliminated paper instruction inserts accompanying oral health care products in Latin America, saving 2.1 metric tons of paper.

Reusable packaging progress

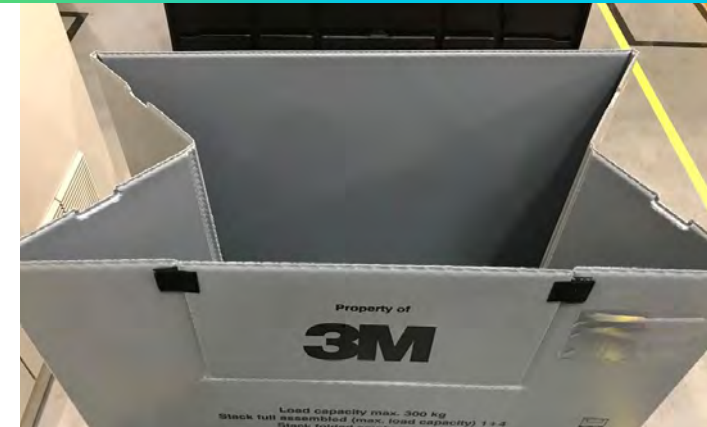
- Prior to 2022, we used corrugated totes, wooden pallets, and plastic film to transport 3M™ Thinsulate™ products from our 3M site in Poland to our automotive customers throughout Europe. In 2022, we switched to collapsible plastic crates that are returned to 3M for reuse. These crates have an estimated lifetime of at least five years. A conservative lifetime estimate of 50 uses eliminates 23 metric tons of corrugated totes, 72 metric tons of wooden pallets, and 0.98 metric tons of single-use plastic. The crates contain an average of 58% post-consumer recycled content by weight and can be returned to the supplier for recycling.

Packaging recyclability progress

- In our European market, we changed the packaging for several of our Scotch™ Mounting Tapes from a plastic blister to a 100% paperboard package, resulting in the removal of over 30.7 metric tons of plastic from the market — and packaging that's even easier to recycle.
- In late 2022, we designed circularity into the original packaging of one of our Scotch-Brite® Greener Clean scrubbing products in North America. Instead of plastic shrink film, we used a paperboard package made from 100% post-consumer recycled content. This will reduce our use of plastic film packaging in 2023 by 1.5 metric tons.

In 2022, our packaging reduction efforts resulted in a decrease of more than

405 metric tons of material



Recycled content in packaging progress

- In our Asia-Pacific region, we changed the packaging tags for our 3M™ Thinsulate™ fabric line from virgin paperboard to 30–100% recycled paper, in addition to being certified by the Forest Stewardship Council (FSC). This saved over 19.3 metric tons of virgin paper.
- Also in our Asia-Pacific region, we changed plastic pails holding transportation road-marking products from virgin polypropylene to 100% post-consumer recycled content polypropylene. This reduced our use of virgin plastic by over 34.7 metric tons.

Packaging collaborations

Sustainable Packaging Coalition® – 3M is an active member of this collaborative led by an independent nonprofit that believes in the power of industry to make packaging more sustainable.

How2Recycle® labels – This program was designed by GreenBlue's Sustainable Packaging Coalition to provide consumers with clear on-package recycling instructions. Since we became a member in 2018, we've expanded the use of How2Recycle® labels within the 3M Consumer Business Group to over 4,000 packages.



Sharing knowledge – Our packaging team is committed to sharing its knowledge with the external community to create a collaborative network that will accelerate packaging circularity. We engage and participate in industry panels as well as give guest lectures at universities and colleges.

Waste management

While reducing waste is the first choice for waste management, reusing, recycling, and composting can also fuel the circular economy by getting more out of our materials and giving them another life. As our sites identify opportunities to divert material streams, such as by reusing byproducts in our operations, we continue to carefully manage waste. Our contracts with our waste management vendors confirm that our material is handled appropriately.

Our 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.

Reducing waste in our operations

Within each geographic area, we regularly review results against goals and tracking metrics. Specialized teams work on a variety of programs. These may range from basic office recycling to more complex projects such as capturing byproducts generated by a manufacturing line for reuse in another operation. Through an evaluation process, we review material reduction benefits and risks.

3M corporate systems measure progress toward waste reduction goals for our sites with total output greater than 4.54 metric tons per year (10,000 pounds), representing 99% of transfer value of shipments (TVOS). We use the results and raw data to identify, quantify, and prioritize projects. We continue to move toward automated and real-time tracking for a better understanding of how to direct our efforts.

Those efforts have yielded significant results. Most notably, between 2015 and 2022, we reduced the amount of material sent for landfill and incineration by 0.58%, indexed to net sales, and since 2005 we've decreased our waste, indexed to net sales, by 24.3%. See more data in our [metric tables](#).

One 3M site contributing to this reduction is our tape manufacturing plant in Bangor, Northern Ireland, where an overhaul of the waste management system has more than halved the amount of waste generated. This was achieved by improving waste-segregation and recycling processes, installing a new cardboard compactor, streamlining from multiple waste vendors to one, and introducing regular site audits.

Another way we've reduced waste is by repurposing a byproduct of the production of our roofing granules. The product we created, 3M™ Natural Pozzolans, can be used as a partial cement replacement to help lower the CO₂ emissions of concrete. For every ton of natural pozzolans used, CO₂ emissions can be reduced by an estimated 0.75 tons. Natural pozzolans also count toward LEED credits for the use of recycled materials.

3M Pollution Prevention Pays (3P)

An industry first, 3M's 3P program, developed in 1975, is based on the belief that preventing pollution is more environmentally effective, more socially acceptable, and more economical than treatment. In the last 47 years, the program has prevented 2.88 million short tons of pollutants and saved over \$2.37 billion, based on aggregated data from the first year of each 3P project.

Zero landfill sites

In addition to our waste reduction goal, we plan to increase the repurposing, reusing, and recycling of byproducts to divert them from landfill disposal.

At 3M, we consider a manufacturing site to be zero landfill when no byproduct has been sent directly to a landfill in a full calendar year. 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. 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.

Each site reports its waste data in a corporate database each quarter. The data from select sites and at the corporate level is validated by a third party. Sites seeking zero landfill status must complete an internal assessment to assure accurate reporting.



An industry first, 3M's 3P program, developed in 1975, is based on the belief that preventing pollution is more environmentally effective, more socially acceptable, and more economical than treatment.

By the end of 2022, 44.9% of 3M sites had attained zero landfill status. As we monitor progress toward this goal, sites listed may fluctuate due to site closures, acquisitions, consolidations, or sites missing zero landfill requirements. In 2022, two new sites, Amersfoort and Atherstone, achieved zero landfill status.

Reducing waste through product design

Our product development teams strive to design products that are durable, refillable, and made with less material whenever possible, all with an eye on reducing waste.

For example, in 2022 we collaborated with Nordson, an adhesives partner, to create a manufacturing bonding solution that combines the benefits of our VHB™ Tapes with the versatility of a liquid adhesive — all while reducing waste and material use. The new 3M™ VHB™ Extrudable Tape features innovative stretch-release technology that makes it easy to remove with less scrap and waste. Wound in a long, coiled spool, it requires no special packaging. In addition, the 3M™ On Demand Bonding System — designed to work with the Nordson® ProBond™ System — eliminates liners and container waste.

See more examples in our [Global Impact Highlights brochure](#).

44.9%

of 3M sites have attained zero landfill status



Reducing waste in our communities: 3M Impact in Peru

3M Impact is a skills-based volunteer service program that supports employees in sharing their business skills, experience, and energy to make a difference in global communities. The experience also gives them opportunities to develop their leadership, problem-solving, and communication skills. Every 3M Impact project aligns to our Strategic Sustainability Framework.

In 2022, 3M Impact sent a team of eight volunteers to Lima, Peru, to work with host community organizations on eliminating waste in ways that benefit all community members. The team worked on projects to:

- Extend the life cycle of objects through reuse and the creation of shopping opportunities for economically vulnerable families
- Eradicate the use of silos by providing a safe alternative through container sanitation services for low-income families in urban areas

“It was such an honor to work alongside my 3M colleagues in Lima. Watching them use their unique skill sets to make such impactful change was beyond inspiring.”

— Stacey Claessens, global employee empowerment manager, 3Mgives

To learn more and see other 3M Impact stories, visit [3M Impact: Skills-Based Service Program](#).

Water stewardship

Manufacturing relies on water as an important component and even sometimes as a raw material. However, current global use of this vital resource is straining ecosystems. At 3M, we strive to use technology and expertise to promote a future of “water circularity” — a future where water stress is eliminated, resources are circulated, and nature is regenerated.

Through collaboration and application of 3M technology, we’re improving the availability of water and enhancing water quality associated with our operations. We recognize that reducing water consumption and improving water quality in our operations are important elements of our environmental stewardship at a local level, and we’re committed to applying our innovation and expertise to those ends.

As a signatory of the UN Global Compact CEO Water Mandate and a leading member of the Water Resilience Coalition, 3M’s strategy aligns with the six core focus areas outlined by the Mandate and follows UN Sustainable Development Goal 6.

Conserving water in our operations

3M’s total water usage includes sanitary, process, heating, cooling, remediation, and other sources. Every year we track and report global water usage data for manufacturing sites that produce more than 4.54 metric tons (10,000 pounds) of product per year. The reported data accounts for 99% of transfer value of shipments (TVOS). Advances in our data analytics capabilities are expanding visibility, accuracy, and opportunity for innovation in our monitoring and measurement efforts.

Between 2005 and 2022, we decreased our total water usage by 52.8%, indexed to corporatwide net sales. In two of our largest manufacturing water usage locations, we amplified our 2021 ambitions. We are ahead of plan for our 2022 water usage goal, with more than a 10% reduction and we are ahead of schedule in installing state-of-the-art filtration technologies.

Our efforts toward reaching our goal include significant technology investments in water recirculation in Decatur, Alabama, and filtration systems in Cordova, Illinois.

To achieve our 2025 goal of engaging 100% of water-stressed communities where we manufacture, we'll partner with local communities to promote water recycling and conservation. Ultimately, we aim to help these communities build and manage their own water efforts into the future. In alignment with this goal, 3M joined the Water Resilience Coalition (WRC) leadership committee in 2021. Led by the CEO Water Mandate, an initiative of the UN Global Compact, coalition members commit to having a positive impact in water-stressed basins, to developing and implementing resilient practices across their industry, and to providing leadership and advocacy in the field of water resilience.

3M's 2022 global manufacturing locations were evaluated using the Aqueduct™ Water Risk Atlas stress-level screening tool, Aqueduct 3.0. Over 200 3M locations were analyzed, with 17 identified as extremely high water-stressed areas. Manufacturing locations include those with annual water use equal to or greater than 1,000 cubic meters. The 17 locations account for 1.47% of 3M's total water usage.

See [water data](#) in our metric tables and the Environmental tab of [ESG metrics](#), which also includes more detailed analysis.

Learn more at [Innovating Boldly for our Enterprise, Customers, and Communities](#).

Conserving water and improving quality through product design

3M innovation makes a wide range of water-saving and water-quality improvement products possible for residential, commercial-food-service, and industrial-water-filtration settings. 3M Residential Water Filtration products address common water quality concerns, such as sediment and chlorine taste and odor. Some products also reduce contaminants and help protect pipes by reducing scale.

To learn more about these and other 3M water-quality products, visit [Water Quality](#).

Conserving water and improving quality in our communities

Our sites aim to conserve water in surrounding communities. As mentioned earlier, when we joined the Water Resilience Coalition in 2021, we committed to helping build a water-resilient world for our communities, our ecosystems, our companies, and the global economy.

As we work toward our goal to enhance the quality of the water our manufacturing sites return to the environment, our initial focus is on implementing state-of-the-art water purification technology at the largest water use locations globally and having them fully operational in 2024.

“3M is proactively applying our science and innovation to improve the water supply used in our operations and the communities we serve.”

— Mike Roman, Chief Executive Officer



Sustainability risk governance

At 3M, we believe it's our responsibility to be strategic and planful and to mitigate risks related to our use of renewable and recycled materials. Our sustainability risk governance is overseen by our Science, Technology & Sustainability Committee (STS) of the Board of Directors. It focuses 3M's efforts by setting economic, environmental, and social goals that may directly or indirectly influence investment decisions for the company.

Learn more about [the roles and responsibilities of the STS](#) in the Corporate governance section. For information on overall enterprise risk, see [the Enterprise risk](#) section.

52.8% decrease in water usage since 2005





Looking **forward**

In the coming year, 3M will continue to explore ways to use science to advance a more circular economy.

We'll help our customers reach their sustainability goals by increasing our use of recycled raw materials in new products, as well as by creating reusable, renewable, and recyclable products and packaging. We'll work to improve systems that help us collect product-level data around plastics and packaging. And we'll help our customers reduce their water usage and waste by using our products.

In our operations, we'll continue to mitigate waste-to-landfill through the reduction, reuse, and recycling of surplus materials, including those from our suppliers' packaging, and we'll work to improve global water quality and efficiency.

Within our communities, we'll focus on advocacy, support, and collaboration in our efforts to fuel a global circular economy. This includes working with water leaders in communities where we operate to help improve water availability and quality, with aspiration toward a net positive water impact.



Climate and **energy**

Our **commitment**

3M is committed to innovate to decarbonize industry, accelerate climate solutions, and improve our environmental footprint. From the bottom to the top of our organization, we're dedicated to following our related principles and policies and pursuing our related goals and risk-mitigation efforts.

Our **impact**

We take industry-leading actions to measure and reduce our greenhouse gas (GHG) emissions, and we offer our customers a wide range of innovative products that help them improve energy efficiency and reduce their own GHG emissions. Our climate and energy experts regularly speak at industry conferences as we work collaboratively with governments and global partners to advance our impact in meeting this important global challenge.

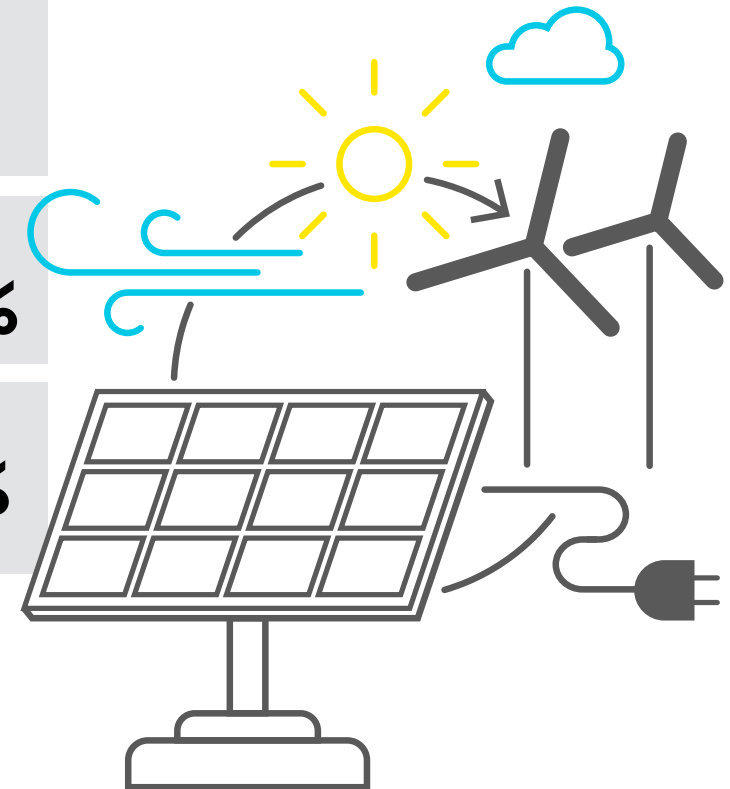
Our **sustainability goals**

Reduce Scope 1 and 2 market-based GHG emissions from our 2019 baseline by at least 50% by 2030, 80% by 2040, and achieve carbon neutrality in our operations by 2050¹

➤ **Reduced by**
37.8%

Increase renewable energy to 50% of total electricity use by 2025 and to 100% by 2050 ➤ **Increased to**
51.9%

Improve energy efficiency, indexed to net sales, by 30% by 2025 ➤ **Improved**
13.1%



¹2019 is the baseline measurement year. Expands our previous 2025 goal to stay below 50% of our 2002 baseline, meaning 3M's 2030 Scope 1 and 2 emissions will now be reduced by more than 85% from 2002 levels.



3M has long been a leader in addressing both challenges and opportunities presented by climate change and energy conservation. Both for our own operations and those of our customers, we continually support the development of technologies and products that help reduce emissions and combat the effects of climate change.

In November 2022, we had a robust presence at the United Nations Framework Convention on Climate Change (COP27), where we engaged with and learned from our peers, strengthened collaborations with government, nonprofit, and corporate partners, and leaned into our four strategic focus areas:

- Responding with urgency
- Leadership and collaboration
- Progress through science and technology
- Action via solutions

Following global standards

We set our GHG emission reduction targets using the World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) GHG Protocol Corporate Accounting and Reporting Standard, which is based on the findings of the Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C.¹ This report finds that limiting global warming to 1.5°C (2.7°F) above preindustrial 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.”

Since the release of the 2018 IPCC report, we’ve continued to follow and adopt the latest science, including additional modeling data on global warming potential and changing atmospheric CO₂ levels. As new information is published and shared, we continue to refine our understanding of a variety of climate issues and reposition our climate strategy.

¹ Special Report on Global Warming of 1.5°C (Report). Incheon, South Korea: Intergovernmental Panel on Climate Change (IPCC). 7 October 2018.

Public policy engagement

3M supports the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations for helping businesses disclose climate-related financial information. We recognize the need for corporations to increase their focus and transparency around financial risks related to climate change. In addition, we continue to advance the speed and accuracy of our reporting for topics like GHG emissions to help gather timely feedback and inform our decision-making. Our climate risk process, as described in **Mitigating climate risk**, 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

Speaking engagements and partnerships

Public speaking engagements and partnerships are integral elements of our Strategic Energy Management Plan, which guides our priorities and goals.

In 2022, 3M experts spoke at several energy industry conferences, including the Association of Energy Engineers (AEE) East, AEE World, the U.S. Department of Energy's (DOE) Better Buildings, Better Plants Summit, and its Better Building webinar series. Talks included "Renewable Energy: How 3M Plans to Meet the 50% RE100 Target 4 Years Early" and "Bonus Points: Adding Up the Non-Energy Benefits of Energy Efficiency."

3M also continues to create, participate in, and speak at numerous climate-related partnerships and collaborations:

- We participate in the **Better Climate, Better Plants, and Low Carbon Pilot** programs as a **partner of the DOE's Better Buildings Initiative**, which drives leadership in energy innovation.
- We're a member of **RE100**, a global renewable energy leadership initiative led by The Climate Group in partnership with CDP (formerly the Carbon Disclosure Project). RE100 brings together influential businesses committed to sourcing 100% renewable electricity for their worldwide operations by 2050. In 2022, our senior vice president and chief sustainability officer participated in a member panel at Climate Week NYC.
- 3M is one of more than 20 global companies investing in the **TPG Rise Climate Fund**, a multibillion-dollar climate impact investing fund that deploys mission-driven capital at scale. TPG Rise Climate is focusing investments on clean energy, enabling solutions, decarbonized transport, greening industrials, and agricultural and natural solutions. It gives us expanded access to opportunities to invest

in climate technology companies and support our environmental goals for carbon neutrality and water use and quality.

- 2022 was 3M's third year of **our five-year partnership with Clean Air Asia**, an international nongovernmental organization focused on air quality solutions for New Delhi, India, and Manila, Philippines. In New Delhi, a Clean Construction Toolkit is being developed as a roadmap for how to follow dust control norms and build capacity for implementation of clean construction and best management practices. In Manila, the Manila City Clean Air Action Plan is being operationalized, including air pollution transport measures, waste management through community engagement, and health sector interventions in partnership with a city hospital.
- 3M is in the middle of a three-year partnership with **UNFCCC** to advance the Paris Agreement and UN SDGs. This collaboration helps us highlight technology and solutions that inspire forward movement on climate commitments. As part of our collaboration, our senior vice president and chief sustainability officer participated in five sessions at COP27, including speaking on "Creating Clean Energy Security for All: Technology & Policy Opportunities" and "Collaborating for Climate Solutions: How Can We Accelerate Partnership?"
- We continue to participate in the **Global Alliance for Sustainable Energy**, which we founded along with our customer Enel Green Power and 15 other organizations.
- We're one of 30 U.S. businesses and organizations that formed the **Sustainable Growth Coalition** (formerly the Minnesota Sustainable Growth Coalition).

