



2022 Impact Report



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MSA SAFETY AT A GLANCE

MSA Safety is the global leader in developing, manufacturing, and supplying safety solutions worldwide. Our products and solutions are designed to meet rigorous safety standards across highly regulated industries. They help protect people performing essential work under high-stress, high-risk conditions—including fire service, the oil, gas and petrochemical industry, construction, industrial manufacturing applications, heating, ventilation, air conditioning and refrigeration (“HVAC-R”), utilities, mining and the military.

2022 Company Highlights



\$1.5B
NET SALES



5,000
EMPLOYEES



OPERATE IN
40+
COUNTRIES

2022 Impact Highlights



R&D INVESTMENT
4.3%*
OF NET SALES

* includes capitalized software development costs



~35%
OF SALES FROM
PRODUCTS DEVELOPED
AND LAUNCHED IN THE
PAST 5 YEARS



12 CONSECUTIVE
MONTHS WITH
0 LOST TIME INCIDENTS
ACHIEVED GLOBALLY



30%
BOARD DIVERSITY



36%
MSA EXECUTIVE
LEADERSHIP
DIVERSITY (US)



ANNOUNCED
42%
SCOPE 1 & SCOPE 2
EMISSIONS REDUCTION
GOAL BY 2030



2022 Awards

In 2022, our company was again recognized by **Newsweek** as one of *America's Most Responsible Companies*; by **Forbes** as one of *America's Best Employers for Diversity*; and regionally, by the **Pittsburgh Post-Gazette** as a *Top Workplace* in the large company category. This marks the ninth time MSA Safety has received the **Post-Gazette** recognition, and this time, we were given a special nod from our associates recognizing the "meaningfulness" of our work.





A Letter from Nish Vartanian, Chairman and CEO

Since 1914, our mission has been singular and unwavering: That men and women may work in safety and that they, their families, and their communities may live in health throughout the world. This mission inspires our purpose: Protecting the world's workers and workplaces.

These closely linked concepts of mission and purpose define why our company exists and how we strive to make a positive impact on society. They speak clearly to our employees, customers, investors and partners about our commitment to delivering advanced products and solutions that help protect people and make workplaces safer across the global safety ecosystem.

At MSA Safety, our mission is integrated deeply into our business strategy. This creates a powerful catalyst for driving business growth and societal impact—accelerating our momentum and generating greater benefits for our customers, employees, communities and shareholders.

You'll notice that this year's report looks and feels different. Formerly called our "Corporate Social Responsibility Report," the enclosed report has been reformulated as an "Impact Report." This is not a matter of marketing. Instead, it's intended to better reflect our long-standing approach to creating shared value for our many stakeholders.

The following pages provide insight into how we approach our work, how we maximize our impact, and how we lead as a safety innovator. We know that in dangerous environments and situations, our products ultimately protect what matters most—*people*. This is a responsibility that is central to everything we do.

We take pride in our mission-focused strategy, which has endured and evolved for over a century. And we are confident it will keep generating results for decades to come.

Thank you, and please stay safe!

A handwritten signature in black ink that reads "Nish Vartanian". The signature is fluid and cursive.

Nish Vartanian

Chairman and Chief Executive Officer

OUR APPROACH

Generating Sustainable Growth and Impact

At MSA Safety, our singular focus on safety—built into our strategy through our mission—is unique. It’s also a competitive advantage for our company.

By working with exclusive purpose, we acquire deep customer knowledge that improves our ability to solve current and emerging threats and fuels a cycle of continuous product innovation and safety advances across industries and geographies. This is why delivering sustainable growth and positive impact have long been key outcomes of our strategy.



Generating Sustainable Growth and Impact Enables MSA Safety to:

- Produce next generation products and solutions that help make workers and workplaces safer;
- Deliver consistent growth to fortify our market leadership and ensure we can reinvest into R&D to meet customer needs—those that exist today and those we anticipate for tomorrow;
- Expand digitally-based solutions to shared challenges across our global customer base, allowing us to shape a connected safety ecosystem where proactive, predictable prevention enhances risk management;
- Acquire the skills needed from diverse and evolving talent pools, retain people who share our commitment to purpose, and build a culture of performance, continuous improvement, inclusion and innovation; and
- Be responsible stewards of our environmental resources in the communities in which we live and work.

Leaning Into Our Strengths

Our corporate social responsibility (CSR) strategy leverages a set of strengths that are core to who we are—and applies them in pursuit of our mission.



Deep Customer Knowledge and Relationships

Over a century of dedication to safety has yielded long-standing customer relationships, a deep understanding of the specialized needs of people working in hazardous conditions and a strong grasp of shared safety challenges across diverse organizations and sectors. This growing, evolving base of knowledge and experience enables our teams to work collaboratively with people on the front lines to identify and solve emerging risks to workers and workplaces.



Human-Centered Design

One of the most important factors in keeping workers and workplaces safe is understanding the behaviors of the people who use our products and solutions. To enhance our in-depth knowledge and experience as an industry leader, we leverage data and analytics to generate insights that inform product design, help our teams build and test prototypes, and allow us to continually refine solutions for better product experience.



A Trusted Brand

We are grateful for the trust our employees, customers and shareholders have in our company and in the integrity of the solutions we create. We have earned and built this confidence over decades by focusing exclusively on the safety of workers and workplaces, by thoughtfully managing risk, and by caring for the communities where we live and work. It is one of our greatest assets and proudest accomplishments.



A Culture of Innovation

Our purpose and mission push us to continuously iterate and improve, creating a culture designed to lead in safety innovation, practices and standards. We develop best-in-class products and technologies that provide a comprehensive suite of solutions across the entire safety ecosystem.

GOVERNANCE AND INTEGRITY

The MSA Safety Board of Directors recognizes the importance of proper oversight of the Company’s Environmental, Social and Governance affairs and has continued to assess its corporate governance framework in the context of the evolving corporate social responsibility landscape.

The Board directly, and through its committees, maintains oversight of the Company’s CSR activities. The table (*at right*) illustrates the role of the Board, its committees, our Executive Leadership Team, and the Company’s managers respectively in overseeing, leading and executing our CSR strategy.

