

# Corporate Responsibility & Sustainability 2021



PEOPLE

HONESTY

CUSTOMER FOCUS

ACCOUNTABILITY

EXCELLENCE

# About MTI: Who We Are

## Minerals Technologies (NYSE: MTX)

A technology-driven specialty minerals company



**MTX**

NYSE



**4,000**

Employees



**\$1.9B**

in Sales



**34**

Countries



**12**

R&D Centers

We are a leading global resource- and technology-based company that develops, produces and markets a broad range of specialty mineral, mineral-based and synthetic mineral products and provides supporting systems and services.

As a leader in minerals-based application technology with world-class manufacturing capabilities, we are focused on delivering a comprehensive portfolio of value-added solutions to a diverse customer base across all sectors. We make it our priority to provide customers with differentiated products, along with best-in-class customer service and technical expertise. Our company's success is driven by our people-focused culture, Operational Excellence foundation, safety-first approach and commitment to living our core values in everything we do.

We continuously invest in further embedding sustainability throughout our operations, motivated in large part by the commitment and engagement of our global employee base. We recognize that being a responsible business and corporate citizen is critical to our ongoing success. For us, it is a constant journey where we continue to improve, adapt and strive to achieve ambitious objectives.

# MTI's Differentiated Value Proposition



**Unique Mineral Reserve Positions**



**Leading Technology Platforms and Extensive Specialty Minerals-Based Application Expertise**

Comprehensive portfolio of value-added solutions closely aligned with customer preferences



**World-Class Manufacturing and Processing Capabilities**

Global footprint strategically located to support customers



**Leading Positions Across Diverse End-Markets and Geographies**

## Vertically Integrated From Mine-to-Market

Providing Improved Value & Performance For Customers

### Attractive Financial Profile

Strong margins, cash flow and balance sheet

### Multiple Growth Levers

Geographic expansion and penetration, new product development and M&A

### Sustainability & Corporate Social Responsibility Principles

Deeply ingrained in all business areas

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This report is for our employees and stakeholders to reinforce our culture, values and the role sustainability plays in all activities at MTI. Sustainability is a core value at MTI and is integrated into our corporate governance and organizational structures. Our Environmental, Social and Governance (ESG) strategy has always been a focus at the highest levels of company leadership. We know that ESG is paramount to successful business outcomes, and it is also central to our discussions within the Board of Directors at MTI.

## About this report

The 2021 Corporate Responsibility & Sustainability Report is MTI's 14th annual report, and we intend to publish updates on our Sustainability journey at least annually. This Report covers performance and data from the period of January 1, 2021, to December 31, 2021, and is part of MTI's corporate story, allowing us to highlight our sustainability progress year-over-year. Some initiatives from 2022 have also been included. This is our fourth year using the Global Reporting Initiative (GRI)'s framework as a guide for identifying, measuring and reporting our non-financial impacts. We continue to disclose elements using the recommendations of the Sustainability Accounting Standards Board (SASB) and the Task Force on Climate-related Financial Disclosures (TCFD). In connection with our sustainability policies and procedures, our 2021 Annual Report and quarterly Investor Presentations, 2022 Proxy Statement and our website, this report helps highlight MTI's broad sustainability initiatives and how they are deeply integrated with our strategy, our people, in our plants and throughout our processes and products.

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# Our Values

## People-Focused Culture: Our Employees Are at the Core of Everything We Do

Our people are the most important part of MTI. We are a dynamic global team of 4,000 employees, and our core values — people, excellence, honesty, customer focus and accountability — guide our actions.

### People

We place the health and safety of people ahead of all else. We cultivate respect for individuals and for a diversity of cultures, beliefs and perspectives.

### Excellence

We constantly seek new, innovative technologies and efficient business processes to remain a market leader. We drive success by focusing on continuous improvement in all facets of the business—processes, systems, products, services and people.

### Customer Focus

We foster relationships with our customers based on trust and mutual benefit. We strive to enhance value to customers through improved product quality, customer service and innovation.

### Honesty

We value honest, open and ongoing communications with our employees, customers, shareholders, suppliers and the communities in which we do business. We uphold the spirit and intent of the law and conduct our affairs ethically.

### Accountability

We deliver profitable growth and higher returns for our shareholders. We manage our operations, our capital and our business opportunities in a sustainable manner. We serve as good stewards of natural resources, and we employ sound environmental practices to protect the communities in which we operate.

# A Message From Our Chairman and CEO



**DOUGLAS T. DIETRICH**

At MTI, sustainability has always been embedded in our core values. It's ingrained in our business strategy and is the foundation of how we operate as a company, enabling us to better serve our customers and communities, as well as better protect our planet and employees. With each year, we continue to elevate our efforts to support our commitment to all facets of sustainability: workplace safety, environmental stewardship, governance, as well as diversity and inclusion.

In 2021, our dedication to sustainability was evidenced by MTI surpassing the majority of our environmental sustainability goals, well in advance of our 2025 target date. Our ability to exceed these goals early is the direct result of our strong culture of Operational Excellence, with its emphasis on continuous improvement, as well as the groundswell of employee engagement we've created around our sustainability initiatives at every level of the organization.

Because of our success in exceeding these goals, and because we always aim to do better, I am pleased to say we've set the bar for our environmental targets even higher for 2025. This reaffirms the confidence we have in our people-focused culture, which is centered

on Operational Excellence, and the importance we place on having a disciplined but ambitious approach to continuous improvement—never complacent and always striving. In this 14th Annual Sustainability Report, we'll highlight how this culture has enabled us to execute on our growth strategy, meet our environmental goals, and is the foundation to achieving even higher levels of sustainability performance going forward.

## Sustainability as Business Strategy

Sustainability is deeply integrated into our business strategy and philosophy. It's a holistic framework for managing the interdependencies of—and our obligations to—the sustainable use of the company's resources and the resources provided to us and to our customers. This framework enables us to drive long-term health for our company and our stakeholders.

More specifically, sustainability involves employee safety at our plant sites—our number one priority. It means upholding the highest standards of ethical compliance in our corporate affairs. It's about building relationships within the communities in which we operate, so that they flourish and grow alongside us.



It means ensuring we continue developing innovative products for our customers that offer environmental benefits. Sustainability is also about being resilient and being able to adapt to changing conditions in turbulent times—and, over the past few years, our company has clearly demonstrated nimbleness and flexibility, as we've swiftly pivoted to shifting circumstances and evolving situations, remaining focused on achieving our goals.

## Sustainability Accomplishments, Goals and Challenges

### Environment

As we moved through COVID, supply chain disruptions and geopolitical challenges, we've maintained our focus on meeting and surpassing our sustainability goals. We've exceeded our objectives by engaging every employee in ways to reduce our carbon footprint, to improve our energy efficiency at our facilities and to continue to source green electricity where possible. This resulted in a net reduction of Scope 1 and Scope 2 GHG emissions of 21% percent since 2018.

Some emission-reduction projects to highlight include:

- Converting the primary energy sources of our sites from coal power to natural gas.
- Increasing the percentage of renewable energy powering our facilities, as well as exploring opportunities to source more.
- Identifying actions to save one billion gallons of processed water at our facilities through water management and recovery projects, including the use of recycled water.
- Increasing the beneficial reuse of manufacturing waste byproducts in our businesses.

Because of these ongoing projects and our ability to surpass our sustainability goals, we've reset our Scope 1 and Scope 2 emissions reduction percentage targets for 2025 from 20% to 25% and 15% to 40%, respectively. In addition, we are continuing to explore what actions to take to achieve greater reductions in our environmental footprint, studying the impact that our operations have across the entire value chain through monitoring and determining the impact of Scope 3 emissions. In this report, you will see that we have introduced emission efficiency targets to maintain our focus on reductions, as well as account for production increases that come with company growth.

"MTI's Operational Excellence (OE) journey, rooted in the active engagement of our dedicated employees, began almost fifteen years ago when we put in place a comprehensive and highly structured business system of lean principles closely integrated with safe and reliable work practices."

- DOUGLAS T. DIETRICH



## Safety

The health and safety of our employees is our highest priority. Accordingly, we maintain that a 100% injury-free workplace at MTI is achievable, and we provide employees with the tools, training and resources they need to operate safely. During the height of the pandemic, we implemented multiple new safety practices, and, in 2021, we adapted those practices to be more responsive and suited to the conditions of the changing nature of the pandemic. For our new employees, we provided increased attention and engagement through an intensive focus on non-routine task reviews, job observations, unsafe act identification and Gemba walks throughout our facilities. Ultimately, we firmly believe that every accident is preventable, and we deploy all our energies, ingenuity and efforts to ensuring all our MTI team members, experienced and new, return home healthy and well every day.

## Innovation

New product innovation is an integral part of our growth strategy. Over the past several years, we improved the pace of product development, significantly reducing the time from product ideation to commercialization. Five years ago, it took an average of four years to bring a product to market. In 2021, that average was under two years. This improvement has also led to increased impact from these new products. This year, sales generated from new products has increased more than 60% over last year.

In addition, nearly 65% of our new products support customer sustainability goals and almost 35% of them directly benefited our own sustainability objectives, such as creating products that are less energy intensive, produce less waste, use less water and offset environmental impacts. Some examples of these new products include: bleaching earth that is more efficient in the production of edible oils and bio-diesel fuels, low-emission greensand bond blends for the foundry industry, FLUORO-SORB® products to remove PFAS chemicals from ground water and drinking water, as well as environmentally friendly cat litter packaging.

## Diversity and Inclusion

At MTI, people are at the center of everything we do, and respect for who they are and for their voices is paramount. We believe that a diverse workforce and an inclusive culture is instrumental in helping us drive long-term value at MTI. True ingenuity comes from open dialogue where every employee feels empowered to express themselves and bring their most authentic selves to work.

Ensuring that our work environment is welcoming and celebrates differences is essential to our business's competitiveness and to our ability to thrive and attract top talent. We learn, grow and become enriched, both personally and professionally, from having a workplace of diverse colleagues, and I remain as committed as ever to ensuring that a culture of inclusion and belonging is fostered at MTI at all levels.

As a global organization, in 2021, we've made significant achievements in advancing our sustainability efforts on all fronts. Without a doubt, there's still work to be done, but I invite you to read this full report to appreciate the impact of our activities, to better understand our sustainability philosophy and to see how that philosophy is truly ingrained in everything we do at MTI.

Sincerely,

**Douglas T. Dietrich**  
Chairman and CEO

# A Message From BOD Chair of the Corporate Governance and Nominating Committee



MTI's corporate leadership has always made the company's Environmental, Social and Governance (ESG) an essential part of MTI's strategy and a polestar of MTI's success. ESG is crucial to achieving business outcomes, and it is also central to our discussions within the Board of Directors at MTI.

Through quarterly meetings and regular updates, the Board evaluates MTI's environmental footprint, climate trends, sustainable solutions, employee safety and well-being, human rights, policies and practices and compliance, as well as diversity and inclusion. This informs the Board's oversight and guidance with regard to how management and the company evaluate and integrate corporate responsibility and sustainability into MTI's business strategy, decision-making and stakeholder communication.

Since publishing its first Corporate Responsibility and Sustainability Report 13 years ago, MTI has made significant strides across a broad range of sustainability initiatives. We are encouraged by this progress and the many important contributions MTI continues to make to support its employees,

customers and communities. MTI's ability to beat its environmental targets well ahead of schedule in 2025, as well as reset those 2025 targets to more challenging levels, is a testament to the company's resolve, its ambition to always do better and its unflagging energy and commitment to its culture of continuous improvement. We look forward to updating our stakeholders at least annually on our sustainability progress.

MTI's foundation is strong, which we will continue to build upon for years to come. Through regular meetings with our Chairman and CEO Douglas Dietrich, other members of the Leadership Council and the Company's Sustainability Lead Team, the Board will continue to support MTI in advancing its ESG strategy.

Sincerely,



Alison A. Deans

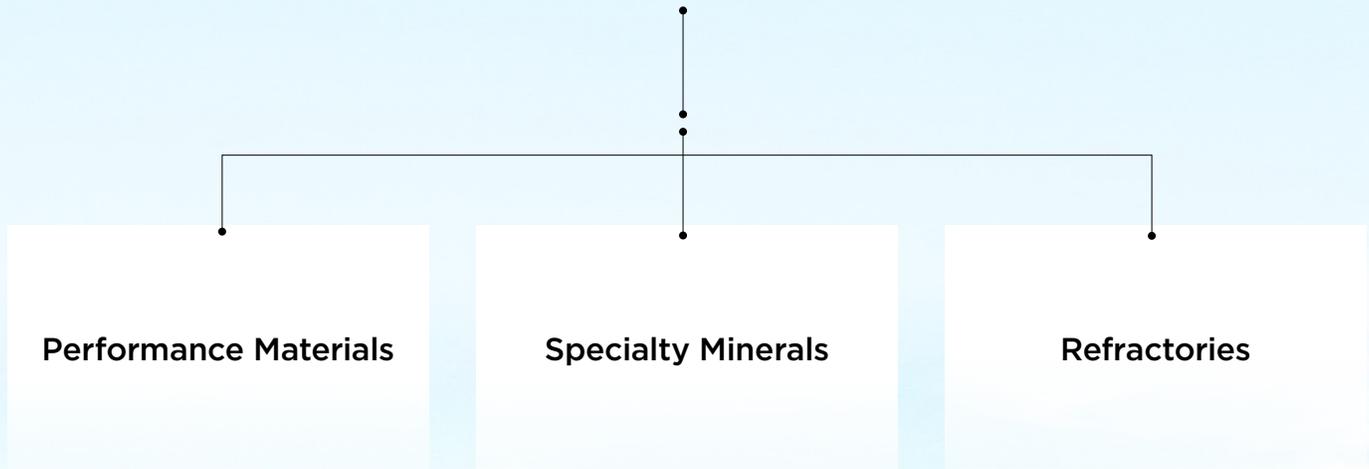
# Sustainable Growth

Strong financial performance is key to the sustainable growth of our business and our future success. Our sustainability imperative helps create growth opportunities, and our growth opportunities support our sustainability goals and focus.



# Responsibly Growing MTI

## Our Business Segments





# Performance Materials

## \$976M

Sales

## \$126M\*

Operating Income

\*Excludes special items

**40 global locations** (mining, manufacturing and R&D)

**Fully integrated** with clay reserves strategically located

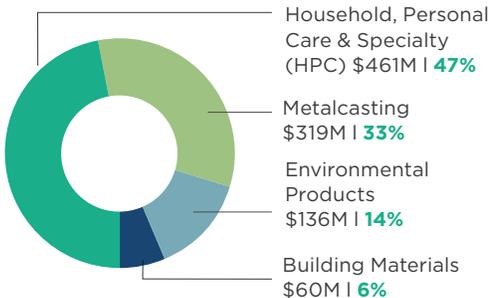
**Leading supplier** and producer of high-quality bentonite

**Competitive positions with a diverse customer base** in consumer, industrial and environmental markets

**Proven track record** transforming minerals and polymers into customized technologies that improve productivity and performance for customers

**Strong commitment** to safety, sustainable mining and land reclamation

We are in the process of converting several facilities from coal to natural gas fueled processes and evaluating additional opportunities to source green electricity from wind turbines and solar panels.



## #1 Leadership Positions

- Bentonite and Premium Sodium Bentonite Globally
- Greensand Bond Products for Global Foundry Market
- U.S. Bulk Clumping & Private Label Cat Litter Globally
- Quality-Assured Waterproof Concrete Structures



## 2021 Highlights

### Expanded in core markets and geographies

- Penetration of Metalcasting technology in Asia (Asia Metalcasting sales +21%)
- Growth in consumer-oriented products (HPC & Specialty Products sales +21%)

### Continued to innovate and commercialize value-add products

- Commercialized 44 new products in 2021

### Acquired and integrated Normerica

- Strengthened and expanded MTI's pet care business with complementary operations and customer base



# Specialty Minerals

## \$579M

Sales

## \$74M\*

Operating Income

\*Excludes special items

**World's largest Precipitated Calcium Carbonate (PCC) producer** with most technologically advanced portfolio

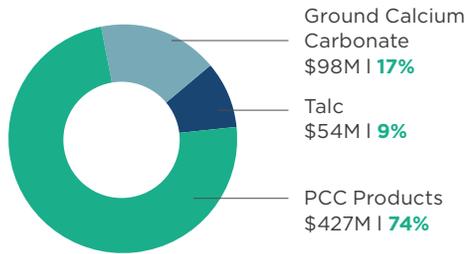
**Best-in-class R&D and technical service teams** with expertise in inorganic chemistry, crystallography and fine particle technology to develop highly specialized products

**55 PCC satellite plants globally** with strong growth in Asia

**Vertically integrated** with high-quality mineral reserves at three Ground Calcium Carbonate (GCC) facilities, three Specialty PCC (SPCC) facilities and one talc operation

**Leading positions in a wide range of markets**—consumer, plastics, paints, automotive and construction—driven by value-added mineral solutions portfolio

We are focused on water use reduction projects, as this business unit consumes the majority of our water. We have identified projects that will increase recycling and reduce our water usage by ~900 million gallons over the next three years.