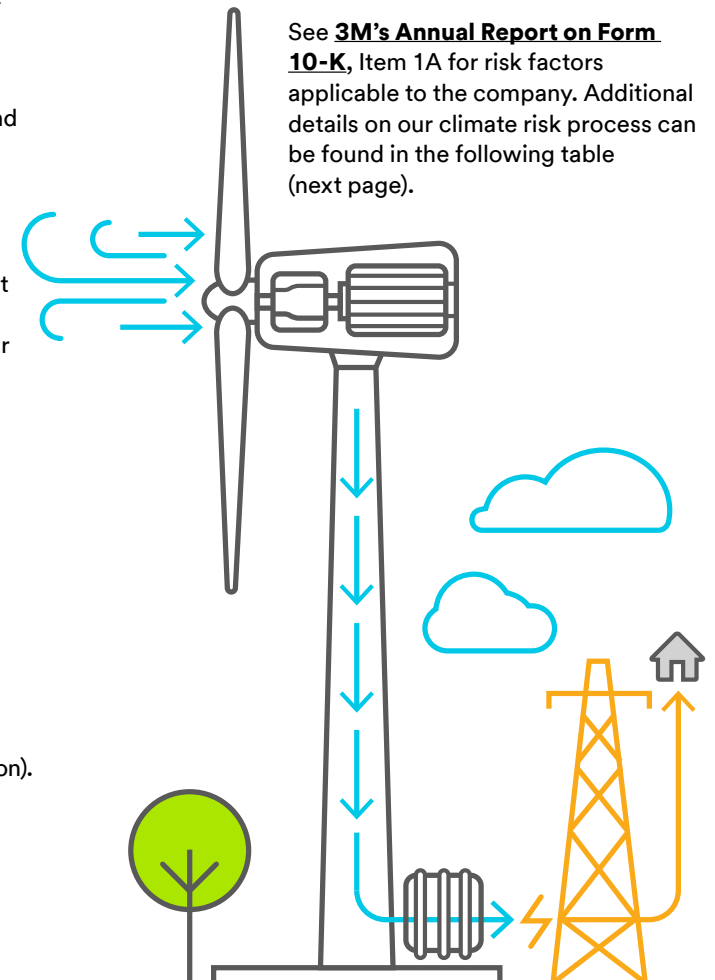
Mitigating climate risk

Severe weather and long-term climate trends could affect 3M's operations and supply chain. To address this, we maintain a formal enterprise risk

management analysis to review risk across the enterprise. Additionally, 3M Global Security facilitates business continuity and crisis management planning to coordinate the efforts of businesses, functions, and local incident management and response teams worldwide.

Corporate, functional, and local plans consider the risk of natural disasters, infectious disease, employee safety, asset protection, 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 (next page).



TCFD recommendations

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. The committee oversees the twin demands of developing products to meet the ever-changing needs of our customers while ensuring that those products cause no harm to people or to our planet. The committee's roles and responsibilities include reviewing the company's policies and programs on sustainability and assisting the Board in identifying and analyzing significant emerging science and technology, disruptive innovations, sustainability, materials vulnerability, and geopolitical issues that may impact the company's overall business strategy, global business continuity, and financial results.</p> <p>Consulting with the company's senior management and the Board, the general auditor annually leads the assessment of the major risks facing the company and works with the executives responsible for managing each risk to develop appropriate mitigation and monitoring plans. Climate change risk is assigned to the STS Committee.</p> <p>For the purpose 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's results are impacted by the effects of, and changes in, worldwide economic, political, regulatory, international trade, and other external conditions.</p> <p>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 and in our Annual Report on Form 10-K, Item 1A.</p>
Time frames	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 is responsible for providing the general oversight of the scientific and technological aspects of 3M Company's businesses and the Company's sustainability and stewardship activities.</p>
Frequency on Board's agenda	<p>3M's Science, Technology & Sustainability Committee of the Board of Directors meets 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>
Corporate officer's oversight	<p>In addition to the members of the 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 carries on the company's history of proactive leadership in addressing both the challenges and the opportunities presented by climate change and energy conservation. Learn about executive pay in relation to our climate goals in 3M's 2023 Proxy Statement.</p> <p>3M's executive-level Corporate Environmental Responsibility and Sustainability Committee (ERSC) provides leadership, oversight, and strategy to encourage and assure sustainability opportunities are recognized. They develop and monitor adherence with sustainability-related policies and procedures. This committee includes 3M's CEO, CFO, CTO & EVP Environmental Responsibility, Group President Enterprise Operations, EVP & Chief HR Officer, EVP & Chief Legal Affairs Officer, SVP & Chief Strategy Officer, and EVP Country Governance & Services.</p>
Identification and assessment	<p>Managing risk requires integrating a multidisciplinary, companywide risk identification, assessment, and management process. See the Enterprise risk section for details on the identification and assessment of the major risks facing the company.</p> <p>Climate risk prioritization associated with physical impacts such as floods, drought, water scarcity, and shifting precipitation patterns is conducted annually for 3M's global manufacturing through the World Resource Institute's (WRI) Aqueduct™ Water Risk Atlas stress-level screening tool, Aqueduct 3.0. Baseline and three future scenario analyses include "optimistic" with emissions peaking and declining by 2040 with emissions constrained to stabilize at ~650 ppm CO₂ and temperatures to 1.1–2.6°C by 2100; "business as usual" representing a world with stable economic development and rising global carbon emissions with CO₂ concentrations reaching ~1370 ppm by 2100 and global mean temperatures increasing by 2.6–4.8°C relative to 1986–2005 levels; and "pessimistic" with steady rising global carbon emissions with CO₂ concentrations reaching ~1370 ppm by 2100 and global mean temperatures increasing by 2.6–4.8°C relative to 1986–2005 levels.</p> <p>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 business continuity planning efforts.</p>

Climate risk process

Frequency of monitoring	<p>3M continually evaluates aspects of risk. The general auditor, Corporate Audit, is responsible for leading the formal risk assessment and management process within the company and annually reports the results to the full Board.</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 and crisis management planning help manage risks facing the company's physical operations, supply chains, and workforce. Programs are reviewed at least annually.</p> <p>In addition to our Board of Directors' Committees, climate risk is reviewed throughout the year within our executive-level Corporate Environmental Responsibility and Sustainability Committee (ERSC) and our Science for Climate Leadership Team.</p>	
Transition risk	Regulatory	<p>3M continually evaluates aspects of regulatory risk during regular business interactions, including new product development and continuous business improvement. 3M's manufacturing operations are affected by national, state, and local environmental laws and regulations around the world. 3M has made, and plans to continue making, necessary expenditures for compliance with applicable laws and regulations. 3M is also involved in remediation actions relating to environmental matters from past operations at certain sites.</p>
Transition risk	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, which are sold in nearly every country. Risks related to technology are identified and mitigated through our New Technology Introduction (NTI) framework, 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 2022, 3M invested \$1.9 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 addition, since 2019 we require each new product entering our NPI process to have a Sustainability Value Commitment demonstrating how it drives impact for the greater good.</p>
Transition risk	Legal	<p>The Company is subject to risks related to international, federal, state, and local treaties, laws, and regulations, including those involving product liability; antitrust; intellectual property; environmental, health, and safety; tax; the U.S. Foreign Corrupt Practices Act and other anti-bribery laws; international import and export requirements and trade sanctions compliance; regulations of the U.S. Food and Drug Administration (FDA) and similar foreign agencies; U.S. federal healthcare program-related laws and regulations including the False Claims Act, anti-kickback laws, and the Sunshine Act; and other matters. The Company is also subject to compliance risks related to legal or regulatory requirements, contract requirements, policies and practices, or other matters that require or encourage the Company and its suppliers, vendors, or channel parties, to conduct business in a certain way.</p> <p>For a more detailed review of this topic, see the discussion in Item 8, Note 16 "Commitments and Contingencies" in <u>3M's Annual Report on Form 10-K</u>.</p>
Transition risk	Market	<p>Results are impacted by the effects of, and changes in, worldwide economic, political, regulatory, international trade, geopolitical, and other external conditions. 3M operates in more than 70 countries and derives approximately 60 percent of its revenues from outside the United States, and, accordingly, 3M's operations and the execution of its business strategies and plans are subject to global competition and economic and geopolitical risks that are beyond its control, such as, among other things, disruptions in financial markets, economic downturns, military conflicts, public health emergencies such as COVID-19, political changes and trends such as protectionism, economic nationalism resulting in government actions impacting international trade agreements or imposing trade restrictions such as tariffs and retaliatory counter measures, and government deficit reduction and other austerity measures in locations or industries in which 3M operates.</p>
Transition risk	Reputation	<p>Our customers rely on 3M to work together to help solve the world's greatest challenges, all with the aim of transforming businesses and improving 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 in accordance with our Code of Conduct.</p>

**Climate risk process**

Physical risks	Acute and chronic	Every year, local incident 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 incident response exercise. 3M Corporate Audit and Global Security monitor site compliance with the crisis management plan. Learn more about incident and crisis management in the EHS management section.
Supply chain risk	Upstream	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 3M products. Supplier relationships have been and could be interrupted in the future due to supplier material shortage, climate impacts, natural or other disasters, and other disruptive events such as military conflicts, or be terminated. 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 of a supplier may be conducted by 3M or a third party, and any deficiencies are ultimately corrected through a Supplier Responsibility Code Corrective Action Preventive Action (CAPA) process. 3M mitigates supply chain risks through a variety of management practices, including multisourcing raw materials, pre-qualifying potential outsource manufacturers, and maintaining appropriate stocks of raw materials and contingency plans with key suppliers to assure supply to 3M in the event of supply disruption.
Product risk	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.
Financial risks	<p>At 3M, we continually evaluate our approach to opportunity and risk. We believe the concept of risk appetite and tolerance is an essential component of strategic planning. The general auditor, Corporate Audit, is responsible for leading the formal risk assessment and management process within the company and annually reports the results to the full Board.</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 science-based, diversified technology company providing innovative solutions to address these and other physical climate opportunities. See our Global Impact Highlights brochure for product examples.	
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	Goals	Commit to taking measurable action toward defined objectives to make a positive climate impact in alignment with IPCC findings.
	Relevance	Clearly define boundaries.
	Completeness	Strive to calculate and report data coverage to 99% of inventory for Scope 1 and Scope 2 GHG emissions. Advance our methodology on calculating Scope 3 emissions and evaluate actions we can take to improve them.
	Consistency	Base our data on approved methodologies and enhance our disclosures as we improve upon those methodologies.
	Accuracy	Develop corporate systems and auditing procedures.
	Transparency	Report on emissions and activities in a way that is relevant to stakeholders.



Managing energy and emissions

3M takes a broad approach to managing our energy footprint, which includes evaluating and continually improving the impact of our products, manufacturing processes, equipment, and sites (including upgrading and modernizing infrastructure). Our energy management is a team effort guided by the global **3M Corporate Energy Policy** and coordinated by the Energy Management Team, with oversight by 3M's senior vice president of engineering and manufacturing technology and active support from our CEO.

Every year we review our Strategic Energy Management Plan to prioritize programs and meet global goals. The plan is shaped by input from stakeholders including manufacturing leaders, site managers, operations employees, and executive management. Goals include continually improving results, leveraging engineering expertise and advances, driving site-level efficiency improvements, maintaining top management support, and protecting 3M's reputation.

In 2022, we continued to follow our updated 3M Corporate Energy Policy — which includes our commitment to renewable energy — by leveraging our internal engineering manual: Energy Design Requirements and Guidelines. This manual helps us apply lessons across our global operations to maximize energy efficiency in capital project designs.

As we continually strive for more accurate energy reporting, we've developed a unique, innovative method for internal tracking. We developed a multivariable regression analysis to normalize the impact of routinely changing factors (e.g., production, weather conditions, etc.) to calculate performance. We've been sharing this more precise method with our peers at conferences and other venues.

Since 2015, we've reduced energy, indexed to net sales, by 13.1%. See **energy data** in our metric tables and the Environmental tab of **ESG metrics**, which also includes more detailed analysis.

Renewable energy sources

In 2019, we began converting our sites around the world to 100% renewable energy, starting with 3M's headquarters, a 409-acre campus housing 30 buildings and research labs in St. Paul, Minnesota. As of the end of 2022, we have 62 sites (30,000 square feet or larger) that are powered by 100% renewable electricity, comprising 51.9% of our electricity use. See **energy data** in our metric tables and the Environmental tab of **ESG metrics**, which also includes more detailed analysis.

We continue to seek alternative energy sources at all 3M sites, including solar, wind, and projects like utilized excess steam. For example, in 2022 our manufacturing plant in Hilden, Germany, installed solar panels on a field the size of 3.5 football fields.

The panels yield up to 3,500 megawatt hours — powering up to 10% of the site's energy requirements.

While we act to convert our operations to renewable electricity sources, we also support the global renewable energy sector by offering our customers solutions that help improve the reliability and efficiency of renewable electricity.

Reducing GHG emissions

As a science-based company, 3M makes the greatest impact by leveraging science, technology, and collaboration to deliver reduced emissions for our operations and our customers. We've assessed our current footprint, facility pathways, product portfolio, and key levers and technological advances. With this extensive work, we've identified the “math with a path” for key sustainability goals and are actively managing them to achieve their respective milestones. Only limited gaps remain. To close them, we're focusing on emerging technologies and collaborative solutions, as



well as product and portfolio improvements, rather than carbon offsets.

Currently 3M reduces GHG emissions through methods such as improving the efficiency of manufacturing processes and equipment, upgrading technologies, reducing energy demand, increasing use of renewable electricity, managing our product portfolio, and implementing and maintaining emission control technologies.

Calculating our emissions

Since 2002, the 3M Environmental, Health, and Safety (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's 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
- Documented 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

See [the About report section](#) for more information.

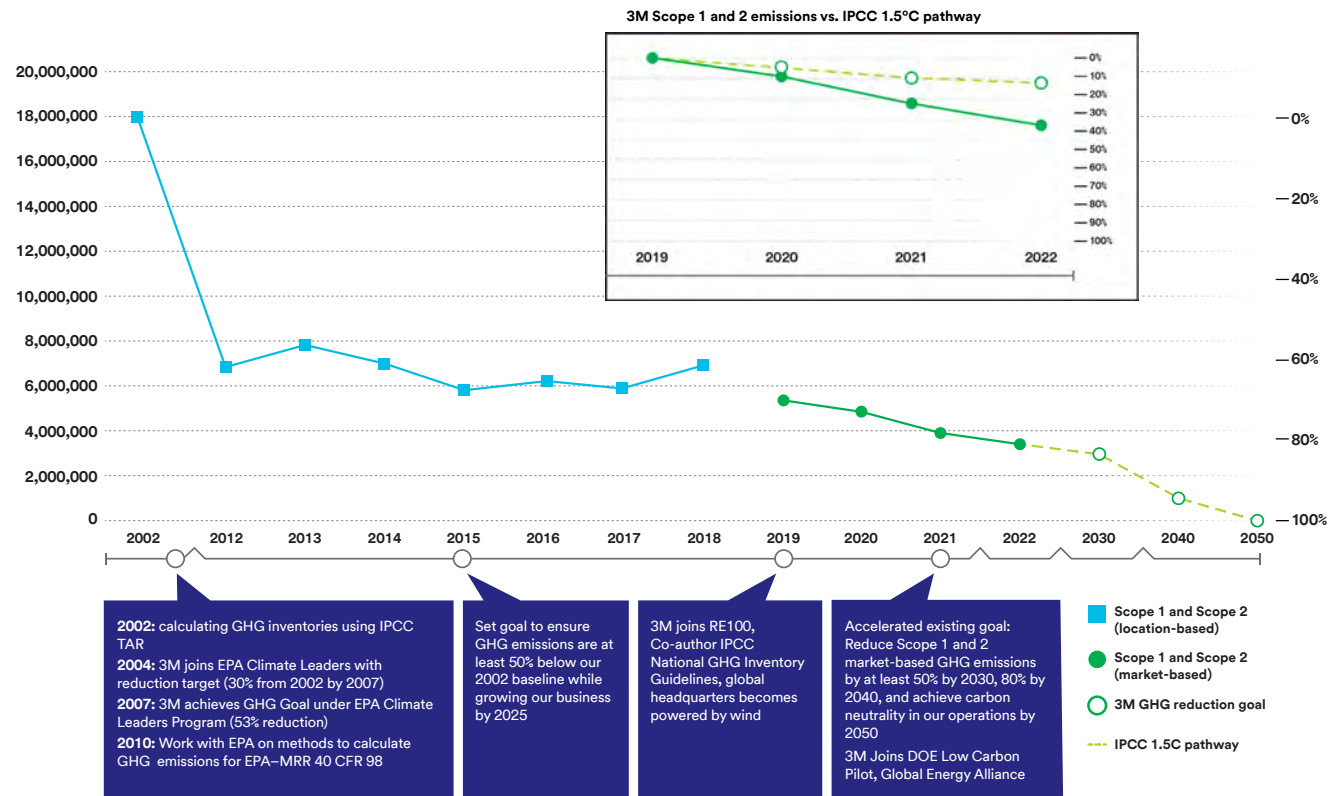
Direct (Scope 1) and indirect (Scope 2) GHG emissions

3M has reduced Scope 1 GHG emissions by 85.6% since 2002, providing a direct and immediate reduction of our carbon emissions. During this same time frame, we achieved a 78.8% reduction in absolute Scope 1 and 2 location-based GHG emissions.

In 2015, we set a goal to have our Scope 1 and Scope 2 GHG emissions be at least 50% below our 2002 baseline by 2025. In 2021 we updated this goal to

achieve 100% carbon neutrality in our operations by 2050, with interim targets of 50% reduction by 2030 and 80% reduction by 2040 from a 2019 baseline. Our goal is in alignment with the IPCC 1.5°C pathways (see IPCC SR15 Figure SPM.3B). In pursuit of this goal, we've reduced Scope 1 GHG emissions by 40.2% and achieved a 37.8% reduction in absolute Scope 1 and 2 market-based GHG emissions since 2019. See more data in our [metric tables](#).

Scope 1 and 2 total (metric tons CO₂e)





Scope 3 GHG emissions

3M has been developing our Scope 3 GHG emission inventory since the WRI and the WBCSD published the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard in September 2011. Even before its release, 3M participated in the pilot of the standard, which includes requirements for calculating GHG emissions for 15 separate categories of emission sources, both upstream and downstream of our operations.

According to the GHG Protocol Scope 3 Calculation 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 these products. The methodology does not exist to calculate full Scope 3 emissions for a company as complex as 3M, with 55,000-plus heavily diversified products across a variety of industries and potential end-use cases.

In the belief that every problem has a solution, we've embarked on a journey to calculate these downstream Scope 3 GHG emissions. With decision-making based on sound science, in 2019 we developed methodologies to calculate our emissions for Scope 3 Categories 9–12.

The first step was to compile data for our more than 55,000 products, including quantity sold, product size or mass, and use applications. Next, working with Anthesis Group, we analyzed the data to prioritize those with a material Scope 3 GHG footprint, and we identified 300 unique categories for more analysis. Once we determined emission factors for each product use scenario, we worked to calculate estimated Scope 3 emissions for each of the 300 product categories. Based on the best available science, estimated Scope 3 data uncertainty is ±50%,

per the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, 2011.

We continue to raise awareness with customers and suppliers about our need for more Scope 3 emission tracking. Additionally, as we collaborate with them to meet their business needs and achieve their sustainability goals, we work to help them reduce their Scope 1 and 2 emissions. Since we're always innovating, replicating successful processes across 60,000 suppliers and countless global end users is an ongoing task. However, we understand its importance and urgency, and we're constantly striving to be faster and more effective. We plan to report on results from these efforts, as well as additional planned actions, in future communications. See more data in our [metric tables](#).

ISO 50001 and SEP 50001™ certification

The internationally recognized ISO 50001 standard and the U.S. Department of Energy's (DOE) Superior Energy Performance 50001™ (SEP 50001™) certification programs help 3M sites recognize and seize opportunities to increase their energy efficiency and move from loosely organizing energy projects to managing them with a structured system. By integrating the systematic ISO-based management framework of plan-do-check-act, our sites have saved on energy costs and consumption, expanded employee engagement, and increased visibility into site energy performance.

In 2022, we continued our virtual ISO 50001 and SEP 50001™ audits. 3M has been busy increasing our ISO 50001 and SEP-certified profile, with 60 sites certified globally and 37 sites certified to SEP Certification.

Energy management awards

3M Energy Excellence Awards

These awards honor individuals and teams that incorporate the goals of the Corporate Energy Program in engineering projects. Nominated projects and individuals have demonstrated their commitment to including energy efficiency in project design, equipment selection, or the use of alternative energy supplies. In 2022, we recognized Dr. Freddie Pask, 3M sustainability lead, with an individual award, and the Brazil Team, the Canada Team, the Singapore Team, and the China Team with team awards.

External energy recognition

In 2022, we were recognized by a number of external organizations.

Association of Energy Engineers –

- Latin America Region Energy Manager of the Year to Jose Solis, engineering manager, LATAM
- Energy Innovator of the Year to Brian Mohr, utility maintenance and reliability engineer, U.S.
- Young Energy Professional of the Year to Rashmi Brackenbury, senior energy engineer, Canada
- Energy Project of the Year to the Juarez Solar Project

U.S. Department of Energy Better Buildings, Better Plants – Better Practice Award for our efforts with 3M's Energy Design Requirements and Guidelines, our corporate energy efficiency policy that provides guidelines for all facility projects

U.S. Department of Energy Office of Energy Efficiency and Renewable Energy – National award recognizing 3M as a leader in energy management

Clean Energy Ministerial (CEM) – Energy Management Insight Awards to 56 3M sites, including 27 in the U.S. and 29 in 11 other countries from Australia to Taiwan

NASA POWER / RETScreen Recognition of Excellence Awards – Inaugural award given to Andrew Hejnar, 3M energy manager, in the Facility Owners and Operators category for his work in utilizing solar and meteorological data sets from NASA's POWER project in numerous global facilities

Managing air quality

3M aims to improve air quality globally while delivering on our customers' needs and expectations for high-performing products. The manufacture of some of these products inherently releases volatile organic compounds (VOCs), including through the use of solvent-based materials. Therefore, many of our sites are required to rigorously track VOC emissions. Even where not required, we voluntarily track VOC usage and significant source emissions to identify the best opportunities for our reduction efforts.

We track and report emissions based on raw material usage, engineering estimates, published emission factors, continuous emission monitoring systems, and stack test data. For many 3M manufacturing processes, various pollutants such as 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.

We've standardized methodologies for quantifying global air emissions, allowing us to compile a global database and aggregate process- and site-level data. This will equip us to perform enterprisewide analyses and detect new opportunities for potential emissions reduction.