By way of example, in 2022 the Compensation Committee of the Board approved a CSR scorecard that connected executive leadership compensation to CSR performance. CSR scorecard goals included a series of objective environmental, social and program governance elements intended to drive MSA Safety’s continued enhancement of CSR activities. Specifically, named officers receive a five percent modifier (*plus or minus*) to their annual cash incentive based on the results of the scorecard.

Board of Directors		
<ul style="list-style-type: none"> • CSR Program Oversight • Workplace Health and Safety • Crisis Management 	<ul style="list-style-type: none"> • Customer Experience/ Satisfaction • Human Capital Management 	<ul style="list-style-type: none"> • Employee Engagement and Culture • Diversity and Inclusion
Nominating and Corporate Governance Committee	Audit Committee	Compensation Committee
<ul style="list-style-type: none"> • Corporate Governance • CSR Program Oversight • Climate Change/Sustainability • Proxy/Peer CSR Performance 	<ul style="list-style-type: none"> • Enterprise Risk Management • Ethics and Compliance • Cybersecurity • Data Governance for Non-financial CSR Metrics 	<ul style="list-style-type: none"> • CSR-related Compensation Elements • Pay Equity

Executive Leadership Team

Executive Sponsor: President, MSA Americas

Corporate Social Responsibility Program Manager

Global Cross-Functional Teams

Risk Management

Risk management is a core element of our company’s governance structure. We continue to enhance our risk oversight and business continuity programs that address traditional and non-traditional risks. This includes crisis and enterprise risk management, cybersecurity, information management and data governance strategies, and global business ethics and legal compliance programs.

Key Risk Management Programs

Enterprise Risk Management

The Enterprise Risk Management program drives systematic decision-making within MSA Safety by enabling the identification and management of critical enterprise risks.

Crisis Management and Business Continuity

The Crisis Management Program enables MSA Safety to promptly identify and respond to crises to protect the health and safety of our employees, customers, facilities and other stakeholders. MSA Safety also utilizes the program to ensure business continuity, including supply chain resiliency.

Cybersecurity

The Company deploys formal systems, programs and technologies to mitigate ongoing cybersecurity risks.



Business Ethics

Our commitment to ethical behavior is built upon our longstanding Global Code of Business Conduct (*the “Code”*), which applies to all MSA Safety employees. The Code, available in 12 languages, sets forth the company’s expectations for ethical conduct, compliance with laws and how we respond in complex situations. All employees complete periodic, mandatory training on our Code, with salaried employees trained more frequently and on additional legal compliance topics. MSA Safety also maintains robust policies and procedures on compliance topics such as anti-bribery and anticorruption, international trade compliance, competition law, privacy, and other topics. Additional information about our global business ethics program can be found [here](#).



Supplier Responsibility

We also hold our suppliers to high ethical standards through our Supplier Code of Conduct and routine audits. These expectations, which include specific CSR topics, are outlined in our [Supplier Handbook](#).

MSA Safety's Supplier Responsibility

Initial Supplier Assessment

MSA Safety evaluates suppliers prior to selection. Prospective suppliers are required to provide basic information on:

- Financial Health
- Business Structure
- Capabilities
- Quality Control
- Cybersecurity

The information is evaluated to determine if MSA Safety should work with these suppliers for our desired outcomes.

Agree to MSA Safety's Supplier Code of Conduct

Our Supplier Code of Conduct outlines expectations for suppliers to MSA Safety:

Topics included:

- Ethics
- Safety
- Human Rights
- Labor Laws
- Environmental Practices
- Confidential Information

Participate in MSA Safety's Supplier Audits

MSA Safety's Supplier Development Team works with our suppliers to ensure compliance through routine communication and audits.

This team helps suppliers improve processes, policies and procedures based on the outcome of the audit.

Ongoing Risk Management & Continuous Improvement

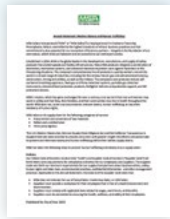
All MSA Safety suppliers receive our supplier handbook which outlines our minimum expectations for quality management systems as a requirement of doing business with MSA Safety.

These expectations are reviewed during business reviews held throughout the year with suppliers to ensure alignment.

Human Rights

MSA Safety is committed to respecting and upholding human rights.

Our longstanding Global Human Rights Policy outlines that commitment. It complements other foundational policies and positions, including:



Modern Slavery and Human Trafficking Statement



Global Code of Business Conduct



Supplier Code of Conduct

Collectively, these outline our fundamental expectation that all MSA stakeholders will respect and uphold human rights as a condition to doing business with MSA.

Values

All MSA Safety employees play a role in advancing our environmental and social goals. We do this by actively living our values.

These values help shape our company-wide approach to CSR and drive progress within our CSR pillars highlighted in the sections below. These are the lenses through which we direct our actions and measure our progress.



New Annual MSA Safety One Mission. One Passion. One Purpose. Award

Everyday MSA Safety employees, from all over the globe, go to extraordinary lengths to live our core values. That's why this year we are excited to announce the establishment of a new annual award at MSA – The One Mission. One Passion. One Purpose Award. Created to recognize an individual, team or network of MSA Safety employees, the award shines a spotlight on those who live the MSA Safety Mission by embodying one or more of our Core Values in an exceptional, consistent and impactful way.



Kim Karr

Associate General Counsel – Corporate and Transactions

2022 MSA - One Mission. One Passion.
One Purpose. Award Recipient



OUR IMPACT PILLARS AND PROGRESS

Throughout our history, MSA Safety has upheld an unwavering commitment to acting responsibly, operating with integrity, and leading with purpose. This commitment shapes our daily work through the three impact pillars of our CSR efforts:



Products & Solutions



People



Planet

MSA Safety is on a continuous journey to modernize our approach and measure our positive impact on society under each of these pillars. Decades of investment in our research and development, people and operational efficiency have formed our CSR framework through which we aim to have impact as *THE* Safety Company.



PRODUCTS & SOLUTIONS

Creating Impact Through Innovation

The products and solutions we develop to protect the world's workers and workplaces are the centerpiece of our approach to creating impact. We rely on strong relationships with our customers, engaging with them at each step of the product development process to ensure we're solving the right challenges and developing the best solutions.

