Youth trust science and recognize its importance, but misinformation threatens the future

Fifth year of 3M and Ipsos global survey reveals people want science to help solve for sustainability, health and STEM equity challenges

ST. PAUL, Minn., April 19, 2022 /PRNewswire/ -- There is hope on the horizon for science: young people trust science and expect it to solve the world's challenges, reports the 3M 2022 State of Science Index (SOSI).

While all generations have exceptionally high trust in science (90% younger, 89% older), younger generations are more likely to say science is very important to their everyday lives (61% of Gen Z and Millennials, vs. 53% of Gen X and Baby Boomers). SOSI data shows people around the world looking to science to drive social impact, including solutions for sustainability, STEM equity and health care challenges.

"Every day, around the world, 3M employees work to unlock the power of people, ideas, and science to re-imagine what's possible and build what's next," said Mike Roman, chairman of the board and chief executive officer, 3M. "The deep level of trust that younger generations have in science and the increasing role it plays in their lives is a very promising sign for the future. 3M will continue to encourage and highlight trusted and diverse voices in science to help solve some of the world's toughest challenges."

Maintaining trust in science despite misinformation
People around the world recognize there is widespread misinformation[1] on social media (85%) and traditional media (72%), regardless of subject matter. So, while 90% of people surveyed say they trust science and 86% trust scientists, where they hear about science matters: 75% trust science-based facts in traditional news and only 44% trust science-based facts on social media. On a positive note, 83% want to hear more from scientists about their work—presenting the opportunity for direct communication on traditional and social platforms.

To address the consequences of misinformation in media, 3M is partnering with the Online News Association (ONA), the world's largest digital journalism association. 3M and ONA will collaborate on toolkits, training and recognition that will inspire and support journalists as they connect with their audiences about science and misinformation. Beginning in 2022, a new 3M Truth in Science Award will be presented at ONA's annual Online Journalism Awards (OJAs), honoring excellence in digital journalism around the world. The call for submissions for the 2022 OJAs opens on May 5, 2022, and includes cash prizes.

"Access to rigorous science reporting is as important as ever to meet the challenges of these times," said Irving Washington, executive director/chief executive officer of the Online News Association. "I am excited for ONA and 3M to lead in honoring and investing in science journalists worldwide who are rising to the occasion and delivering engaging and relevant news to serve their audiences."

Addressing widespread misinformation is important because if we cannot trust news stories about science, survey respondents say there will be consequences, including:

More public health crises (61%)
Greater division within society (57%)
An increase in the severity of climate change effects (53%).

Despite these concerns, slightly more than half of respondents (52%) consider science to be very important to their everyday lives (vs. 44% in 2018). This perception shift may be aided by the desire for science to solve global challenges. Beyond the pandemic, respondents want science to prioritize solving for the effects of climate

change (58%), clean water supply and sanitation (56%), air quality (55%) and equal access to quality health care (54%).

Climate change is getting personal

Climate change and its effects are showing up in personal ways for people around the world. A strong majority of survey respondents are concerned they or a loved one may be displaced from where they live in the future due to extreme weather related to climate change (79%). They also overwhelmingly report being more concerned today than they were a year ago about: climate change (74%), intensifying natural disasters (74%), ocean plastics pollution (73%) and air pollution (71%). To address these concerns, investing in innovations to mitigate the effects of climate change (47%) ranks as a top action for corporations to prioritize —second only to improving health care quality (50%).

"As the impacts of climate change grow and expand, 3M will continue collaborating with business partners, governments and international organizations on science-based solutions," said Gayle Schueller, senior vice president and chief sustainability officer, 3M. "I'm proud that 3M announced increased commitments in 2021, including a $1 billion investment to reduce our greenhouse gas emissions 50% by 2030, achieve full carbon neutrality by 2050, and reduce water use 25% by 2030. We also set a goal to reduce our use of virgin fossil-based plastic by 125 million pounds (nearly 56,700 metric tons) by 2025."

To date, 3M has reduced global water usage 10.7% and eliminated 19.7 million pounds of plastic waste. 3M's absolute Scope 1 and Scope 2 greenhouse gas emissions are down 72% since 2002 and the company is approaching 50% renewable electricity at all global sites well ahead of its 2025 goal.

STEM gaps begin in education, remain through professional workforce

Across the globe, barriers to a strong STEM education are increasing. Thirteen of the 17 countries surveyed saw a year-over-year increase in the percentage of people who reported STEM education roadblocks, from China (+12 percentage points from 2021 to 2022) to France (+9 ppts), Poland (+8 ppts) and Italy (+8 ppts). They identify access[2] (76%), affordability (47%), competing personal priorities (37%) and bias/prejudice toward women or minorities (33%) as the greatest barriers. While 87% of people believe it's important to increase diversity and inclusion in STEM fields, 71% say underrepresented minorities often do not receive equal access to STEM education.