Main VOC by source type

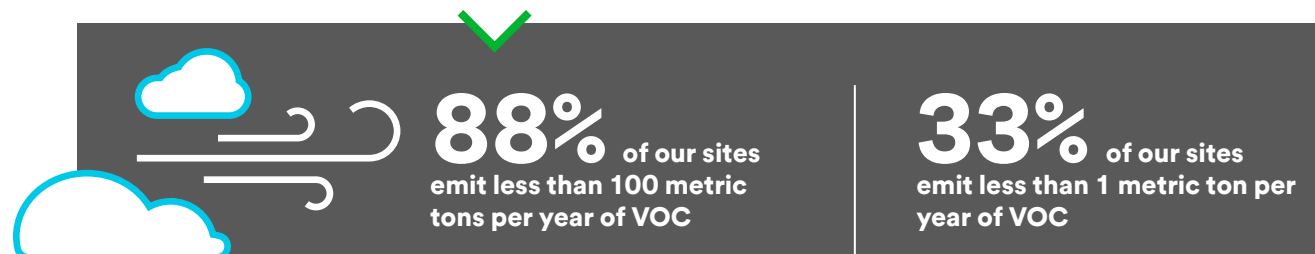
3M's VOC emissions are primarily attributed to coating lines. Reactors and mixing are also significant sources of VOC emissions.

VOC by site

Eighty-eight percent of our sites emit less than 100 metric tons per year of VOCs. Thirty-three percent of our sites emit less than one metric ton per year of VOCs. See more data in our [metric tables](#).

Implementing and maintaining pollution control

3M has made significant progress in reducing air emissions — at the source and by improving process efficiencies. Where we can't reduce emissions within the process, we install and maintain air emission control equipment as required by federal, state, and local regulations. We evaluate all equipment options, select the most environmentally effective and cost-efficient, and properly operate the equipment. Technologies include thermal oxidization, solvent recovery, carbon adsorption, biofiltration, electrostatic precipitators, baghouses, scrubbers, and cyclones.





Ozone-depleting substances

3M has established requirements for how our operations manage their refrigeration appliances containing ozone-depleting substances (ODS) and hydrofluorocarbons in the context of applicable international protocols, local regulations, and current and future economic impacts. When applicable, these requirements include abiding by the Montreal Protocol, the first worldwide agreement designed to protect human health and the environment from the effects of the depletion of the stratospheric ozone layer. The agreement targets specific ODSs for control practices, reductions, or total phaseouts, and it provides a phaseout schedule.

3M technologies impacting climate and energy

Fueling green hydrogen production

A sustainable fuel source, green hydrogen is produced with renewable energy and doesn't release operational carbon emissions. This makes it a potential solution for sectors facing challenges in decarbonizing, such as steel and long-haul transport. At 3M, we're innovating technologies that create cost efficiencies at both ends of the green hydrogen production process.

The first is a catalyst technology that reduces the amount of iridium required for water electrolysis, the primary means of green hydrogen production. Iridium is a rare precious metal, and reducing the amount needed has the potential to yield substantial cost savings for customers.

Once hydrogen is produced, it must be transported and stored. That's where 3M's glass bubbles come into play. This efficient form of cryogenic insulation

provides superior protection, reducing the amount of boil-off from heat. Ultimately, more hydrogen gets delivered to the end customer.

Given that more than 95% of current hydrogen production is driven by fossil fuels, we see an excellent opportunity to advance our impact in the field of green hydrogen — a \$1.83 billion market in 2021 that's expected to grow to \$89.2 billion by 2030.¹

Visit [Innovating to address climate change](#) to learn about more climate-focused 3M technologies. Learn more about 3M glass bubbles at [Tiny glass bubbles. Big thermal insulation](#). Plus, read how [our glass bubbles are helping launch NASA into space](#).

Bringing innovation to market

3M is a natural place inventors look to help them bring their innovations to life. Aaswath Raman, a professor of engineering at UCLA, came to 3M after discovering a way in which a film technology can cool surrounding air with no external power sources. After co-founding his company SkyCool Systems, Raman worked with 3M scientist Tim Hebrink to create **3M™ Passive Radiative Cooling Film**. This innovative multilayer film enables 24/7 passive thermal management and 10–20% energy savings when deployed on SkyCool Systems panels and integrated with a building's HVAC or refrigeration system.

See [more stories of product innovation](#) in the Customer-inspired innovation section.



¹ Green Hydrogen Market Size to Surpass US\$ 89.18 Bn by 2030. <https://www.globenewswire.com/news-release/2022/01/11/2364715/0/en/Green-Hydrogen-Market-Size-to-Surpass-US-89-18-Bn-by-2030.html>



Minding our communities

As a large organization with operations in many diverse communities globally, we recognize our responsibility to be mindful of potential negative impacts on our communities as we work to improve our climate impact. This includes responsibly sourcing renewable energy for our sites. We've learned and adapted to using a variety of methods to meet the unique needs of each situation, such as directly sourcing renewable energy through contractual agreements rather than installing new infrastructure to generate it. Where possible, this approach allows us to stay on the grid and collaborate with local utilities, relying on their expertise to help keep energy rates stable for other community members. In some areas of the world, specifically parts of Asia, that lack the infrastructure for renewable energy sourcing, we'll continue to pursue other ways to reach our goals.

Looking forward

Climate change remains among the greatest challenges facing the world, and we must act with urgency to address it — for our climate and our communities. To that end, we're developing a climate transition plan that we'll publish in future communications.

As we look to achieve our long-term goal of carbon neutrality by 2050, we'll continue to evaluate how we can apply our science in the short term to stay on track. Similarly, as we approach our goal of using 100% renewable electricity at all global sites, we'll consider other ways we can expand our renewable energy to maintain our progress. And we'll explore options for reducing our dependence on fossil fuels to help further reduce our GHG emissions.

In 2023, we'll be **launching two world-class companies** focused on growth and innovation. We expect the creation of the two companies to be completed by the end of the year. Throughout 2023 we'll prioritize our focus on science as we recalculate GHG emissions and evaluate further reductions for two world-class companies.

We'll continue to develop and launch products to help our customers reach their own sustainability goals by improving energy efficiency, increasing renewable electricity, and reducing emissions.



Suppliers

Our commitment

3M expects our suppliers to hold the same bar we set for ourselves around environmental and social governance, including for employment, diversity, community-building, and risk mitigation. We expect our suppliers to be transparent about their related practices and to work with us to transform our shared value chain. We're committed to responsible sourcing and the conservation of natural resources, and we recognize our responsibility to source from suppliers that share those values.

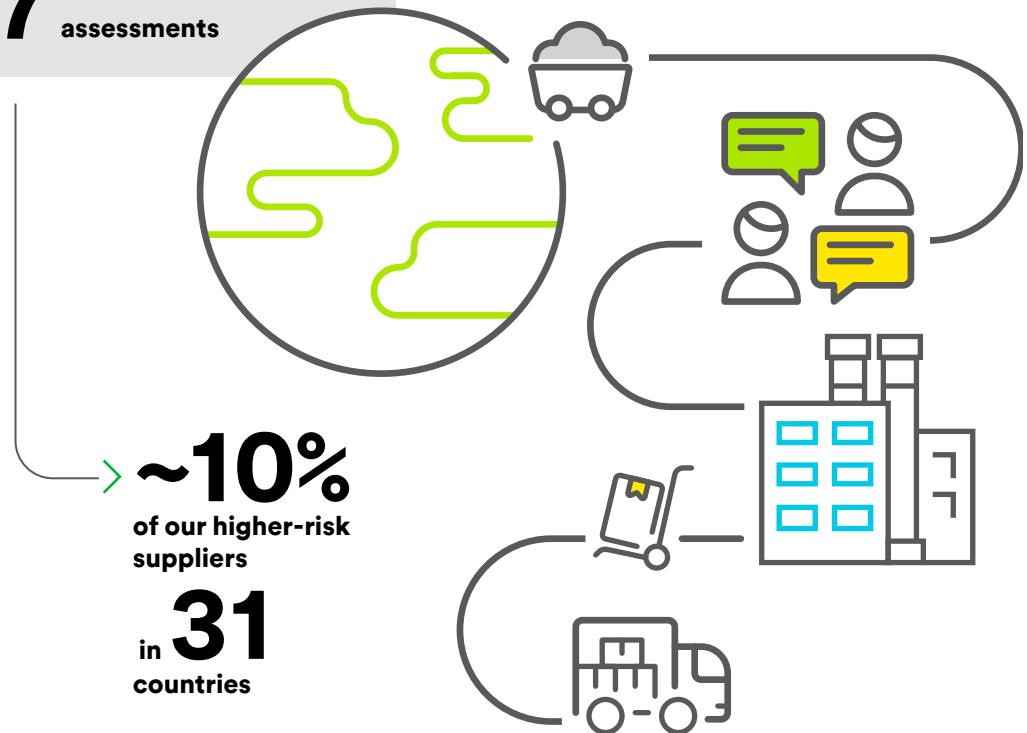
Our impact

We understand that our sustainability impact extends beyond our own operations. We participate in a complex global supply chain, purchasing raw materials, products, and services from companies all over the world. And our suppliers have their own suppliers. Through our policies, processes, and programs, we continually work with suppliers to minimize negative effects on the community, environment, and natural resources while protecting the health and safety of workers and the public.

Our sustainability goal

Drive supply chain sustainability through targeted raw material traceability and supplier performance assurance by 2025

➤ Completed over
457 assessments



3M's supply chain consists of more than 55,100 suppliers in over 276 subcategories in 111 countries and regions. See supplier locations and spend in the Suppliers tab of **ESG metrics**. As stated in our supplier contracts and purchase order terms and conditions, we expect suppliers to fully comply with all applicable laws, including human rights and environmental laws. Learn more at **3M Supplier Direct**.

Policies and processes aligned with our values

Forced labor and human trafficking

3M's Modern Slavery Statement communicates our commitment to acting ethically and with integrity in all our business relationships and to using robust policies and effective systems and controls to prevent human rights issues in our organization and in our supply chains.

Our commitment is also demonstrated in our membership in the United Nations Global Compact, in **3M's Code of Conduct**, and in cooperative efforts to abolish human rights atrocities, especially human trafficking, forced labor, modern slavery, and related crimes. For example, 3M Brazil is a signatory to the National Pact to Eradicate Slave Labor and joined InPACTO — the National Pact Institute for the Eradication of Slave Labor — a trade association committed to the goals of the National Pact and focused exclusively on collaborative efforts among its members.

Due Diligence Management System

3M follows the Organisation for Economic Co-operation and Development (OECD) Due Diligence framework for all our responsible sourcing activities. Our Due Diligence Management System guides our improvement efforts:



Values

Establish strong policies and management systems



Transparency

Identify and assess risks in the supply chain



Transformation

Design and implement a strategy to respond to identified risks



Verification

Audit supply chain due diligence



Report

Report on supply chain due diligence activities

3M Supplier Responsibility Code

Our Supplier Responsibility Code (SRC), available in 15 languages, establishes our expectations for suppliers anywhere in the world and for any supplied material or service. The SRC is based on our corporate values for sustainable and responsible operations and aligns with the Ten Principles of the United Nations Global Compact, which we participate in. The SRC is also consistent with the Responsible Business Alliance (RBA) Code of Conduct 7.0, effective January 2022.

Our supplier vetting process includes reviewing SRC expectations and reinforcing that we expect suppliers' programs and practices, as well as those of their subcontractors, to follow SRC standards. We disqualify new or existing suppliers that are not willing or able to meet our SRC.

SRC training is available online to help new employees or others understand 3M's SRC expectations, processes, and supporting tools. The training covers our supplier expectations regarding labor and human rights, EHS, ethics, and management systems requirements and is continually updated. A self-check exercise and final quiz help assess the training's effectiveness.

We created an SRC guidance document and made it available on the **3M Supplier Direct website**. **3M's Business Partners website** also provides training materials for suppliers to expand their knowledge on topics such as Ethical Business Conduct, 3M Code of Conduct Acknowledgement, and Human Trafficking Prevention.



The SRC outlines our social and environmental expectations in the areas of:

- **Labor** – Requirements align with the **3M Human Rights Policy** and include important concepts like freely chosen employment, restrictions on working age, and appropriate working hours and wages. These expectations help our suppliers understand that their actions need to reflect our values on human rights as well as the values underlying the International Labour Organization (ILO) and relevant local and national laws. Learn more in [the Human rights section](#) and in [3M's Modern Slavery Statement](#).
- **Health and safety** – We expect our suppliers to care as much about the health and safety of their workers and communities as 3M does and to use proper procedures and controls to protect them.
- **Environment** – Our suppliers are expected to be environmentally responsible in their operations by identifying environmental impacts and minimizing effects on the community, environment, and natural resources.
- **Ethics** – Our expectations align with the 3M Code of Conduct and hold our suppliers to the same high standards. Suppliers must prohibit any form of bribery and corruption and prevent conflicts of interest. The SRC outlines supplier expectations relating to grievance mechanisms. Anyone who has a concern involving 3M can use [3MEthics.com](#) as an alternative way to report it — anonymously, if allowable by local laws.
- **Management systems** – We expect our suppliers to operationalize their alignment with the SRC, as well as all legal requirements, and to commit to continual improvement.

In addition to following the SRC themselves, we expect our suppliers to establish aligned policies and programs and to enforce them with their own suppliers, pushing our high sustainability standards up our supply chains.

Supplier risk assessment and supply chain transparency

We are constantly managing changes in supply markets, such as through opportunities to achieve value and, where necessary, to mitigate risk and secure supply. In 2022, we continued to navigate and adapt to constraints on the global supply chain.

We conduct risk prioritization assessments each year to determine where to focus within each geographical area. We also focus our efforts on categories where social and environmental risks are the greatest.

Beyond risk, we aim to leverage our supply chains in our overarching sustainability goals. We're currently exploring supply chain integration opportunities as we pursue circularity.

Implementation and governance

3M's global Responsible Sourcing team, part of the Strategic Sourcing and Packaging Solutions organization, implements our supplier risk assessment and auditing program. It also helps assure that 3M complies with all export, import, and trade compliance laws across our global business activities. Oversight is provided by Strategic Sourcing leadership and a cross-functional executive committee consisting of leaders from 3M Enterprise Operations, including Supply Chain, Strategy, and Strategic Sourcing, as well as from Human Resources, Ethics & Compliance, Legal Affairs, Corporate Audit, EHS, and Sustainability.

We also have a robust governance framework that guides our sustainability and EHS activities, with primary Board-level oversight by the 3M Board's Science, Technology & Sustainability Committee. The Due Diligence Management System results are provided to the cross-functional executive committee at least twice a year, and Strategic Sourcing leadership is updated quarterly on the supplier risk assessment and auditing program's status and results.

Risk assessment process

Although it applies to all suppliers, our supply chain risk assessment process prioritizes higher-risk suppliers. The process begins with a self-assessment questionnaire (SAQ) that helps us understand supplier programs and determine if they meet our expectations. The SAQ focuses on our SRC requirements. 3M may conduct a virtual or on-site assessment. In 2022, we integrated a third-party ESG audit approach, RBA's Validated Audit Program, into our verification process for suppliers in higher-risk categories.

We address any deficiencies through an SRC Corrective Action Preventive Action (CAPA) process. Follow-up on the CAPA may include additional audits. If a supplier is unable or unwilling to resolve any gaps or findings, the CAPA process moves to the Responsible Sourcing Supplier Issue Escalation process. If the supplier is still unwilling to work on the gaps or can't resolve them in a reasonable amount of time, a cross-functional team considers alternative actions to elevate and resolve the situation.

Since 2008, 3M has conducted over 8,300 on-site or self-assessments of prioritized suppliers in higher-risk countries. In 2022, we completed 457 assessments — about 10% of our higher-risk suppliers — in 31 countries, covering every geographic area of the world. See [previous two years' assessments data](#) in our metric tables.

Higher-risk supply chains

On top of our global SRC expectations, certain areas require 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 forest products and other renewable materials, and all new suppliers in higher-risk countries in Asia-Pacific, Latin America, Europe, the Middle East, and Africa.

Responsible mineral sourcing

An area of priority in our raw material supply network is the responsible sourcing of minerals. 3M deplores 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. We're committed to supporting the responsible sourcing of minerals, and we use third-party risk assessments to help us achieve this. See our [Responsible Minerals Sourcing Policy](#) for more details.

Since we started it, 3M's Responsible Minerals Sourcing program has gone through continual improvements based on insights from past campaigns and external benchmarking. Beyond 3TG (tin, tantalum, tungsten, and gold), 3M's Responsible Minerals Sourcing program includes cobalt and mica sourcing to support industry expectations, 3M values, and human rights policies. 3M expects our suppliers — and their suppliers — to adopt a similar policy and due diligence management system.

In addition, we're an active member of the Responsible Minerals Initiative (RMI), which develops tools and provides insight into emerging risks and assessments in raw materials supply chains. RMI conducts focus groups on due diligence and brings industry together to share ideas and best practices. Our membership gives us access to these valuable resources.

When we identify a noncompliant smelter, we conduct a robust due diligence process that starts by contacting the smelter to educate them and encourage them to participate in the Responsible Minerals Assurance Process (RMAP) audit. We also contact suppliers that work with the smelter, asking them to conduct their own due diligence and remove the smelter if necessary. Ultimately, we want all our suppliers to be compliant with RMAP.

Learn more in 3M's Form SD and 3M's Conflict Minerals Report, which we'll publish with the Securities and Exchange Commission in May of 2023, at [Responsible Minerals](#).

Forest product sourcing

3M prioritizes timber-based forest products for additional formal expectations because of potential risks around deforestation and habitat loss, Indigenous peoples' rights, and unsafe labor practices. As a global paper purchaser and sustainability leader, we can positively influence practices throughout the forest products supply chain. We developed our Pulp and Paper Sourcing Policy in 2015 to set standards of excellence for our suppliers through all tiers of supply, and in 2022 we expanded its scope and renamed it the [3M Forest Products Sourcing Policy](#).

We expect all forest products from our suppliers to contain materials that are legally harvested, sourced, transported, and exported from their country of origin.

In addition, we expect all suppliers to work to assure that virgin-wood fiber supplied to 3M is traceable, is harvested in a way that maintains or enhances high conservation values, and is free of deforestation.

To support our policy, we partner with Earthworm Foundation, which innovates in the areas of forest protection and restoration. It aims to directly address the underlying challenges impacting forest and community health that aren't being resolved through compliance and forestry certifications alone.

We work with our suppliers around the world to map our global forest product supply chain down to the forest source. Using our third-party SaaS (software as a service) product, we collect and analyze supply chain traceability and Due Diligence Management System information from our suppliers.

We utilize several tools and processes to evaluate supplier performance and measure supply chain policy conformance, including:

- Supply chain mapping
- Desktop risk assessments and grievance tracking
- Forest Products Supplier Self-Assessments
- Policy conformance evaluations
- Responsibly sourced measurement process
- Field visits to build relationships and engage in deeper landscape learning
- Field assessments to review operations, sourcing, and opportunities to improve

Highlights of our collaborations include the Indigenous Protected and Conserved Area in British Columbia, the Centre of Social Excellence capacity-building program in Brazil, the Sustainable Forestry and African American Land Retention Program in the U.S., and the Kainuu Forest stakeholder engagement project in Finland. See details of our supply chain traceability and locations of our pulp and paper field assessments and transformation projects in the Suppliers tab of **ESG metrics**.

While implementing our Forest Products Sourcing Policy, we've seen several notable improvements in our suppliers' responsible forest product sourcing practices, including:

- Significant increases in supply chain traceability and transparency at every level
- Increased engagement with upstream supply chain
- Adoption of new or enhancement of existing forest product policies, including adding Free, Prior and Informed Consent (FPIC)
- Invitations to 3M to collaborate on challenges around responsible sourcing and creating a path forward

Learn more about supplier assessments and our collaborative efforts in our Forest Product Sourcing Policy Progress Reports at **[Sustainable Forestry](#)**.

Renewable materials sourcing

3M also conducts due diligence on other renewable materials that have the potential for higher environmental and social risks. We worked with Earthworm Foundation to conduct a comprehensive renewable materials risk assessment, which led us to prioritize additional renewable materials and expand our previous Pulp and Paper Policy into our new Forest Product Sourcing Policy.

Supplier Diversity

As an organization committed to diversity, equity, and inclusion, 3M prioritizes working with diverse suppliers and small businesses across our sourcing organization. We aim to meet and exceed our own expanded internal diversity goals as well as those of the U.S. federal government, which requires certain levels of spend with small and diverse businesses.

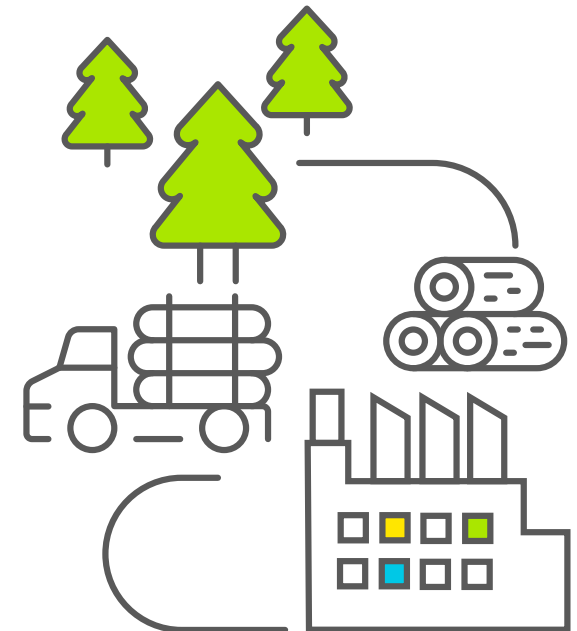
In 2022, we engaged a third-party provider to conduct data collection and manage the certification process. This has helped us track and manage our supplier diversity information, leading to more complete and accurate data than we've had in the past.