MSA Safety is at the forefront of safety technology transformation. We are a global leader in inventing, innovating, and creating comprehensive "safety solutions" powered by leading technologies. Our solutions use technology to connect and detect for safety and sustainability, helping to make work safer, easier and more productive. Customers respond positively to our new product innovation, with approximately 35 percent of 2022 sales generated by products and solutions developed or launched within the past five years.

Designing Inclusive Safety Gear

Historically, protective gear for the world's workers has been designed to fit a narrow set of shapes and sizes without considering the full spectrum of differences around the world. To protect the world's diverse workers, we designed options in our industrial and fire gear to fit snugly on most people. Our V-Gard® Caps, G1™ Self-Contained Breathing Apparatus (SCBA) facepieces and Globe Turnout Gear are available in multiple sizes. This advances our purpose and our mission by expanding the availability of our equipment, while creating broader opportunities in the markets and geographies we serve worldwide.



Building a Connected Safety Ecosystem for London Fire Brigade

Our relationship with the London Fire Brigade (*LFB*) started with a fire helmet and grew into a collaborative partnership. A longtime customer of our Gallet F1XF fire helmet, LFB decided in 2017 to transform its safety approach and explore cutting-edge equipment—and knew MSA Safety was the right company for the job. Together, we determined that a real-time data capturing and processing system that tracks firefighting equipment would significantly improve coordination among firefighters during emergencies, a significant safety enhancement. Through a series of simulated rescue exercises, we developed a product that connects LFB's firefighters in ways that had not been possible before.

Identifying this unmet need and developing a new-to-market solution has also deepened MSA Safety's relationship with LFB. In 2022, LFB awarded MSA Safety a \$9 million contract to supply our new M1™ Self-Contained Breathing Apparatus (SCBA) and telemetry technology that helps firefighters stay connected during emergencies.

This new contract is the next phase of our growing relationship with LFB. Deploying our MSA FireGrid™ Asset Management System, we also enabled real-time data that LFB can now use to make quicker decisions. As one example, the system enhanced LFB's product maintenance. Instead of replacing equipment on a regular schedule, LFB service personnel now only replace the parts that need it, based on real-time equipment status.



Investing in the Next Generation of Safety Solutions

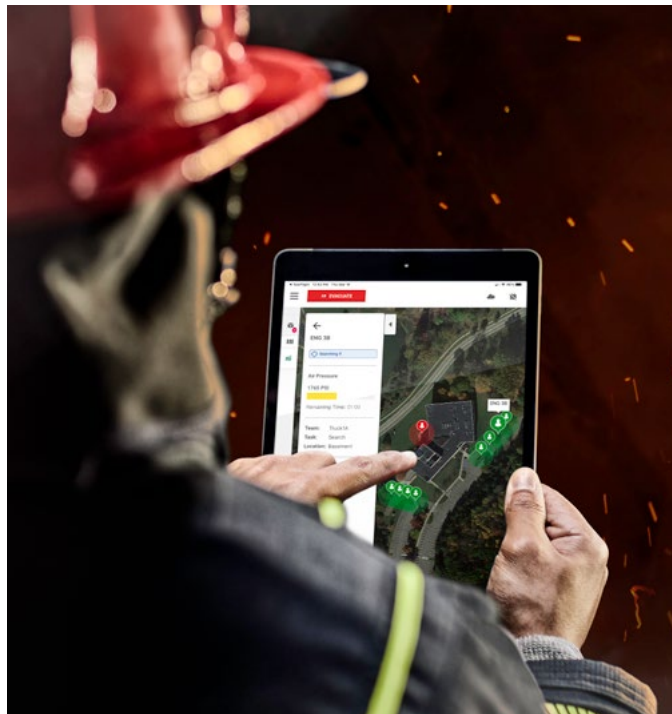
To stay on the leading edge, MSA Safety invests in R&D to develop the next generation of safety solutions. We increase our investment each year to provide the resources to create best-in-class products and solutions that help protect workers and workplaces in new ways.

In 2022, we completed a substantial R&D transformation to better equip us to promote innovation and seize new market opportunities. The transformation better aligns the skills of our software R&D positions, which account for approximately 40% of our R&D organization, to drive our technology strategy and support the development and deployment of connected solutions.

This has generated significant product advancements and new market opportunities, including:

Technology-Enhanced Tools

Our MSA+ solutions include cloud-based software that helps customers minimize interruptions and improve safety outcomes. By connecting MSA Safety equipment to software, customers improve compliance and accountability while reducing unpredictable costs. One example is the MSA FireGrid software platform, a suite of management tools for fire departments. Incident commanders can monitor live fire scenes locally and remotely, with post scene data automatically stored and aggregated for easier creation of reports and data analytics—to learn as much as possible from every incident.



MSA Safety GREENCHANGER Award

The MSA Safety GREENCHANGER CSR-focused reward and recognition program is designed for employees working in new product development and product strategy roles. The award showcases high performers who are generating results that advance MSA Safety's CSR goals.



Inaugural GREENCHANGER Award Recipients



Innovating and Evolving Our Existing Product Lines

Living our mission means we continuously work to innovate and enhance our products. As part of our continuous improvement culture, we make incremental but meaningful adjustments to existing products to better protect the world's workers and workplaces. Examples from 2022 include:



Addressing a Rising Safety Challenge

With heat stress becoming an increasingly important safety issue, we introduced the V-Gard® C1™ Hard Hat with patent-pending ReflectIR™ Thermal Barrier technology. When worn in hot, sunny environments, this technology can reduce temperatures inside the hard hat by as much as 20 degrees Fahrenheit, or 11 degrees Celsius, compared to those without this technology.



Reintroducing Our Sustainable Hard Hat

The V-Gard GREEN Hard Hat was the world's first protective helmet made of renewable resources when it debuted in 2013. Now, we've updated the product material with a new sugarcane-based high-density polyethylene. On average, the production of each V-Gard GREEN Hard Hat removes approximately 2 pounds of CO₂ from the atmosphere.



Creating a Better Lifeline

The new MSA Cable Temporary Horizontal Lifeline simplifies compliance without sacrificing safety. This fall protection solution features a completely tool-less system with 75% faster installation than traditional lifeline systems—making it easier and more convenient for customers to establish and install the system. It uses a patented bypass shuttle that allows two users to maintain 100% tie-off, improving mobility while protecting safety in construction workplaces.