## #1 Leadership Positions

- Global PCC for Paper and Packaging Markets
- North America Automotive and Construction
- Sealant Markets



## 2021 Highlights

### Continued penetration of PCC technology in Asia

- Asia PCC sales +22%
- Signed 2 new PCC satellite contracts

### Developed new technologies in adjacent packaging market

- Signed 1 new packaging satellite contract in Asia

# Refractories

## \$303M

Sales

## \$49M

Operating Income

**Complementary portfolio** of engineered monolithic refractory materials, laser measurement equipment and metallurgical wire products used in iron, steel and industrial markets

**Our products support** safe and productive operating conditions at lowest cost per ton of steel

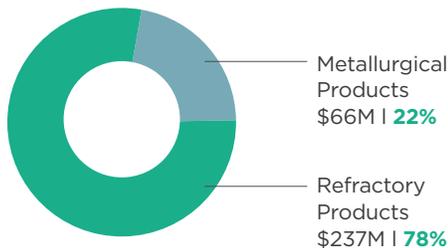
**100+ years** of steel industry experience

**17 production plants** and 4 R&D centers globally

**Steel mill service** employees embedded at customer sites to provide highest-quality application expertise

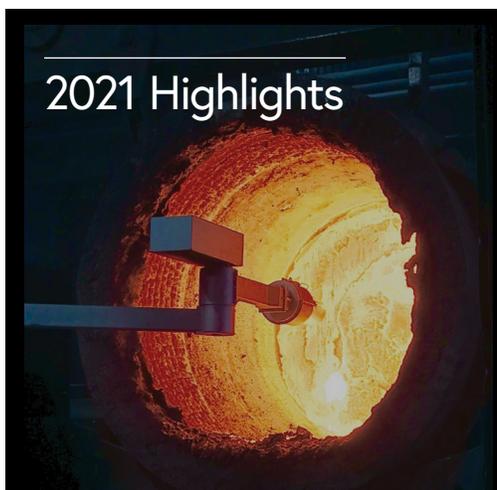
**Market leader** in laser profile measurement technology for refractory lining and steel industries

We are committed to optimizing energy consumption and minimizing our applied refractory to our customer's steelmaking and holding vessels. Our R&D efforts focus on maximizing the use of recycled raw materials that will decrease the overall carbon footprint of mined MgO and Alumina.



## #1 Leadership Positions

- North America Monolithic Refractories
- North America and Europe Solid Core Calcium Wire
- Refractory Laser Measurement Systems Globally



### 2021 Highlights

#### Record performance

- Achieved record Operating Income and Operating Margin

#### Winning new business

- Differentiated product portfolio, advanced application technology and high level steel mill service

#### Secured new refractory and wire contracts

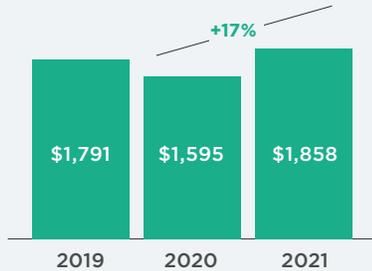
- Worth \$100M in sales over 5 years



## Financial Strength for Balanced Capital Deployment

### Net Sales

(\$ Millions)



### Operating Income\*

(\$ Millions)



### Earnings Per Share\*

(\$ Millions)



\*Excludes special items

We know that sustainability in the broadest sense is key to achieving long-term growth and financial success. Our stakeholders around the world expect us to deliver on our financial commitments by generating and distributing economic value in a sustainable way.

Our differentiated mine-to-market approach creates value for a wide variety of stakeholders, including our shareholders, investors, employees, suppliers and local communities. We combine our leading technology platforms, extensive application expertise and world-class processing capabilities to transform unique mineral reserves into a comprehensive portfolio of value-added solutions for our customers. This approach has resulted in leading positions across a diverse set of end markets and geographies.

Our strategy is to grow revenue and earnings:

- Organically through geographic expansion and new product development
- Inorganically through acquisitions of minerals-based companies: In 2021, we acquired Normerica and SPCC assets, and, in early 2022, we acquired Concept Pet

### Financially Positioned to Deploy Capital With a Balanced Approach

Our growth initiatives are supported by a strong and flexible balance sheet, which provides the ability to generate attractive, sustainable returns for shareholders.

We maintain a disciplined approach to capital allocation while also contributing to long-term strategic investments for our business. This approach allows us to maintain our reputation as a leader in our markets, well positioned to respond to the evolving needs of our customers.

### In 2021, We Maintained Strong Cash Flow and Balance Sheet

**\$146M** Free cash flow

**2.1x** Net leverage ratio

### And We Deployed Capital to High-Value Opportunities

**\$194M** Acquisitions (Normerica and SPCC assets)

**\$86M** Capital spend (invested in high-return projects and improving the performance and sustainability of our facilities)

**\$82M** Returned to shareholders (through share repurchases and dividends)



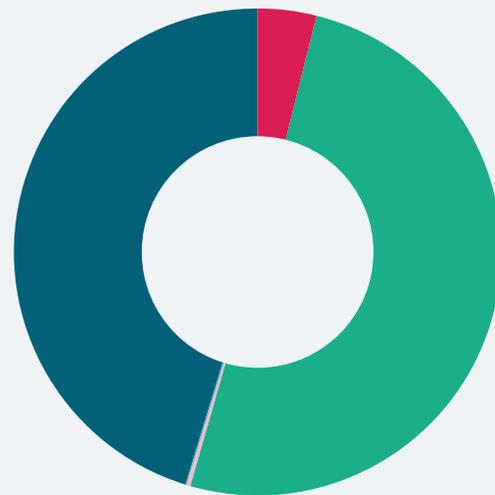
# Sustainable and Clean Technology Products

We continue to accelerate the development of products with a sustainability benefit. In 2021, about 60% of our total company revenue was derived from products and services that enhance both MTI’s and our customer’s sustainability objectives. Below is a summary of how we categorize our sustainability-advantaged product pipeline and revenue:

1. **Energy Efficiency:** We have several businesses where our products improve our customers’ operations by making them more sustainable and productive while creating less waste/scrap. For example, our Additrol® greensand bonds significantly reduce our customer’s metalcasting scrap and emissions and decrease the need for rework. Our Refractory products enhance the productivity of our steel making customers by increasing their safety, operational time and efficiency.
2. **Pollution Prevention:** MTI has a broad product pipeline designed to sequester CO<sub>2</sub> from paper mill exhaust stacks, to prevent pollution from spreading in the environment, to remove contaminants from water and soil and to improve the quality of water for safe discharge.
  - a. Our Precipitated Calcium Carbonate (PCC) process extracts and captures CO<sub>2</sub> from our host paper mills and converts it to the geologically stable PCC mineral.

## Revenue From Sustainable Products

in Millions USD



**~\$1.3B** Total Sustainable Product Revenue out of the MTI total revenue of \$1.9B

- Alternative Energy
- Pollution Prevention
- Energy Efficiency
- Sustainable Agricultural
- Green Building



- b. Our PCC technology, including our ENVIROFIL® PCC, NewYield® and FulFil® solutions, also allows paper manufactures to achieve their quality and sustainability goals while reducing the requirement for wood fiber in the products by 7% or more, thus reducing the number of trees that must be harvested.
  - c. Our Environmental Products business is a leading provider of geosynthetic clay liners to prevent pollution, ensuring municipal and mining wastes are contained and groundwater sources are clean. Our portfolio of geosynthetic liners can reduce the thickness of a typical compacted clay liner in a municipal landfill from three feet to only a few inches, achieving a tighter and longer-lasting seal to significantly enhance groundwater protection.
  - d. Our FLUOR-SORB® adsorbent sorbents capture and remove Perfluorinated Alkylated substances (PFAS), including Perfluorooctane Sulfonic Acid (PFOS) contaminants from soil and water.
  - e. Our water-treatment technologies remove oil and grease, toxic metals and other contaminants from water generated by industrial manufacturers and oil and gas producers. Our technologies enabled over 1.7 billion gallons of water to be safely discharged into regulatory compliant natural sources or municipal water treatment plants.
  - f. Our high-quality bentonite clays are used for long-term storage of nuclear waste in underground repositories.
  - g. We also sell bentonite and talc formulations that are used to manufacture ceramic pollution control equipment in automobile and heavy truck engines.
3. **Green Building:** Our Building Materials business offers several product groups designed to protect the health of occupants by improving the performance of the building envelope. We manufacture and sell a line of spray-applied vapor barriers that safeguard indoor air quality from vapor intrusion by soil and groundwater contaminants. We also sell a series of products designed for green roofs that combine the performance of proven waterproofing systems with modern green-roof technology to decrease the heat island effect, manage rainwater and enable plants to convert CO<sub>2</sub> to oxygen. Our products are routinely submitted for calculations to qualify construction projects for Leadership in Energy and Environmental Design (LEED) certification.
  4. **Sustainable Agricultural Revenue:** MTI mines leonardite and produces a line of agricultural crop yield improvement formulations. Our humic acid and nutrient formulations are used by our customers for application to agricultural crops to enhance plant health and improve yields.
  5. **Alternative Energy Revenue:** In our drilling products business, we manufacture and sell a complete line of bentonite and additive grouting solutions for the geothermal heat loop installation industry. Our grouts are mixed with sand or graphite at the job site to enhance geothermal heat loop systems for household and commercial building heating and cooling.

# 2025 Environmental Targets: Strengthening Our Goals

MTI's environmental targets demonstrate our commitment to transparency, to promoting innovative opportunities to improve performance, to enhancing our ability to manage risks and to providing insight into our management of those areas that matter most to our stakeholders and business. Our goals also serve as a guide for our businesses and locations to embed sustainability into their day-to-day operations and measure their progress. We established our initial targets in 2018 and have publicly reported our progress in the following years. This year, we are pleased to announce that we are targeting even lower absolute emissions and water usage/discharge goals, as well as announcing initial 2025 targets for the intensity metrics per ton of production of Scope 1 Direct Emissions, Scope 2 Indirect Emissions, Airborne Pollutants, Water Used, Water Discharged and Landfill Waste.

## Reduction Percentage

	<b>REDUCTION FROM 2018 TO 2021 (%)</b>	<b>PREVIOUS 2025 REDUCTION TARGET (%)</b>	<b>NEW 2025 REDUCTION TARGET (%)</b>
<b>Scope 1 Direct Greenhouse Gas Emissions</b>	16.6%	20%	25%
<b>Scope 2 Indirect Greenhouse Gas Emissions</b>	31.9%	15%	40%
<b>Airborne Pollutants</b>	21.4%	50%	55%
<b>Water Used</b>	14.2%	11%	20%
<b>Water Discharged</b>	17.4%	11%	20%
<b>Landfill Waste</b>	13.4%	20%	20%

Targets established from 2018 baseline



# Environmental, Social and Governance (ESG) Highlights

## Advancing Projects to Help MTI Exceed Environmental Targets



**We continue to switch to natural gas processes as the energy source for drying bentonite clay and calcium carbonate at several of our largest facilities.** This has helped to significantly reduce Scope 1 Direct GHG emissions and airborne pollutants in 2021. We continue to implement projects to convert additional dryers to natural gas while also improving fuel-usage efficiency at our sites.



**Our PCC business continued developing and implementing a treatment process for agricultural and beneficial reuse applications** equating to about 53,000 tons of PCC byproducts, ~60% of our total byproduct production.



**In 2021, we extracted about 1.2 million tons of waste CO<sub>2</sub> from our PCC customers' exhaust stacks, as well as our own, and sequestered those emissions in useful consumer products, reducing harmful release to the atmosphere.**



**Our PCC plants consume and discharge a significant portion of our total water at MTI.** At several of our sites, we have executed innovative closed-loop systems to recover and reuse water in production. As a result, MTI reused and recycled about 50% of our total water use, or 3.2 billion gallons, with our host paper mills in 2021.



**2021 was the first full year of our sourcing ~50% of the electricity at our Colony, Wyo., facilities with green wind energy.** This project reduced MTI's Scope 2 Indirect GHG emissions by about 5% overall. In addition, our European Pet Care business is carbon-neutral and has installed over 1,300 solar panels at its facilities. We are evaluating additional opportunities across our global operations to achieve goal of sourcing 50% of electricity in our operations from renewable sources by 2025.



Named to Newsweek's 2022 ranking of America's Most Responsible Companies

### Sustainable Product Development

**64%** of Products in Pipeline Designed to Support Customer Sustainability Goals

### Employee Safety and Engagement

**0.74** Recordable Injury Rate Safety Performance

**90%** of Facilities Injury-Free

**321K+** Safety Engagement Activities Completed  
20% increase over 2020

**8,600** Kaizen Events Conducted  
Highly focused problem-solving workshops to improve product and service processes

**65,000** Employee Suggestions  
Specific ideas implemented to remove waste and risk from processes and operations

**100%** Employees Completed comprehensive diversity and inclusion training module



# Sustainability Governance at MTI

# Board Oversight of Risk, ESG and Sustainability

The MTI Board of Directors has primary responsibility for risk oversight, including understanding critical risks in the Company's business and strategy, evaluating the Company's risk-management processes, as well as seeing that such risk management processes are functioning adequately. It is management's responsibility to manage risk and bring to the Board's attention the most material risks to the Company. The Company's management has several layers of risk oversight, including the Company's Strategic Risk Management Committee and Operating Risk Management Committee. Management communicates routinely with the Board, Board Committees and individual directors on the significant risks identified and how they are being managed, including through formal reports by the Strategic Risk Management Committee to the Board that are given at least annually. Risks are reviewed regularly by the entire Board at each Board meeting. The risk oversight focus areas reviewed by the Board include: risks related to the Company's capital structure; mergers and acquisitions; capital projects; cybersecurity; environmental, health and safety risks; and geopolitical and associated market risks.

The Corporate Governance and Nominating Committee is directly responsible for reviewing and evaluating MTI's human rights, code of conduct, and ethics policies, programs and practices and all emerging social, environmental and governance issues which could impact the long-term sustainability of our business. This includes: environmental performance and 2025 targets; diversity and inclusion; talent and leadership development; safety, ethics and compliance; as well as human rights. The Corporate Governance and Nominating Committee, along with the Chairman of the Board and CEO, formally review and approve each publication of MTI's Corporate Responsibility and Sustainability Report on an annual basis.

The Board also implements its risk oversight function through Committees, which provide reports regarding their activities to the Board at each meeting.

## Audit Committee

- Regularly reviews the Company's major financial risk exposures, including hedging, swaps and derivatives and the steps management has taken to monitor and control such exposures.
- Assists in identifying, evaluating and implementing risk management controls and methodologies to address identified risks.
- Regularly reviews risks relating to pension-plan investments.
- Regularly reviews risks relating to cybersecurity.

## Corporate Governance and Nominating Committee

- Regularly reviews the risks associated with the Company's governance practices, Board composition and refreshment (including independence of directors) and committee leadership.
- Assists in identifying, evaluating and implementing risk management controls and methodologies to address identified risks.
- Provides oversight and guidance on the Company's programs, policies and practices relating to social and environmental issues.

## Compensation Committee

- Considers risks related to the attraction and retention of personnel.
- Considers risks relating to the design of compensation programs and arrangements applicable to both employees and executive officers, including the Company's annual incentive and long-term incentive programs.
- Concludes that the Company's compensation policies and procedures are not reasonably likely to have a material adverse effect on the Company.



In addition, the entire Board follows a formal schedule of meetings to review environmental; health and safety; cybersecurity; and social matters, which are reviewed at each board meeting. Overall corporate responsibility and sustainability matters and progress, including social topics, are periodically reviewed with the Committee, as well as the full Board, at board meetings. Additional information about our Board's structure, composition and oversight can be found in MTI's [2022 Proxy Statement](#).

### Leadership Commitment to ESG and Sustainability

Our **Leadership Council (LC)**, under the direction of Chairman and CEO Douglas Dietrich, oversees our businesses, functional areas and culture-based lead teams—all of which integrate sustainable processes and practices into their strategies, as well as identify and manage risks. The entire LC, which is composed of our senior business unit and resource unit executives, is actively engaged in the management of MTI's broad sustainability practices. Mr. Dietrich champions sustainability at an organizational level, and each business-unit leader helps drive sustainability practices and initiatives as part of the unit's overall business strategy.

### Sustainability Lead Team

The Sustainability Lead Team comprises senior leaders across the organization with functional expertise,

including within the areas of Environmental, Health, and Safety; Legal and Compliance; Investor Relations; Finance; Corporate Communications; Human Resources; Global Supply Chain; Research and Development; Manufacturing; and Commercial. The Lead Team reports directly to our Chairman and CEO, has full-team meetings at least once a month. Sub-teams meet more frequently and provide regular progress updates to the LC, the Corporate Governance and Nominating Committee, as well as the full Board. The Lead Team seeks to ensure a comprehensive approach to developing and progressing our companywide ESG and sustainability strategies and initiatives, driving alignment across the organization to address emerging ESG risks and opportunities. In addition, other focus areas include: managing progress toward achieving our 2025 environmental targets; providing guidance and support across the company for implementing new projects, policies and practices; and improving our disclosures to better align with external reporting trends.

MTI has seven culture-based Lead Teams. These cross-functional Lead Teams, comprising employees from across geographies and subject areas, report directly to our Chief Executive Officer and are sponsored and led by a senior executive appointed to provide guidance and expertise. Each of these Lead Teams develops goals, standards and systems; tracks metrics; and shares best practices to ensure that we are making tangible progress in these key areas.

## Lead Teams Report to CEO

### Chief Executive Officer

#### Environmental, Health and Safety

Continuously improve health and safety programs, training and compliance. Develop risk-reduction systems and initiatives.

#### Operational Excellence

Continuous improvement and lead lean practices to enhance our business performance and drive people-focused culture.

#### Technology and Innovation

Forefront of innovation and accelerate the speed and success rate of new product introductions.

#### Mining

Develop goals and tactics to ensure the universal use of best practices for mining, exploration and reclamation to minimize impact.

#### Expense Optimization

Drive cost avoidance and reduction through improvement in processes and implementation of employee suggestions and best practices.

#### Diversity and Inclusion

Cultivate a diverse and inclusive work environment for all employees.

#### Sustainability

Advance sustainability strategy, manage environmental progress towards reduction targets, benchmark trends and communicate best practices across company.

### In 2021, the Sustainability Lead Team activities included:

- Communicating to management and all employees a framework for implementing best practices for reducing Scope 1, Scope 2 emissions, water used and water discharged.
- Designing a companywide, locally driven employee engagement and awareness initiative to drive a more sustainable culture, enhance data collection processes and encourage site-level leadership on environmental sustainability.
- Planning additional ESG disclosures to better reflect our company's initiatives and continuing to enhance our SASB and TCFD disclosures.
- Aligning more closely with our other Lead Teams on topics related to environmental, social and governance and leveraging these initiatives to deeply integrate developments into our overall sustainability strategy.
- Analyzing long-term climate policy trends and policies and identifying how our company can be best positioned to address them going forward.