To learn more, including about diverse classifications, our spend goals and outcomes, and partnerships and programs, visit **[Supplier Diversity](#)**.

Supplier engagement

Supplier sustainability solutions repository – Our suppliers continue to populate this resource with proposed solutions for 3M product developers and R&D. The repository helps these 3M teams source more sustainable materials and supports our Sustainability Value Commitment for all new products.

Supplier recognition program – This annual program recognizes suppliers that help us carry out our promise to solve some of the world's greatest challenges. 3M sourcing professionals nominate outstanding suppliers based on strategic support, contract compliance, actions that improve 3M's competitiveness, and overall performance.



As a global paper purchaser and sustainability leader, we can positively influence practices throughout the forest products supply chain.



Looking forward

We recognize that our complex supply chain involves both risks and opportunities. By collaborating with suppliers and advisors, in 2023 we'll continue to improve our supply chain management systems and compliance resources.

We'll integrate more third-party resources to help us conduct more assessments in higher-risk areas of the world. We'll continue to evaluate our portfolio of higher-risk renewable materials and perform supply chain traceability to understand and mitigate 3M's risks.

In the first quarter of 2023, we're launching e-learning modules on 3M Supplier Diversity and how to best support and align with our initiatives. The initial rollout will be to the broader sourcing organization, business partners, and executive leaders in the U.S., with expansion to the global organization to follow. Our GAME Changer program will also launch first quarter. Piloted in 2021, this program builds capacity of diverse suppliers through growth, advocacy, mentoring, and education (GAME).

We'll continue to publish details of our work in our Forest Product Sourcing Progress Reports, including around a new KPI that measures our volume of forest product supply against our responsibly sourced indicators.



What we create



Innovation management 101

Customer-inspired innovation 109



Innovation management

Our **commitment**

3M uses and combines our technologies in unique ways across the company, creating new products and new lines of business. As we do this, we strive to ensure all 3M products entering the new product commercialization process have a Sustainability Value Commitment that demonstrates how the product drives impact for the greater good.

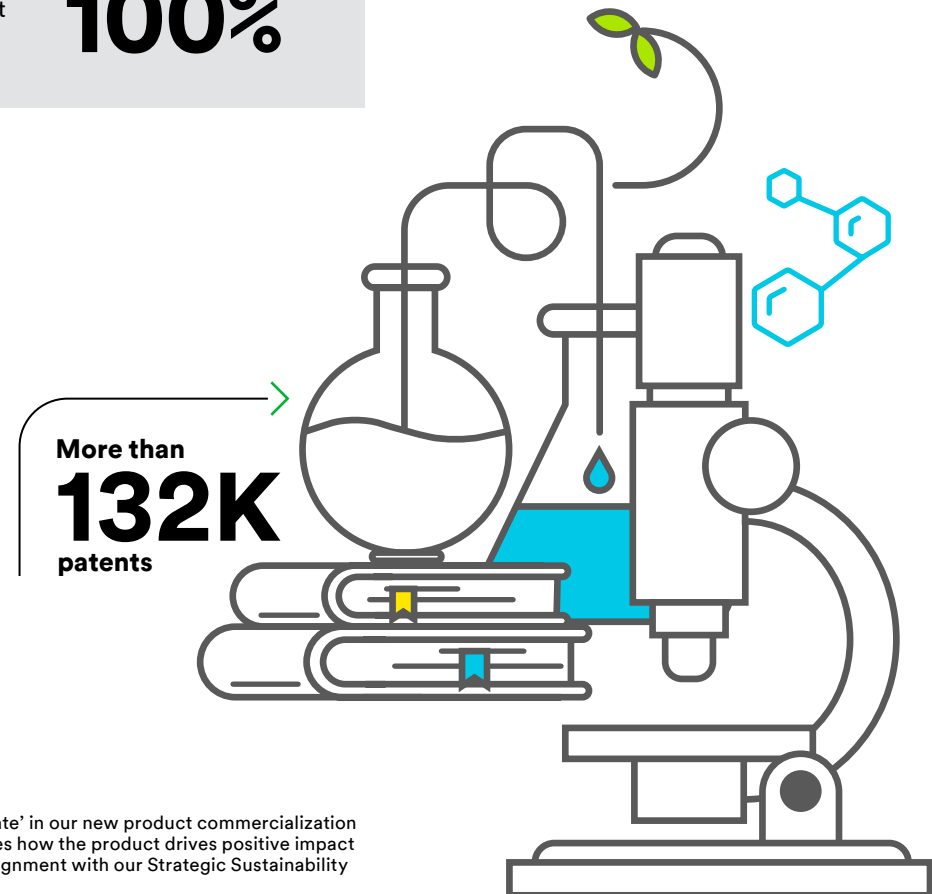
Our **impact**

3M science drives our business forward. As we advance, we leverage our Technology Platform of Sustainable Design, which features our capability to weave sustainability into the design of our products, processes, and packaging. Ultimately, we deliver science-based solutions and innovative growth platforms that help move us, our customers, and the world toward a more sustainable future.

Our **sustainability goal**

Require a Sustainability Value Commitment (SVC) for every new product¹

➤ **Achieved**
100%



¹ For projects passing a 'gate' in our new product commercialization process; an SVC describes how the product drives positive impact for our stakeholders in alignment with our Strategic Sustainability Framework.

The challenges we must tackle for a sustainable future are daunting. They are broad. They are interrelated. And they are solvable — with the help of science. At 3M, we're applying our passion for science and collaborating across the enterprise to find innovative solutions that help us reimagine what's possible.

A culture of innovation

Innovation is built into our foundation — founder William L. McKnight's McKnight Principles set the course for the company's unique 15% Culture, which allows employees to spend 15% of their time on projects they choose. For over six decades, this has inspired creativity, risk-taking, and collaboration.

Our 15% Culture encourages innovation to flourish through uncommon connections as our scientists make interesting links among our many technologies. Indeed, our 51 Technology Platforms are shared and combined across businesses to invent products for a variety of industries. The projects and ideas that result may eventually become successful 3M products such as the 3M™ Emphase™ AEX Hybrid Purifier, which continues to help researchers who are developing COVID-19 therapies. This solution helps remove impurities and DNA from the cell culture as scientists develop new protein-based therapies and drugs.

Global team collaboration

One of the many things that makes 3M unique is our commitment to collaboration.

We collaborate with each other across businesses, across technologies, and across oceans and continents.

Case in point: **3M Tech Forum** is a self-directed and self-organized catalyst for the 10,000-plus people in 3M's technical community. This dynamic collaboration allows 3M researchers to compare notes with colleagues around the world, collaborate around the company's 51 Technology Platforms, and develop new ideas that fuel our innovation pipeline. The collaboration takes place throughout the year, including at an annual global event, spring symposium, recognition programs, and many chapter events.

With more than 100 topic-specific chapters across the globe, Tech Forum featured over 1,000 events in 2022. Recognition within the technical community includes the Tech Forum Excellence and Education award, which is given to individuals or teams for achievement in educating the community about 3M technologies or processes, investing in the preservation and accessibility of 3M technical knowledge, or broadening Tech Forum's global reach, activities, communication, and collaboration.

Research & development

We continue to invest in scientific research and product development in collaboration with our customers. In 2022 we invested \$1.9 billion, or nearly 5.4% of our sales, into R&D. 3M has earned more than 132,000 patents over the years, a testament to the strength of our innovation engine. Over the past five years, 3M has earned an average of close to 3,500 patents per year. And a quarter of our intellectual property sits in manufacturing — giving us a competitive advantage across all of our businesses.

3M Technology Platforms

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 Digital Dentistry	Fp Filtration & Purification	Tm Thermal Management	
Materials			Processing			Capabilities			Digital		Applications		



In 3M's integrated innovation model, the application of science and engineering creates new technologies, and the application of the technologies creates new products. The technology foundation for this model comes from 3M's Corporate Research Lab (CRL). The constant sharing of technology and product roadmaps across CRL, business groups, and divisions, along with the alignment of resources, helps maximize the impact of our people and capabilities.

CRL makes strategic investments across its technology portfolio in new and emerging technologies, enabling high-growth markets and positioning 3M to create sustainable value for our customers. For example, CRL's investments in climate technology allow us to offer emerging solutions in carbon emission mitigation and automotive electrification.

We also have Technology Working Groups (TWG) to help drive the advancement of our core and emerging technologies across 3M and deeper into divisions. For example, in 2022 we established our Sustainable Material TWG to accelerate the development of tools, technologies, and capabilities that drive the delivery of disruptive sustainable products. With executive champions and laboratory leadership, TWGs are one of our most effective ways to align our R&D efforts across the enterprise.

In addition, 3M's cross-functional Tech Council, made up of executive R&D leadership, R&D technical support, corporate scientists, and liaisons from other functions (marketing, engineering, etc.), stewards the community, culture, and capabilities of 3M R&D. Members work to enhance our culture of innovation and collaboration, increase the impact of commercialization, maximize overall R&D impact, and create fundamental strength in digital capabilities across 3M.

Read how our R&D capabilities led to [new solutions for the auto industry using 3M Glass Bubbles](#).

3M Ventures

As a global company with a leadership position in many industries, we work to advance 3M's innovation and growth through both internal and external venturing. Founded in 2008, our venture capital arm aims to advance 3M innovation by creating growth options in areas of strategic interest by making minority equity investments. 3M Ventures focuses on opportunities where we're uniquely positioned to add value and accelerate growth, as well as where we gain access to new technologies or capabilities that help us better meet our customers' needs.

In addition, this team works to advance collaborations with our portfolio companies while also incubating new opportunities within 3M. An example of our business building is the development of 3M™ Nanostructured Supported Iridium Catalyst. 3M applied our materials science and manufacturing expertise to produce a unique catalyst powder, which makes the production of green hydrogen more cost-effective and efficient. This catalyst can enable green hydrogen production technology to scale, offering a clean hydrogen source for sectors that are hard to decarbonize, such as steel and long-haul transport.

Building sustainability into all new products

A Sustainability Value Commitment (SVC) describes how a product integrates environmental or social considerations to pursue the commitments of our Strategic Sustainability Framework. Examples include:

- Reusability
- Recyclability
- Waste reduction
- Energy and water savings
- Responsible sourcing
- Use of renewable materials appropriate to the product throughout its life cycle

An SVC can also stem from a core purpose the product addresses, such as an environmental or social challenge like improving air quality, reducing GHG emissions, or improving patient and worker safety in health care and industrial settings.

Since 2019, 100% of our products entering the new product commercialization process have included an SVC as required by our SVC sustainability goal. By embedding sustainability into our R&D process, our product portfolio, and the mindsets of our customers and suppliers, we continue to advance our commitment to improving our business, our planet, and every life.

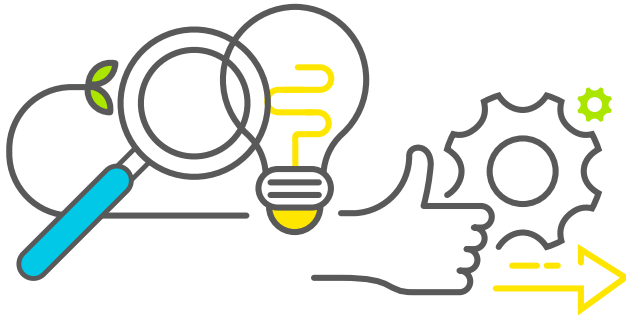
In 2022, we conducted an internal annual SVC quality audit for all active projects tracked in our new product commercialization process. Our audit reveals where and when product development teams might need additional training or tools. It also allows us to recognize when product developers have similar challenges — such as finding and implementing cost-effective solvent-free technologies, recyclable packaging, or other sustainable raw materials — and connect them with each other. Our SVCs are also reviewed through our third-party assurance process.

Learn about products that display our commitment to sustainability in our [Global Impact Highlights brochure](#).

Our technology and product frameworks

We develop new-to-the-world processes primarily in 3M's Corporate Research Lab. The development is captured in our New Technology Introduction (NTI) framework:

- **Explore** – Identify the business opportunity
- **Qualify** – Identify differentiated product concepts to meet customer needs
- **Deploy** – Develop the technical solution



At each stage of our NTI framework, sustainability is a key deliverable. We evaluate the new technology's potential impact through the lens of raw materials, water, energy and climate, and health and safety.

Meanwhile, our New Product Introduction (NPI) process provides the robust framework to develop products from idea to launch. A key deliverable of NPI is the Sustainability Value Commitment for each new product.

Together, our NTI and NPI frameworks guide technology and product commercialization for all global businesses.

Our product innovation takes the long view

At 3M, we believe it's our responsibility to create products with demonstrated environmental performance across their entire life cycle, including product reuse and repurposing. We work with our suppliers and business partners to support these same objectives in their operations.

Life cycle management

Life cycle management (LCM) is our approach to assuring that environmental, health, safety, and associated regulatory considerations are integrated into all 3M products through our NPI process.

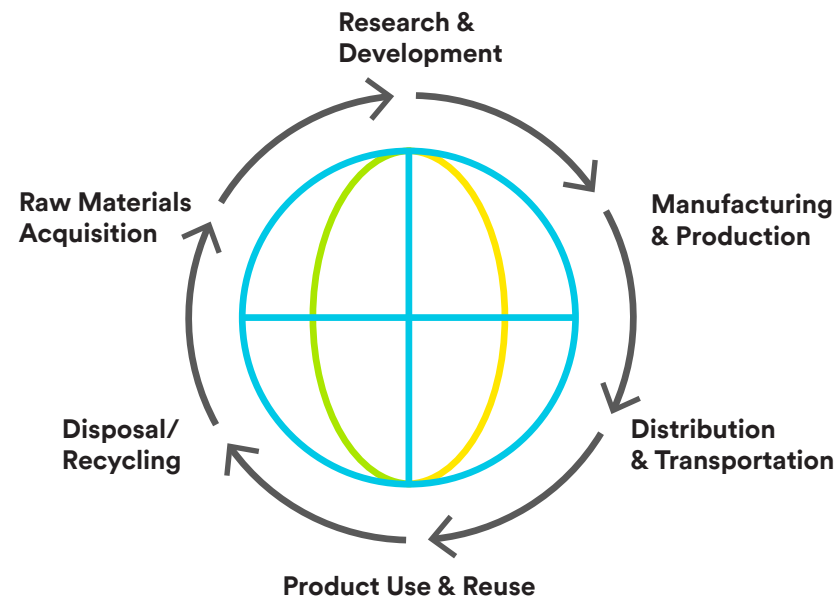
During NPI, our business teams provide LCM deliverables including, at a minimum:

- EHS evaluation of raw material composition and product characteristics

- Assessments in human health and environmental toxicology (including potential for persistence or bioaccumulation), electrical and mechanical safety, and other disciplines as appropriate
- Conformance to regulatory and customer EHS requirements
- Hazard communication documents

Similarly, we evaluate LCM impacts from product modifications (changes to raw materials, suppliers, product composition, regulations, new end uses, etc.) through our corporate Product Change Management process. If needed, we update subject matter expert assessments and LCM documentation and communicate the updates to all importing countries.

Our integrated centralized LCM system helps us continually improve our efficiency as we work to assure our products are safe and compliant wherever they're sold. The LCM system simplifies our workflows for product regulatory and safety assessments and features outcome-based key performance indicators to help us better measure our processes.



Assessing the sustainability of our products

The LCM system applies to all 3M products. In addition, for select products we conduct Life Cycle Assessments (LCAs), Environmental Product Declarations (EPDs), product carbon footprints (PCFs), and screening assessments, which help 3M divisions better understand the potential impacts of their product-development decisions. With all of these resources, we're able to make more informed sustainable design decisions, substantiate environmental marketing claims, and supply upstream product-level sustainability data — all helping us better serve our customers.

3M's LCAs and EPDs conform to ISO 14025, ISO 14040 and ISO 14044 standards. We used The International EPD® System's process certification to create EPDs for construction products and contracted with SGS Italy to complete a third-party audit. Our EPDs for construction products can be found in the **EPD Library**, including for the following products:

- 3M™ Stamark™ High Performance Tape Series 380ESD IMP White
- 3M™ Sun Control Window Film Prestige 70 Exterior Series
- 3M™ Smog-reducing Roofing Granules

Our product stewardship framework

The 3M product stewardship framework incorporates a robust life cycle approach to identify risk, assure compliance, and manage the EHS profile of every product. Product safety, quality, and stewardship must always be primary considerations during the design, manufacturing, marketing, and sale of 3M products, as outlined in our **Product Safety, Quality, and Stewardship Principle**.

3M employees must know and follow all applicable laws, regulations, and 3M policies, standards, and procedures, and must report and respond to concerns. 3M management is responsible for addressing any reported concerns. Our chemical segment is verified to the Global Responsible Care principles by third-party audit.

Our Science, Technology & Sustainability Committee of the Board of Directors oversees the twin demands of developing products to meet the ever-changing needs of our customers while ensuring those products cause no harm to people or to our planet. Our Product Stewardship Network helps carry out the responsibility of regulatory management and LCM for our products.

3M's EHS and Product Stewardship (EHS&PS) organization aligns protection of our employees, our communities, and our customers. Through 3M EHS&PS, we have roughly 400 product stewards embedded within our businesses and countries of operation. These stewards act as champions of product EHS, regulatory compliance, and sustainability. They help assure our products meet or exceed the requirements of 3M policies, governmental regulations, and our customers.

In addition, a broad spectrum of functions within businesses, areas, and corporate staff groups share responsibility for product stewardship. Together, individuals from across these functions work to support our core value of respect for our social and physical environment. For example, our Product Safety corporate staff group assesses 3M products for the potential to cause adverse health or environmental impacts. Toxicologists, scientists, and engineers in this group evaluate and communicate health-related information and conduct testing in our Strategic Toxicology Laboratory or externally to ensure our products are safe for human health and the environment.



3M is committed to defining, documenting, tracking, investigating, correcting, and communicating product stewardship incidents. Our Product Stewardship (PS) Significant Event Standard outlines transparent, consistent governance processes surrounding significant events and aligns with the Product Safety, Compliance, and Stewardship Policy. PS events are reported monthly to executive leadership.

Internal audit processes and monitoring

3M is committed to continually improving our chemical management processes and procedures as we seek to innovate responsibly in the best interest of our communities and the environment. We have been at the forefront of product stewardship audits, beginning with self-assessments in regions outside the United States in 2007 and incorporating global audits in 2014.

- **Self-audits** – We have a self-auditing program to identify internal leading indicators.
- **System audits** – These audits evaluate, among other elements, product hazard and risk assessment, chemical control, life cycle management, and consumer product safety. Our intent is to assure that businesses are meeting corporate standards and to share best practices globally.
- **Compliance audits** – Our internal compliance audit program helps us comply with regulations such as the U.S. Toxic Substances Control Act (TSCA). Compliance audits involve internal and third-party auditors. All sites underwent third-party compliance audits between 2020 and 2022 and are on a minimum two- to four-year audit schedule based on site complexity.
- **Post-market monitoring** – Part of our approach to product safety management is post-market monitoring of our products. We offer product application support, monitor social media platforms, and undergo other rigorous quality processes.

Maintaining our expertise

3M values the ongoing professional development, education, and training of our product stewardship professionals. In addition to supporting attendance at a wide variety of external classes and conferences, we offer internal education covering regulatory updates, policies and standards, toxicology, systems and business processes, and an orientation to product responsibility. We cover fees for professional certification exams, recertification dues, external conferences, and other professional development opportunities.

Training and development activities in 2022 included:

- New certification of 14 employees through U.S. TSCA formal certification program for a total of 103 individuals certified
- 12 actively certified Diplomates of the American Board of Toxicology
- 61 live programs and 88 new on-demand sessions for the Product Stewardship Network's educational catalog, resulting in over 9,000 training instances and over 300 available on-demand recordings
- An internal Product Stewardship website with over 1,500 documents to help guide our staff in adhering to 3M and global regulatory requirements
- A monthly global newsletter to keep the network informed of recent and upcoming regulatory and program changes

External advocacy

We actively advocate for product stewardship by serving as committee members, working group members, and speakers or presenters at various organizations, including the American Chemistry Council, GC3 (Green Chemistry & Commerce Council), the Coalition for Chemical Innovation (CCI), and the International Consumer Product Health and Safety Organization (ICPHSO).

Recognition for outstanding results

AIChE's Energy and Sustainability Award – Timothy Hebrink, senior staff scientist at the 3M Corporate Research Process Laboratory, was the 2022 winner of this award from the world's leading organization for chemical engineering professionals. He won for his innovative research on passive radiant cooling film and for his technical leadership, which has driven the development of polymers enabling the commercialization of multiple energy-saving products. In total, these products have reduced CO₂ emissions by 30 megatons over the past 20 years.

3M's Circle of Technical Excellence & Innovation – This prestigious internal recognition program honors individuals and teams whose achievements set the standard for 3M technical excellence and innovation. In 2022, 31 awards were given for projects ranging from leading the development and installation of new technologies at manufacturing sites to delivering cost-effective sustainable solutions for customers to outstanding leadership of product launches.

The Carlton Society – The company's highest recognition, this is 3M's Hall of Fame for **scientists who have made extraordinary contributions**. The annual awards ceremony is an opportunity to stay connected with the innovators and breakthrough achievements that built and grew 3M. New inductees represent the technical accomplishments that are at the heart of 3M's growth and success.