Integrating Sustainability into Product Development

In recent years, we have worked to integrate sustainability into New Product Development (NPD) to promote a more systematic focus on the environmental impact of our new products. In 2022, a core team of passionate employees was established to implement processes and procedures for the capture of specific sustainability review gates for all NPD projects. In response, the team researched and benchmarked other industry practices, developed a guidebook and reporting tools, and trained colleagues to support our strategy and ensure our NPD process is equipped to meet these new expectations.*

For example, MSA Safety Brazil identified an opportunity to reuse scrap HDPE generated from V-Gard regrind to replace the use of new HDPE in the manufacture of hearing protection. Using reground HDPE creates a productive use for this material and reduces consumption of new raw materials.

We also offer products that help customers meet their climate goals. For example, the MSA Bacharach MGS-401 Entrance Monitor improves safety compliance in refrigeration applications, such as industrial cold storage and chiller rooms. By quickly detecting refrigerant leaks, this monitor reduces greenhouse gas emissions in customer facilities. To ensure safety in even the most extreme cases, our products feature a backup system with over 24 hours of battery life in case of a total power failure.

*Beginning in 2023, all NPD projects must pass through our sustainability gates.

Sharing Knowledge, Elevating Standards and Advocating for Improvements

Around the world, many MSA Safety employees participate on standards development committees. These groups set industry-wide safety standards, ensuring these standards evolve with the latest advancements to maximize positive safety outcomes.

Expanding on this commitment, MSA Safety also offers robust training programs around the world. Our MSA-University digital training platform and in-person options offer more than 500 courses in 20 different languages across multiple product lines. In 2022, we trained more than 38,000 participants globally.

We are always eager and grateful for the chance to share our in-depth knowledge of best practices with industry stakeholders to help better protect the world's workers and workforces.





PEOPLE

Building a culture that fosters innovation means creating a workplace where all employees know that their work is valued, and they can achieve their full potential. This requires not just recognizing diversity in thought, perspective and experiences, but actively embracing and championing this diversity as we work to meet the diverse needs of workers worldwide.

To develop the best products, we need the best people. We aim to create a robust, diverse talent pipeline to ensure we have the right people with the right skills to solve today's safety challenges and anticipate those of tomorrow.



Starting With Safety

As a company that helps set the global benchmark for workplace safety, MSA Safety is committed to the safety and health of our employees, contractors, and visitors to our sites. In fact, we live it every single day.

Our Behavior-Based Safety (BBS) approach is intended to improve company-wide safety by instilling best practice methods across our workforce. Unsafe practices or conditions are identified and reported by employees, who are encouraged to be vigilant in monitoring the safety of themselves and their colleagues.

MSA Key Enabling Pillars to Reduce and Eliminate Injuries



Culture

We take care of our people and promote engagement in health and safety from all levels and all functions



Communication and Information

We compile data to improve speed of resolutions and decision making



EHS Management System

We achieve excellence in workplace safety programs by utilizing MSA Safety's operating system.



Risk Management

We educate on risk potential and take deliberate actions to reduce health and safety risk

12

**CONSECUTIVE MONTHS
WITHOUT AN LTI
ACHIEVED IN 2022;
NEARLY 9M HOURS
WORKED WITHOUT
AN LTI**

Psychological Safety: Creating an Environment to Support Overall Wellbeing

Psychological safety at work is the belief that the workplace is safe for speaking up with ideas, questions and mistakes, and a sense of confidence that your voice is valued. Our commitment to psychological safety is fundamental to our innovative culture where employees have the mental wellbeing and encouragement to share new ideas and to test new theories.

To foster this inclusive environment, MSA Safety deployed a psychological safety training for all employees, worldwide in 2022. In addition, MSA Safety used results from its biennial employee engagement survey to develop a baseline Psychological Safety Index. Moving forward, the results from this metric will be used to influence further psychological safety programming and will be used to measure MSA Safety results in this area.

Year	Fatalities	Total Recordable Incident Rate (TRIR)	Lost Time Incident (LTI)	Days Away or Transferred (DART)	Near Hits* Submitted
2021	0	0.6	0.3	0.5	8,000
2022	0	0.3	0.02	0.2	7,800

* MSA defines a Near Hit as a situation or unplanned event that has the potential to cause, but does not actually result in human injury, environmental or equipment damage, or an interruption to normal operation.





Building Trust, Inspiring Performance

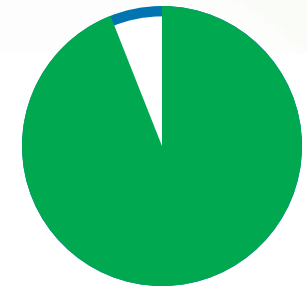
Employee engagement is critical to the success of our business and sustainability strategies. We periodically survey our employees to understand what we're doing well and where we can improve. Our global engagement survey results set us ahead of our competitors and allow us to take specific actions to further strengthen our position as an employer of choice.

This year's results showed an increase in our employees' connection to our purpose, with 85% of surveyed employees reporting they see a clear link between their work and MSA Safety's objectives. Even more (92%) understand how to incorporate our Mission into the work they do every day.

MSA Safety continues to leverage our MOVE Performance Management program to build trust and inspire performance. Meaningful, Ongoing, Vital Exchanges (*MOVE*) between employees and supervisors create a flexible feedback cycle that increases engagement, generates greater collaboration and improves efficiency in the workplace.

Our most recent engagement survey showed that employees who have regular monthly MOVE check-ins with their manager are more engaged and positive compared to their peers.

Engaged employees enjoy higher levels of job satisfaction and increased productivity which leads to higher retention levels. MSA Safety's voluntary retention rate in 2022 was 91%.



92%

**OF EMPLOYEES REPORT
THEY UNDERSTAND HOW
TO INCORPORATE MSA
SAFETY'S MISSION INTO
THEIR WORK**

MSA Safety's Business System

We deploy our greatest asset, our people, through a common way to work throughout the organization.

The MSA Business System is our company's approach to working at our best—at our most efficient and most empowered. It is a combination of behaviors, processes and tools that provide a framework to drive continuous improvement and create intentional problem-solving practices that are consistent across the organization.



The Way We Work

Behaviors



the way we act and react to change and challenges

Processes



how we work with others and apply tools

Tools



ways to identify and eliminate wastes, standardize work and problem solving

Which Leads to...