# Human Rights

MTI is committed to safeguarding the human rights of all employees, as well as those with whom we do business. We updated our Human Rights Policy in 2021 to better reflect this commitment and our expectation for equal opportunity, respectful work environments, prohibition of discrimination, freedom of association, prohibition of forced and child labor, compensation, EHS, security as well as anti-corruption. We follow the United Nations Guiding Principles on Business and Human Rights and the Ten Principles of the United Nations Global Compact. We undertake efforts to build awareness about our human rights policies and procedures and expect our global workforce to act in furtherance of this commitment, as outlined in our Summary of Policies on Business Conduct.

We expect all our suppliers, vendors, business partners and other stakeholders to share our respect for human rights and to conduct their business accordingly. In addition, we require our suppliers to remain in compliance with our Supplier Code of Conduct and all applicable laws and regulations.

## United Nations Global Compact

MTI is pleased to announce that we have joined the United Nations Global Compact and supports the Ten Principles of the United Nations Global Compact on human rights, labor, environment and anti-corruption.

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## Data and Cybersecurity

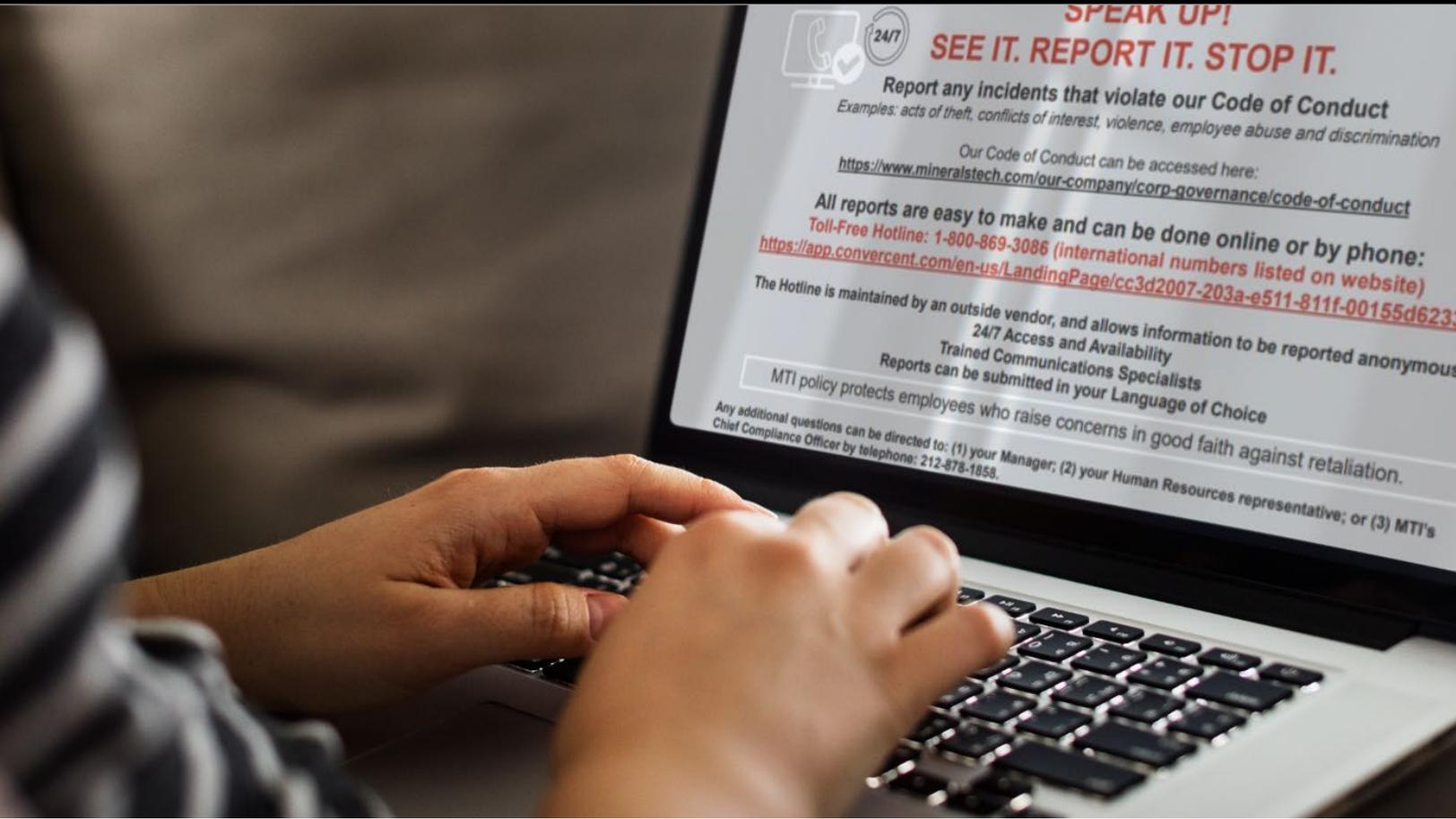
At MTI, it is our responsibility to protect, in accordance with applicable laws, sensitive corporate and client information in addition to the personal information of our employees and all other individuals with whom we work, including customers, partners, suppliers and contractors. MTI has established a holistic cybersecurity program that is led by the Chief Information Officer who is supported by a dedicated MTI Cybersecurity Team and a Managed Security Services Provider (MSSP). MTI leadership updates the Board of Directors' Audit Committee at least four times a year on data- and cybersecurity as part of regular Board agenda items and more frequently as needed.

MTI's risk-based framework aims to:

1. Proactively identify potential risks to systems, assets, data and capabilities
2. Protect critical infrastructure services by a layered defense-in-depth security architecture
3. Detect and respond to cyber events by taking appropriate actions
4. Recover and restore capabilities according to service-level agreements

MTI provides a mandatory cybersecurity training curriculum to full-time employees, part-time workers and contractors that access our network. MTI conducts required online training each quarter of the year. Additionally, monthly phishing tests are conducted, and employees who fail phishing exercises receive remedial training. Employee's training progress is tracked and reported to senior leadership.

MTI uses NIST CSF and CISV8 to conduct self-assessment of our controls. KPMG, our external auditors, perform cybersecurity assessments, and we have annual external penetration and incident testing, as well as independent reviews conducted by select third parties.



## Ethics, Integrity and Grievance Reporting Process

### Compliance With Laws, Permits, Regulations and Company Values

It is MTI’s policy to conduct our business activities in a lawful and ethical manner. Ethics and integrity start at the top, from the Board of Directors and Senior Management. Our commitment is supported by clear policies and training and is reinforced and monitored by every MTI employee.

MTI’s ethics and compliance program is structured and operated to promote integrity and ethical behavior, as well as to prevent criminal conduct and violations of law. Our [Summary of Policies on Business Conduct \(Code of Conduct\)](#) details the expectations and requirements we have for our employees and applies to all areas of our operations.

MTI has an annual requirement for all employees to read and acknowledge the Code of Conduct, and we audit completion. In addition, our Internal Audit Department performs regular audits of the company’s controls, including those systems which are designed to prevent unethical and unlawful conduct. During 2021, the company incurred no legal or regulatory fines or settlements associated with bribery, corruption or anti-competitive behavior.

### Ethical Standards Training

In addition to the annual requirement to read and acknowledge the MTI Code of Conduct, all employees receive periodic training on various ethics and compliance subjects. Recent training topics have included insider trading, sexual harassment, bullying, diversity and inclusion, as well as conflicts of interest. These periodic trainings occur on a two-year rotation, as our Legal Department assesses the risks and introduces a training schedule most relevant for each year. Ethics and compliance training is also required and included in every employee’s onboarding.



We perform ethics and compliance due diligence for all third-party relationships, including agents, distributors and contractors. These third parties are required to attest that they will behave ethically and fully adhere to our business conduct policies.

## Grievance Reporting Process Through Dedicated MTI Compliance Hotline

We encourage employees and third parties to report any suspected violations of our policies or local or international law (including those relating to human rights) to senior management or through the Company's confidential Compliance Hotline (1-800-869-3086) or [electronically](#). The MTI Compliance Hotline is proactively communicated to employees via posters at each site, employee onboarding, verbal communication during periodic Internal Audits, as well through our intranet.

An effective reporting system is critical to supporting our efforts to foster a culture of integrity, accountability and ethical decision-making. For that reason, a new and improved ethics and compliance hotline was launched in 2020 to provide confidentiality, and, where permitted by law, anonymity to report any potential illegal, unethical or improper conduct. The hotline is operated by an independent, third-party provider and available 24 hours a day, seven days a week. Reports can be made in any language and employees can speak to a third-party responder in their language of choice. MTI policy protects employees against retaliation who raise concerns in good faith.

Every case reported to the Compliance Hotline is carefully processed and analyzed against a set of basic criteria, which help us decide if corrective action is required to mitigate further risks. In 2021, a total of 22 cases were reported through web-and call-center submissions. Most cases were employment related, with the remainder related to business integrity, health and safety, as well as general inquiries. All cases are fully investigated by our Legal, Human Resources and/or Internal Audit Departments, as appropriate. External legal counsel or Governmental agencies are engaged where required. Each hotline report is documented and remedied through management corrective actions, disciplinary action or MTI policy and procedure updates to address substantiated cases.

## Policies and Guidelines

In addition to our Code of Conduct, our corporate governance policies show our commitment to honest, ethical business practices and compliance with applicable law. These documents and policies are the principles and guidelines that we follow to ensure effective corporate governance practices within MTI.

### Careers and Employment

- [Equal Opportunity](#)
- [Diversity and Inclusion Mission Statement](#)

### Corporate Responsibility and Sustainability

- [Animal Testing Policy \(new\)](#)
- [Anti-Corruption and Anti-Bribery Policy \(revised\)](#)
- [California Transparency in Supply Chain Act](#)
- [Charters for Board of Director Committees](#)
  - [Audit Committee Charter](#)
  - [By-laws of Minerals Technologies Inc.](#)
  - [Code of Ethics for Senior Financial Officers](#)
  - [Compensation Committee Charter](#)
  - [Corporate Governance and Nominating Committee Charter](#)
  - [Lead Independent Director Charter](#)
- [Compliance Hotline](#)
- [Conflict Minerals Policy](#)
- [General Terms and Conditions](#)
- [Human Rights Policy \(revised\)](#)
- [Minerals Technologies Environmental Health & Safety Policy \(revised\)](#)
- [Minerals Technologies Values](#)
- [Summary of Policies on Business Conduct \(Code of Conduct\)](#)
- [Supplier Code of Conduct \(revised\)](#)
- [United Kingdom MTI Tax Policy](#)
- [Washington State Department of Agriculture](#)
- [Website Privacy Statement](#)

# How Sustainability Is Integrated Into Our Strategy and Purpose

MTI has a longstanding commitment to operate ethically and responsibly while creating value for our customers, employees, communities and other stakeholders. We look at sustainability holistically, understanding that addressing the continuum of environmental, social, governance and ethics issues is critical to the success of our business. Sustainability is a vital driver to our long-term growth, and, through continued learning and improvement, we are making progress in addressing the most urgent challenges of today, while capturing opportunities for the future.

## Our four focus areas:

ENVIRONMENTAL	SOCIAL	GOVERNANCE	ECONOMIC
<b>Conserving and Protecting</b>	<b>Caring for Our People and Communities</b>	<b>Operating Ethically</b>	<b>Responsible Growth</b>
<p><b>Minimize Impact</b></p> <p>Seeking to reduce the environmental impact of our activities through more efficient manufacturing processes and best practice adoption. Our 2025 environmental targets provide a clear path to improve our performance.</p> <p><b>Sustainable Innovation</b></p> <p>Evolving our new product development processes and pipeline to meet MTI's environmental goals and address customers' most pressing sustainability challenges. We are accelerating the speed with which we bring products to market and increasing the percentage of new products with a sustainability benefit.</p>	<p><b>Health and Safety</b></p> <p>Nothing is more important than the health and safety of our employees—a 100% injury-free and illness-free workplace is achievable. We continue to enhance our strong safety culture through hazard identification, fatality risk-prevention initiatives and comprehensive training.</p> <p><b>People-Focused Culture</b></p> <p>Our engaged global team is our greatest asset and drives our high-performance culture, including our commitment to sustainability. We are fostering a diverse and inclusive culture where differences are welcomed, celebrated and appreciated, and everyone has an equal opportunity to succeed. We provide the resources to empower, engage and develop our employees while attracting new talent to help us achieve long-term success.</p> <p><b>Community Engagement</b></p> <p>Supporting local communities through education, fundraising and sponsorship opportunities.</p>	<p><b>Legal Compliance</b></p> <p>Honest, ethical and transparent conduct is vital to our success and reputation. Every employee plays a key role in complying with local and national laws and regulations. We have a comprehensive framework of codes, conducts and principles that all employees are trained in and are expected to demonstrate in all activities.</p> <p><b>Data Security</b></p> <p>Protecting personal information of our employees, customers, partners, suppliers and contractors.</p>	<p><b>Financial Performance</b></p> <p>Generating sustained economic benefits for our employees, shareholders, local communities and broader society.</p> <p><b>Investing for Sustainable Growth</b></p> <p>Enhancing our competitive positioning by advancing customer-driven innovation in new product development and investing in high-return projects and our core infrastructure, including maintaining and improving the performance, safety and environmental standards at our facilities.</p>

# Stakeholder Engagement

Listening to, engaging and collaborating with all stakeholders group makes us a stronger company and plays a critical role in advancing our sustainability strategy. We regularly interact with our stakeholders to better understand and address their unique perspectives and to share valuable information about our key focus areas and initiatives.

STAKEHOLDERS	METHOD OF ENGAGEMENT	KEY TOPICS OF DISCUSSION
<p><b>Employees</b></p> 	<ul style="list-style-type: none"> <li>• Quarterly all-employee CEO-led Town Halls</li> <li>• Direct communications from management (emails, CEO updates, podcasts and team meetings)</li> <li>• Frequent news updates on corporate intranet</li> <li>• Companywide engagement surveys</li> <li>• Management plant visits</li> <li>• Regular safety meetings</li> <li>• Annual performance reviews</li> <li>• Extensive safety and Operational Excellence (OE) training and development</li> <li>• Employee-led webinars on Environmental, Health and Safety (EHS) and OE</li> <li>• Robust suggestion system to capture employee ideas</li> <li>• Safety and OE recognition letters</li> <li>• Bravo Chips to recognize noteworthy behavior</li> <li>• Annual Operational Excellence Achievement Awards</li> <li>• Code of Conduct and Compliance Hotline</li> </ul>	<ul style="list-style-type: none"> <li>• Health and safety and COVID-19 response plan</li> <li>• Company performance and strategy updates</li> <li>• Innovation and new product development</li> <li>• Investments in operations</li> <li>• Culture-based lead teams</li> <li>• Compensation and benefits</li> <li>• Talent management and career development</li> <li>• Recruiting process</li> <li>• High-performance culture and core values</li> <li>• Training and performance feedback</li> <li>• Corporate social responsibility and 2025 environmental targets</li> <li>• Diversity and inclusion</li> <li>• Rewards and recognition</li> <li>• Best practice sharing</li> <li>• Company policies and protocols</li> <li>• Establishing self-directed work teams and high-performance systems</li> </ul>
<p><b>Customers</b></p> 	<ul style="list-style-type: none"> <li>• Regular meetings with customers</li> <li>• Customer-satisfaction surveys</li> <li>• Industry tradeshows</li> <li>• Social media</li> <li>• Targeted newsletters</li> <li>• Technical brochures</li> <li>• Voice of Customer processes</li> <li>• R&amp;D portfolio with customer engagement at key stages and technology roadmaps</li> <li>• “House of Quality” process ensures customer requirements are driven in four areas through product development</li> </ul>	<ul style="list-style-type: none"> <li>• Product quality, service, costs and performance</li> <li>• Market trends and innovative new products</li> <li>• Environmental benefits of products and sustainability</li> <li>• Key customer performance metrics</li> <li>• EcoVadis or similar surveys</li> <li>• Incorporating Voice of Customer for new product ideas</li> <li>• “House of Quality” metrics</li> </ul>



STAKEHOLDERS	METHOD OF ENGAGEMENT	KEY TOPICS OF DISCUSSION
<p><b>Investors and Analysts</b></p> 	<ul style="list-style-type: none"> <li>• Quarterly earnings calls</li> <li>• Press releases and SEC filings</li> <li>• Regular one-on-one or group meetings; management met with approximately 70% of shareholders in 2021 based on actively traded shares outstanding</li> <li>• Management presentations at financial and industry conferences</li> <li>• Annual Meeting</li> <li>• Outreach on governance and sustainability topics, including our top 60 shareholders who held approximately 90% of our shares in 2021</li> <li>• Annual Report and Sustainability Report</li> <li>• Company website</li> </ul>	<ul style="list-style-type: none"> <li>• Financial and operating performance</li> <li>• Outlook and market conditions</li> <li>• Mergers and acquisitions</li> <li>• Value proposition</li> <li>• Environmental, health, safety and social performance</li> <li>• Capital allocation</li> <li>• Corporate governance</li> <li>• Board succession, composition and diversity</li> <li>• Diversity and inclusion</li> <li>• Disclosure and transparency</li> <li>• COVID-19 response</li> </ul>
<p><b>Communities</b></p> 	<ul style="list-style-type: none"> <li>• Volunteer activities and donations</li> <li>• Local employment and supplier opportunities</li> <li>• Career fairs and plant tours</li> <li>• Local government and associations participation</li> <li>• Family and community days</li> <li>• Collaborations with emergency response teams, police and fire departments for emergency preparedness training</li> </ul>	<ul style="list-style-type: none"> <li>• Jobs and local business opportunities</li> <li>• Environmental impact and protection</li> <li>• Community involvement and charitable giving</li> <li>• Plant operations</li> <li>• Safety and emergency/disaster planning</li> <li>• Local sourcing of supplies and raw materials</li> </ul>
<p><b>Suppliers</b></p> 	<ul style="list-style-type: none"> <li>• Supplier Code of Conduct and Conflict Minerals Policy</li> <li>• Product safety and regulatory discussions</li> <li>• Performance assessments</li> <li>• Quality audits</li> <li>• Supplier qualification, documentation and selection</li> <li>• Identifying smaller and local suppliers</li> </ul>	<ul style="list-style-type: none"> <li>• Performance criteria and expectations</li> <li>• Supplier safety and environmental performance and plans for improvement</li> <li>• Sustainability</li> <li>• Lowest total cost discussions</li> <li>• Cybersecurity</li> </ul>
<p><b>Regulatory Agencies/ Elected Officials</b></p> 	<ul style="list-style-type: none"> <li>• Meetings and engagement on legislative and regulatory issues</li> <li>• Discussions regarding evolving legislation and impact on new products</li> <li>• Compliance with permits</li> </ul>	<ul style="list-style-type: none"> <li>• Policies that impact business, including environment, permitting, mining and reclamation, incentives and regulatory framework</li> <li>• Regulatory developments</li> <li>• Job market and skilled workforce</li> </ul>



# Safety

We Place the Health and Safety of Our People Above All Else — A 100% Injury-Free Workplace Is Achievable at MTI



MTI's Buddy System in action—new employee (orange hardhat) being trained by experienced employee (white hardhat)



# Our Philosophy

We are a people-focused company. Our number-one priority is the health and safety of our employees, contractors, visitors, customers and members of the communities in which we operate. Our “safety first” culture has been built through dedication, continuous improvement and active employee engagement. We strive to continuously improve our world-class safety program at MTI.