Our energy-saving products
have reduced CO₂ emissions by

30 megatons



Diversity supports innovation

At the heart of innovation is a collaboration of unique backgrounds, experiences, and perspectives only made possible through diverse teams. When we reflect the diversity of our customers, suppliers, and channel partners, we can better innovate to serve their unique needs. This is one of many important reasons we continue to set goals and work toward diversifying our workforce at every level.

We also work to expand opportunities for underserved students by providing higher education and work experience programs in science, technology, engineering, and mathematics (STEM) fields:

- **3M RISE (Raising Influence in Science and Engineering) Conference** – 3M hosted a three-day virtual event, primarily intended to introduce emerging female and/or underrepresented science and engineering graduate students to the wide range of rewarding careers in research and development at 3M. Participants heard from leading 3M researchers, managers, and talent acquisition about our technologies as well as our recruiting process and career opportunities.

- **R&D internships** – The **R&D internship program** allows innovative undergraduate and graduate students — majoring in a broad range of science and engineering fields from an accredited institution — the opportunity to work with senior scientists on projects that have real-world applicability.
- **GEM (Graduate Degrees for Minorities in Engineering) Consortium** – The mission of the U.S.-based National GEM Consortium is to enhance the value of the nation’s human capital by increasing the participation of underrepresented groups (Black/African Americans, Native Americans, and Hispanic/Latinos) at the master’s and doctoral levels in engineering and science. 3M is one of GEM’s corporate partners, funding fellowships and internships at 3M. Cordell Hardy, Ph.D., senior vice president of Global R&D Operations, serves on the GEM Board of Directors.

Learn about **3M’s initiatives to expand STEM opportunities for underserved K–12 students** in the Communities section.

Guiding policies and standards

Our customers depend on 3M’s products to advance, enhance, and improve their companies, homes, and lives. It’s imperative that every item we sell meets quality standards and is safe for its intended use. We’re governed by policies and standards that allow us to move forward with integrity, confidence, and the common foundation of 3M’s Code of Conduct.

Chemicals Management Policy – This policy reflects our role in supporting our global community through effective and responsible chemicals management. The policy has led us to identify chemicals whose use in products and manufacturing processes is subject to restrictions or specific management actions.

Human Subject Research Policy – This policy addresses the protection of the rights, safety, and welfare of people who participate in 3M-supported research. All supported research involving human subjects must follow all applicable national, regional, and local ethical and legal rules and regulations. The research must also be in accordance with three principles, as described in the Belmont Report: respect for person, justice, and beneficence.

Alternatives to animal testing – 3M is a major advocate for the use, wherever practical, of alternative (non-animal) test methods to help develop safe products. We actively engage with governments, lobbying groups, and industry partners to help advance the appropriate use of non-animal methods. We’re a strong contributor in this area and have built our internal capabilities for alternative methods, such as computational toxicology and in vitro testing. We actively invest in internal and external development of new methods to replace animal testing. Where animal testing is required, we follow our **Animal Welfare in Testing and Research Policy**.

Hazard communication efforts – Each business must use processes that evaluate potential hazards of 3M products and communicate, in local languages, relevant information to employees, contractors, and customers. Communicating the potential hazards of 3M products supports our core values and is an integral part of keeping stakeholders informed.

The ways we communicate these hazards, as well as product chemical components, include safety data sheets, product labels, product literature, instructions for use, transportation classification documentation, and other tools, including our **Ingredient Communication website**, which provides customers and consumers with enhanced ingredient information for over 400 products. The website provides transparency into 3M formulations by identifying intentionally added ingredients and select contaminants.





We employ a staff of AIHA Safety Data Sheet and Label Authoring registered professionals who have demonstrated competency in the skills and knowledge needed to properly prepare and review safety data sheets and labels to meet the requirements of the Globally Harmonized System of Classification and Labeling.

Advertising and Product Representation Policy –

3M's reputation as a responsible company extends to the products and services we offer and how we represent them. 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 this policy. Each business must maintain appropriate review processes of any claims or representations about its products. This includes substantiation of claims through testing based on sound statistical and scientific principles.

Internal standards for global compliance – We've established internal standards for uniform global compliance in the manufacture, 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.

Looking forward

We will continue to drive long-term growth and productivity by focusing on new investment opportunities, including in automotive electrification, home improvement and cleanliness, personal safety, biopharma filtration, and electronics and software.

In anticipation of new regulations around plastics reporting, we're laying the groundwork with improved systems for collecting information. We also expect new regulations around extended producer responsibility and packaging, and we're in the process of developing a related policy to be published in 2023.

Finally, we're looking to transition to a new global chemical inventory management system that will enable a more efficient process.





Customer-inspired innovation

Our commitment

We relentlessly innovate and adapt our technologies to help solve the problems of today and tomorrow while driving sustainable growth for 3M. Whether it's technology, manufacturing, global capabilities, or our brand, we're committed to connecting our fundamental strengths to create value for our customers.

Our impact

We invested \$1.9 billion, or nearly 5.4% of our sales, into R&D. And we continue to serve our customers through a wide range of innovative products that help them improve energy efficiency and reduce their greenhouse gas (GHG) emissions.

Our sustainability goals

Help our customers reduce their GHGs by 250 million metric tons of CO₂ equivalent emissions through the use of 3M products by 2025

➤ Reduced
121M
metric tons

Provide training to 5 million people globally on worker and patient safety by 2025

➤ Increased to
4.91M
training instances

Our most successful products are infused with customer insights



At 3M, it's simple: We are a science-based company, and we use science to improve lives. As society's challenges continue to evolve, so does the focus of our science — from inventing the world's first water-resistant coated abrasive in 1921 to helping advance automotive electrification today.

As we engage with our customers and delve into their processes, problems, and promises to their own customers, we bring our technology to them, along with a deep domain of expertise. As we work side by side, we not only meet our customers' expressed needs — we're often able to identify and address unarticulated needs.

Achieving our — and our customers' — goals

As we set and expand goals for reducing our own and our customers' GHG emissions, reducing our dependence on fossil-based plastic, and reducing our global water usage, our customers see impacts in their own goals. For example:

- Apple recognized 3M as a supplier committed to using 100% clean energy to produce their products — another step toward their 2030 goal of 100% carbon neutrality in their supply chain.
- As part of Project Gigaton — Walmart's initiative aimed at reducing emissions in their global value chain by 1 billion metric tons (a gigaton) by 2030 — 3M was again recognized as a Giga-Guru supplier. This designation highlights suppliers that have set a SMART goal (specific, measurable, achievable, relevant, and time limited) in at least three of their pillars, agreed to share it publicly, and have reported avoiding emissions in the most recent reporting year.

- As part of our collaborative approach with industry players, 3M joined our customer Enel Green Power and 15 other global leaders across the renewable energy value chain to found the Global Alliance for Sustainable Energy. This initiative is comprised of focused working groups with an aim to decarbonize the global energy system in alignment with the 2030 agenda set out in the UN SDGs. The alliance **presented its initial work on "Enabling a sustainable value chain"** at COP27.

Reducing customer GHG emissions

While 3M has significantly reduced GHG emissions across our global operations, we can make a bigger impact by helping our customers reduce their GHG emissions through the use of our products. In 2015, we introduced our goal of helping our customers reduce their GHGs by 250 million tons of CO₂ equivalent emissions through the use of 3M products by 2025. 3M has a process for developing reasonable estimates of emissions avoided by using select 3M products.

In 2022 alone, we estimate that our customers avoided emitting 20.6 million metric tons of CO₂ equivalents through the use of select 3M product platforms. Since 2015, this is a total avoidance of 121 million metric tons of CO₂ equivalent emissions for our customers. This estimation covers only a portion of our product portfolio. See more data in our [metric tables](#).

Our products helped customers avoid emitting

121M

metric tons of CO₂ equivalents



Customer collaboration

For collaboration that results in meaningful innovation — solving real problems — it's essential to be close to our customers. We have 48 Innovation and Customer Technical Centers in 35 countries where our customers can experience firsthand the breadth of 3M technologies and products and their potential applications. In 2022:

- We opened an enhanced and expanded 3M Innovation Center as part of our new regional headquarters in Dubai Internet City.
- Our Customer Technical Center in Shanghai, China, revealed a significant makeover with a focus on the use of digital assets to enhance the customer experience.
- 3M CEO and Chairman Mike Roman opened a new Customer Technical Center in Cergy, France.

In addition, we have laboratories and application engineering capabilities in 47 countries, where our scientists work closely with customers on solutions to their specific problems. In 2022, we opened a new battery component testing lab to support accelerating opportunities in automotive electrification.

Our 3M Brand and Design team leverages design thinking to solve problems across capabilities at our Design Centers at 3M's headquarters in St. Paul, Minnesota, and in Italy, Japan, India, and China.

When we can't be physically present, many of our application engineers have been able to use mixed reality (MR), augmented reality (AR), and virtual reality (VR) technology to connect with customers even more powerfully than before.



Innovation from customer insights

We develop relationships with our customers by demonstrating value, and our scientists work directly with customers to solve their unique challenges. Our most successful products are infused with customer insights throughout the entire product development process. See 3M products that have resulted from successful customer relationships in our [Global Impact Highlights brochure](#).

Automotive electrification

Many automotive original equipment manufacturers see 3M as a science partner and a trusted source for innovative solutions. Industry leaders regularly tap into our material science expertise to help them solve design challenges.

In 2018, 3M was approached to help customers address one of the biggest hurdles to automotive electrification: battery safety for electric vehicles (EVs). Our teams came together with customers to understand their challenges and developed a new barrier solution that cushions cells to help enhance performance while protecting adjacent cells from heat in the event an individual cell fails. With this, 3M helped enable the future of electrification and advance the adoption of high-energy lithium-ion batteries for EVs.

We're also helping customers improve EV sustainability. The tremendous global demand for lithium, nickel, cobalt, and other scarce metals combined with the energy needed to make EV batteries has led the industry to look for ways to reduce its carbon footprint. Plus, regulations are driving EV makers to achieve better recyclability and higher recovery rates of battery materials. 3M has begun evaluating how our core Technology Platforms could help make EV batteries more repairable, reusable, and recyclable.

Learn more at [Automotive Experience and EV Solutions](#).

Innovative home and business solutions

Smog-reducing roofing granules – Our smog-reducing roofing granules are designed to eliminate smog pollutants and improve air quality, having the same type of effect as trees. In May 2022, we announced that the equivalent of 1 million trees' worth of smog-fighting capacity has been installed on roofs using these granules.

Window films – Windows are the weakest energy-efficiency link in the building envelope, but replacing them comes at a high cost. 3M's Prestige Exterior Series is a nonmetalized window film designed to reduce the amount of solar heat entering a building, lowering the burden on the building's air conditioning system without changing window appearance or causing signal interference. Learn more at [Building Window Solutions](#).

3M's Government Affairs team and Commercial Solutions Division partnered with the U.S. Department of Energy to help identify our window films as a product that can help the U.S. government improve energy efficiency. We're proud to be one of six innovative building technologies selected by the U.S. General Services Administration's (GSA) Green Proving Ground Program, which is validating our window film technology's impact on GSA-controlled buildings — more than 9,600 buildings nationwide.

Biopharmaceutical purification

In 2022, 3M continued to help our customers fight the COVID-19 pandemic from multiple angles, including through the use of our purification technologies by our customers who are involved in the development and manufacturing of antibodies and vaccines. Our global presence allows us to work closely with leading manufacturers, accelerating the engineering and scaling of their processes across the entire product development life cycle.

These highly integrated collaborations involve constant communication so we can stay apprised of their initiatives and be ready to support them in getting these critical products into the hands of the populations that need them. For more information, visit [3M Innovations in Biopharmaceutical Purification](#).

Health care electronic and software solutions

iOn progress remote therapy monitoring –

This negative pressure wound therapy device is a connected cellular device that collects data from a machine in the patient's home. It then sends information to the cloud and pushes it into a smart application, creating tasks for 3M's virtual therapy specialists. With this device, we've reduced the total cost of wound care by 25%. In addition, it gives us a window into patients' lives, yielding insights that help us shape future innovation.

3M™ Fluency Direct™ – When doctors talk into this device, it translates their words into medical notes. In 2022, we made improvements to the algorithm to increase accuracy in translating users' accents and vocabulary. With consistent speech recognition, this device helps bridge the gap for non-native English speakers. Transcriptions enter into the patient's electronic medical record faster, and as a cloud-based solution, Fluency Direct provides energy efficiency as well. More importantly, it allows doctors to spend more time with patients and less on paperwork.

Augmented and virtual reality

One of our approaches to innovation is to identify an emerging market and evaluate what challenges in that space we're uniquely able to solve for our customers. Starting in the early 2010s, one such opportunity arose in the wearables space with augmented reality (AR) and virtual reality (VR) headsets. Manufacturers were looking to create the best possible viewing experience while maintaining a thinner form factor, including using folded optics.

Over the next decade, 3M scientists engaged regularly with customers and explored how our multilayer optical films (MOFs) — expertise and technology we had originally pioneered in the 1990s — could be applied to help make folded optics a viable solution. 3M now produces folded optics for high-resolution VR headsets for multiple customers, leveraging either curved or flat lenses in their devices.

Learn more at [Optical Solutions](#).

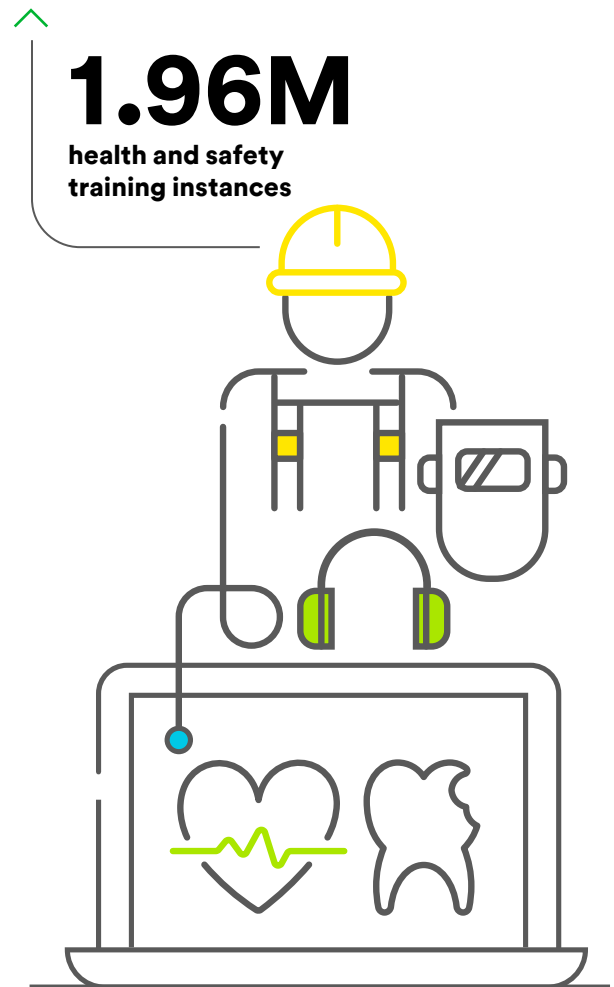
Educating customers for health and safety

3M delivers added value to our customers through comprehensive training and education for many industries and markets, including health care and personal safety. We aim to equip our customers not only with needed products but with knowledge on best practices and effective application. This is in line with our efforts to advance the UN Sustainable Development Goals (SDGs) focused on health care, worker safety, and economic growth.

Building on our existing customer education programs, we've created training libraries that customers can access anytime and anywhere. Formats include 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 through online webinars and courses — all around the world — through [3M™ Health Care Academy](#).
- Our Personal Safety Division **provides relevant training** on workplace safety hazards and health risks; personal protective equipment (PPE), as regulated by the United States Occupational Safety and Health Administration (OSHA); and the proper use and maintenance of 3M products.

In 2022, the total number of health and safety training instances was 1.96 million. Training instances are measured as the number of completions per course per year and include webinars, our e-learning platforms, and in-classroom events. See more data in our [metric tables](#).





Looking forward

We remain relentlessly focused on serving our customers as we continue to navigate a fluid environment. In 2023, we'll take the steps necessary to ensure we meet their most critical needs, including continuing to proactively manage our global supply chains.

We'll also continue to leverage our diversified technology portfolio to create innovative solutions for our customers and industries. Our Technology Platforms continue to evolve — addressing the changing and anticipated needs of high-growth markets.

In a transformative move, **we're launching two world-class companies** focused on growth and innovation. Each company will be well-capitalized, more agile, focused, and better positioned for long-term success. We expect the creation of the two companies to be completed by the end of 2023. Until then, we'll continue to operate as one global company.

As we imagine the brighter future we want to help build, we're eager to work in new and creative ways to not only advance our own impact on sustainability, but our customers' as well.





Site spotlights

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Ranjangaon, India	119





Brownwood, Texas

Since opening in 1965, 3M Brownwood has expanded multiple times to reach its current manufacturing capacity of 910,000 square feet, roughly 600 employees, and production for several business divisions. Using 31 of 3M's 51 core Technology Platforms, this site manufactures products including:

- Reflective materials for roadway signs, construction work zones, license plates, and roadway pavement markings
- Reflective fabrics and transfer films for industrial, commercial, and occupational safety markets
- Intermediate coating solutions for other 3M sites
- Screen print inks for use with reflective materials
- Specialty tapes for electrical markets

3M Brownwood is certified to ISO 9001, ISO 14001, ISO 50001, SEP 50001, CE, EN-12899, and OEKO-TEX® STANDARD 100.

First 100% renewable energy site

By using the plan-do-check-act cycle within the ISO 50001 framework, 3M Brownwood improved its energy performance by more than 5% from 2020 to 2022. This led the U.S. Department of Energy to recognize the site for achieving ISO 50001 and Superior Energy Performance 50001 certifications. 3M Brownwood's energy team actively manages the site's major energy-intensive equipment and implements new energy-reduction ideas.

In December 2021, 3M Brownwood entered into a solar power purchasing agreement that made it powered by 100% renewable electricity. This long-term sourcing agreement also makes 3M Brownwood the 3M site with the lowest-cost electricity globally.

In 2021, the site replaced exterior lighting with LED lamps. Other projects are in progress to address interior lights, and together these updates will conserve over 13,000 MMBTU of source energy annually.





Expected to reduce
water use by over

7M

gallons each year



Water enhancements

In 2021, 3M Brownwood began installing automated steam trap monitors. If a failure occurs, the monitors can quickly identify it and give notification, helping reduce both natural gas and water consumption. The batteryless monitors generate electricity internally using heat from the steam line, and they update their status 24/7 using wireless and cellular communication. In 2022, the site added enough monitors to cover 100% of its steam traps.

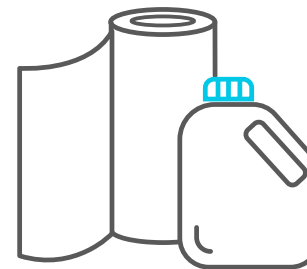
Also in 2022, 3M Brownwood began improving the technology that controls water parameters in its five cooling towers. This update is expected to reduce water usage by nearly 10%, or over 7 million gallons each year. The project is set for completion in early 2023.

Waste reduction

Using machine learning algorithms along with proprietary and commercially available machine vision systems, 3M Brownwood is improving its yields, helping it conserve natural resources and reduce solid waste generation.

Over the last two decades, the site has partnered with 3M's Transportation Safety Division laboratory to redesign its product offerings to help eliminate solvent usage. Investments in new equipment are leading a transition from legacy products with high solvent content to newer more sustainable products with much lower or no solvent content, reducing overall volatile organic compound emissions.

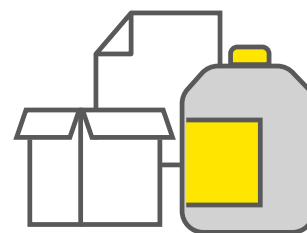
Where we can't eliminate solvent usage, we recycle or reuse as much as we can. For example, 3M Brownwood's solvent recovery area distills cleaning solvent for reuse around the plant, helping reduce new solvent purchase and use.



In total in 2022, our
waste reduction
efforts resulted in over

9M

pounds of liners and
solvents being
recycled or reused
on-site and over



3M

pounds of paper
and plastic
recycled offsite.

Engagement and giving

As active participants in the local community, 3M Brownwood employees serve as volunteers, board members, and council members. Together with 3M, the site awarded a \$250,000 grant to the Texas State Technological College (TSTC) campus in Brownwood as part of the 3M Manufacturing and Academic Partnership. TSTC used the grant to purchase mechatronic equipment and related classroom materials and loan it to local high schools, helping encourage students to pursue manufacturing careers. Each year, in addition to United Way giving, 3M Brownwood and its employees award close to \$40,000 to local nonprofit organizations.



Sagamihara, Japan

3M Sagamihara, a bustling 1,000-employee site in Sagamihara, a suburb of Tokyo, Japan, consists of three factories, four laboratories, and a Customer Technical Center. The first factory started manufacturing abrasive products and pressure-sensitive adhesive tape products in 1961. Not even a decade later, in 1970, the third factory rumbled to life and has been rolling out adhesives ever since. 3M Sagamihara uses coating, slitting, press-converting, and continuous-forming processes to produce abrasive products, carrier tapes, compounds, pressure-sensitive adhesive tapes, and more.

Environmental efforts

3M Sagamihara is ISO 14001-certified and has achieved several milestones in its efforts to reach 3M's sustainability goals:

- 3M Sagamihara sends no byproducts directly to landfill, making it one of 3M's zero landfill sites
- Having worked diligently over recent years to improve energy efficiency and reduce energy consumption, in 2022 3M Sagamihara became powered by 100% renewable energy
- The site achieved its annual target for reducing water consumption

3M Sagamihara continues to manage its gas and water discharge in compliance with local laws and regulations and has begun implementing the 3M Water Management Standard as it aims to become a world-class sustainable 3M site.