Results

the measures we use to indicate performance

Creating a Continuous Improvement Culture Through Mindful Behaviors

Creating a continuous improvement culture requires a focus on behaviors—specifically, this means identifying and changing unproductive behaviors while cultivating productive ones. At MSA Safety, we look for opportunities to incorporate the following behaviors into our daily work.



Engage

Every individual is empowered and accountable to challenge the status quo, create ideas and engage in improvement.



Embrace

Improvement opportunities are actively embraced and owned.



Learn

Treat problem solving as a learning activity.



Collaborate

Collaborate across organizational boundaries and levels to drive improvement.



Achieve

Prioritize deliberately and execute with urgency to achieve results.



Think

Leverage critical thinking and organizational knowledge for effective and rapid decision making.

Fostering Belonging

Building and enabling a diverse workforce enables MSA Safety to drive innovation and industry leadership. Our approach to diversity, equity and inclusion (DE&I) is rooted in our commitment to attracting the best talent and creating an environment that empowers our people to thrive.

Diversity in thought, perspectives, experiences, and ideas is more important than ever to be the global leaders in safety technology and innovation. MSA Safety welcomes a wide variety of people, thoughts, ideas, and experiences. We embrace and encourage the presence of each employee's authentic self. This diverse and inclusive mindset fosters creativity, strong performance, and a culture where people have a sense of belonging to a mission that is greater than themselves. A diverse and inclusive workplace is the foundation to our continued success as well as that of our customers and communities.

Year	Diverse Hires	Diverse Workforce	Women in the Workforce	Diverse Executives
2021	41%	54%	42%	36%
2022	55%	53%	41%	36%

Data includes the U.S. workforce only. We determine diversity based on our employees' self-identification or other information compiled to meet the requirements of the U.S. Government, compiled as of December 31, 2022. The U.S. Government defines individuals as diverse if they belong to one or more of the following groups: female gender, racial or ethnic minority, protected veteran class, or persons with a disability. Employees in multiple groups are only counted once. All metrics we report, with the exception of the new hire diversity rate, are based on a 12-month rolling average. The new hire diversity rate is based on the annual average.



DIVERSITY PIPELINE

Support a suite of programs at all levels of the external diversity pipeline with the long-term objective of growing the pipeline to enhance MSA's and the region's diversity talent pool (i.e. high school through post-graduate opportunities).

EMPLOYER OF CHOICE

Become a diversity employer of choice through strategic community outreach, support, engagement, and advancement.

DIVERSITY REPRESENTATION

Acquire diverse talent through targeted actions from broad talent pools.

RETENTION AND DEVELOPMENT

Retain and develop diverse talent through a culture of inclusion where all individuals feel psychologically safe and motivated to bring their authentic selves to work.

EVOLUTION PROGRAM

Drive ownership, awareness, and enthusiasm of diversity, equity and inclusion at all levels of the organization through transparent communication and leadership modeling of a diversity, equity and inclusion mindset.

Employee Resource Business Groups

We recognize that advancing the capabilities of our people requires us to create an environment where all employees can grow, perform, and create impact. Our Employee Resource Business Groups (ERBGs) empower, support, and create community for various MSA Safety employee populations. They are voluntary, employee-driven communities that capitalize on the wide array of people and perspectives at MSA Safety.

In 2022, we added two new ERBGs—Umbrella and Salute—to create networking and affinity spaces for our LGBTQ+ and veteran employees, respectively. By the end of 2022, we benefitted from six different ERBGs, with representation in all four MSA Safety geographic regions, including 18 different locations throughout 12 different countries.



WMSA (Women of MSA)

Welcoming an assortment of people, perspectives, and ideas, WMSA's mission is to empower, support, and promote the personal and professional growth of women within MSA Safety and the community.



#MSAYP (MSA Young Professionals)

#MSAYP strives to make MSA Safety an even better place to work for all generations. Its primary areas of focus are professional development, work environment, community outreach, and networking.



NHX (New Hire Experience)

This group's mission is to create an innovative and collaborative new hire experience to quickly provide new hires with necessary information, increase their exposure to MSA Safety employees, enable peer-to-peer learning, build a more inclusive environment, and aid in new hire engagement and retention.



#IDEAS (Inclusion, Diversity, Equality, Awareness, and Service)

#IDEAS embodies the MSA Safety value of Diversity and Inclusion to help drive innovation.



MSA Salute

United by a passion for safety—for country, while at work, and always—MSA Salute seeks to provide a forum for the support, growth, engagement and celebration of MSA's veteran employees, veteran advocates and their families.



Umbrella

Umbrella seeks to raise awareness and advocate for LGBTQ+ community to ensure an inclusive environment for all MSA employees regardless of their sexual orientation, gender identity or expression.

Building a World-Class Team

Our people are our key to delivering on our growth, innovation and sustainability goals. We seek to support our employees through their career life cycle offering competitive benefits and drawing from broad talent pools.

Our recruitment efforts are focused in the communities in which we live and work as we seek our next generation of talent. In the Pittsburgh area, we are participating in the PNC PartnerUp Program that matches local senior high school students with local businesses. This exploratory process gives graduating seniors flexibility to complete an internship in a specific function or immediately begin full time employment. This unique program enables both the candidates and the company to match skill sets for the best outcome, and in some situations, MSA Safety will reimburse tuition for these future employees.

For our existing high performing employees, providing best-in-class learning and development opportunities is necessary for both individual work satisfaction and for organizational performance and success. Continuous learning enables more effective execution of our growth strategy and positions us to adapt quickly to changes in our business environment. Recognizing this, we recently launched our Next Generation Business Leader Program— a new employee development program designed to prepare the future leaders of MSA Safety. The program will help prepare our future leaders to manage in a business world that is rapidly changing.



NEXT GEN
BUSINESS LEADER

Supporting the Communities Where We Live and Work

Supporting the health and safety of our communities goes beyond our products and customers. For decades, MSA Safety has empowered employees to be leaders in their communities.

Giving Back Through Philanthropy (#MSAGives) and Volunteering (#GetInvolved)

In 2022, #MSAGives donated \$1.2 million to organizations in the communities where our employees live and work, and our team members donated countless hours helping to support these and many other organizations.