## Key aspects of our principles to drive an injury-free workplace:

- Nothing comes before safety: Our top priority is for all employees and contractors to return home in the same condition they arrived at work.
- We require all employees, contractors, visitors and sites to strictly follow our Environmental, Health and Safety (EHS) Policy.
- Management is responsible for providing employees with the tools, training and resources to operate safely. All employees receive a rigorous onboarding safety training and continuous safety training commensurate with their level of exposure.
- It is every employee’s responsibility to correct unsafe procedures, practices and conditions wherever they exist. Each employee is empowered and encouraged to exercise “Stop Work Authority” to prevent an incident.
- We promote accountability and responsibility for ourselves and our colleagues.
- We engage and educate employees to measure and use safety-leading indicators.
- We demand a strong focus on anticipating, recognizing and removing hazards, as well as integrating layers of protection into our work systems and processes.
- We maintain an active safety mindset at work and at home and foster a culture where we learn from events and near misses.
- Audits are an important part of assessing safety performance and areas for improvement and are required at every location.

**Targets:** We believe zero injuries across all our operations is an achievable target. Toward this end, we have set interim goals for full-time MTI employees, part-time workers, as well as contractors under our oversight to achieve World Class Safety performance globally: at or below 1.00 for Total Recordable Incident Rate (TRIR) and at or below 0.10 for Lost Workday Injury Rate (LWIR), as defined by the U.S. Occupational Safety and Health Administration (OSHA). Through our continuous improvement activities, training, risk assessments and tracking of leading indicators, we continue to focus on our journey to zero injuries.



Each employee is empowered and encouraged to exercise "Stop Work Authority" to prevent an incident.

### GOAL

**<= 1.0** Total Recordable Incident Rate

**<= 0.10** Lost Workday Injury Rate



# Our Safety Foundation

## Management oversight and involvement of all employees

Our MTI Environmental, Health and Safety Management System program is aligned to the ISO 14001 Environmental Management System and OHSAS 18001/ISO 45001 Occupational Health and Safety Management System. More than 10.8% of our individual facilities are certified to ISO 14001:2015 and more than 9.1% to OHSAS 18001/ISO 45001.

### Key elements are:



**“Our foundation is simple—  
safety/people first, every injury is  
avoidable, zero injuries are achievable.”**

– Douglas T. Dietrich, Chairman and CEO

- All members of our Board of Directors and Leadership Council (LC), as well as each of our Business Unit leaders, receive comprehensive health and safety briefings at least monthly. These briefings review detailed health and safety performance and related metrics, including: injury/illness rates, lost workday rates, types of injury, environmental releases, EHS engagement, Fatality Mitigation program progress and global online seminar status. In addition, all MTI employees receive weekly EHS metrics and injury/illness reports for global and business-specific performance via email and company intranet postings.
- Leaders at all levels in the organization are actively engaged in setting safety-performance expectations and holding themselves and the rest of their organization/location accountable.
- The MTI Environmental, Health and Safety Lead Team (EHSLT), which includes senior safety leaders from each business unit, reports directly to the Chief Executive Officer and includes all BU and regional EHS directors. The Team develops and reviews global environmental, health and safety goals, policies and standards, as well as promotes our EHS management systems to assist all Business Units, Resource Units, sites and employees. Our EHSLT further develops annual safety goals and objectives, which are communicated directly to all employees. Our operating procedures and standards are tailored for our mining and processing facilities.
- Our Business Units develop and implement cascading goals aligned with MTI’s global EHS Goals. They monitor progress across each location and report the latest metrics through the EHSLT and the LC. Business Units further collaborate through global EHS meetings to facilitate benchmarking and exchange key learnings and trends for EHS programs. Each MTI site is required to conform with our EHS policies and procedures, and compliance is ensured via self-review, MTI corporate auditing, customer audits and governmental regulatory and other third-party audits.
- MTI and our EHSLT stay current with developing environmental, safety and health regulations by maintaining memberships in key industry groups like



the Industrial Minerals Association of North America and Europe (IMA-NA and IMA-Europe) and their bentonite, carbonate, and talc subcommittees. We also participate in the European Union Bentonite Association and Sorptive Minerals Institute.

Key groups in MTI also participate in alliance meetings with the Occupational Safety and Health Administration (OSHA) on emerging standards like heat stress in the workplace and with the Mine Safety and Health Administration (MSHA) on powered haulage safety. The company closely follows the European Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) to protect human health and the environment.

- Our EHSLT reviews and distributes Safety Alerts to all employees by email and company postings when an injury occurs, so that learnings are widely communicated. The alerts describe the injury, illnesses or near misses and provide causal factors, root causes and corrective actions, which allow us to quickly convey learnings from incidents and near misses to all locations and, when appropriate, take specific actions to mitigate similar potential risks in their operations.
- In MTI, Business Unit and employee/contractor townhall meetings, our CEO, Business Unit Leaders and Team Leaders review safety performance, key safety initiatives and actions individuals can take to enhance their personal and colleagues' safety.

- We solicit and engage employee feedback through site-safety committees, routine global employee EHS meetings and webinars, EHS Kaizens and FMEA (Failure Mode and Effects Analysis) events, Risk-Reduction evaluations, suggestion systems, job observations, hazard hunts and townhalls, as well as open-door-policy interactions.
- Through Risk-Reduction and FMEA techniques, health and safety hazards are proactively identified and mitigated. Reporting near misses, unsafe acts and unsafe conditions by all employees is also a mechanism to identify and address issues before they cause injuries. Comprehensive assessment campaigns by multi-disciplined teams also support PDCA (Plan, Do, Check, Act) and help identify new safety improvement opportunities.
- Our OE culture is inextricably linked to safety. We have experienced significant improvements in plant working conditions through deeply integrating our OE and Lean practices with safety. Our sites identify and address the risks present at our locations using our Risk-Reduction and Operational Excellence processes, including 5S, Visual Management and Standard Work. The worldwide implementation of Lean principles improves communication and engagement and reduces waste and inefficiencies in our workplace that could result in incidents.

## Our Approach to Safety

Our approach to safety is embedded in our culture of continuous improvement, is reinforced by our management systems and is a key aspect in driving employee engagement.

### Continuous Improvement

- Risk-Reduction Process
- Improvement/Kaizen
- Failure Mode and Effects Analysis (FMEA)
- Root-Cause Analysis

### Culture

- Safety Is Everyone's Responsibility
- Stop Work Authority
- Respect For People



### Management Systems

- Plan-Do-Check-Act (PDCA)
- Training
- Standard Work
- Metrics
- Gemba

# Key Focus Areas in 2021



Implementing and evolving stringent COVID-19 protocols to keep employees safe and healthy. We also adapted many of our practices to operate in a socially distanced, remote environment, such as implementing virtual Gembas and using virtual tools to identify potential risks. Gembas are the action of going to observe and review the actual process location, understanding the work, asking questions and learning from those who do the work on how to improve



Improving training programs for newer employees, including using specially colored hard hats and implementing a “buddy system” to mentor new employees



Expanding safety leadership principles and engagement indicators to empower and protect all employees



Enhancing safety and environmental facility audits



Integrating the Normerica and SPCC asset acquisition into the MTI safety culture



Sustaining progress in our comprehensive fatality risk-reduction program





# Continuing Focus on Fatality Risk-Reduction Programs

Since 2018, we have made considerable progress with our fatality risk-reduction programs, which have been a key driver in achieving world-class safety performance. These comprehensive programs align EHS efforts across MTI's operations and actively engage employees to reduce the most severe injuries. This includes continuous assessment of the inherently high-risk situations at our locations, investment in time, resources and money to improve the safety of these activities, development and management of mitigation plans, as well as leadership oversight in status reviews.

## Increase New Employee Safety via Competency and Buddy System

As new employee (0-3 years of service) injuries have been statistically higher in the past few years, we have spent considerable efforts on training and coaching to improve new employee awareness and work skills. Our New Employee Competency Program and Buddy System have been implemented successfully in the last two years in several of our business units and are expanding company wide. Both programs consist of required onboarding training and also assign a mentor/trainer to coach the new employee on their specific job-related tasks and ensure the employee understands the risks and hazards associated with the tasks in order to implement the proper precautions.

Within the Competency Program, the Job Instruction Training (JIT) and Job Breakdown Sheets (JBS) are the primary methods utilized to ensure proficiency in the training. Before employees can work unsupervised on a task, they must have their competencies evaluated and confirmed by an Instructor/Trainer.



## Key Programs to Reduce Fatality Risk:

1. **Mobile Equipment/Pedestrian Separation:** We have programs to reduce the risk associated with pedestrians interacting with mobile equipment both inside and outside of our buildings.
2. **Lockout, Tagout, Tryout (LOTOTO):** We are continuously working on plant improvements and upgrading system designs to strengthen the safe isolation of energy sources.
3. **Falls From Heights:** We are nearly 100% complete on assessed improvements with a focus on applying hierarchy of controls and implementing industry best practices.
4. **Confined Space Entry:** We are 100% complete, with over 3,197 permit-required confined spaces identified.
5. **Rail Car/Pedestrian Separation:** 100% of the sites have been assessed with 34% of the sites requiring action items. Fifty-six percent of those action items have been completed. We are continuing to increase engineering controls to improve the effectiveness of the separation and reduce the risk.



In the Buddy System, a buddy partners with a new employee during his/her first year of employment with the company. Although primarily responsible for offering advice and guidance regarding the day-to-day aspects of working safely and adhering to MTI standards, Buddies may also offer encouragement and knowledge resources, as they help introduce the new employee to MTI’s culture. By design, Buddies should be good communicators, be safety role models and be motivated to ensure a safe work site.

### Comprehensive Health and Safety Training For All Employees and Contractors

Training is an essential part of improving our safety performance, and every employee is required to complete comprehensive safety training each year. Each site designates certain safety-critical topics for in-person training as part of its training program. Historical incident trends, lessons learned or regulatory changes can all prompt safety-critical topic training. Every year, the training is enhanced to exceed current situational requirements. Each site designates specific training criteria to reduce risk and enhance the abilities of the employees to identify and correct hazards. This includes specific required training and expectations

for contractors. New Employee onboarding is particularly important toward helping new employees gain awareness and alignment with MTI EHS values.

All training is conducted in local languages. This training is made available both in classroom settings, as well as in online-based formats. MTI conducts monthly EHS webinars given by key personnel to cover critical safety-related topics. In 2021, MTI conducted more than 90,000 hours of safety training for both employees and contractors.

### Reducing Finger and Hand Injuries

Finger and hand injuries have been our most common type of injury for the past few years. Accordingly, many of our training modules and awareness activities have focused on identifying the causes and implementing a series of corrective actions to reduce these injuries. 2021 activities include: EHS webinars on Hazard Recognition and Controls, Hand and Finger Safety Best Practices, Non-Routine Task Review, as well as Gembas. Additionally, we have implemented a glove policy for all work with tools, machinery or equipment and conducted online training on Hand Safety and Power Tool Safety.



# 2021 Safety Performance Highlights

## 2021 Health and Safety Highlights

- 90% of locations injury free
- Paper PCC passed 1M hours without injury
- Engagement metrics improved 20% (Near Misses / NRTR / Gemba / Coaching)
  - Virtual Gembas

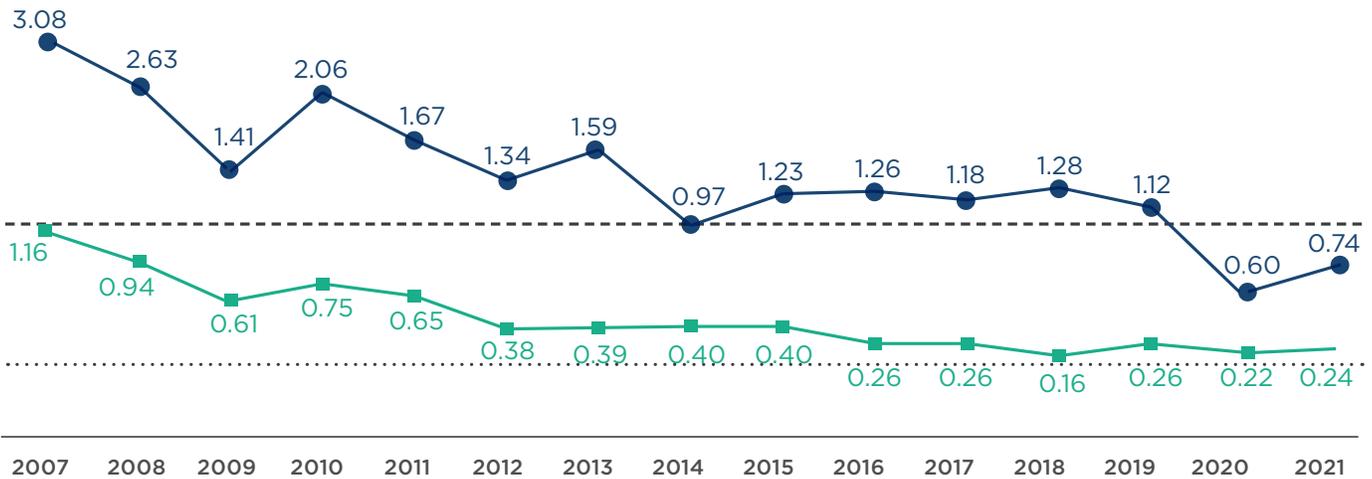
## 2021 Focus Areas

- Advanced fatality-prevention initiatives
- Hand and finger injury prevention
- Successful integration of Normerica—proven processes for integrating acquired companies

## 0 Employee and Contractor Fatalities in 2021

### Safety Performance

Injuries/100 Employees + Part-Time Workers + Contract Workers\*



----- World Class Recordable Injury Rate 1.0      ● Total Recordable Injury Rate  
 ..... World Class Lost Workday Injury Rate 0.1      ■ Lost Workday Injury Rate

\*MTI combines employees, part-time workers and MTI directed contractors in our TRIR and LWIR reporting.



## Our Paper PCC Groups Achieved One Million Hours Injury Free

Our Paper PCC Business Unit reached 1 million hours without an OSHA Recordable milestone on January 30, 2022 and, as of the end of April 2022, our Paper PCC was at approximately 1.1 million hours injury free. This remarkable performance by PCC is due to every employee's ongoing involvement in safety initiatives, practicing mindfulness and safety awareness and constantly being on the lookout for hazards.

### Injury Performance by Region in 2021

MTI	Recordable Injury Rate	Lost Workday Injury Rate
Total Americas	1.07	0.28
Total Asia	0.10	0.00
Total Europe	0.69	0.40
Total MTI	0.74	0.24

## Independent Contractor Safety Requirements

Independent Contractors are required to follow all MTI EHS procedures, policies and regulations when working on MTI sites. MTI has strict requirements for contractors to comply with our safety policies and assess our contractors to ensure they implement the requirements and train all their employees before they are allowed to do any work at an MTI site. Training includes specific site safety rules and protocols pertaining to equipment precautions and Personal Protective Equipment (PPE). MTI requires all contractors to participate in all Non-Routine Task Reviews (NRTRs) and Risk Reviews for joint projects. Safety metrics for contractors are tracked in our data management system, including observations, incidents and near misses. All contractor incidents undergo root-cause analysis, just as if they were MTI employee incidents.

## Independent Contractor Safety Metrics 2019-2021

	Recordable Injury	EHS Near Miss Reports
2019	2	123
2020	5	171
2021	2	79

## Our Leading Indicators To Assess Employee Safety Engagement

A critical platform we use to assess and manage the strength of our employee engagement safety performance is through a set of leading indicators focused on every employee at MTI. Employee Environmental Health and Safety engagement is measured by specific activities that relate to hazard identification, near misses and job observations. We look at how tasks are performed, conduct NRTRs and periodic Gembas. These leading-indicator activities give us a baseline for how our employees and contractors are interacting within the Environmental Health and Safety program. More importantly, these indicators provide us a window into how this engagement is impacting the safety performance of MTI.