Safety assurance

As a site with diverse and complex manufacturing operations, 3M Sagamihara makes safety a top priority. The site's integrated production capabilities, from the manufacture of raw materials like adhesives to the coating of intermediate products and the processing of final products, require both operational and preventive safety measures.

The site conducts risk assessments for work activities in alignment with 3M's Environmental, Health, and Safety (EHS) Management Standard. For any manufacturing activities considered high risk, 3M Sagamihara makes continual process improvements to reduce risk factors. When new equipment is introduced or work processes change, the site follows the 3M Management of Change Standard to mitigate EHS risk associated with the changes.





Starting in 2023, 3M Sagamihara will expand the risk assessment process to include 3M's Guarding Assessment and Prioritization (GAP) tool into its machine guarding assessment process. This will help the site better assess the risk level of its machines and take proactive steps toward worker safety.

Employee food drive
collected nearly

200
food items

Community engagement

Employees of 3M Sagamihara reflect 3M's commitment to support our operating communities through several local activities:

- Through the 3M Visiting Wizards program, site employees connect with upper-grade elementary school students. Throughout the years, employees have volunteered to conduct remote scientific experiments to bring the fun of science to life for the students. They have demonstrated and coached students through experiments the students could do from home, making the experience friendly and accessible.
- 3M Sagamihara conducted an employee food drive, collecting and donating nearly 200 food items such as rice, snacks, cup noodles, and canned goods.
- The site has consistently supported the Sagamihara Environment Improvement Society, which consists of several local companies and public facilities working together to address environmental issues in the Sagamihara area.
- Every year, 3M Sagamihara donates and distributes 3M products at the Sagamihara Cherry Blossom Festival.





Ranjangaon, India

Since 2007, 3M Ranjangaon has operated outside the city of Pune near the western coast of India. With 275 employees, the site serves all four 3M business groups through its manufacture of products such as industrial adhesive tapes and labels, respirators, automotive procare products, cable joining kits, medical tapes and dressings, and more.

3M Ranjangaon is certified to ISO 14001, ISO 9001, ISO 45001, ISO 9743, ISO 13485, GMP, and GLP standards.

Renewable energy

3M Ranjangaon harnesses the sun's power for part of its own operations. The site's 500 KWp rooftop solar power plant meets close to 15% of its energy needs. The 1,540 solar panels generate 618,000 KWH of renewable power, reducing the site's CO₂ emissions by 375 metric tons.

In its 20-year project lifetime, the plant is expected to generate 12,400 MWH of power, reducing carbon emissions by 7,500 metric tons. 3M Ranjangaon continues to increase its solar power capacity with the construction of an additional 750 KWp rooftop solar power plant, which will be completed in 2023.

Renewable power offsets
CO₂ emissions by
375
metric tons

Water conservation

3M Ranjangaon has several initiatives underway to conserve water:

- A full-capacity rainwater harvesting system collects rainwater from rooftops and roads into a rainwater recharge borewell.
- Ongoing water monitoring, measurement, and data analysis using technology to help identify and quickly address process water leaks.
- New manufacturing processes align with 3M's water reduction goal.
- A state-of-the-art multiple-effect evaporator ensures maximum water savings.

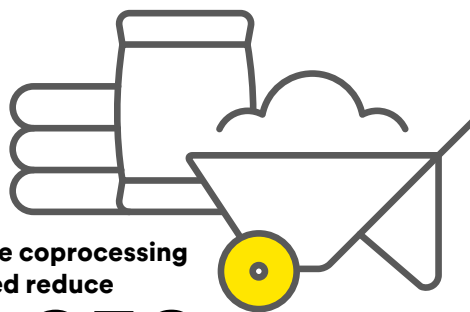




Recycling waste

To help reduce its carbon footprint, 3M Ranjangaon has embraced waste coprocessing. It uses waste as an energy source in place of natural resources like coal, petroleum, and gas. Through partnerships with the cement industry, 3M Ranjangaon sends its waste to cement kilns to be used as an alternate material for coal in the clinker mixture.

In 2022, waste coprocessing helped the site reduce 2,650 metric tons of CO₂ equivalent. Efforts to prevent landfill helped reduce the carbon footprint by an additional 2,110 metric tons of CO₂ equivalents. Together, the site's efforts helped it significantly minimize its carbon footprint, reduce incineration costs, and better utilize waste.



Waste coprocessing
helped reduce

2,650

metric tons of CO₂ equivalent

Commitment to health care and education

As a part of its community outreach, 3M Ranjangaon partners with a renewable energy social enterprise and foundation to help strengthen health care in the local area. Through the partnership, customized solar power systems were installed at primary health centers in seven nearby villages. This has given the centers reliable 24/7 power — with no more hours-long power outages — a critical element to effectively treating the local population. In addition, the new solar systems help the health centers collectively reduce CO₂ emissions by more than 50 metric tons every year.

3M Ranjangaon demonstrates its commitment to girls' education through Project Nanhi Kali. Through this program, the site has supported the education of over 2,800 first- through 10th-grade girls from rural communities near Pune. Implemented in partnership with the K.C. Mahindra Trust, the program celebrated its first set of 87 graduates — students who completed 10 years of schooling — in 2022. With many of the girls being the first in their family to achieve this level of education, the program reaffirms 3M's global commitment to improve academic outcomes and provide transformational opportunities for the next generation.



About report

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About report, scope, and boundaries

Report schedule and period

Current issue: March 22, 2023

Next issue: Scheduled for March 2024

Previous issue: May 11, 2022

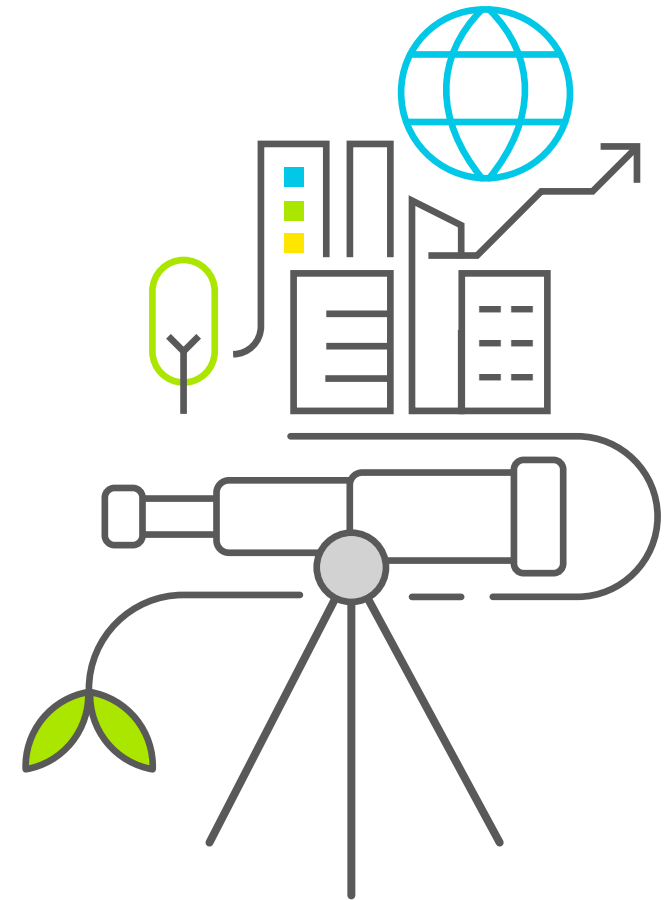
Before 2010, the Global Impact Report was a fully integrated website. Therefore, copies before 2010 are not available. This report provides a summary of the activities in fiscal year 2022 (January 1, 2022, to December 31, 2022).

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 into 3M systems. All data included in the report is global data unless otherwise specified. Any significant organization changes are identified in the **2022 Annual Report and 2023 Proxy Statement**.

Forward-looking statement

This Global Impact Report and information on [3M.com/sustainability](https://www.3m.com/sustainability) contains forward-looking statements about 3M's financial and nonfinancial results, estimates, and business prospects that involve substantial risks and uncertainties. You can identify forward-looking statements by the use of words such as "anticipate," "estimate," "expect," "aim," "project," "intend," "plan," "believe," "will," "should," "could," "target," "forecast," and other words and terms of similar meaning in connection with any discussion of future operating, financial performance, or business plans or prospects. In particular, such statements may include but are not limited to: (1) statements which may relate to the purpose, ambitions, aims, commitments, targets, plans, and objectives of 3M; sustainability goal progress; the ambition to improve every life; (2) financial data or information derived from the Company's filings with the U. S. Securities and Exchange Commission; (3) environmental, health, and safety (EHS) data as it relates to the environment, safety performance, management systems, implementation, and regulatory compliance, including data collection systems at applicable sites that track and collect EHS data through the corporatewide EHS reporting systems; (4) 3M's carbon emissions and renewable energy data as it relates to renewable energy contracts with third parties and utility-controlled generation or distribution networks. (5) social data as relates to employee metrics, social practices, and community engagement programs



derived from various databases from within the Human Resources and 3M Foundation organizations; (6) responsible sourcing of materials and the related responsible sourcing systems and data; (7) acquisitions and investment related data as integrated into 3M programs and reporting systems via a prioritized functional integration schedule over time; (8) the impact of acquisitions, strategic alliances, divestitures, and other unusual events resulting from portfolio management actions and other evolving business strategies, and possible organizational restructuring; and (9) statements about actions of contractors and partners or our work with them.



Forward-looking statements are based on certain assumptions and expectations of future events and trends that are subject to risks and uncertainties. Actual future results and trends may differ materially from historical results or those reflected in any such forward-looking statements, depending on a variety of factors and circumstances, some of which are outside the control of the Company.

The Company assumes no obligation to update any forward-looking statements contained in this report as a result of new information or future events or developments. The term “material” used in this report refers to the “material topic” definition of the Global Reporting Initiative. It is used to refer to relevant topics, which potentially merit inclusion in the report and that can reasonably be considered important for reflecting the organization’s economic, environmental, and social impacts, or influencing the decisions of stakeholders. “Material” for the purposes of this report should not, therefore, be read as equating to any use of the word in other Company reporting or filings with the SEC.

No part of this Global Impact Report or [3M.com/sustainability](https://www.3m.com/sustainability) constitutes, or shall be taken to constitute, an invitation or inducement to invest in 3M or any other entity and must not be relied upon in any way in connection with any investment decisions. A further description of risk factors affecting 3M is located in [3M’s Annual Report on Form 10-K](#) under “Cautionary Note Concerning Factors That May Affect Future Results” and “Risk Factors” in Part I, Items 1 and 1A; and in 3M’s Quarterly Reports (Form 10-Q) in Part I, Item 2; and Part II, Item 1A, as updated by applicable Current Reports on Form 8-K.

Data collection, adjustments, and verification

The data provided in this report through facts and figures is based on activities during 3M’s fiscal year 2022 and rounded to three significant figures, where attainable. 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 applicable requirements for the [2022 Annual Report on Form 10-K](#).
- **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 corporatwide 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.
- **Pay equity data** – This data is analyzed by a third party specialty firm. The third party’s analysis is not reviewed by Apex Companies, LLC.
- **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 from one to three years.

Base year, restatements, and other adjustments

[3M’s 2022 Annual Report](#) 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 emission data, 3M follows the World Resource Institute (WRI) and World Business Council for Sustainable Development (WBCSD) GHG Protocol.



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 Global Impact Report as changes greater than 5% of the original data point.

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 sustainability goal to reduce manufacturing waste by an additional 10%, indexed to sales, by 2025 has a base year of 2015. 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, Scope 2, and Scope 3 Category 5 between reporting years 2017 and 2018. For this reason, reporting years 2017 and 2018 Scope 1 and Scope 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 2021, the reported customer avoided GHG emissions for years 2016 through 2020 were revised due to the availability of verified life cycle assessment data for one of the included product families where previous year cradle-to-gate emission values were overestimated, resulting in a net increase in avoided emissions for those respective years.

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 from January 1, 2022, to December 31, 2022. 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

We continue to review global reporting frameworks and the evolving efforts of existing reporting frameworks to streamline reporting requirements. We've reviewed the "World Economic Forum's Measuring Stakeholder Capitalism Towards Common Metrics and Consistent Reporting of Sustainable Value Creation" white paper released in September 2020. Many of the material issues from the white paper have already been incorporated into this report based on our strategic reporting strategy and other existing frameworks.

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 **2022 Annual Report, 2023 Proxy Statement**, and/or other noted sources on **3M's Investor Relations website**.

Our priority topics are identified in our **Sustainability Priority Matrix** and **GRI index** and reflected in our sustainability goals which align to the three pillars of our Strategic Sustainability Framework: Science for Circular, Science for Climate, and Science for Community. 3M has reported in accordance with the GRI Standards for the period from January 1, 2022, to December 31, 2022.



TCFD and CDP

3M supports the Task Force on Climate-Related Financial Disclosures' (TCFD) recommendations for helping businesses disclose climate-related financial information. See [the Climate and energy section](#) for disclosures. We also report annually to the CDP (formerly the Carbon Disclosure Project), the global disclosure system for organizations managing their environmental impact.

United Nations Global Compact (UNGC) Communication on Progress (COP), UNGC Principles, and 2030 SDGs

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. 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.

In 2022, 3M was invited to participate in the UN Global Compact Communication on Progress Early Adopter Programme. With the UNGC's new COP digital platform, [we disclosed our progress toward the Ten Principles of the United Nations Global Compact and our contribution to the Sustainable Development Goals](#). We also provided feedback to UNGC staff to help improve future user experiences.

Sustainability Accounting Standards Board (SASB)

For our Global Impact reporting strategy, we utilize multiple tools and frameworks to assure we are objective, transparent, and globally relevant in our public reporting process. These include Global Reporting Initiative (GRI), SASB, and the UN 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. 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 [2022 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.

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.





GRI index

Global Reporting Initiative (GRI) content index

Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
GRI 2	General disclosures 2021	-	-
2-1	Organizational details	Legal name: 3M Company Headquarters: 3M Center St. Paul, Minnesota, 55144-1000, United States Location of operations: Leading with purpose Ownership and legal form: Annual Report on Form 10-K	8
2-2	Entities included in the organization's sustainability reporting	About report	122
2-3	Reporting period, frequency and contact point	About report Sustainability@mmm.com	122
2-4	Restatements of information	About report	122
2-5	External assurance	Assurance statement	143
2-6	Activities, value chain and other business relationships	3M.com About report Annual Report on Form 10-K , Item 1 Customer-inspired innovation Employee programs Suppliers	122 109 59 94



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
2-7	Employees	ESG metrics , Employee demographics tab 3M Diversity, Equity & Inclusion (DEI) Report Employee programs Annual Report on Form 10-K , Item 1 – Resources – Human Capital Environmental, health, and safety management Metric tables: social performance, employees	59 65
2-8	Workers who are not employees	ESG metrics , Employee demographics tab Employee programs Environmental, health, and safety management Metric tables: social performance, employees	59 65
2-9	Governance structure and composition	3M Board of Directors 3M Committee Composition Corporate governance Proxy Statement , Proxy highlights and Corporate governance at 3M	37
2-10	Nomination and selection of the highest governance body	Corporate governance Nominating and Governance Committee Charter	37
2-11	Chair of the highest governance body	Michael F. Roman Chief Executive Officer Corporate governance	37
2-12	Role of the highest governance body in overseeing the management of impacts	3M Corporate Governance Guidelines Corporate governance Enterprise risk Leading with purpose Proxy Statement , Board's role in risk oversight	37 41 8
2-13	Delegating of responsibility for managing impacts	Corporate governance	37
2-14	Role of the highest governance body in sustainability reporting	Corporate governance Leading with purpose	37 8
2-15	Conflicts of interest	3M Company Code of Business Conduct and Ethics for Members of the Board of Directors Corporate Code of Conduct Corporate governance	43 37



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
2-16	Communication of critical concerns	Annual Report on Form 10-K , Item 1A Corporate governance Confidentiality constraints. This information is considered business confidential; critical concerns would be taken into consideration during our Enterprise Risk Management initiative: see the Enterprise risk section for additional information on our mechanism used to address and resolve critical issues.	37
2-17	Collective knowledge of highest governance body	Proxy Statement , Director orientation and continuing education Leading with purpose	8
2-18	Evaluation of the performance of the highest governance body	Proxy Statement , Board self-evaluation process Nominating and Governance Committee Charter	
2-19	Remuneration policies	Compensation Compensation and Talent Committee Charter Proxy Statement , Director compensation and Executive compensation	56
2-20	Process to determine remuneration	Compensation Compensation and Talent Committee Charter Proxy Statement , Director compensation and Executive compensation	56
2-21	Annual total compensation ratio	Proxy Statement , Executive compensation – Pay ratio 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 the Compensation and the Employee Programs sections; Compensation and Talent Committee Charter .	
2-22	Statement on sustainable development strategy	2022 Annual Report – Message from our Chief Executive Officer Proxy Statement , Board committees – Science, Technology & Sustainability Committee	
2-23	Policy commitments	Corporate Code of Conduct Environmental, health, and safety management Ethics & Compliance at 3M Human rights Innovation management Leading with purpose Suppliers	43 65 50 101 8 94
2-24	Embedding policy commitments	Corporate Code of Conduct Ethics & Compliance at 3M	43



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
2-25	Process to remediate negative impacts	Corporate Code of Conduct Leading with purpose	43 8
2-26	Mechanisms for seeking advice and raising concerns	Corporate Code of Conduct <u>Report a concern or ask a question</u>	43
2-27	Compliance with laws and regulations	Corporate Code of Conduct Environmental, health, and safety management Significant legal actions for noncompliance with laws and regulations would be discussed in our <u>Annual Report on Form 10-K</u> , Item 8 – Note 16: Commitment and Contingencies.	43 65
2-28	Membership associations	Climate and energy Circular materials Innovation management Leading with purpose	82 74 101 8
2-29	Approach to stakeholder engagement	Leading with purpose <u>Proxy Statement</u> , Proxy highlights – Shareholder outreach and engagement	8
2-30	Collective bargaining agreements	Human rights	50
GRI 3	Material topics 2021	-	-
3-1	Process to determine material topics	Leading with purpose	8
3-2	List of material topics	Leading with purpose	8
GRI 201	Economic Performance 2016	-	-
3-3	Management of material topics	<u>Annual Report on Form 10-K</u> , Item 7 and Item 8	
201-1	Direct economic value generated and distributed	<u>Annual Report on Form 10-K</u> , Item 7 and Item 8 Payments to the providers of capital in 2022 is \$3.8 billion	
201-2	Financial implications and other risks and opportunities due to climate change	Climate and energy Enterprise risk <u>Annual Report on Form 10-K</u> , Item 1 – Cautionary Note Concerning Factors That May Affect Future Results	82 41
201-3	Defined benefit plan obligations and other retirement plans	<u>Annual Report on Form 10-K</u> , Item 8 – Note 13 : Pension and Postretirement Benefit Plans	
201-4	Financial assistance received from government	<u>Annual Report on Form 10-K</u> , Item 8 – Note 1: Significant Accounting Policies	
GRI 202	Market Presence 2016	-	-
3-3	Management of material topics	Communities	26



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
202-1	Ratios of standard entry-level wage by gender compared to local minimum wage	Employee programs 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. Find more about our process in the Compensation and the Employee programs sections and our Compensation and Talent Committee Charter .	59
202-2	Proportion of senior management hired from the local community	Not applicable. Disclosure does not cover the specific impacts that make the topic material. 3M operates in more than 70 countries. The breakdown to calculate the proportion of senior management hired from the local community is not a measurement tool that 3M uses to define hiring practices.	
GRI 203	Indirect economic impacts 2016	-	-
3-3	Management of material topics	Communities	26
203-1	Infrastructure investments and services supported	Communities	26
203-2	Significant indirect economic impacts	ESG metrics , Community engagement tab Communities	26
GRI 204	Procurement practices 2016	-	-
3-3	Management of material topics	Suppliers	94
204-1	Proportion of spending on local suppliers	3M operates in more than 70 countries. Spend by region can be found in ESG metrics , Suppliers tab. Suppliers	94
GRI 205	Anti-corruption 2016	-	-
3-3	Management of material topics	Corporate Code of Conduct	43
205-1	Operations assessed for risks related to corruption	Corporate Code of Conduct	43
205-2	Communication and training about anti-corruption policies and procedures	Corporate Code of Conduct Suppliers	43 94
205-3	Confirmed incidents of corruption and actions taken	Corporate Code of Conduct Confidentiality constraints. This information is considered business confidential: see the Corporate Code of Conduct section for additional information on our mechanism used to address and resolve corruption issues. Significant legal actions for non-compliance with laws and regulations would be discussed in our Annual Report on Form 10-K , Item 8 – Note 16: Commitment and Contingencies.	43
GRI 206	Anti-competitive behavior 2016	-	-
3-3	Management of material topics	Antitrust and Competition Principle Corporate Code of Conduct	43



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
206-1	Legal actions for anti-competitive behavior, antitrust, and monopoly practices	Antitrust and Competition Principle Confidentiality constraints. This information is considered business confidential: see the Corporate Code of Conduct section for additional information on our mechanism used to address and resolve corruption issues. Significant legal actions for non-compliance with laws and regulations would be discussed in our Annual Report on Form 10-K , Item 8 – Note 16: Commitment and Contingencies.	
GRI 207	Tax 2019	-	-
3-3	Management of material topics	Corporate governance	37
207-1	Approach to tax	Corporate governance	37
207-2	Tax governance, control, and risk management	Corporate governance	37
207-3	Stakeholder engagement and management of concerns related to tax	Corporate governance	37
207-4	Country-by-country reporting	Confidentiality constraints. This information is considered business confidential.	
GRI 301	Materials 2016	-	-
3-3	Management of material topics	Circular materials	74
301-1	Materials used by weight or volume	Information unavailable/incomplete. Material weight or volume by nonrenewable and renewable categories for 3M's 55,000 products (not including intermediates) is currently not comprehensive. 3M is working to improve systems that help us collect this type of information. Find more about our efforts in the Circular materials section .	
301-2	Recycled input materials used	Information unavailable/incomplete. Percentage of recycled input materials used to manufacture 3M's more than 55,000 products (not including intermediates) is currently not comprehensive. 3M is working to improve systems that help us collect this type of information. Find more about our efforts in the Circular materials section .	
301-3	Reclaimed products and their packaging materials	Not applicable. If a product or packaging can be recycled we provide that information to our customers but we do not have insight into what our customers do at the product or product packaging end of life. Find more about our efforts in the Circular materials section .	
GRI 302	Energy 2016	-	-
3-3	Management of material topics	Climate and energy	82
302-1	Energy consumption within the organization	ESG metrics , Environmental tab Climate and energy Metric tables: 3M historical metrics, environmental footprint; environmental performance, energy	82 147
302-2	Energy consumption outside of the organization	ESG metrics , Environmental tab Climate and energy Metric tables: environmental performance, greenhouse gas	82 147



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
302-3	Energy intensity	ESG metrics , Environmental tab Climate and energy Metric tables: 3M historical metrics, environmental footprint; environmental performance, energy	82 147
302-4	Reduction of energy consumption	ESG metrics , Environmental tab Climate and energy Metric tables: 3M historical metrics, environmental footprint; environmental performance, energy	82 147
302-5	Reductions in energy requirements of products and services	ESG metrics , Environmental tab Climate and energy Metric tables: environmental performance, greenhouse gas	82 147
GRI 303	Water 2018	-	-
303-1	Interactions with water as a shared resource	Circular materials Metric tables: environmental performance, water	74 147
303-2	Management of water discharge-related impacts	Circular materials Environment, health, and safety management	74 147
303-3	Water withdrawal	ESG metrics , Environmental tab Circular materials Metric tables: environmental performance, water	74 147
303-4	Water discharge	Water discharge and breakdown is not available at an aggregate level. Water discharge and related compliance is managed according to 3M policies at the site level. See <u>the Circular materials section</u> for additional information.	
303-5	Water consumption	Water consumption is not available at an aggregate level. Water discharge and related compliance is managed according to 3M policies at the site level. See <u>the Circular materials section</u> for additional information.	
GRI 304	Biodiversity 2016	-	-
3-3	Management of material topics	Circular materials Environment, health, and safety management	74 65
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Business confidential. 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 that are on or near 3M properties. The environmental site assessments include a site visit and a search of public databases to identify these areas, such as rivers, creeks, and wetlands. See <u>the EHS management section</u> for more information.	