A few of the organizations we supported include:

The **Woodlands Foundation**, an organization located a few miles from MSA Safety's corporate headquarters where children and adults with disability and chronic illness find the freedom and empowerment to experience programs that enrich lives by opening new doors to safe, inclusive, and engaging participant opportunities.

The **Best of the Batch Foundation**, an inner-city, Pittsburgh-based organization offering programs to over 3,800 school-age children and their families. In 2022, MSA raised funds to support 'Batch-a-Toys'—a holiday program serving 250 families.

Inspired Hearts and Hands (IH2), a community-wide coalition collectively focused on addressing economic hardship and food insecurity through food box distributions, community events, holiday angel trees, educational enrichment programs, and student appreciation activities. 2022 marked the third year MSA "adopted" a local elementary school for the holiday season.

Through voluntary monetary donations, MSA associates fulfilled more than 150 "Angel Tree tag" requests from the children in a neighboring school district.

In addition to the above, MSA employees volunteered additional hours supporting organizations from **Pink Firefighters for Breast Cancer Awareness** in the UK to **Dress for Success** and **Family House** in the U.S. Because of efforts like these, MSA was the recipient Family House's *Arleen Lhormer Volunteer Recognition Award* which is given to those who have demonstrated exceptional service to the mission of Family House which is a nonprofit charity that works to provide a "home away from home" to reduce the emotional and financial stress for patients and their families who have come to Pittsburgh seeking medical treatment by offering convenient, affordable housing in a home-like environment. MSA has supported Family House for many years with associates regularly volunteering for cooking and serving group dinners and holiday baking.

#MSAGives
\$1.2M

MSA Safety's Signature Project—Fire Aid

We are proud to partner with the international charity FIRE AID to equip the world's firefighters to protect themselves and their neighborhoods during times of crisis.

When volunteer firefighters in the Ghana National Fire Service lacked the equipment needed to safely respond to emergencies, MSA Safety brought new technology to the front lines. We donated our innovative M1 SCBA product, one of the most advanced breathing apparatuses on the market, as part of over 800 sets of PPE to various fire and rescue services in Ghana.





PLANET

All of us at MSA Safety are committed to being good stewards of our environment and natural resources. We focus our efforts on the dual goals of reducing waste and improving efficiency in areas such as energy and water to protect our environment. To track our progress, we have set ambitious emission reduction targets.

Last year, MSA Safety convened our 2nd annual Sustainability Summit. Topics included zero waste methodologies, incorporation of sustainability into new product development, and the fundamentals of current climate science.



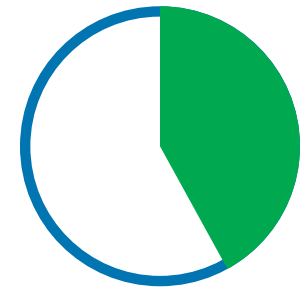
Reducing Carbon Emissions by Improving Efficiency

In 2022, MSA Safety established impactful long-term greenhouse gas emissions reduction targets. We committed to reducing market based Scope 1 and 2 greenhouse gas emissions 42% by 2030 against a 2021 baseline, which we are on track to achieve. Our path to achieving this goal relies on increasing energy efficiency and the use of renewable energy.

Category	Measurement	2021*	2022
Global CO ₂ e Emissions Location Based	Mt CO ₂ e	19,652	19,936
Global CO ₂ e Emissions Market Based	Mt CO ₂ e	19,054	17,145
Global Scope 1 Emissions Location Based	Mt CO ₂ e	4,591	4,585
Global Scope 1 Emissions Market Based	Mt CO ₂ e	4,591	4,585
Global Scope 2 Emissions Location Based	Mt CO ₂ e	15,061	15,351
Global Scope 2 Emissions Market Based	Mt CO ₂ e	14,463	12,560

* 2021 data was restated to reflect the Bacharach acquisition completed on July 1, 2021 and expanded to include our Morocco location. We diligently review our data collection processes for improvements. This data was updated from last year as part of this review.

**WE ARE COMMITTED TO
REDUCING SCOPE 1 AND 2
GREENHOUSE GAS
EMISSIONS BY**



42%
BY 2030

Growing Renewable Energy Use

Last year, MSA Safety increased renewable energy consumption by 251%, consuming 9,478 megawatt hours from onsite and purchased renewable electricity. During 2022, 24% of MSA Safety’s global electricity consumption came from renewable sources.

In June 2022, MSA Safety’s Suzhou China facility completed a 7,000 square meter, 540-watt rooftop solar panel system capable of generating 1 million kilowatt hours per year—approximately 35% of the facility’s annual electricity consumption. Between July and December, the renewable energy generated by the solar panel system resulted in the reduction of 273 metric tons of CO₂ equivalents.

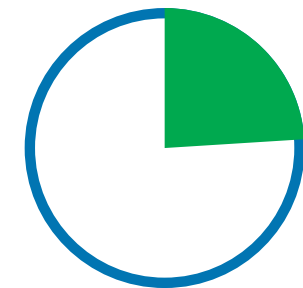
In addition to installing onsite renewable electricity sources, MSA Safety has also increased the consumption of renewable electricity through purchase agreements and renewable energy credits. Contracts and Renewable Energy Credits for 100% renewable electricity were put in place for MSA Safety Devizes (*United Kingdom*), Galway (*Ireland*), Berlin (*Germany*), Chatillon (*France*), Ada (*OK, USA*), Murrysville (*PA, USA*), and Cranberry Township (*PA, USA*). Contracts and renewable energy credits accounted for the consumption of 9,035 megawatt hours of renewable electricity in 2022.



Solar panels installed on the MSA Suzhou China facility.

	Year	Measurement	2021*	2022
Total Global Energy		MWh	66,950	65,351
Global Electric/Steam Consumption		MWh	41,863	40,371
Global Renewable Electric Consumption		MWh	2,701	9,478
Global Fuel Consumption		MWh	25,087	24,980

* 2021 data was restated to reflect the Bacharach acquisition completed on July 1, 2021 and expanded to include our Morocco location. We diligently review our data collection processes for improvements. This data was updated from last year as part of this review.