### 321,000+ Safety Engagement Activities occurred in 2021

or an average of 998 daily, including:

- 91,000** Gembas
- 43,000** near misses/unsafe acts reported, resulting in a significant increase in hazard identification
- 50,000** job observations reported, with 15,832 improvements made
- 74,000** non-routine task risk-reductions completed
- 31,000** toolbox discussions

## Audits and Self-Assessments

Through our EHSLT and site-specific personnel, we deploy an internal safety auditing program for adherence to local, state and federal safety standards and regulations at least once a year at every location. In addition, each manufacturing facility is externally audited at least once a year. These assessments take a “fresh eyes” approach by engaging experts from outside of the business unit and MTI to help observe and report any improvement opportunities.

Each site is also responsible for conducting self-assessments as part of our Plan Do Check Act (PDCA) program. These assessments help recognize non-conformances and gaps between our policies and our actions. Our goal is to identify and correct issues before they become problems that could impact the health and safety of our employees. After identification of an issue, a root-cause assessment is completed and corrective actions are developed and implemented.

## Emergency Preparedness and Response Drills

MTI is committed to protecting the safety of its employees and the viability of its operations in case of any emergency event that may happen. All MTI facilities are required to have an Emergency Response Plan (ERP) in place to facilitate and organize employee actions in the event of workplace emergencies. All MTI facilities ERPs follow uniform MTI safety strategies and additional local regulatory requirements. MTI realizes that a well-developed ERP and proper employee training will result in the minimization of employee injuries during emergencies.

Individual site ERPs are reviewed each year by our EHS teams and are under supervision of our Corporate Crisis team to prepare for events that can cause deaths or significant injuries to employees, customers or the public, shut down business, disrupt operations, cause physical or environmental damage, or threaten the facility’s public image. Examples events that can be “emergencies,” include: fire, explosion, hazardous materials incident (spill or release), flood or flash flood, hurricane, tornado, winter storm, earthquake, communications failure, radiological accident, civil disturbance or bomb threat, utility outage and many more. The purpose of having ERPs and teams ready is to protect the health and safety of employees and the surrounding community, the environment, customers and company assets.

### The crucial elements of ERPs are, among others:

- Means of reporting emergencies internally and externally
- Evacuation procedures and emergency escape route assignments
- Building and site maps that indicate designated evacuation routes
- Assembly points
- Fire extinguishers and utility controls

## 2021 SAFETY RECOGNITION



In conjunction with #WorldSafetyDay2022, CETCO ENERGY SERVICES works diligently in creating a positive safety and health culture. CETCO received the Safety award for injury-free operations in 2021.



Our Yanzhou plant has demonstrated its commitment to continuous improvement by earning an “AA” award in 2021 for employee engagement. This achievement underscores MTI’s philosophy of ever-better performance, which has resulted in an improvement on the plant’s level A award in 2019. Granted by the local government, the award criteria measures companies’ employment rates, compliance to EHS policies, fair wages and benefits, work safety policies, and occupational health and human rights practices. This affirms the value we place on our operations and the esteem we hold for the dedication of our employees.



- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after an emergency evacuation has been completed
- Rescue and medical duties (e.g., First Aid and CPR)
- Emergency call lists of all persons on-site and off-site who would be involved in responding to an emergency
- Resource lists, such as regulatory agencies and spill-response contractors
- Procedures for requesting an evacuation of the neighboring community
- Procedures for dealing with requests from the news media

To ensure that the ERPs are effective, anyone who works at or visits the facility requires training. Employees receive detailed training on the ERP during orientation, onboarding and at least annually thereafter. Contractors and visitors receive an overview of the ERP (with emphasis on emergency reporting and evacuation routes) as part of their pre-entry safety briefing.

The adequacy of the ERP is also assessed at least annually through emergency response drills. A detailed assessment of the drill is completed and documented along with recommendations for improvement and an implementation schedule for their completion. Examples of emergency response drills are simulations of usage of AED (Automated External Defibrillator), dry runs for evacuation or fire drills that have been conducted at many MTI locations.

In case of an emergency event, the first aid response team plays a crucial role because it may save somebody's life. Therefore, all MTI locations are prepared to provide immediate first aid treatment to an employee or visitor in the event of an injury or illness. Each MTI facility has relationships with external emergency responders to provide emergency medical treatment to injured or ill employees.

Each MTI location has at least one MTI employee on each work shift trained in first aid and CPR. For large locations (greater than 25 employees), at least one employee in each department must be present on each shift. Each MTI location makes First Aid and CPR training available to all interested employees.



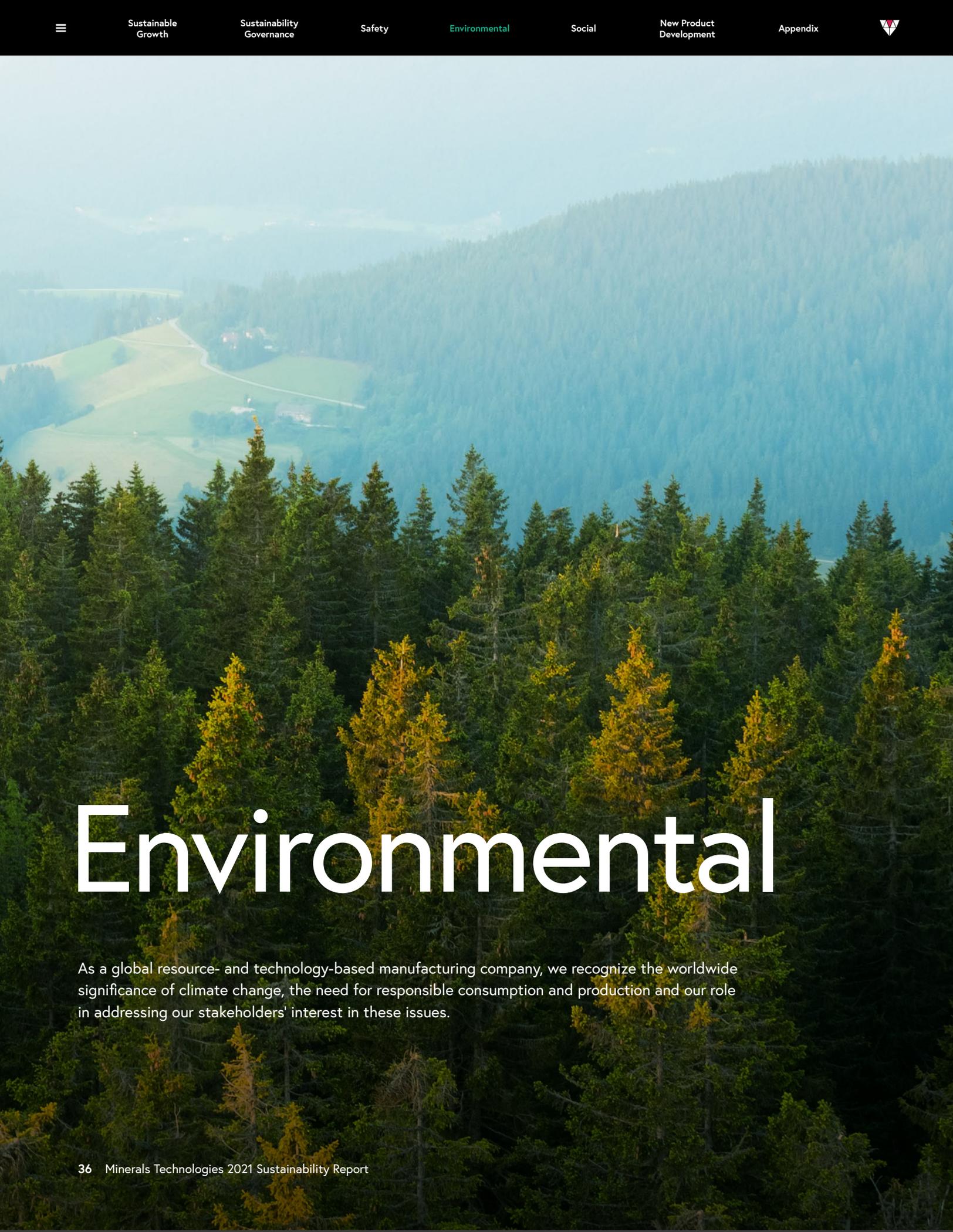
### 2021 SAFETY RECOGNITION

All Energy Service Malaysia locations Puchong, Kemaman and Labuan attended a celebration to accept the "OSH GOLD CLASS II AWARDS" during the 39th Malaysian Society for Occupational Safety & Health (MSOSH) Awards 2021.

MSOSH Occupational Safety and Health Awards (MSOSH Award) is an annual award presented to organizations in Malaysia with proven outstanding Occupational Safety and Health (OSH) performance. The MSOSH OSH Awards are intended to give due recognition to all member organizations and companies which have achieved commendable Occupational Safety and Health performance and/or have shown remarkable improvement in Occupational Safety and Health processes through sound Safety and Health Management system.

Our Colony West Mill received a safety award from the State of Wyoming Department of Workforce Services for its good safety performance in 2021.

**SHARP Recognition** Several of our sites in the United States have earned Safety and Health Achievement Recognition Program (SHARP) designations in the states where they operate. SHARP awards are given by OSHA and represent the highest level of safety standards and engagement.



# Environmental

As a global resource- and technology-based manufacturing company, we recognize the worldwide significance of climate change, the need for responsible consumption and production and our role in addressing our stakeholders' interest in these issues.



# Environmental Journey at MTI

**In this year's report, we continue to disclose specific accomplishments to lower our environmental footprint in key areas and detail future actions to ensure we meet or exceed our 2025 targets.**

We have a responsibility to ensure compliance with all environmental regulations in the locations where we operate, which includes reducing the impact of our operations on people, communities and the planet. Throughout our history, we have been working to lower our environmental footprint and are proud of the progress we have made. We continue to implement innovative, cost-effective solutions to reduce our environmental impact while remaining competitive within our industries. This is a continuous improvement journey, and we will continue to drive our performance further and faster. We are advancing our efforts through forward-thinking initiatives, additional developmental tools, as well as environmental targets that provide the framework for tangible progress.

In order to improve our internal environmental performance, we manage our manufacturing facilities around the world according to a global set of management principles.

## Progress in 2021

We are pleased to report that we are resetting our 2025 targets to reduce our Scope 1, Scope 2 and airborne pollutant emissions, as well as water used and water discharged absolute volumes more aggressively. We are also announcing official 2025 targets for our intensity metrics per ton of production. In most cases, our new intensity reduction percentages are greater than our absolute reduction percentages. This is testimony to our growing process efficiency as we not only reduce our absolute emissions and discharges, but also increase our production volume with significantly less emissions per ton. As we economically and sustainably grow our business by deepening and extending our geographic presence, as well as engaging in new product development and acquisitions, our commitment to improving process efficiency will be key to continuing to reduce our emissions.

Over the past three years, we strengthened the sustainability mindset of our employees, while enhancing the reporting and verification of fuel, emissions, water and waste metrics. We also improved our internal data management system and increased the number of topics we disclose, steps undertaken to drive transparency and provide more ways to measure progress.





### Key Management Aspects Include:

- Oversight, review and guidance on performance by our Board of Directors, LC, Sustainability Lead Teams, Business Units, as well as members of our Environmental Team
- Management engagement with key shareholders on sustainability, which includes: ongoing and evolving dialogues with local communities, interactions with our suppliers and customers, as well as collaborations with governmental officials and regulators that oversee our operations to enhance our sustainability practices
- Continuous improvement and ensuring our Operational Excellence principles are integrated into all activities that impact the environment
- Adhering to our global [Environmental Health and Safety \(EHS\) Policy](#)
  - Applying our global EHS Management System to all operations, which contains environmental standards and procedures and is modeled after ISO14001 and OHSAS 18001/ISO45001
  - More than 10.8% of our sites are certified to ISO 14001:2015 Environmental Management Systems, and we have our first site certified to ISO50001:2018 Energy Management Systems
- Complying with all applicable laws and regulations and working closely with regulatory bodies as they develop new regulations
- Working to minimize environmental impact, emissions and wastes. Increasing energy efficiency, promoting the responsible use of water, as well as reducing waste to landfills. Working with internal and external R&D/Engineering to embrace new technologies, such as renewable energy, water-saving solutions, as well as more efficient equipment
- Educating and empowering all employees to engage in activities to achieve 2025 reduction targets
- Conducting regular training and awareness programs for appropriate personnel
- Auditing all of our sites at least once every two years
- Sharing of best practices with all employees to empower them to implement site-specific solutions
- Reporting environmental performance internally each month
- Implementation of emissions and waste reduction plans developed at each site to achieve our overall environmental goals

## In 2021, we focused on reductions in the following categories from our 2018 baseline:



Scope 1 Direct greenhouse gas emissions CO<sub>2</sub>



Scope 2 Indirect greenhouse gas emissions CO<sub>2</sub> (from purchased electricity)



Airborne pollutants



Water used



Wastewater discharge



Landfill waste

### Increased disclosure content in this section include:

- Hazardous waste generation by business unit and commitment to reduce our volume of hazardous waste generated in our plants
- Disclosure on the closed loop water recycle/reuse our PCC satellites share with our host paper mill customers, the amount of water we recycle, as well as where we source and discharge water and discharge
- Total energy consumed, including total direct and indirect energy
- Actions to manage and reduce our small settling ponds
- Percent of electricity consumed purchased from the electrical grid, as well as the fuel sources to generate that electricity

### Looking Forward

Our near-term goals are continuing to implement projects to achieve our new, more aggressive 2025 emission and discharge reduction targets. In 2021, we started the integration of our Normerica and SPCC acquisitions to implement our environmental principles and standards. In 2022, we acquired Concept Pet and started integration process.

Over the next two years, we will undertake a comprehensive process to define more ambitious targets to further reduce our environmental footprint out to 2035. In addition, we have continued to enhance our climate-related risks and opportunities by reporting our findings using the Task Force on Climate-Related Financial Disclosures (TCFD) framework. Scope 3- MTI is developing Scope 3 upstream and downstream emission data and timeline for reporting.



# Environmental Performance and Significant Progress Toward Achieving and Exceeding 2025 Targets

	2018 BASELINE	2019	2020	2021	PREVIOUS 2025 TARGET	NEW 2025 TARGET	PREVIOUS TARGET REDUCTION (%)	NEW TARGET REDUCTION (%)
Scope 1 Direct GHG CO <sub>2</sub> <sup>1</sup> (tons)	441,881	390,782	348,770	368,434	353,000	331,000	20%	25%
Scope 1 Direct GHG CO <sub>2</sub> Intensity <sup>1</sup> (lbs CO <sub>2</sub> /ton produced)	97	84	82	70	—	65	—	33%
Airborne Pollutants <sup>2</sup> (1,000 tons)	6.87	4.96	5.27	5.40	3.44	3.09	50%	55%
Airborne Pollutants Intensity <sup>2</sup> (lb pollutants/ton produced)	1.5	1.1	1.2	1.0	—	0.68	—	55%
Scope 2 Indirect GHG CO <sub>2</sub> <sup>1</sup> (tons)	154,573	158,578	120,850	105,320	131,000	93,000	15%	40%
Scope 2 Indirect GHG CO <sub>2</sub> Intensity <sup>1</sup> (lbs CO <sub>2</sub> /ton produced)	34	34	28	20	—	20	—	40%
Process Water Used <sup>3</sup> (Billion gals)	7.41	7.60	6.31	6.36	6.6	5.9	11%	20%
Process Water Used (gals/ton produced)	838	819	744	604	—	587	—	30%
Process Water Discharged <sup>3</sup> (Billion gals)	4.13	4.14	3.26	3.41	3.7	3.3	11%	20%
Process Water Discharged <sup>3</sup> (gals/ton produced)	465	446	383	324	—	312	—	33%
Landfill Waste Disposed (ton)	208,946	213,360	175,954	181,012	166,000	166,000	20%	20%
Landfill Waste Disposed (lb waste/ton produced)	46	46	41	35	—	32	—	30%

**Notes:**

1. MTI utilizes the GHG Protocol methodology and utilized USA 2020 Egrid data, 2021 UK DEFRA, and 2019 International Energy Agency database estimates for the Scope 2 emission factors for the countries in which we operate.
2. Emissions of Particulate matter (PM), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF6), and Nitrogen trifluoride (NF3) are not material for MTI.
3. Process water used is our total water used and includes our cooling tower water.



# Emissions

## Scope 1, Scope 2 Greenhouse Gas Emissions (GHG) & Airborne Pollutants

As MTI recognizes the health and environmental issues associated with CO<sub>2</sub> emissions and related air pollutants, we are diligently working to reduce our emissions.

We are making noteworthy progress, as we identify our highest-emitting activities, implement corresponding energy efficiency programs and energy management systems (EnMS), as well as engage employees across our company to adopt a more energy-efficient mindset.

MTI has delivered a very strong Scope 1 Direct Emission reduction of approximately 17% and an Airborne Pollutants reduction of approximately 21% from 2018 through 2021. This was primarily driven by several of our large manufacturing and processing sites implementing changes that maximize the use of lower carbon fuels, a process involving reducing coal usage and increasing natural gas usage.

### Greater Reduction Targets

<b>Scope 1 Direct Emissions 2025 goal</b>	25% absolute reduction 33% intensity reduction
<b>Airborne Pollutants 2025 goal</b>	55% absolute and intensity reduction

### Key 2021 Emissions Reductions Achievements:

- Our Colony West, Wyo plant, one of our largest manufacturing facilities, has eliminated coal usage and switched entirely to natural gas for drying bentonite clay. This conversion significantly reduced both Scope 1 and airborne pollutants at this facility and led to reduced maintenance and operational costs. We are in the process of applying this learning across our global operations.
- Our Colony East, Wyo; Lovell, Wyo; and Sandy Ridge, Ala, facilities maximized natural gas usage and

reduced coal usage in 2021, significantly reducing our Scope 1 and airborne pollutant emissions. We have a clear path for further reductions at these plants, as we implement plans to upgrade our clay-drying equipment.