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
304-2	Significant impacts of activities, products and services on biodiversity	Circular materials EHS management Suppliers	74 65 94
304-3	Habitats protected or restored	Suppliers	94
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Business confidential. 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 that are on or near 3M properties. The environmental site assessments include a site visit and a search of public databases to identify these areas, such as rivers, creeks, and wetlands. See the EHS management section for more information.	
GRI 305	Emissions 2016	-	-
3-3	Management of material topics	Climate and energy	82
305-1	Direct (Scope 1) GHG emissions	ESG metrics , Environmental tab Climate and energy Metric tables: 3M historical metrics, environmental footprint; environmental performance, greenhouse gas	82 147
305-2	Energy indirect (Scope 2) GHG emissions	ESG metrics , Environmental tab Climate and energy Metric tables: historical metrics, environmental footprint; environmental performance, energy, and greenhouse gas	82 147
305-3	Other indirect (Scope 3) GHG emissions	ESG metrics , Environmental tab Climate and energy Metric tables: environmental performance, energy, and greenhouse gas	82 147
305-4	GHG emissions intensity	ESG metrics , Environmental tab Climate and energy Metric tables: 3M historical metrics, environmental footprint; environmental performance, greenhouse gas	82 147
305-5	Reduction of GHG emissions	ESG metrics , Environmental tab Climate and energy Metric tables: 3M historical metrics, environmental footprint; environmental performance, greenhouse gas	82 147
305-6	Emissions of ozone depleting substances (ODS)	Climate and energy Confidentiality constraints. This information is considered business confidential: 3M internally tracks ODSs according to regulatory obligations and also accounts for them in our GHG calculations. See the Climate and energy section for more information.	82



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	ESG metrics , Environmental tab Climate and energy Metric tables: 3M historical metrics, environmental footprint; environmental performance, air emissions	82 147
GRI 206	Waste 2020	-	-
3-3	Management of material topics	Circular materials Environmental, health, and safety management	74 65
306-1	Waste generation and significant waste-related impacts	Circular materials	74
306-2	Management of significant waste-related impacts	About report Circular materials Environmental, health, and safety management	122 74 65
306-3	Waste generated	ESG metrics , Environmental tab Circular materials Metric tables: environmental performance, waste	74 147
306-4	Waste diverted from disposal	ESG metrics , Environmental tab Circular materials Metric tables: environmental performance, waste	74 147
306-5	Waste directed to disposal	ESG metrics , Environmental tab Circular materials Metric tables: environmental performance, waste	74 147
GRI 308	Supplier environmental assessment 2016	-	-
3-3	Management of material topics	Suppliers Supplier Responsibility Code	94
308-1	New suppliers that were screened using environmental criteria	Suppliers Supplier Responsibility Code	94
308-2	Negative environmental impacts in the supply chain and actions taken	Suppliers Supplier Responsibility Code	94
GRI 401	Employment 2016	-	-
3-3	Management of material topics	Employee programs	59



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
401-1	New employee hires and employee turnover	ESG metrics , Employee demographics tab Employee programs Confidentiality constraints. We can provide total turnover rate of 16.9% but are not able to provide breakdown by age group, gender, and region. Total turnover includes employee-initiated turnover and all other forms of turnover (e.g., due to restructuring, poor performance, retirement, etc.). 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.	59
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employee programs	59
401-3	Parental leave	Employee programs	59
GRI 402	Labor/management relations 2016	-	-
3-3	Management of material topics	Employee programs	59
402-1	Minimum notice periods regarding operational changes	Employee programs	59
GRI 403	Occupational health and safety 2018	-	-
3-3	Management of material topics	Environmental, health, and safety management	65
403-1	Occupational health and safety management system	Environmental, health, and safety management	65
403-2	Hazard identification, risk assessment, and incident investigation	Corporate Code of Conduct Environmental, health, and safety management	43 65
403-3	Occupational health services	Environmental, health, and safety management	65
403-4	Worker participation, consultation, and communication on occupational health and safety	Environmental, health, and safety management	65
403-5	Worker training on occupational health and safety	Environmental, health, and safety management	65
403-6	Promotion of worker health	Environmental, health, and safety management	65
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Environmental, health, and safety management Innovation management	65 101
403-8	Workers covered by an occupational health and safety management system	Employee programs Environmental, health, and safety management	59 65
403-9	Work-related injuries	ESG metrics , Employee health & safety tab Environmental, health, and safety management Metric tables: health and safety; historical metrics, health and safety	65 147



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
403-10	Work-related ill health	ESG metrics , Employee health & safety tab Environmental, health, and safety management Metric tables: health and safety; historical metrics, health and safety	65 147
GRI 404	Training and education 2016	-	-
3-3	Management of material topics	Employee programs	59
404-1	Average hours of training per year per employee	Employee programs	59
404-2	Programs for upgrading employee skills and transition assistance program	Employee programs	59
404-3	Percentage of employees receiving regular performance and career development reviews	Employee programs	59
GRI 405	Diversity and Equal Opportunity 2016	-	-
3-3	Management of material topics	3M Diversity, Equity & Inclusion (DEI) Report Corporate governance Diversity, equity, and inclusion	37 33
405-1	Diversity of governance bodies and employees	3M Diversity, Equity & Inclusion (DEI) Report Board of Directors Corporate governance Corporate Officers	37
405-2	Ratio of basic salary and remuneration of women to men	3M Diversity, Equity & Inclusion (DEI) Report Compensation Diversity, equity, and inclusion	56 33
GRI 406	Non-discrimination 2016	-	-
3-3	Management of material topics	Human rights Respectful Work Environment Principle	50
406-1	Incidents of discrimination and corrective actions taken	Confidentiality constraints. This information is considered business confidential: See the Corporate Code of Conduct section for more information on the mechanism we use to address and resolve discrimination issues. Significant legal actions for noncompliance with laws and regulations would be discussed in our Annual Report on Form 10-K , Item 8 – Note 16: Commitment and Contingencies.	
GRI 407	Freedom of association and collective bargaining 2016	-	-
3-3	Management of material topics	3M Supplier Responsibility Code Human rights Suppliers	50 94



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
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 Responsibility Expectations	50 94
GRI 408	Child labor 2016	-	-
3-3	Management of material topics	3M Supplier Responsibility Code Human rights Suppliers Supplier Responsibility Expectations	50 94
408-1	Operations and suppliers at significant risk for incident of child labor	Human rights Suppliers 3M Supplier Responsibility Code	50 94
GRI 409	Forced or compulsory labor 2016	-	-
3-3	Management of material topics	3M Supplier Responsibility Code Human rights Suppliers	50 94
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	50 94
GRI 410	Security practices 2016	-	-
3-3	Management of material topics	Human rights	50
410-1	Security personnel trained in human rights policies or procedures	Human rights	50
GRI 411	Rights of indigenous peoples 2016	-	-
3-3	Management of material topics	3M Supplier Responsibility Code Human rights Suppliers	50 94
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 2022.	



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
GRI 413	Local communities 2016	-	-
3-3	Management of material topics	Circular materials Climate and energy Communities Environmental, health, and safety management Human rights Suppliers	74 82 26 65 50 94
413-1	Operations with local community engagement, impact assessments, and development programs	Circular materials Climate and energy Communities Corporate Code of Conduct Customer-inspired innovation Environmental, health, and safety management Human rights Leading with purpose Suppliers	74 82 26 43 109 65 50 8 94
413-2	Operations with significant actual and potential negative impacts on local communities	Circular materials Climate and energy Corporate Code of Conduct Enterprise risk Environmental, health, and safety management Human rights Suppliers	74 82 26 41 65 50 94
GRI 414	Supplier social assessment 2016	-	-
3-3	Management of material topics	Suppliers	94
414-1	New suppliers that were screened using social criteria	Suppliers	94
414-2	Negative social impacts in the supply chain and actions taken	Suppliers	94
GRI 415	Public policy 2016	-	-
3-3	Management of material topics	Corporate governance Lobbying and Political Activities Principle	37



Disclosure number	Description	Cross-reference (hyperlinks) or direct answer	Page #
415-1	Political contributions	Corporate governance Lobbying and Political Activities Principle Lobbying and Political Activities Governance	37
GRI 416	Customer health and safety 2016	-	-
3-3	Management of material topics	Innovation management Product Safety, Quality, and Stewardship Principle	101
416-1	Assessment of the health and safety impacts of product and service categories	Innovation management	101
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Significant legal actions for noncompliance with laws and regulations would be discussed in our Annual Report on Form 10-K , Item 8 – Note 16. Commitments and Contingencies.	
GRI 417	Marketing and labeling 2016	-	-
3-3	Management of material topics	Innovation management Product Safety, Quality, and Stewardship Principle	101
417-1	Requirements for product and service information and labeling	Innovation management	101
417-2	Incidents of non-compliance concerning product and service information and labeling	Significant legal actions for noncompliance with laws and regulations would be discussed in our Annual Report on Form 10-K , Item 8 – Note 16. Commitments and Contingencies.	
417-3	Incidents of non-compliance concerning marketing communications	Significant legal actions for noncompliance with laws and regulations would be discussed in our Annual Report on Form 10-K , Item 8 – Note 16. Commitments and Contingencies.	
GRI 418	Customer privacy 2016	-	-
3-3	Management of material topics	3M Global Privacy Policy Data Privacy Principle	
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Significant legal actions for noncompliance with laws and regulations would be discussed in our Annual Report on Form 10-K , Item 8 – Note 16. Commitments and Contingencies.	
GRI 419	Socioeconomic compliance 2016	-	-
3-3	Management of material topics	Corporate Code of Conduct	43
419-1	Non-compliance with laws and regulations in the social and economic area	Significant legal actions for noncompliance with laws and regulations would be discussed in our Annual Report on Form 10-K , Item 8 – Note 16. Commitments and Contingencies.	



SASB index

Sustainability Accounting Standards Board

Dimension	General Issue Category	Cross-reference (hyperlinks) or direct answer	Page (.pdf)
Environment	GHG emissions	ESG metrics , Environmental tab	
		Climate and energy	82
		Metric table: 3M historical metrics; environmental performance, greenhouse gas, and energy	147
	Air quality	ESG metrics , Environmental tab	
		Climate and energy	82
		Metric table: 3M historical metrics; environmental performance, air emissions	147
	Energy management	ESG metrics , Environmental tab	
		Climate and energy	82
		Metric table: 3M historical metrics; environmental performance, greenhouse gas, and energy	147
	Water and wastewater management	ESG metrics , Environmental tab	
		Circular materials	74
		Environmental, health, and safety management	65
	Waste and hazardous materials management	ESG metrics , Environmental tab	
		Circular materials	74
		Environmental, health, and safety management	65
		Metric table, historical metrics; environmental performance, waste	147
	Ecological impacts	ESG metrics , Environmental tab	
		Circular materials	74
		Climate and energy	82
		Environmental, health, and safety management	65
		Suppliers	94
		Metric tables: 3M historical metrics; environmental performance	147



Dimension	General Issue Category	Cross-reference (hyperlinks) or direct answer	Page (.pdf)
Social capital	Human rights and community relations	Corporate Code of Conduct	43
		<u>Ethics & Compliance</u>	
		Human rights	50
		Suppliers	94
	Customer privacy	<u>3M Global Privacy Policy</u>	
		<u>Annual Report on Form 10-K</u> , Item 1A – Risks Related to Our Business	
		Corporate Code of Conduct	43
		Enterprise risk	41
	Data security	<u>Annual Report on Form 10-K</u> , Item 1A – Risks Related to Our Business	
		Enterprise risk	41
Human capital	Access and affordability	Customer-inspired innovation	109
	Product quality and safety	Customer-inspired innovation	109
		Innovation management	101
	Customer welfare	Customer-inspired innovation	109
		Innovation management	101
		<u>Product Safety, Quality, and Stewardship Principle</u>	
	Selling products and product labeling	<u>Advertising and Product Representation Policy</u>	
		Customer-inspired innovation	109
		Innovation management	101
		<u>Product Safety, Quality, and Stewardship Principle</u>	
Human capital	Labor Practices	Corporate Code of Conduct	43
		<u>Ethics & Compliance</u>	
		Human rights	50
		Suppliers	94
		<u>Supplier Responsibility Code</u>	
	Employee health and safety	<u>ESG metrics</u> , Employee, health & safety tab	
		Environmental, health, and safety management	65
		Metric tables: 3M historical metrics; health and safety	147
Human capital	Employee engagement, diversity, and inclusion	<u>3M Diversity, Equity & Inclusion (DEI) Report</u>	
		Communities	26
		Diversity, equity, and inclusion	33



Dimension	General Issue Category	Cross-reference (hyperlinks) or direct answer	Page (.pdf)
Business model and innovation	Product design and life cycle management	Innovation management	101
	Business model resilience	Enterprise risk	41
		Customer-inspired innovation	109
		Innovation management	101
		Leading with purpose	8
	Supply chain management	Suppliers <u>Supplier Responsibility Code</u>	94
Leadership and governance	Materials sourcing and efficiency	<u>Annual Report on Form 10-K</u> , Item 1 – Raw materials and Item 1A – Risks Related to Our Products and Customer Preferences	
		Circular materials	74
		Suppliers	94
	Physical impacts of climate change	<u>Annual Report on Form 10-K</u> , Item 1A – Risks Related to the Global Economy and Public Health Crises	
		Climate and energy	82
	Business ethics	Corporate Code of Conduct <u>Ethics & Compliance</u>	43
	Competitive behavior	<u>Antitrust and Competition Principle</u> Corporate Code of Conduct	43
	Management of legal and regulatory environmental	<u>Annual Report on Form 10-K</u> , Item 1 – Raw materials; Item 1A – Risks Related to Our Products and Customer Preferences; and Item 8 – Note 16: Commitments and Contingencies. Environmental, health, and safety management	65
	Critical incident risk management	Corporate governance	37
		Enterprise risk	41
		Environmental, health, and safety management	65
		Leading with purpose	8
	System risk management	Suppliers	94
		<u>Annual Report on Form 10-K</u> , Item 1A – Risks Related to Our Products and Customer Preferences and Note 16. Enterprise risk	41

For additional details on SASB integration for this report, see **the About report section**.



Assurance statement



INDEPENDENT ASSURANCE STATEMENT

To: Stakeholders of 3M Corporation

Introduction and objectives of work

Apex Companies, LLC (Apex) was engaged by 3M Corporation (3M) to conduct independent assurance of its 3M 2023 Global Impact 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, responsiveness, and impact.

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 2022 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 v3¹ 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 Universal Standards for the assured metrics
- 3M data collection and reporting protocol.

Methodology

Apex undertook the following activities during the assurance process:



3. Audit of performance data presented in the Report including a detailed review of a sample of data;
4. In-person facility visits for manufacturing sites located in Brownwood, TX, USA, Clinton, TN USA, and Decatur, AL, USA. Remote visits were conducted for Sagami-hara, Japan, Pune – Ranjangaon, India, Juarez, Mexico, and Atherstone, UK;
5. In-person review at 3M headquarters office located in Maplewood, Minnesota; and
6. Review of 3M information systems for data collection, aggregation, analysis and internal verification and review.

The work was planned and carried out to provide a Type 2 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 usage, waste quantities and disposition, injury and illness rate, lost day rate, severity rate, training instances, employment metrics, supplier metrics, diversity metrics, community investment, virgin plastic reduction and Sustainability Value Commitments.

A summary of data within the scope of assurance for the 2022 reporting year 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, responsiveness, and impact as discussed below.

Inclusivity

Based on discussions with 3M, their processes appear to be inclusive of stakeholders. In 2022, 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 executive leadership, 3M employees, customers, non-governmental organizations, investors and the public. 3M also continues to work toward developing inclusion and diversity throughout the employment structure from entry level to management, supporting the pipeline of diverse talent in management across its global operations.

Materiality

During the 2022 materiality assessment stakeholders indicated that 3M should take a leadership role in environmental and social topics. 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. In addition, 3M has set targets that reflect the material subjects and new products require a Sustainability Value Commitment.

Responsiveness

3M receives questions regarding sustainability from customers, investors, non-governmental organizations and others through various channels. 3M has engaged enterprise risk and other teams across the organization to better align with future integrated reporting. The company has developed guidance for responding to customer inquiries on sustainability issues and uses this guidance for responding to other groups as well. Responses to external reporting surveys are coordinated by the corporate sustainability group. Each business group also has sustainability leads who assist with responding to stakeholders. In addition, external community partnership relationships have been tied to the 3M sustainability pillars.

Impact

3M operates under appropriate processes to understand, measure, evaluate and manage the organization's impacts related to material topics. 3M ensures these processes are documented and integrated into the organization. 3M has set targets for 2025 and reviews performance against those targets to measure impact via a centrally viewable dashboard. The measurement is recorded on an internal dashboard that allows for illustration and evaluation of metrics throughout the year. 3M continues to measure impact through developing Sustainability Value Commitments for new products, development of product comparisons with respect to decreases in GHG emissions during use phase of products, and evaluation of impacts of community engagement and support. 3M also measures impacts of grants to underserved populations and STEM through collection of information regarding the populations that are served provided by the supported organizations.

Key Observations for 2022

- 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 level and other data sources assist with accurate data collection and compilation. Internal quality control is implemented to review data quality. Data are available on a dashboard allowing review and comparisons within 3M throughout the year. Data for most metrics are updated on the dashboard for review internally on a quarterly basis.
- 3M updated their materiality assessment to ensure that the material issues continue to be in line with company and stakeholder concerns. They have also moved reporting to the GRI Universal Standards that drives relevant and comparable reporting to peer companies.
- 3M has made commitments to decrease the overall carbon footprint with a goal of eventually achieving carbon neutrality as evidenced by purchasing power from renewable sources for the corporate and manufacturing facilities, installation of renewable energy production on 3M sites, as well as obtaining associated renewable energy credits for the direct procurement of renewable electricity.
- 3M continued to work within their supply chain, specifically with paper providers, to engage higher tier suppliers to ensure sustainable practices are being followed.
- 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.
- 3M has committed to diversity and inclusion within their workforce and in community support. 3M measures impacts of grants to underserved populations and STEM through collection of information regarding the populations that are served from the supported organizations.

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 assurance 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 30 years combined experience in this field and an excellent understanding of Apex's standard methodology for the Assurance of Sustainability Reports.