24%

**MSA SAFETY GLOBAL
ENERGY CONSUMPTION
FROM RENEWABLE
SOURCES IN 2022**

Enhancing Energy Efficiency

MSA Safety’s global teams continue to pursue opportunities to make our operations more energy efficient—reducing costs, cutting total consumption, and lowering our carbon footprint. Our Energy Hunt program encourages teams to find and implement energy-saving opportunities. Highlights from 2022 include:

Reducing Energy Consumption

The MSA Jacksonville sustainability team identified an opportunity to reduce energy consumption related to the foaming process utilized in fire helmet manufacturing. The foaming process relies on constant air pressure, requiring the compressed air systems to run around the clock, even when there is no additional demand. To improve efficiency, Jacksonville installed a 5-horsepower, 80-gallon, stand-alone air compressor dedicated to the foaming processes, allowing large facility compressors to be shut down during off hours. This improvement reduced the use of the compressed air system by 45%, which is expected to reduce consumption by 150,000 kilowatt hours annually.



Reducing Fossil Fuel Use

MSA Safety’s Chatillion facility took steps in 2022 to lower emissions in our operations by installing two electric-only injection molding presses for V-Gard Hard Hat manufacturing, replacing fossil-fuel-powered presses. The replacement project will eliminate 100% of the fossil fuel consumed by each press, while also reducing overall energy consumption by the equipment.



left: MSA Jacksonville facility air compressors.
right: MSA Chatillion facility electric-only injection molding press

Climate Risk Assessment and Strategy

MSA Safety recognizes that global climate change has the potential to impact our global operations, assets, products, services, employees and supply chain in the coming decades and beyond.

In addition, as a key component to our socially responsible mindset, MSA Safety recognizes that our operations, assets, products, services, employees and supply chain can also have an impact on the environment and global climate change. With this in mind, MSA Safety is considering the short and long term risk to our operations and what can be done to limit MSA Safety's overall impact on the environment and global climate. In order to identify the risks and opportunities associated with global climate change, MSA Safety has conducted a climate risk assessment of key portions of the organization.

The assessed portions of the organization include major manufacturing locations and key business segments such as sourcing, transportation, new product development and marketing. The assessment was modeled against TCFD recommendations for climate risk assessment and included analysis of physical (*acute and chronic*) and transitional (*policy and regulation, market, reputation, and technology*) climate risk. Based on the conducted assessments, a recommended Climate Risk Management Strategy has been developed and is under review to formulate key mitigation and impact reduction strategies. These strategies target areas, such as water stress, temperature rise, flood risk, business interruption, and market opportunities.

Reducing Packaging and Operational Waste

We continue to improve packaging to minimize printed materials and lower overall weight to reduce transportation costs and related emissions.

In 2022, we continued development of Quick Start digital guides that have replaced large, printed product manuals across all product lines. The new digital ALTAIR 4XR Quick Start guide was implemented in 2022, eliminating 1.7 tons per annum of CDs that had been shipped with the product. In our Devizes facility, our plastic packaging now includes a minimum of 30% recycled content, and plastic packing tape has been replaced with recyclable paper tape.

MSA Safety Brazil identified several opportunities to reduce cardboard consumption and waste at its Sao Paulo facility. The team worked to resize packaging cardboard waste, reduce the use of new cardboard, and remove unnecessary steps in the packaging process. Working with a supplier, these changes were implemented, and eliminated the need for 24,600 cardboard trays per year.

Globally MSA Safety has set a target to reduce waste to landfill by 3% over the previous year. To help achieve this goal, we have embraced the 6S process of waste management to facilitate change—Sort, Set in Order, Shine, Standardize, Sustain, and Safety—along with the 4Rs of waste management—Refuse, Reduce, Reuse, and Recycle. Facilities that fully utilize these processes have significantly reduced year-over-year waste to landfill. In fact, MSA Safety exceeded our target by reducing waste to landfill by 6.8% globally through improved management practices and global internal requirements that go beyond regulatory standards.

MSA Safety's 2022 Waste Profile



2022 Highlights

MSA Jacksonville reduced waste to landfill by 133 metric tons, a reduction of 51% over the previous year.

Galway, Ireland decreased waste to landfill by 18% and increased recycling by 1,275% amid a 60% increase in production time.



51%

REDUCTION IN WASTE TO LANDFILL



18%

REDUCTION IN WASTE TO LANDFILL

APPENDIX

Category	Measurement	2021*	2022
WATER			
Global Water Consumption	M ³	69,868	67,605
WASTE			
Global Waste to Landfill	mt	1,358	1,266
Total Non-Hazardous Waste	mt	1,212	1,110
Total Hazardous Waste	mt	146	156
Total Recycled / Reclaimed	mt	1,216	1,363
ENERGY			
Total Global Energy	MWh	66,950	65,351
Global Electric/Steam Consumption	MWh	41,863	40,371
Global Renewable Electric Consumption	MWh	2,701	9,478
Global Fuel Consumption	MWh	25,087	24,980
GHG EMISSIONS			
Global CO ₂ e Emissions Location Based	Mt CO ₂ e	19,652	19,936
Global CO ₂ e Emissions Market Based	Mt CO ₂ e	19,054	17,145
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Global Scope 2 Emissions Market Based	Mt CO ₂ e	14,463	12,560

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Category	2021	2022
PEOPLE**		
Diverse Hires	41%	55%
Diverse Workforce	54%	53%
Women in the Workforce	42%	41%
Diverse Executives	36%	36%
Board Diversity	30%	30%
Global Voluntary Retention	92%	91%
HEALTH AND SAFETY PERFORMANCE		
Fatalities	0	0
Total Recordable Incident Rate (TRIR)	0.6	0.3
Lost Time Injury (LTI)	0.3	0.02
Days Away or Transferred (DART)	0.5	0.2
Near Hits Submitted	8,000	7,800

** Data includes the U.S. workforce only. We determine diversity based on our employees' self-identification or other information compiled to meet the requirements of the U.S. Government, compiled as of December 31, 2022. The U.S. Government defines individuals as diverse if they belong to one or more of the following groups: female gender, racial or ethnic minority, protected veteran class, or persons with a disability. Employees in multiple groups are only counted once. All metrics we report, with the exception of the new hire diversity rate, are based on a 12-month rolling average. The new hire diversity rate is based on the annual average.