- We have started purchasing electric forklifts across MTI global operations, with a goal of 50% implementation across all our operations over the next 10 years. Currently, about 15% of our forklifts are electric.
- We have started sourcing and utilizing hybrids in our company car fleet, with our first eight leases. We plan to continue to increase the number of these fuel-saving vehicles and consider including all electric vehicles in future years.

### Plan to Achieve Target

Leveraging best practices from implemented projects, MTI aims to convert additional dryers and calciners to natural gas processes while improving fuel usage efficiency across our global operations. Our planned timeline to reduce Scope 1 and airborne pollutants is:

- 2023: Convert burners from coal fired to natural gas at our Colony, Wyo; Lovell, Wyo; and Sandy Ridge, Ala, locations for an approximate 20,000 ton/year CO<sub>2</sub> reduction.
- 2025: Explore feasibility of converting our Gascoyne, N.D. operation to electric drying since natural gas is not currently available in the area.
- 2030: Convert our Dongming, China, and Adams, Mass., facilities to natural gas when sufficient natural gas is available in these regions. We are working to accelerate this timeline by collaborating with the regional authorities.
- We are also evaluating additional methods to reduce Scope 1 Direct emissions and airborne pollutants by converting from fossil fuel fired to electricity-driven equipment. For example, we are investigating



- switching from diesel generators of electricity in our mines to sourcing electricity from the grid. Operational changes such as these will increase our overall electricity usage while significantly reducing our total CO<sub>2</sub> emissions.

Our Supply Chain and Logistics team are working to improve the fuel efficiency of our internal and external trucking fleet by installing skirts and fins on our tailers and using more fuel-efficient tires.

Scope 3- MTI is developing Scope 3 upstream and downstream emission data and timeline for reporting.

## MTI Enables Carbon Capture and Emissions Reductions for Our Customers

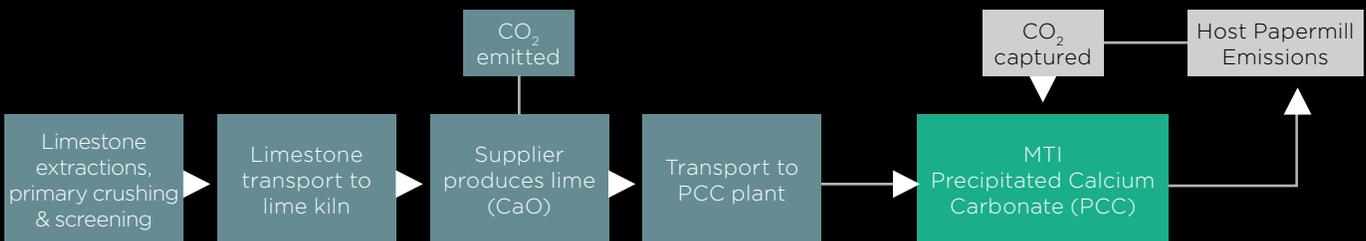
In 2021, we extracted and captured **1.2 million tons of CO<sub>2</sub>** from our Precipitated Calcium Carbonate (PCC) customers' exhaust stacks—as well as from some stacks of our own—and permanently sequestered those emissions **into 2.7 million tons of MTI high-quality PCC minerals** for use in our customers' specialty applications. We pioneered this waste gas utilization concept and have been improving the process to

enhancing our carbon capture and sequestration. We sell this recovered CO<sub>2</sub> as a component in high-quality PCC to our customers to enhance their paper and packaging products, while reducing the release of CO<sub>2</sub> into the atmosphere. This unique approach to making PCC starts with the co-location of our satellite facility and the customer's production site, which removes the need to dry or ship the PCC slurry product, thus avoiding energy-intensive transportation. The 1.2 million tons of CO<sub>2</sub> captured, sequestered and used in customer products has not been included in our Scope 1 emissions. We plan to include this carbon capture and sequestration when we begin reporting Scope 3 calculations in the future.

## Scope 2 Indirect CO<sub>2</sub> Emissions from Purchased Electricity

MTI is committed to the efficient use of energy throughout our operations, with a focus on reducing energy use, as well as expanding our use of renewable energy. In 2021, MTI significantly reduced our Scope 2 indirect carbon emissions through a broad range of energy-savings activities.

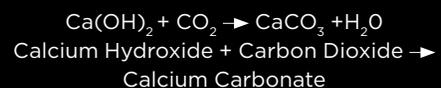
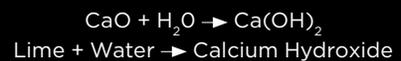
### MTI PCC Production Process Carbon Footprint



#### MTI's Lime Supplier Production Process



#### MTI PCC Production Process





## Greater Reduction Targets

### Scope 2 Indirect Emissions 2025 goal

**40%** absolute reduction, up significantly from the previous **15%** absolute target reduction and **40%** intensity reduction.

### Our success in reducing our Scope 2 carbon emissions by approximately 32% since 2018 is primarily due to:

- Implementing LED lighting
- Upgrading electrical equipment
- Installing onsite solar panels
- Directly purchasing wind turbine electricity
- Buying lower-carbon intensity electricity from the electrical power grids in several key countries.

A key achievement is starting in late 2020, with full benefit in 2021 and for the next 15 years is we are direct sourcing by contract 50% of the electricity supplied to our Colony, Wyoming, facilities from a Black Hills Energy wind turbine facility.

### Plan to Achieve Targets

- We are encouraging our facilities and Supply Chain to source additional green electricity by either purchasing more electricity made from renewable sources or exploring the installation of wind or solar generation facilities on or near our facilities.
- MTI is continuing to develop near-term plans for converting all lighting to LEDs to reduce overall electricity demand over the next five years. Currently, approximately 30% of our global sites are 100% LED-lighting equipped, while the other 70% are implementing plans to upgrade to LED lighting over the next 5 years.
- We will upgrade agitators, air compressors, pumps and motors as part of the planned replacement cycle that will reduce future electricity demand.

- Where applicable globally, we will leverage the carbon-neutral playbook at our facilities in the Netherlands and Austria. These sites are audited by the Climate Neutral Group to calculate their CO<sub>2</sub> emissions, which are partially offset with on-site solar panels in the Netherlands.

### Sources of Electricity

In 2021, we sourced 58.2% of our electricity from provider grids, 39.6% from our PCC satellite's host paper mill, 1.8% via direct purchase of wind turbine electricity from Black Hills Energy, and 0.4% from on-site solar panels in our Moerdijk, Netherlands, facility. Historical sourcing of electricity trends and details are shown in the [appendix, page 78](#).

### Focusing on Renewable Energy

About 33% of our electricity purchased from the grid was generated from renewable sources using estimates from the USA 2020 Egrid, 2021 UK DEFRA, as well as the 2019 International Energy Agency databases. Including nuclear power as a carbon-dioxide, emission-free electricity supply, MTI received about 49% of our electricity from electricity generators that produce essentially none or extremely low quantities of CO<sub>2</sub>.

MTI's goal is to increase our direct sourcing of renewable energy to 15% of total electricity usage by 2030. To help us achieve this goal and our Scope 2 Indirect Emissions goals, we are exploring a variety of renewable energy mechanisms and tools. MTI's Supply Chain and our facility managers are investigating additional direct green electricity sourcing opportunities. We are currently examining purchase agreement opportunities from electricity generators and determining the potential of installing wind turbine and solar panels at several of our facilities.

### 2021 Electricity Sources (%)

RENEWABLE		NON-RENEWABLE	
Wind	13.7	Natural Gas	35.7
Hydro	12.3	Coal	14.4
Solar	3.5	Nuclear	16.1
Biomass	3.0	Oil	0.2
Geothermal	0.6		



## Total Energy Use

In order to reduce our total energy usage, MTI is investing in energy efficient equipment and implementing procedures that increase efficiency and conserve energy. From 2018 through 2021, we have reduced our total energy use by 3.1% with direct energy reduction of 2.5% and indirect energy reduction of 3.9%. This total energy reduction, even as our production volumes have significantly increased, is a testimony to our energy conversion and reduction efforts. We have increased our disclosure and enhanced our reporting of Total Energy Consumption, Direct and Indirect Energy for MTI and our subsidiary business units as shown in the [appendix, page 78](#).

## Water Use

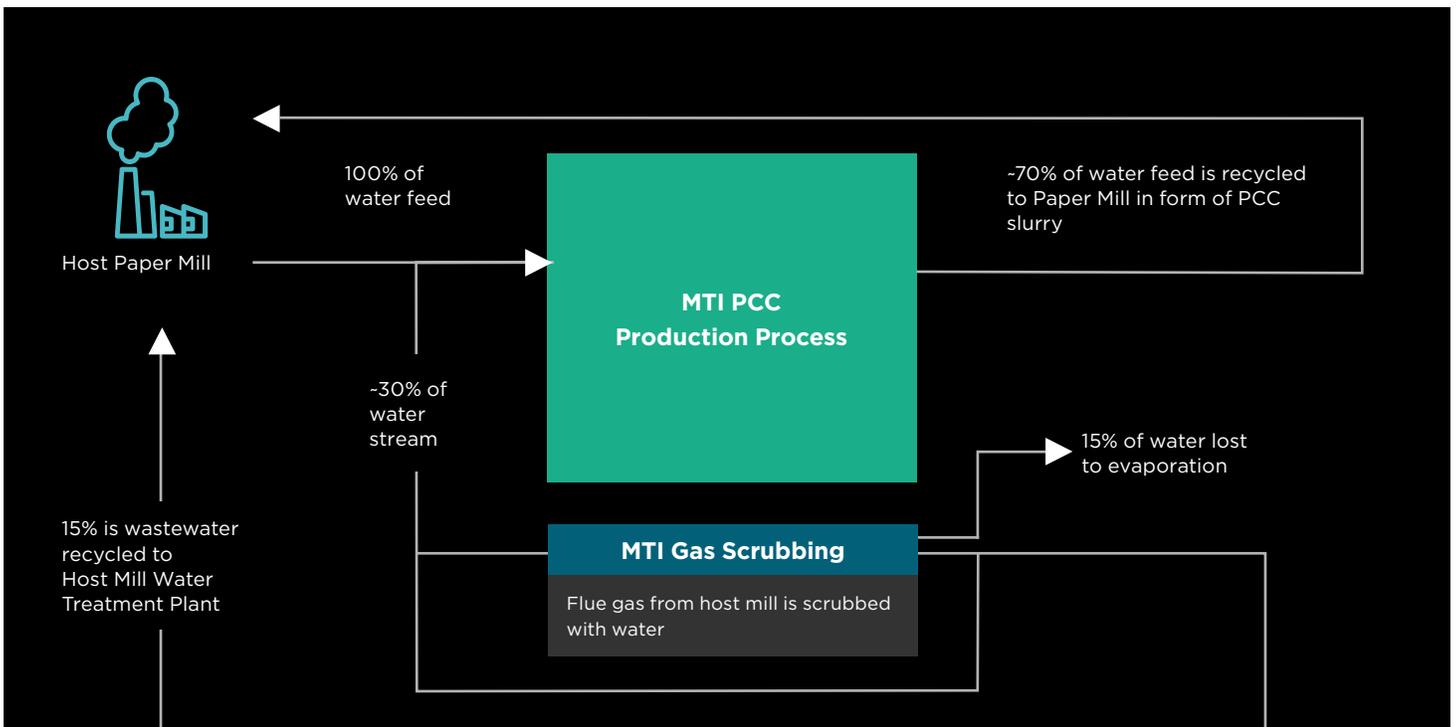
**Water is fundamental and essential to life.**

At MTI, we are focused not only on using water judiciously but also on discharging wastewater in a safe and responsible manner. Several of our products require water for processing and manufacturing, and we recognize our responsibility to use this natural resource

efficiently and in cooperation with local communities. Accordingly, our guiding principle is to measure, monitor, conserve, recycle and discharge water responsibly, while ensuring we comply with all relevant permits, regulations and policies.

In our Specialty Minerals facilities (Paper PCC and Performance Minerals), which make up more than 98% of our overall water usage, it has been our longstanding practice to conserve, recycle and reuse as much water as possible while providing an economic benefit to the local community. In areas with ample water supplies, we use water in our purification processes to produce specific grades of Specialty Precipitated Calcium Carbonate (SPCC) products.

Our Paper PCC satellites are typically located at customers' paper mills, enabling us to receive and reuse water from their facilities. The host paper mill requires significantly more water—typically 10 times more than our satellite plants. Around 70% of our water usage is recycled to the host mill in the form of our PCC product slurry, and 15% is recycled to the host paper mill water treatment system. This means that our PCC satellites use 85% of recycled and reused water (see graphic below).





Since 2018, we have reduced our water usage by about 1.1 billion gallons and our water discharged by about 0.8 billion gallons

In a few sites where water availability is limited, the local communities have established separate discharge criteria for excess water. The host paper mill and our satellite plants are important to the community’s well-being and economic sustainability, and we recognize the human right to water as we work with the community to ensure conservation of water. As a result, we track not only the volume of water used and discharged, but we also closely track specific water quality criteria to ensure we are compliant with our local discharge permits. Process water used is MTI’s total water used and includes our cooling tower water.

**New Water Reduction Targets and Accomplishments**

**1. Greater Process Water Used Reduction 2025**

**goal:** 20% absolute and 30% intensity reduction and increased significantly from the prior goal of 11% reduction.

In 2021, MTI’s water use was approximately 6.4 billion gallons and 14% percent lower than our 2018 baseline. On an intensity basis, our water reduction efforts have resulted in an approximate 25% decrease in water used per MTI ton produced. Our success in reducing water consumed is due to continued implementation of closed-loop water reduction reuse projects at our Chillicothe, Ohio; Cloquet, Minn.; and Yanzhou, China, facilities, the best practices of which we implement across our PCC satellite plants globally. Our production volume growth in Asia increased consumption of water by >25% in this region; however, our newer plants were more water efficient and implemented closed-loop recycle streams upon startup.

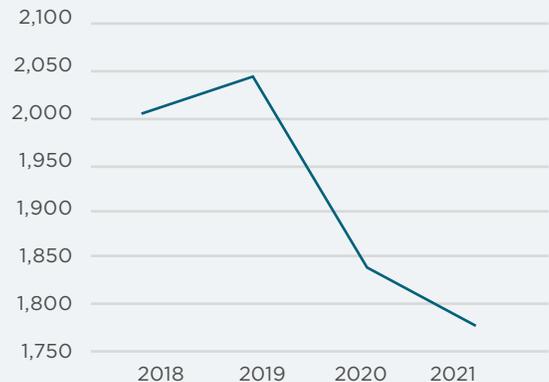
**2. Greater Process Water Discharged Reduction 2025**

**goal:** 20% absolute and 33% intensity reduction and increased significantly from the prior 11% reduction target.

**Key 2021 Achievements**

In 2021, our Paper PCC satellite plants, which consume the highest quantity of water, continued implementation of global best practices and contributed to our water conservation, recycling and reduction programs. The continuous improvement over the past four years in our Paper PCC satellite plants is shown in the graph below.

**PAPER PCC, PROCESS WATER USED INTENSITY**  
Gals Water/Ton Produced



In 2021, MTI’s water discharged was approximately 3.41 billion gallons and approximately 18% percent lower than our 2018 baseline. On an intensity basis, our water reduction efforts have resulted in a 29% decrease in water discharged per ton produced. Our success in reducing water discharged is primarily due to the implementation of reuse/recycling projects and the continued use of projects already in place. We are applying these best practices to our more than 50 satellite plants globally.



## Plan To Achieve Targets

Our PCC Plants are focused on two projects: Scrubber Water Blowdown Reclaim and Material Recovery System, respectively. These projects can be applied to approximately 40 PCC satellites, with a potential to save 900 million gallons of water/year. For 2022, we have nine plants in scope for implementing the water blowdown reclaim project, which will yield a savings of around 300 million gallons/year of water. Our material recovery project at Chillicothe is expected to yield 230 million gallons of water conservation/year, in addition to savings of approximately 1600 MW electricity in 2023 due to less pumping of water.

## Focus on Water Source and Discharge Location

The [appendixes on page 81](#) gives subsidiary water used, discharge metrics by water source, as well as discharge location and operating region.

Using the World Resource Institute Aqueduct Tool, MTI has completed a water-risk assessment of all facilities in 2020, evaluating water withdrawals, consumption, quality and site-specific regulatory risks. We have also expanded our reporting to disclose our sources of water used and discharged. We are creating a comprehensive water-risk management strategy on a region- and site-specific basis to further advance our strategy.

## Our Waste and Spills

Improving process safety and mitigating waste in the form of spills, releases and landfill waste is closely linked to the optimization of processes and continuous improvement in our production. We are committed to reducing waste generation, including hazardous waste.

## Landfill Wastes

We strive to understand our waste generation, fully characterize its components, focus on reduction and recycling internally and then determine the best beneficial reuse or disposal method. When we need to dispose in landfills, MTI places our landfill wastes in both on-site regulatory permitted and inspected landfills and third party commercial non-hazardous landfills. All of our landfill material is non-toxic.

About 80% of our landfill material in 2021 was composed of our minerals, mineral by-products, and auxiliary minerals derived from our processes as we produce our superior quality products. The majority of these mineral based wastes are disposed in MTI internal landfills. We continually seek out beneficial reuse applications for these mineral by-products and auxiliary minerals. A primary example of this is the auxiliary minerals (“grit”) separated from the lime at all our PCC plants. The undesired grit is produced during the process as a quality step to remove particles not appropriate for direct use in the PCC product as part of the paper-making process. Twenty years ago, almost all the PCC grit was disposed in landfills. As part of our continuous improvement, MTI implemented projects to both reduce the quantity of grit produced and to find beneficial reuse applications as an alternative to landfill disposal. To minimize the amount of grit formed in our process, MTI has developed and installed proprietary treatment processes in about half of our satellite plants that enables a portion of the grit material to be reused as a valuable addition to our PCC products. For the remaining grit material, MTI strives to utilize the lime-like solids in beneficial reuse applications, such as agricultural soil conditioning or construction products (bricks and concrete), and we typically see over 60% of total available grit directed into beneficial reuse applications.