Attestation:

John A. Rohde, Lead Verifier
Lead Assuror
Lakewood, Colorado

David Reilly, Technical Reviewer
Technical Reviewer
Santa Ana, California



Apex Companies, LLC
Denver, Colorado
March 14, 2023



AA1000
Licensed Report
000-54/V3-TBPDV



Summary of Assured Information
Reporting Year 2022
3M Company



Demographic Metrics	Units	Value	Waste Metrics	Units	Value	Energy Metrics	Units	Value	Air Emissions Metrics	Units	Value
Total Global Full-time Equivalent (Headcount)	Total Number	91,600	Zero Landfill	% of Total Manufacturing Sites	44.9%	Total Energy Use (Absolute)	MWh	8,190,000	Absolute Scope 1 Emissions (Direct)	Metric Tons CO2e	2,420,000
Total Global Employees at Year-End (Headcount)	Total Number	92,100	Waste Disposed: Landfill, Treatment and Incineration (Absolute)	Metric Tons	177,000	Total Fuel Oil #1, #2, #6	MWh	145,000	Absolute Scope 2 Location-based Emissions (Indirect)	Metric Tons CO2e	1,460,000
Total Number Part-Time Employees	Total Number	1,650	Waste by Disposal Type, Treatment and Incineration	Metric Tons	67,800	Total Jet Fuel	MWh	17,100	Absolute Scope 2 Market-based Emissions (Indirect)	Metric Tons CO2e	925,000
Total Number Part-Time Female Employees	Total Number	1,100	Waste by Disposal Type, Landfilled	Metric Tons	110,000	Total Propane	MWh	29,000	Absolute Scope 1 and Scope 2 Market-based Emissions (Indirect)	Metric Tons CO2e	3,340,000
Total Number Full-Time Employees	Total Number	90,500	Total Hazardous Waste (Absolute)	Metric Tons	58,100	Total Gasoline and Diesel	MWh	33,100	Total Scope 3 GHG Emissions (Upstream)	Metric Tons CO2e	10,700,000
Total Number Full-Time Female Employees	Total Number	32,900	Total Nonhazardous Waste (Absolute)	Metric Tons	206,000	Total Coal	MWh	0	Total Scope 3 GHG Emissions (Downstream)	Metric Tons CO2e	936,000
Percentage of Female Employees to Total Employees	%	36.9	Total Waste Diverted (Absolute)	Metric Tons	284,000	Total Natural Gas	MWh	4,650,000	Category 1 - Purchased Goods and Services	Metric Tons CO2e	7,810,000
Percentage of Female Employees in Management Positions	%	35.1	Waste-to-Energy	Metric Tons	86,200	Total Electricity Consumption	MWh	3,100,000	Category 2 - Capital Goods	Metric Tons CO2e	474,000
Percentage of females on 3M Board of Directors	%	38.5	Onsite Recycle & Reuse	Metric Tons	42,700	Total Steam Consumption	MWh	300,000	Category 3 - Fuel and Energy Related Activities	Metric Tons CO2e	439,000
Global diversity index: % diversity in management	%	45.1	Offsite Reuse	Metric Tons	32,000	Total Hot Water	MWh	1,890	Category 4 - Upstream Transportation and Distribution	Metric Tons CO2e	1,490,000
% Underrepresented Groups in 3M U.S. Workforce (entry-level to management)	%	9.02	Offsite Recycle	Metric Tons	122,000	Renewable Energy	% Total Electricity Use	51.9	Category 5 - Waste Generated in Operations	Metric Tons CO2e	199,000
% Underrepresented groups in 3M U.S. Workforce (management)	%	6.39							Category 6 - Business Travel	Metric Tons CO2e	31,500
			Water Metrics	Units	Value	Other Metrics	Units	Value	Category 7 - Employee Commuting	Metric Tons CO2e	261,000
Health and Safety Metrics	Units	Value	Total Water Use (Absolute)	Million Cubic Meters	37.3	Customer GHG Avoidance through 3M Product Use - Cumulative since 2015	Million Metric Tons CO2e	121	Category 9 - Downstream Transportation and Distribution	Metric Tons CO2e	936,000
Global Lost Time Incident Rate	Per 100 3M employees (200,000 work hours)	0.451	Sites located in Water Stress/Scarce Areas; water sources significantly affected by withdrawal of water with water conservation planning efforts	Total Number	17	Total Training Instances - Cumulative total since 2017		4,910,000	Category 13 - Downstream Leased Assets	Metric Tons CO2e	<1,000
Global Recordable Incident Rate	Per 100 3M employees (200,000 work hours)	1.27				Percent New Projects Passing a "Gate" with Sustainability Value Commitment		100%	Biogenic - Scope 1 and Scope 3	Metric Tons CO2e	120,000
Work Related Fatalities - 3M Employees	Total Number	1	Supplier Responsibility Metrics	Units	Value	3M Skill-based Volunteerism - Cumulative since 2019		81,800	Total Volatile Organic Compound Emissions (Absolute)	Metric Tons	4,060
Work Related Fatalities - 3M Contractors	Total Number	1	Total Number of Suppliers	Total Number	55,100	STEM and Skilled trades learning experiences for underrepresented individuals - 2021-2022 school year		1,040,000			
Work Related Fatalities - Total Number	Total Number	2	Total Number of Supplier Reviews	Cumulative Number since 2008	8,320	Investing in Racial Equity Advancements Cumulative since 2021		\$23,600,000			
						Virgin Fossil-based Plastic Reduction - Cumulative since 2021	pounds	54,200,000			



Metric tables

Values listed have been rounded up or down from the actual values. Calculated data uses the full precision of the number except where annual, five-year, and historical percent change is calculated. For additional metrics and more details on boundary and scope of metrics, see our [ESG metrics](#).

These metric tables show a three-year history. Past reports showed a five-year history. This change aligns with other external 3M reports such as the Annual Report on Form 10-K. In addition to metrics included in this report, supplementary metrics can be found in our accompanying ESG metric (.xls) file, including environmental, social, and governance metrics, charts, and a glossary of terms.

Values reflect calendar years, which align with 3M's fiscal years. Where attainable and justified, metrics are rounded to three significant figures. Some totaled metrics may not match metrics summed together after rounding. Restatements are made when changes are + or - 5% of the original data point. For additional details about organizational boundaries, data collection, adjustments, and verification, see [the About report section](#).

Employee demographics

Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Global full-time equivalent employees	Total number	91,600	94,700	95,500	-3.3	
Global employee (headcount)	Total number	92,100	95,300	96,100	-3.4	
Full-time employees	Total number	90,500	93,600	94,300	-3.3	
Full-time female employees	Total number	32,900	34,000	33,900	-3.2	
Part-time employees	Total number	1,650	1,730	1,810	-4.6	
Part-time female employees	Total number	1,100	1,180	1,260	-6.8	
Female employees to total employees	%	36.9	37.0	36.7	-0.3	Full- and part-time.
Female employees in management positions	%	35.1	34.1	32.6	2.9	
Females on 3M Board of Directors	%	38.5	36.4	33.3	5.8	
Pay equity	%	100	100	100		3M has achieved 100% gender pay equity across all of our global regions and 100% pay equity in the U.S. for racial/ethnic groups.
Global diversity index: % diversity in management	%	45.1	44.5	43.2	1.3	Global 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+). Baseline year is 2015 (32.6%) and goal is 65.2%.



Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Underrepresented groups in our U.S. workforce (entry-level through management)	%	9.02	8.58	8.13	5.1	3M job grades 7 to 17. Underrepresented groups (URG) is defined as Black/African American and Hispanic/Latino employees. Double the representation of URGs from entry level through management in our U.S. workforce. Goal is 16.2%.
Underrepresented groups in our U.S. workforce (management)	%	6.39	6.19	5.55	3.2	Subset of above. 3M job grades 13 to 17. Underrepresented groups is defined as Black/African American and Hispanic/Latino employees. Double the representation of URGs in management positions in our U.S. workforce. Goal is 11.2%.

Financial performance

Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Net sales	Million \$USD	34,200	35,400	32,200	-3.4	For additional financial metrics please see 3M's Annual Report on Form 10-K .

Community engagement

Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Total global giving	Million \$USD	82.1	88.5	87.9	-7.2	
Total cash donations	Million \$USD	50.1	41.5	57.8	20.5	
Total in-kind donations	Million \$USD	32.1	47.0	30.1	-31.7	
Investing in racial equity advancements	Cumulative million \$USD	23.6	12.0			Cumulative total since 2021.
STEM and skilled trades learning experiences for underrepresented individuals	Cumulative learning instances	1,040,000				Cumulative total since 2021-22 school year; underrepresented groups in STEM aligns with the US National Science Foundation (NSF) definition and includes women, African American or Black, Hispanic or Latino, Native American or Alaska Native, and persons with disabilities.
Skills-based volunteerism	Cumulative volunteer hours	81,800	51,700	35,200		Cumulative total since 2019.



Environmental performance

Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Sustainability Value Commitment						
New project passing a “gate” with a Sustainability Value Commitment	%	100	100	100		
Plastic reduction						
Virgin fossil-based plastic reduction	Cumulative million pounds	54.2	18.5			Cumulative total since 2021.
Greenhouse gas¹						
Customer GHG reduction through use of various 3M product platforms	Cumulative million metric tons CO ₂ e	121	100	82.0		Cumulative total since 2015.
Scope 1 emissions (direct)	Metric tons CO ₂ e	2,420,000	2,980,000	3,600,000	-18.8	
Scope 2 location-based emissions (indirect)	Metric tons CO ₂ e	1,460,000	1,590,000	1,680,000	-8.2	
Scope 1 and 2 location-based emissions indexed to sales	Metric tons CO ₂ e per net sales (MM \$USD)	113	129	164	-12.4	
Scope 2 market-based emissions (indirect)	Metric tons CO ₂ e	925,000	992,000	1,250,000	-6.8	
Scope 1 and 2 market-based emissions indexed to sales	Metric tons CO ₂ e per net sales (MM \$USD)	97.8	112	151	-12.7	
Total Scope 1 and 2 GHG emissions: market-based accounting	Metric tons CO ₂ e	3,340,000	3,970,000	4,850,000	-15.9	
Reduction Scope 1 and Scope 2 market-based emissions	%	37.8	26.1	9.68		Baseline year 2019.
Total Scope 3 emissions (upstream)	Metric tons CO ₂ e	10,700,000	10,100,000	9,180,000		Includes Scope 3 Categories 1 through 7.
Total Scope 3 emissions (downstream)	Metric tons CO ₂ e	936,000	1,470,000	448,000		Includes Scope 3 Category 9 only.
Scope 3, Category 1 (purchased goods and services)	Metric tons CO ₂ e	7,810,000	6,970,000	5,770,000	12.1	In 2022, methodology changed to account for inflationary impacts to the US EPA EEIO emission factors used. 2020 and 2021 results were recalculated based on this change.

¹ The data reported is in accordance to the World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) GHG Protocol 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 emission accounting as defined in the GHG Protocol Corporate Reporting and Accounting Standard. Additional information can be found in [the About report section](#). 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 [the About report section](#) for additional information.



Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Greenhouse gas¹ (cont.)						
Scope 3, Category 2 (capital goods)	Metric tons CO ₂ e	474,000	432,000	422,000	9.7	In 2022, methodology changed to account for inflationary impacts to the US EPA EEIO emission factors used. 2020 and 2021 results were recalculated based on this change.
Scope 3, Category 3 (fuel and energy related activities; not including Scope 1 or Scope 2 emissions)	Metric tons CO ₂ e	439,000	488,000	556,000	-10.0	Calculated from 3M primary data on energy consumption.
Scope 3, Category 4 (upstream transportation and distribution)	Metric tons CO ₂ e	1,490,000	1,720,000	1,920,000	-13.4	Does not include emissions from transportation of raw materials from suppliers. In 2022, methodology changed to improve data quality and accuracy. 2020 and 2021 results were recalculated based on this change.
Scope 3, Category 5 (waste generated in operations)	Metric tons CO ₂ e	199,000	152,000	138,000	30.9	Calculated from 3M primary data on waste by facility size or number of employees. The Cottage Grove Incinerator was closed at the end of 2021, resulting in a transfer of emissions from those waste streams from the Scope 1 to Scope 3 boundary. 2020 and 2021 results have not been recalculated to account for this shift in emissions.
Scope 3, Category 6 (business travel)	Metric tons CO ₂ e	31,500	20,500	21,400	53.7	Calculated from 3M primary data on business travel. In 2022, boundary was expanded to include personal car mileage traveled for business purposes. 2020 and 2021 results were recalculated based on this change.
Scope 3, Category 7 (employee commuting)	Metric tons CO ₂ e	261,000	357,000	352,000		In 2022, boundary was expanded to include contingent workers regularly reporting to a 3M location. 2020 and 2021 results were recalculated based on this change. Remote work practices were incorporated into the methodology beginning in 2022.
Scope 3, Category 8 (upstream, leased assets)	Metric tons CO ₂ e					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	936,000	1,470,000	448,000	-36.3	Methodology developed in 2019. See the Climate and energy section for more information. In 2022, methodology changed to improve data quality and accuracy. 2020 and 2021 results were recalculated based on this change.
Scope 3, Category 10 (processing of sold products)	Metric tons CO ₂ e					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. See the Climate and energy section for more information.



Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Greenhouse gas¹ (cont.)						
Scope 3, Category 11 (use of sold products)	Metric tons CO ₂ e					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. See the Climate and energy section for more information.
Scope 3, Category 12 (end of life treatment of sold products)	Metric tons CO ₂ e					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. See the Climate and energy section for more information.
Scope 3, Category 13 (downstream leased assets)	Metric tons CO ₂ e	<1,000	<1,000	<1,000		
Scope 3, Category 14 (franchises)	Metric tons CO ₂ e	0	0	0		No franchises under this scope of boundary.
Scope 3, Category 15 (investments)	Metric tons CO ₂ e	0	0	0		No investments under this scope of boundary.
Biogenic CO ₂ e emissions	Metric tons CO ₂ e	120,000	2,560	2,830		Scope 1 and Scope 3 biogenic emissions are included in 2022 totals. Before 2021 only Scope 3 biogenic emissions were calculated.
Air emissions						
Total volatile organic compound emissions	Metric tons	4,060	4,100	3,800	-1.0	
Total volatile organic compounds emissions (indexed to net sales)	Metric tons per net sales (MM \$USD)	0.119	0.116	0.118	2.6	
Energy²						
Total energy use	MWh	8,190,000	8,370,000	8,070,000	-2.2	Total won't match exactly to categories below. Onsite nonrenewable generated electricity is counted in electricity consumption and natural gas consumption below.
Natural gas	MWh	4,650,000	4,730,000	4,480,000	-1.7	
Electricity consumption	MWh	3,100,000	3,200,000	3,070,000	-3.1	
Renewable electricity	MWh	1,610,000	1,520,000	1,090,000	5.9	
Nonrenewable electricity	MWh	1,490,000	1,680,000	1,980,000	-11.3	



Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Energy² (cont.)						
Steam consumption	MWh	300,000	296,000	304,000	1.4	
Fuel oil #1, #2, #6	MWh	145,000	147,000	222,000	-1.4	
Propane	MWh	29,000	37,000	29,300	-21.6	
Gasoline and diesel	MWh	33,100	31,300	29,600	5.8	
Jet fuel	MWh	17,100	6,070	7,550	181.7	
Hot water	MWh	1,890	4,800	2,770	-60.6	
Coal	MWh	0	0	0		3M does not use coal in its operations.
Total energy (indexed to net sales)	MWh per net sales (MM \$USD)	239	236	251	1.3	
Improved energy efficiency	%	13.1	14.2	8.73		Indexed to net sales (MM \$USD), baseline year 2015.
Renewable energy	% of total electricity use	51.9	47.6	35.4		
Total heating consumption	MWh	5,130,000	5,220,000	5,050,000	-1.7	
Waste³						
Total waste	Metric tons	460,000	483,000	446,000	-4.8	Includes waste disposed and waste diverted.
Waste disposed	Metric tons	177,000	168,000	151,000	5.4	
Incineration and treatment	Metric tons	67,800	62,300	54,800	8.8	
Landfill	Metric tons	110,000	105,000	96,600	4.8	
Waste diverted	Metric tons	284,000	315,000	295,000	-9.8	
On-site recycle and reuse	Metric tons	42,700	53,600	48,400	-20.3	Does not include onsite recycle and reuse from 3M's industrial mineral product (IMP) division.
Offsite reuse	Metric tons	32,000	32,400	29,000	-1.2	Does not include offsite reuse from 3M's industrial mineral product (IMP) division.
Offsite recycle	Metric tons	122,000	142,000	129,000	-14.1	Does not include offsite recycle from 3M's industrial mineral product (IMP) division.
Waste-to-energy	Metric tons	86,200	96,200	88,400	-10.4	
Hazardous waste	Metric tons	58,100	58,000	58,300	-0.2	Includes waste-to-energy, incineration, and landfilled waste.
Nonhazardous waste	Metric tons	206,000	206,000	182,000	0.0	Includes waste-to-energy, incineration, and landfilled waste.
Deep well injection	Metric tons					Per 3M's Waste Management Program Standard, deep well injection is not acceptable waste.

² 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](#).

³ 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-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Waste³ (cont.)						
Zero waste to landfill	% of total manufacturing sites	44.9	45.2	42.9	-0.7	
Waste disposed (indexed to net sales)	Metric tons per net sales (MM \$USD)	5.18	4.75	4.69	9.1	
Waste reduction in manufacturing	%	0.576	8.83	9.98	-93.5	Indexed to net sales (MM \$USD), baseline year 2015.
3M transfer value of shipments (TVOS) encompassed by total waste	%	99	99	99		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 .
Water⁴						
Total water use	Million cubic meters	37.3	41.4	44.7	-9.9	
Total water use (indexed to net sales)	Million cubic meters per net sales (MM \$USD)	0.00109	0.00117	0.00139	-6.8	
Increase in water efficiency	%	16.8	10.7	-6.11		Indexed to net sales (MM \$USD), baseline year 2019. In 2021, 3M expanded the water efficiency goal to reduce global water usage: 10% by 2022, 20% by 2025, and 25% by 2030.
Sites located in water stress/scarce areas; water sources significantly affected by withdrawal of water with water conservation planning efforts	Total number	17	17	16	0.0	Water stressed or scarce areas includes 3M locations with annual water use equal to or greater than 1,000 cubic meters in water-stressed areas defined as extremely high baseline water stressed according to the World Resources (WRI) Aqueduct tool.

⁴ 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**.



Health and safety

Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Global lost time incident rate	Per 100 3M employees (200,000 work hours)	0.451	0.397	0.331	13.6	
Global recordable incident rate	Per 100 3M employees (200,000 work hours)	1.27	1.14	0.967	11.4	
Work related fatalities - total number	Total number	2	1	0		
Work related fatalities - 3M employees	Total number	1	1	0		
Work related fatalities - 3M contractors	Total number	1	0	0		
Health and Safety Training Academies	Cumulative customer training instances	4,910,000	2,950,000	1,660,000		Cumulative total since 2017.

Supplier responsibility

Metric	Metric units	RY-2022	RY-2021	RY-2020	2021-2022 annual change, %	Boundary & scope
Suppliers	Total number	55,100	60,700	72,300	-9.2	
Total number of supplier reviews	Cumulative number	8,320	7,870	7,390		Cumulative total since 2008.

3M historical metrics

Metric	Metric units	RY-2022	RY-2020	RY-2015	RY-2010	RY-2005	RY-2002	Historical reporting change (%)
Environmental footprint								
Scope 1 emissions (direct) ¹	Metric tons CO ₂ e	2,420,000	3,600,000	3,770,000	4,280,000	10,100,000	16,800,000	-85.6
Scope 2 location-based emissions (indirect) ¹	Metric tons CO ₂ e	1,460,000	1,680,000	1,860,000	1,940,000	1,700,000	1,540,000	-5.2



Metric	Metric units	RY-2022	RY-2020	RY-2015	RY-2010	RY-2005	RY-2002	Historical reporting change (%)
Environmental footprint (cont.)								
Scope 1 and Scope 2 location-based emissions ¹	Metric tons CO ₂ e	3,880,000	5,280,000	5,630,000	6,220,000	11,800,000	18,300,000	-78.8
Scope 1 and Scope 2 location-based emissions (indexed to net sales)	Metric tons per net sales (MM \$USD)	113	164	186	233	557	1,120	-89.9
Reduction Scope 1 and Scope 2 location-based emissions (metric tons CO ₂ e, baseline year 2002)	%	78.8	71.1	69.2	66.0	35.5		
Total volatile organic compound emissions	Metric tons	4,060	3,800	4,840	6,070	6,800		-40.3
Total volatile organic compounds emissions (indexed to net sales)	Metric tons per net sales (MM \$USD)	0.119	0.118	0.160	0.228	0.321		-62.9
Total energy use	MWh	8,190,000	8,070,000	8,320,000	7,860,000	8,170,000		0.2
Total energy (indexed to net sales)	MWh per net sales (MM \$USD)	239	251	275	294	385		-37.9
Waste disposed: landfill, treatment, and incineration ²	Metric tons	177,000	151,000	158,000	136,000	145,000		22.1
Waste disposed: landfill, treatment, and incineration (indexed to net sales)	Metric tons per net sales (MM \$USD)	5.18	4.69	5.21	5.09	6.84		-24.3
Total hazardous waste	Metric tons	58,100	58,300	45,600	42,300	47,700		21.8
Total nonhazardous waste	Metric tons	206,000	182,000	172,000	134,000	132,000		56.1
Total water use	Million cubic meters	37.3	44.7	42.2	43.0	49.0		-23.9
Total water use (indexed to net sales)	Million cubic meters per net sales (MM \$USD)	0.00109	0.00139	0.00139	0.00161	0.00231		-52.8
Health and safety								
Global lost time incident rate	Per 100 3M employees (200,000 work hours)	0.451	0.331	0.321	0.364	0.594		-24.1
Global recordable incident rate	Per 100 3M employees (200,000 work hours)	1.27	0.967	1.22	1.56	1.85		-31.4

¹ 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).

² Starting in 2016, waste disposed and waste by disposal type does not include waste-to-energy. Total hazardous and total nonhazardous waste includes waste-to-energy.



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