Sustainability Accounting Boards Index

SASB Disclosure Topic	SASB Metric	SASB Code Reference	MSA Data
Energy Management	<ol style="list-style-type: none"> 1. Total energy consumed 2. Percentage grid electricity 3. Percentage renewable 	RT-IG-130a.1	<p><u>Planet</u></p> <p>MSA is evaluating its percentage grid electricity data and percentage renewable for possible future disclosure.</p>
Employee Health and Safety	<ol style="list-style-type: none"> 1. Total recordable incident rate (<i>TRIR</i>) 2. Fatality rate 3. Near miss frequency rate (<i>NMFR</i>) 	RT-IG-320a.1	<p><u>People</u></p> <p>MSA's Near Miss Frequency Rate (<i>NMFR</i>) for 2022 was 153.</p>
Fuel Economy and Emissions in Use-Phase	<ul style="list-style-type: none"> • Sales-weighted fleet fuel efficiency for medium- and heavy-duty vehicles. • Sales-weighted fuel efficiency for non-road equipment. • Sales-weighted fuel efficiency for stationary generators. • Sales-weighted emissions of: <ol style="list-style-type: none"> 1. nitrogen oxides (<i>NOx</i>) and 2. particulate matter (<i>PM</i>) for: <ol style="list-style-type: none"> a. marine diesel engines, b. locomotive diesel engines, c. on-road medium- and heavy-duty engines, and d. other nonroad diesel engines. 	RT-IG-410a.1 RT-IG-410a.2 RT-IG-410a.3 RT-IG-410a.4	<p>N/A. This SASB metric relates to products sold.</p> <p>MSA does not sell products with these characteristics.</p>
Materials Sourcing	Description of the management of risks associated with the use of critical materials	RT-IG-440a.1	<p><u>Conflict Minerals</u></p> <p>MSA is committed to the responsible sourcing of tin, tantalum, tungsten, and gold (<i>3TG</i>), known as 'conflict minerals.' Our Conflict Minerals Policy and Supplier Code set clear expectations for our suppliers to responsibly source these materials. Every year, MSA conducts a 'reasonable country of inquiry' (<i>RCOI</i>) to determine whether any <i>3TGs</i> used in our products originated in covered countries. We also conduct a supply chain survey with our direct suppliers using the Responsible Business Alliance® (<i>RBA</i>) and the Global e-Sustainability Initiative ("GeSI") Conflict Minerals Reporting Template ("<i>CMRT</i>").</p>
Remanufacturing Design and Services	Revenue from remanufactured products and remanufacturing services	RT-IG-440b.1	MSA is evaluating and reviewing this topic as part of its ongoing CSR efforts.

Task Force on Climate-Related Financial Disclosures

Pillar Disclosure

Governance [Governance and Integrity](#)

Strategy MSA endeavors to create climate-resilient, sustainable operations, minimizing overall environmental risk and impact while maximizing operational excellence. The MSA [climate risk strategy](#) will, among other things, undertake to identify and address possible disruptions to systems and assets caused by climate change as well as identify sustainability improvements in our products and operations.

Risk Management MSA will evaluate climate risk at an operations level through regional and facility specific [assessments](#) conducted on a routine basis. In addition, MSA has incorporated current and emerging regulation, technology, legal, market, reputation, acute and chronic physical risk types into the climate risk management system assessment program extending to the Organizational level. Future strategy will be developed through routine assessment, and the identification and evaluation of risk and opportunity identified as a part of the assessment program.

Metrics and Targets MSA has announced a long-term carbon reduction [goal](#) to reduce market based Scope 1 and 2 greenhouse gas emissions 42% by 2030 against a 2021 baseline. MSA currently discloses annual global Scope 1 and 2 GHG emissions, electricity, natural gas and water usage, and hazardous, non-hazardous, and recycled waste disposal. In the future MSA will develop a Scope 3 inventory and disclose the data associated with the identified Scope 3 categories.

About This Report

This MSA Impact Report (*Report*) extends to MSA Safety Incorporated and its global affiliates (*MSA or the Company*). Except as otherwise expressly stated, it does not address the operations of our suppliers, our channel partners, our contractors, or other business partners. To the extent the Report includes financial information, it is presented in U.S. dollars. The Report may also include forward-looking statements regarding the Company that are based on management's current expectations or projections about our products, markets, associates, and programs. These statements are no guarantee of future performance, conduct, or policy and are subject to various factors, many of which are beyond the Company's control. Therefore, the actual conduct of our activities discussed in the Report may differ materially in the future, and actual results may vary as well. As Corporate Social Responsibility (*CSR*), Environmental, Social and Governance (*ESG*), Sustainability, and similarly known topics are rapidly evolving, the reporting methods and/or metrics used in preparing the Report may also continue to evolve. The Company's current reporting methods and/or metrics are based on, among other things, Company management's assumptions believed to be reasonable at the time the Report was prepared. Statements of intention or aspiration contained in the Report speak only as of the date of the Report unless otherwise expressly noted. MSA undertakes no obligation to update publicly any statements in this report.

Cautionary Statement Regarding Forward-Looking Statements

Except for historical information, certain matters discussed in this Report may be "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, but are not limited to, all projections and anticipated levels of future performance, future opportunities, and any other statements about managements' future expectations, beliefs, goals, plans, or prospects. Words or phrases such as "anticipates," "expects," "intends," "plans," "targets," "forecasts," "projects," "believes," "seeks," "schedules," "estimates," "positions," "pursues," "may," "could," "should," "will," "budgets," "outlook," "trends," "guidance," "focus," "on schedule," "on track," "is slated," "goals," "objectives," "strategies," "opportunities," "poised," and similar expressions are intended to identify such forward-looking statements. Forward looking statements involve risks, uncertainties, and other factors that may cause actual results to differ materially from those discussed herein and may not align with historical performance and events due to a number of factors, including those discussion in the sections of our annual report on Form 10-K entitled "Cautionary Statement Regarding Forward-Looking Statements" and "Risk Factors" and those discussed in our Form 10-Q quarterly report filed after such annual report. MSA's SEC filings are readily obtainable at no charge: www.sec.gov, as well as on its own investor relations website: <http://investors.MSAsafety.com>. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements, and caution should be exercised against placing undue reliance upon such statements. We are under no duty to update publicly any of the forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.