Landfill Waste 2025 goal: 20% reduction. In 2021, MTI’s Landfill Waste was approximately 181,012 tons, which is 13% below our 2018 baseline. Our success in reducing waste is primarily due to finding or developing beneficial reuse applications. Paper PCC found agricultural and beneficial reuse applications for about 53,000 tons of grit, 10% more than 2020 and 61% of our PCC grit production. Several Performance Materials plants found new beneficial reuse applications for our waste, including use of our bleaching earth waste into brick manufacturing.

## Plan To Achieve Target

We plan to reach our landfill waste target by increasing the beneficial reuse of our waste stream. Waste minimization and recycling efforts are in progress at many of our locations and will continue to be a key focus area going forward.

[The appendix on page 82](#) provides Landfill Waste metrics by business segment.



# MTI Environmental Release Data

<b>39</b>	<b>7</b>	<b>30</b>	<b>5</b>	<b>43</b>	<b>8</b>
2021 Total Releases	2021 Reportable Releases	2020 Total Releases	2020 Reportable Releases	2019 Total Releases	2019 Reportable Releases

## Hazardous Waste

MTI is committed to reduce our hazardous waste generation and is developing plans and timelines, including substituting non-hazardous chemicals in our processes and laboratories and minimizing the volume of waste generated during equipment maintenance.

In our 2020 Sustainability Report, we utilized the United States Resource Conservation and Recovery Act (RCRA) definition.

For 2021, MTI is changing our definition of hazardous waste to a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment as defined by the policies and regulations that oversee each of our manufacturing site locations. We have adopted this definition to comply with the local reporting requirements that govern our sites. Using this new definition, MTI generated and properly disposed of 224 tons of hazardous waste in 2021, which is about 0.002% of our 2021 finished product production volume. MTI hazardous waste includes 33% waste oil or waste oil byproducts that are incinerated for fuel value, 30% solvents and dyes, and 15% coal ash residue and we have reduction opportunities in each area.

## Settling Ponds for Mineral Tailings

MTI operates and maintains small settling ponds at only our Aberdeen, Miss.; Adams, Mass.; Barretts, Mont.; and Saint Genevieve, Mo., facilities associated with the storage of mineral impurities removed during

processing of our purified bentonite, calcium carbonate and talc products. The removal of the auxiliary minerals is a necessary step to provide customers with the highest purity grade mineral products.

We maintain the settling and tailings ponds according to regulatory permits, and all are monitored by MTI and the appropriate regulatory agencies.

Our largest settling ponds are located in our Barretts facility, where our tailings consist of the naturally occurring auxiliary minerals present in our talc ore. A rigorous inspection schedule has been implemented, which includes: daily MTI personnel inspection via Mine Safety and Health Administration (MSHA), workplace examination rules, as well as annual compliance inspection via the Montana Department of Environmental Quality (MDEQ). There are currently two small settling ponds in operation with an average berm height of less than one meter and a surface area of about three acres (10,000 square meters). MTI does not sequentially increase the height of the settling ponds with the tailings and, instead, typically dredges the tailings and disposes of them in compliance with local regulations. None of the water from the settling pond is discharged offsite, as all the water is recycled back to the manufacturing plant in a closed-loop water reuse process. The settling/tailings pond-closure plan is included in the site's overall Reclamation and Closure plan as part of our MDEQ Operating Permit. Typical post-closure monitoring is 10 years.



## Environmental Releases

In 2021, MTI had 39 total releases and seven reportable releases; both were an increase over 2020 and lower than 2019. Our reportable releases are defined by local regulations governing our manufacturing sites.

MTI's goal is to have zero compliance violations, and we operate with a "zero-release" mindset. However, when incidents do happen, we have procedures designed to ensure consistent and prompt reporting of all situations that might have significant impact. On environmental release issues, we require sites to internally report these events to leadership. This is reflective of our continuous efforts to improve our processes and prevent future releases. All release events that may have the potential to impact the environment (also referred to as "near misses") are analyzed using root-cause processes, and key learnings are shared throughout our company. When a release occurs at a facility, a root-cause analysis investigation is conducted, with a target completion within one week of the event to ensure that the information and circumstances are quickly captured. Further, the facility documents the investigation and develops corrective actions based on the root cause(s) identified. The facilities employ several root-cause analysis techniques, including: Fishbone diagrams, 5 Whys, as well as Cause Mapping Improvement efforts to target spill prevention, enhance compliance tracking measures and bring more rigor to identifying the release activities. We report all environmental releases regardless of agency reportability status. Teams are empowered through training and communication to complete mitigation steps and address any noted gaps expeditiously, including implementation of preventive measures to eliminate recurrences.

## Strong Commitment to Mining Sustainably

MTI's global mining operations span Australia, China, Mexico, Turkey and United States, and we recognize our responsibility to operate in an environmentally respectful manner.

We mine Bentonite, Hectorite, Leonardite and Bleaching Earth minerals in our Performance Materials business and Calcium Carbonate, Dolomite and Talc in Performance Minerals. Our approach to mining and land reclamation is guided by our OE principles and continuous improvement culture, as well as strict adherence to applicable regulations—we are always looking for ways to continuously improve above and beyond what is required from a compliance perspective. MTI does not mine in high conservation-value areas (HCVAs).

In 2018, we created a Mining Lead Team comprised of individuals in senior-level mining positions to develop best practices to ensure we are achieving the highest standards in mining, exploration, reclamation, biodiversity and reporting processes across our operations. In 2020, with the guidance of the Mining Lead Team, we are taking a more focused approach to our overall mining activities from exploration through closure as we strive to further minimize our impact on local communities and ensure we are strong stewards of the land we operate.

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Limited MTI environmental data is not included in this report as detailed below:

MTI is unable to determine the greenhouse gas emissions impact of the electrical use at our Paper PCC satellite facilities, which are located on or adjacent to the host paper mills that receive the PCC product from our satellite facilities. Typically, the host paper mills supply electricity to the MTI satellite plants. Almost all of the paper mills generate this electricity from onsite cogeneration systems that use a variety of fuels, including biomass waste from the paper plant operations. The fuel usage (and the related emissions of greenhouse gases) changes each year, depending on the availability of the fuels and the operations at the mill. Due to this, it is difficult for MTI to estimate the indirect greenhouse gas impact from the use of electricity at our Paper PCC operations. The KWh's used by each satellite facility are recorded and included in the energy data section.

Environmental data is not available for our Refractories Segment Steel Mill Service locations, which are located within customers' steel mills. The steel mill service crews rely upon our customers to provide energy, water and waste management at the application site within the steel mills. These activities are a small fraction of the overall impacts associated with the operations of the steel mill.

We do not include the activities of our office locations in this report. These activities are a small fraction of the total MTI activities.

The report also does not cover the activities of suppliers or contractors who perform work on our behalf, nor the activities of tolling (outsourced) manufacturers.



## Industry Leading Mining and Reclamation Practices

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### Talc Imperial Mine Expansion and Reclamation Planning at Barretts, Montana

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The State of Montana strictly regulates mining activity, and, prior to any mining site preparation, MTI is required to obtain a permit from the Montana Department of Environmental Quality (MDEQ). The MDEQ conducts an Environmental Assessment (EA) or Environmental Impact Statement (EIS) as part of their review process. At the conclusion of mining a site, MTI is required to reclaim all mining sites in Montana under the Montana Metals Reclamation Act. MTI has mined talc at the site since the 1950s and from our Treasure and Regal Mines for over 28 years at the 1,425-acre site. In 2020 and 2021, we completed the Imperial Mine expansion from the existing Regal mine location. The expansion involved moving 4.6 million cubic yards of overburden material to enable continued mining operations. MTI worked with the MDEQ to develop a post-mine reclamation plan as part of the permit. The reclamation plan includes developing soil contours that blend with the natural topography of the surrounding area. As part of our reclamation process, MTI will use about 450,000 cubic yards of soil and overburden as cover and fill material. Additional aspects of the reclamation include removal of all mining facilities, installation of talus slopes on upper pit walls to allow biodiversity habitat for birds and other animals, sloping and shaping of all slopes into shallow angles to allow placement of topsoil, development of ponds for wildlife water access, and placement of 12–24 inches of topsoil for native grass growth. MTI and MDEQ will jointly monitor the site for the next 5–20 years to ensure site and soil stabilization.

### Industry Leading Bentonite Mining Practices

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MTI is the world's leading miner and processor of bentonite clay. Based on past mining experience and geologic data of surrounding underground formations, exploration crews continually locate and evaluate bentonite deposits through a test drilling program. When a future mine site is selected for

bentonite quality and volume, MTI's environmental specialists conduct vegetation, hydrology, soils and wildlife studies as well as detailed pre-mine surface topography and aerial imagery for planning and designing post-mine topography and surface-water drainage patterns. Our initial studies and development of mining plans enable our reclamation team to start planning with area farmers and ranchers in advance on plans to enhance their lands after mining has been completed. For example, by proactively working with farmers and ranchers, MTI has added new ponds for grazing livestock, drainage patterns have improved and vegetation has grown where little had grown before. The new ponds also help enhance the local wildlife by providing food and drinking water during more arid times.

The information obtained is formulated into a mining and reclamation plan and submitted to the regulatory agency in a mining permit application. After permit issuance and as mining progresses, the bentonite is extracted, and topsoil and subsoil are replaced to create a suitable bed for reclamation grass seeding. Backfilled areas are contoured to match surrounding topography and provide a natural landscape. Our goal is to restore the land back to an even more valuable habitat or as an economic resource for stakeholders. Typically, the mining process from start to replacement of the topsoil takes 3 months, and the full regulatory review from application to completion of reclamation monitoring takes approximately 10 years. In 2020, MTI reclaimed about 700 acres of land at our global mining locations.

MTI devotes a significant amount of time and resources to establishing reclaimed land that benefits a wide range of species of plants and animals, including:

1. Conducting winter aerial surveys of big game mule (deer and pronghorn) and monitoring known raptor nesting locations and developing potential mitigation plans to minimize impacts.
2. We continue our high activity in the study of sage-grouse migratory and mating behavior and habitat. MTI continues to be a leading participant in private-public partnership groups working to preserve Sage Grouse and their habitats. More information on the study is available [here](#).

# Social

## Our Employees Are at the Core of Everything We Do

Ensuring the safety of our people and enhancing all aspects of our people-focused culture are fundamental to our daily operations around the world.





# Social

**We are a dynamic global team of approximately 4,000 employees and our core values — people, excellence, honesty, customer focus and accountability — guide our actions.**

Our employees are at the heart of our culture and key to our ability to execute on our sustainability agenda. Our commitment to providing the safest possible working conditions and actively engaging all our employees in our safety efforts has been core to our company's values. This safety-first mindset helps us attract and retain top talent from around the world and drives continuous improvement in our operations. We also provide extensive training, professional development opportunities, competitive compensation and benefits to our employees. We continue to reinforce the importance of D&I through all levels of the organization, so that every employee recognizes its value and feels comfortable engaging in and driving an inclusive workplace.

To remain a competitive employer, we acknowledge the importance of our company values, vision and sustainability program to our employees, as we aim to continuously demonstrate our commitments, enhance our performance and support our local communities.

MTI operates globally in many distinct cultural and economic regions, and we are dedicated to strengthening our high-performance culture and fostering a diverse and inclusive workplace environment that operates with integrity, respect and accountability. MTI's Board of Directors, in conjunction with our Chief Executive Officer and our LC, has direct review and oversight responsibility for our safety practices, diversity and inclusion and human rights policies, talent management and succession planning.



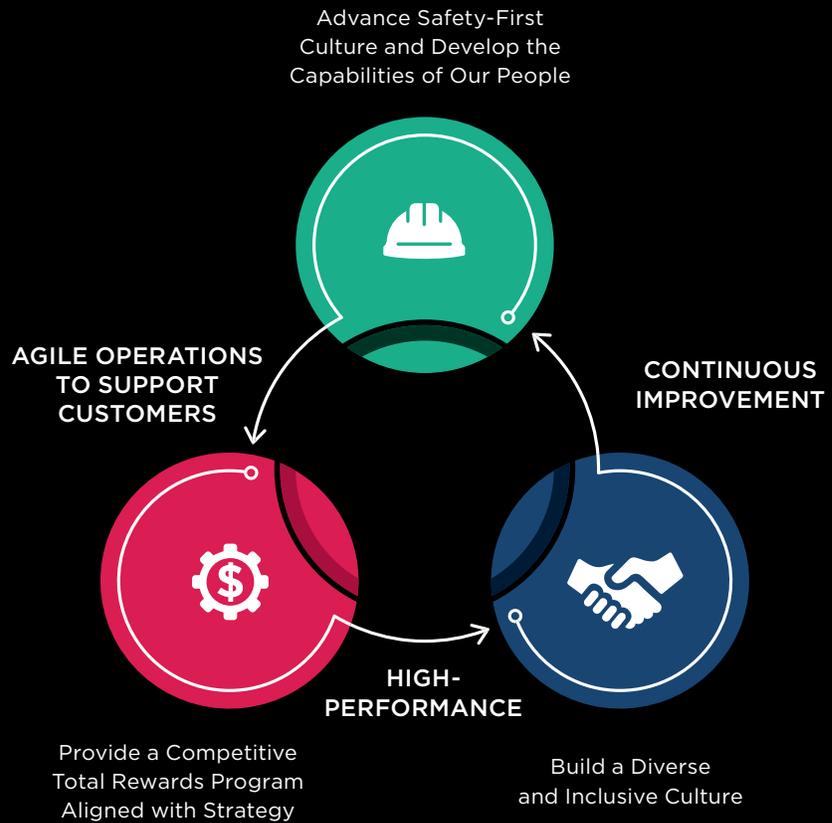


# Our Philosophy

## Strategy

Create a safe workplace where employees can thrive and deliver high performing, sustainable organizational success.

We are committed to attracting, developing and retaining diverse people with the requisite skills to shape a stronger MTI and foster employees' engagement and motivation.



## People-Focused Culture Starts With Operational Excellence and the Engagement of All Employees

Our Operational Excellence (OE) journey, rooted in the active engagement of our employees, began 16 years ago when we developed a highly structured business system of lean principles. Since then, OE has become the foundation of how we operate. We've significantly advanced OE principles across our company, building a culture of continuous improvement where each employee is empowered to apply people-focused values and tools to solve challenges, constantly refine our processes, identify and remove risk and waste, as well as deliver value to our customers.

Every day, MTI employees show their engagement and agility by applying their skills in ways that deliver measurable outcomes and create both business and social value.

In 2020 and 2021, due to the COVID-19 pandemic, we saw firsthand the power of our culture as we continued adapting to the many challenges we faced and implemented new tools and processes to operate efficiently, collaborate effectively and deliver value to our customers.



### Operational Excellence Achievement Award

The Operational Excellence Achievement Award is presented annually to MTI organizational units that have demonstrated superior application of the principles of OE. Although the Award process is modeled after leading external operational excellence frameworks, it is based on the essential elements of the OE process as practiced at MTI. The Award is not only used for recognition purposes, as it is also a valuable tool for educating applicants on the many important facets of the OE system. A rigorous scoring template is followed for each application, and locations are evaluated based on work culture, continuous improvement, quality and customer service, business results and environmental health and safety. In 2021, we had nine Award recipients out of 38 applications from our manufacturing and resource units. It is a testament to our company-wide focus on OE deployment that we reached these record numbers in a year filled with many challenges presented by the pandemic.

**8,600**

### Kaizen Events

On average, more than 22 highly focused, problem-solving events occurred each day in 2021 across the organization. These problem-solving activities result in thousands of incremental enhancements to our processes, products and operations every year, and they provide a significant competitive advantage for our company.

**65,000**

### Suggestions

On average, each employee within the organization provided MTI with 17 suggestions in 2021. These suggestions help remove waste and risk from our processes and improve how we operate.

**11,556**

### Bravo Chips

Our employees received an approximate value of \$845,000, based on MTI's December 31, 2021 stock price in the form of Bravo chips. These chips are a key element of our employment recognition program for accomplishments related to process improvements, customer service and cost reduction.

### OPERATIONAL EXCELLENCE

is a strategic differentiator for our company, solidifying our high-performance culture by making MTI a more disciplined, agile and sustainable organization. The deep integration of OE goes beyond cost savings and productivity. It provides MTI with a common language and collective mindset to address a problem or challenge anywhere in the world.



## Diversity and Inclusion (D&I)

Diversity and Inclusion (D&I) are integrated in our core values and are a key part of our sustainability strategy. We believe that a diverse and inclusive workforce and culture is instrumental in helping us drive long-term value at MTI.

Our commitment to a diverse and inclusive workplace is embodied in all that we do, including: our Diversity Policy and Mission Statement, Equal Opportunity Policy, our Employee Code of Conduct, as well as our Human Rights Policy. We expect all employees to build and sustain a work environment that embraces individuality and collaboration to drive strong results. We are committed to providing a workplace free of discrimination, harassment and retaliation, regardless of race, ethnicity, color, religion, sex, sexual orientation, marital status, age, disability, gender identity, national origin or any other classification.

Our Global Inclusion Council, which is chaired by our Chairman and Chief Executive Officer, was formed in 2019 with the directive to examine how we promote and support diversity in all its forms and to develop a strategy to drive meaningful programs to achieve our objectives. The Council, which comprises a cross

section of leaders from across our company’s regions and business areas, oversees progress to achieve our strategic imperatives and facilitates focus areas, as well as provides the resources needed to execute initiatives. We have made strong progress with D&I over the past several years, reshaping policies and benefits, training our leaders, as well as engaging our employees in meaningful dialogue to build understanding and a culture of inclusion. We continue to reinforce the importance of D&I through all levels of the organization, so that every employee recognizes its value and feels comfortable engaging in and driving an inclusive workplace.