The implication of increasing STEM education barriers is significant, as education lays the foundation for future career opportunities. Survey respondents show particular concern for women and girls in STEM:

More needs to be done to encourage and keep women/girls engaged in STEM education (84%)
Women are a source of untapped potential in the STEM workforce (81%)
Women are leaving STEM positions because they do not receive enough support (66%)
Women/girls are more discouraged from pursuing engineering than other science fields (62%)

"Challenges around STEM equity begin at an early age for women and underrepresented minorities, and continue to snowball for those who choose to pursue STEM careers against all odds," said Jayshree Seth, corporate scientist and chief science advocate, 3M. "Greater diversity in the scientific workforce—which often begins with a spark of STEM interest that ignites in early childhood—will lead to a greater positive impact on society."

In 2021, 3M announced a global education-focused goal to advance economic equity by creating 5 million unique STEM and skilled trade learning experiences for underrepresented individuals by the end of 2025. To move toward this goal, 3M is joining forces with the National Math and Science Initiative (NMSI) to elevate the profile of women and minorities in STEM professions. Leveraging the Not the Science Type documentary, NMSI's team created middle and high school discussion guides focused on career pathways, intersectionality and

forging ahead despite the societal stereotypes of scientists. NMSI offered watch parties to spur dialogue for teachers and classrooms across the nation about inclusion in science, particularly in districts with high percentages of underrepresented student populations.

Improving health access and advancing health equity

Improving access to quality health care is considered the number one priority for most countries surveyed (13 of 16[3]) and people expect collaboration on solutions. Among the top actions people believe corporations should prioritize (beyond their core business purpose) are working with the health care industry and other entities to improve the quality of care (50%) and collaborating to address the root causes of health issues within underserved and underrepresented communities (47%). The same holds true for advancements relating to social justice and change that people say society should prioritize over the next five years: ensuring equal access to quality health care (78%) and addressing the non-traditional root causes of health disparity within underserved and underrepresented communities (69%).

Beyond funding programs, 3M Health Care works to advance health equity by leveraging employee skills and 3M capabilities, like infrastructure and subject matter experts. For example, 3M recently partnered with Get to Yes, a Minnesota coalition of 12 dental organizations working to expand critical dental care access for historically marginalized populations. The cross-sector partnership resulted in securing $120M funding for critical dental care access. On a global level, partnerships are leveraged through 3M Impact Health Care, a volunteer program which pairs 3M employees with community-based organizations, also working to advance health equity.

Additionally, 3M Health Care combines its deep health care expertise with an unparalleled breadth of technology platforms and solutions to transform outcomes for patients and professionals. This includes utilizing data analytical capabilities such as 3M ™ Clinical Risk Groupings and social drivers of health data analytics to assess health care delivery system performance. 3M Health Care is in the process of developing partnerships with community-based organizations (CBOs) to utilize social drivers of health data analytics to identify neighborhoods that are most in need of community outreach. This data helps CBOs maximize the efficiency of their operations and makes their efforts more effective.

According to SOSI respondents, health care is a key area where they are looking to science for solutions. On the whole, respondents believe that beyond the current pandemic, science should prioritize cures for chronic diseases (62%), cancer treatments (57%), vaccines for future pandemics (50%), addressing mental and emotional health issues (50%) and addressing root causes/social drivers of health issues (46%).

Knowing the power of science to uncover solutions—and the many challenges our world is looking to science to solve—3M is proud to stand up for scientists and support the next generations of STEM talent. By advocating for truth in science reporting, innovating to develop science-based sustainability solutions and collaborating to help health care equity, 3M can help create a brighter future for the planet and its people.

About the State of Science Index

The 3M State of Science Index is an annual study conducted for 3M by global research firm Ipsos. It surveys the general populations of 17 countries. Now in its fifth year, the survey tracks the public image of science revealing trend lines over time as to how much people trust, respect and value science and the role it plays in their lives. For more information about the 2022 State of Science Index results, please visit 3M.com/ScienceIndex

About 3M

At 3M (NYSE: MMM), we apply science in collaborative ways to improve lives daily as our employees connect with customers all around the world. Learn more about 3M's creative solutions to global challenges at www.3M.com or on Twitter @3M or @3MNews.

State of Science Survey Methodology

The 3M State of Science Index presents original, independent, and nationally representative (based on census demographics) research, conducted by global research firm Ipsos through a combination of online and offline interviews. The 2022 survey was conducted Sept. 27– Dec. 17, 2021, in 17 countries among 1,000 general population adults (18+) in each of the following countries: Australia, Brazil, Canada, Colombia, China, France, Germany, India, Italy, Japan, Mexico, Poland, Singapore, South Korea, UAE, UK and the U.S. At the 95% confidence level, the margin of error is +/- 0.8 percentage points at the global, 17-country level and +/- 3.1 percentage points for each individual country. To compare across all waves of SOSI, a 10-country tracking average was used which has a margin of error of +/- 1.0 percentage points. Countries within this average include Brazil, Canada, China, Germany, Japan, Mexico, Poland, Singapore, UK, and the U.S.

[1] *Misinformation was defined in the survey as false or inaccurate information, especially that which is deliberately meant to sway views/opinions.*

[2] Access NET includes "Lack of STEM classes offered in school", "Not enough STEM educators/teachers" and "Lack of internet access"

[3] This question was not asked in the UAE

Additional assets available online: Photos (1)

https://news.3m.com/2022-04-19-Youth-trust-science-and-recognize-its-importance,-but-misinformation-threatens-the-future