## Key D&I Initiatives

### Driving Inclusive Behaviors

In 2021, every employee at MTI completed Unconscious Bias training, and all new employees now receive this training as part of onboarding. As a result of employee feedback, the Global Inclusion Council has selected a training on Inclusive Behaviors in the Workplace that all MTI employees will complete in 2022. This training seeks to help employees understand their own role in creating a respectful work culture and avoiding behaviors that exclude others.



Beginning in 2022, we will require all leaders at MTI to complete training on our recruiting and hiring practices.

### Diversity Metrics

	2021	2020	2019
Women in the Total Workforce	17.2%	14.8%	14.6%
Women in Management Positions	17.0%	14.8%	14.8%
Racial/Ethnic Minorities in Workforce (US Only)	14.8%	13.1%	13.7%
Racial/Ethnic Minorities in Management Positions (US Only)	12.3%	12.4%	11.5%

As a way to best reach employees in their native language, we have invested in our onboarding process and now provide curriculum in 14 different languages.

In 2021, we defined “inclusive” as one of our cultural competencies that is used in our performance evaluations and talent management tools. Leaders at MTI are explicitly evaluated on this competency and are expected to foster inclusion within their teams and areas of influence.

Additionally, regional focus groups of 10 or less employees were conducted to hear directly from our employees on what inclusion and belonging in the workplace means to them as individuals.

### Celebrating Our Differences

We have discovered that a simple but profound way to celebrate our unique differences is to spotlight the diversity of our employee base, our worldwide locations, as well as the cultural events that create meaning for our employees globally. Employee-led interviews and reflections spotlighted over the past year include:

**Recognition for International Women’s Day, Veteran’s Day, Pride Month, Mardi Gras/Carnival, the Jewish High Holidays, Ramadan and more.** These spotlights continue to drive important discussions around the

customs, values and viewpoints that contribute to who we are as individuals and the unique lens with which we see the world.

### Advancing Diversity

We are continuously looking for opportunities to diversify both our new hires and who we promote by setting standards for hiring and promotion based on merit rather than quotas. We are happy to report positive progress in the representation of women and racial & ethnic minorities in our workforce.

MTI has several initiatives to recruit from diverse talent. We have evolved our succession planning and recruitment practices to further embed D&I strategies that encompass more than gender. MTI now requires a minimum of two diverse candidates in the talent pool for every role within the Company. Additionally, we utilize our internship program and mentoring program to advance diversity within the company. In 2021, 75% of new hires coming out of our internship program were minorities.



MTI has extended D&I recruiting resources to include a comprehensive list of external partners, including, but not limited to: the Lehigh Valley Chamber Women's Business Council; the Women in Mining Coalition; the Society of Women Engineers; Recruit Military; the Association of Women in Metal Industries; National Women in Construction; the Society for Mining, Metallurgy & Exploration; the National Diversity Council; the National Society of Black Engineers; and the Society of Hispanic Professional Engineers.

In 2021, we began monitoring and auditing diversity metrics by Business Unit and Resource Unit and included a robust discussion on initiatives to advance diversity in each group's annual planning process.

### Promoting Equality In Our Compensation and Benefits

MTI is committed to pay equality, and we strive to pay competitively in local markets where we do business and compete for talent. We benchmark our compensation to ensure we are keeping pace with the market to provide competitive pay and benefits. We have a transparent compensation system with objective metrics around recruitment, performance, advancement and compensation. MTI conducted an annual gender pay-equity analysis in 2021, and we are proud to report that pay is equitable, fair and consistent without discrimination on the basis of gender, race or ethnicity throughout our company.

For the last several years, diversity, equity and inclusion efforts have been a key focus area, a crucial part of which is inclusive benefits. MTI began offering a Global Employee Assistance Program in 2020. All employees and dependents within the organization now have a readily available resource to assist with behavioral, mental and social-based needs. The U.S. Wellness program continues to evolve and now offers virtual wellness opportunities to engage employees. Living Well 365 continues to provide a user-friendly and comprehensive platform to engage our employees and dependents throughout the year. These wellness offerings include several behavioral health resources. We are also proud to have enhanced our U.S. Benefit offerings as of January 1, 2022, to include a comprehensive fertility solution to support employees, including benefits that are available to all plan participants regardless of sexual orientation, gender identity or geography. This benefit, combined with our adoption support program, allows all employees access to resources to build their families.

Other locations around the world continue to offer supplemental benefit offerings, such as annual physical checks, stress management resources, lifestyle-change sessions as well as employee/dependent meetings with public health nurses to discuss medical conditions and follow up with improvement programs. We recently enhanced supplemental benefit offerings in Canada for all employees that includes multiple wellness modules, mental health services, multiple types of therapies, weight-loss aides, fertility benefits, online doctors' services and more.



# Our People



## Americas



## Asia



## EMEA



### Board of Director Diversity

**30%**

diverse from ethnicity/  
gender perspective

### Employee Average Age

**43**

### Employee Average Years of Service

**10**

All employee data is as of December 31, 2021



# New Hires and Turnover in 2021

## 2021 New Hires by Age

TOTAL	
Under 30	294
30-50	348
Over 50	83
<b>Total</b>	<b>725</b>

## 2021 New Hires by Region

TOTAL	
Asia	85
EMEA	109
Americas	531
<b>Total</b>	<b>725</b>

## 2021 New Hires by Gender

TOTAL	
Female	115
Male	610

## 2021 Turnover Rate

	MALE	FEMALE	TOTAL
Voluntary including retirements	9.9%	1.3%	11.2%
Involuntary	2.7%	0.4%	3.1%
<b>Overall</b>	<b>12.6%</b>	<b>1.7%</b>	<b>14.3%</b>

## U.S. Minority Information

The percentages below represent employees living and working in the United States choosing to identify as non-Caucasian. Fifteen percent of our U.S. workforce choose to self identify as minority classification in 2021.

POSITION	CAUCASIAN	MINORITY	TOTAL OF U.S. WORKFORCE
Executives	2%	0%	2%
Senior Managers	16%	3%	19%
Tech	6%	0%	6%
All Others	61%	12%	73%
<b>Total</b>	<b>85%</b>	<b>15%</b>	<b>100%</b>



## Advancing Our People-Focused Culture Through Training

MTI Academy, launched in August 2021, is our global hub for all training and development. With system functionality and training available in all major languages, employees for the first time ever have a one-stop shop for training. Required training is intuitive and able to be quantified, allowing us to analyze training metrics for the first time. Continuing education is a key component of what allows MTI to be a leader in safety, collaboration and global inclusion. Therefore, individual contributors and managers have carefully selected courses available at the click of a button to accelerate leadership development. Through interactive content covering Lean Manufacturing, Operational Excellence (OE) and more our employees are continuously sharpening their strategic thinking and critical-thinking skills.

Customers utilize MTI Academy as a tool of engagement and education on our products and services. The intuitive and modern interface—that is also accessible by mobile device—serves as an example to our Customers that MTI is technology driven and ever evolving. New employees are welcomed to MTI and exposed to our values and culture starting day one, and this continues through their first year of employment via a 13-hour onboarding curriculum. Real-time progress updates available to employee's direct managers sets a foundation of open communication and transparency for an employee and their manager.

211 different courses have been accessed by 2,725 different employees over 11,670 times over five months since MTI Academy launched (August - December 2021). Courses have ranged in topics such as Diversity and Inclusion, Compensation, Operational Excellence, Data Privacy, Compliance, Cybersecurity, Project Management and Mindfulness, as well as Safety.

We offer extensive education related to the principles of Lean Manufacturing (Lean), which is closely aligned with OE, to prepare our workforce to become highly proficient problem-solvers. Each new employee entering the organization undergoes 25 hours of OE-focused training within their first year of employment.

**Safety Training:** All employees receive a level of continuous safety training commensurate with their job function and in their local language. In 2021, MTI employees completed over 25,000 courses and approximately 19,000 hours of safety training courses. About 3,300 employees accessed this training in 17 different languages.

**MTI Internal Webinars:** We offer extensive education related to the principles of EHS, Lean and OE through internal webinars by and for employees. These webinars are recorded and made available for replay anytime. In 2021, MTI hosted 64 webinars, with an average attendance of 400 employees.

## Employee Onboarding and Talent Management

We offer our employees a multitude of opportunities to enhance their professional development.

**New Employee Onboarding:** All new employees receive extensive onboarding training on required safety practices, policies and practices, as well as MTI culture, starting on day one and continuing quarterly through the first year of employment.

Our people are not only our greatest asset but our greatest competitive advantage. Our talent management processes are centered on attracting, building and retaining a highly skilled workforce. MTI continues to invest in current talent and development processes. These efforts identify opportunities to upskill and build competencies through on the job training and development.

**Annual Performance Assessment:** The goal each year is for 100% of MTI employees to receive a performance evaluation. In 2021, nearly 100% of eligible employees received a performance review from their manager. Annual reviews focus on twenty cultural competencies, which are a direct reflection of our core values. In addition, we offer quarterly and mid-year performance checkups for select employees.

**Mentorship Program:** The mission of MTI's Mentorship Program is to give employees the opportunity to develop their career, leadership and diversity of skills



needed in order to be successful at MTI. The program focuses on the employees at the entry-management level—or soon to be at this level—to develop the next generation of leaders. These employees are strategically paired with a mentor that has been carefully selected by senior leaders. Progress and results are reviewed on a quarterly basis during our LC Talent Review Sessions. We look to continue to expand this program in the coming years, placing emphasis on mentees and mentors of gender or ethnic diversity. About half of the participants in the 2021 program were comprised of gender or ethnically diverse employees, which we look to expand upon in the future.

**Individual Development Plans (IDP):** Individual Development Plans (IDPs) and activities are a collaboration between managers and their direct reports—help guide career progression and knowledge learning, resulting in high-potential talent within the organization. This tool serves to drive customized curriculum aligned to leadership competencies.

**360-Review Process:** Development at MTI is centered around a comprehensive performance review process, which includes 360-degree, multi-dimensional feedback for our senior leaders. This enables MTI leaders to broaden their development while, at the same time, build leadership depth and capabilities. The 360-degree process was inclusive of employees that represent our geographic footprint. About half of our participants are represented from either gender or ethnically diverse groups.

**High-Performance Work System (HPWS) and Self-Directed Work Teams (SDWT):** MTI is dedicated to implementing the organizational design concepts of High-Performance Work Systems (HPWSs) for its operating facilities. HPWS organizes people with technical systems to achieve high performance and employee participation levels. This structure increases employee effectiveness and engagement and permits sites to operate more safely and effectively, with fewer supervisors and enhanced teamwork. HPWS also provides employees with decision-making authority, business information and the training needed to make sound judgments, giving them opportunities for performance-based rewards that align employee motivation and business needs. Employees can grow and develop through the training and certification

provided by the skill-based pay and multi-level line of business structure of HPWS. 2021 HPWS implementations and development were focused at our Lifford, England; Brantford, Ontario; and Asia locations.

### Testimonial from Mark Coviello, MTI employee:

“I want to send out a brief email, letting you know that I recently graduated with my bachelor’s degree in Operations Management. I wouldn’t have been able to do this, if it wasn’t for the company’s generous educational assistance program. It has been 14 years since I started at MTI, and the driving force behind getting this degree was to better myself, as well as advance within and support the company. I’m thankful to all those who assisted me through the years in this pursuit, and I look forward to contributing my learnings to my work at MTI.”

**Tuition Reimbursement:** Learning and development is fundamental to success. Investing in our people is one of the top ways we acquire, retain and develop top talent. As such, we are proud to offer educational assistance to all U.S. regular, full-time employees that have been employed by MTI for at least six months. We reimburse employees for 100% of their tuition and associated fees upon successful completion of coursework. Over the past five years, we have provided over \$525,000 in education assistance to our employees, of whom approximately 40% was gender or ethnically diverse.

**Internship Program:** Through MTI’s College Internship Program, we provide an immersive and hands-on experience to prepare interns to successfully navigate a future career. Our interns gain real-work experience, benefit from our social engagement as well as network with executives and key business leaders. The global program, which extends across multiple areas of the business, stresses sourcing interns from diverse backgrounds. In 2021, 75% of our college hires were women and/or U.S. minorities. Several of the 2021 interns were offered full-time employment with MTI following their graduation.



## Total Rewards for Employees

MTI cares about all aspects of well-being, including the social, emotional, physical and financial welfare of our employees and their families. Through our robust Total Rewards package, we offer competitive compensation, comprehensive benefits and other programs to support growth—personal and professionally—for MTI employees. In 2021, we continued to offer enhanced Company benefits to support the health and well-being of our employees during the COVID-19 pandemic, including our Employee Assistance Program (EAP), telehealth, temporary sick leave, family leave and voluntary leave of absence policies and programs. In 2021, MTI recognized the need for enhanced Mental Health and Wellness offerings and reacted by adding mental health and emotional well-being support services into our health and EAP offerings, employees with new and additional benefit offerings. We provided additional well-being resources regularly through our company intranet and are also expanding our virtual care opportunities for our employees. MTI is proud to now be offering fertility benefits to our U.S. and Canada employees. This new benefit—combined with our recently enriched Adoption Assistance Benefit—provides our employees with support throughout the family-building process.

### Employee Rewards and Recognition

A key element of our recognition is what we call the Bravo Chip, a custom-designed token. The Bravo Chip is awarded to employees for noteworthy accomplishments across a variety of areas, including, but not limited to, process improvement, customer service, cost reduction as well as safety and environmental excellence. Each Bravo Chip represents an amount of cash based on the equivalent value of MTI shares. Since its inception as an important vehicle for recognizing employees, the number of Bravo Chips granted each year has significantly increased. Recognition of employee efforts in advancing Operational Excellence (OE) has helped to increase the level of engagement in our continuous improvement process. Safety letters are sent from our CEO to recognize sites that operate injury-free, as well as those that achieve the annual OE Achievement Award. We also recognize suggestions that help reduce costs or identify an improved way of working. The suggestions resulting in new best practices for OE, sustainability and safety are disseminated to all employees.

# Community Engagement

In many locations, MTI is a major employer, taxpayer and sponsor of community initiatives. Our facilities closely partner with local stakeholders to understand how we, as an organization and as individuals, can apply our time, talent and charitable giving to have a meaningful and lasting impact.

We are deeply committed to making a difference in building strong communities. Our employees bring that commitment to life by participating in our various corporate social responsibility programs that encourage volunteerism in their communities. We support facility-led volunteer activities and donations to local charities, plant and mine visits for community members and educational institutions, local employment opportunities and career fairs. Many activities focus on promoting safety, emergency response planning, as well as building more sustainable communities.

## MTI Community Projects: Lending a Helping Hand

- MTI and our Poland facility has provided support to Ukraine and Ukrainian refugees that have relocated to communities near our facilities.
- In October 2021, the PCC Tha Toom team in Thailand helped donate protective gear for handling the COVID-19 pandemic for local government Community Isolation Center.
- In August of 2021, the MTI team in Korea completed a group activity in which they donated food to a local community center to support those in need and who have been impacted by the COVID-19 pandemic. Our team donated \$8,400 worth of food to the community center to enhance the welfare of residents and strengthen our relationship with the community. The donations were directed to senior citizens, sick individuals and children.





### Jumpstart Book Donations

JumpStart is a national, early education nonprofit organization, working toward the day that every child in America enters kindergarten prepared to succeed. The organization provides language, literacy and social-emotional programming to children in underserved communities. MTI has supported this work through an annual donation over the last several years. In recognition, MTI was provided with 600 copies of the children’s book *Amy Wu and the Patchwork Dragon*, written by Kat Khan, a book that reflects the diversity of the world and our company. To give back to the local communities in which we work and live, MTI donated the children’s book to 16 elementary schools in the following communities: Bethlehem, Pa.; Easton, Pa., Adams, Mass.; Dillon, Mont.; Gary, Ind.; Houston, Texas; Lafayette, La.; Lovell, Wyo.; Dongming, China.

### Earth Day Celebrations

Many of our locations participated in activities to support the environment and involve employees in recognizing the significant role sustainability plays in our lives and at MTI. At several locations, employees planted new trees and installed bird feeders.

- June 2021–PCC Changshu joined local EPB activity on Environmental Day–Cleaning Up Yushan Mountain
- MTI continued its tree-planting efforts throughout the MTI campus in Bethlehem, Pennsylvania, to support our company’s sustainability efforts.
- Clean-Up Activities in Gamagori, Japan, Oct 2021
- Environment Day, Tha Toom, Thailand

### World Environment Day

Several of our global plants celebrated World Environment Day through a variety of activities. Our global teams recognized and celebrated the importance of protecting the environment, undertaking actions to be good neighbors in our communities. Activities included:

- Inviting families, local officials/police officers, as well as frontline workers to participate in the events
- Discussing MTI’s environmental goals and how sustainability is a key part of everything we do at MTI
- Raising awareness about how employees and their families can make our world more sustainable
- Planting tree saplings at facilities; employees also brought home saplings, transplanting them to help grow local forestry



Employees, friends and neighbors participate in their local **Run For Your Mother** 5k event.



The 16<sup>th</sup> Annual **St. Luke’s Run-Walk With The Heroes** event took place in May in Easton, Penn.



Melinda Reynolds, HR Manager, stopped by the Harrison, Mont. K-12 School to speak to students about **Sustainability Activities**.



**4-H Mentorship and Corporate Support** program meetings are held in Barretts, Mont.



## St. Luke’s 16th Annual Run-Walk With The Heroes

MTI sponsored and participated in the 16th Annual Run-Walk with the Heroes, benefitting St. Luke’s Trauma “Stop the Bleed.” “St. Luke’s Stop the Bleed Initiative aims to provide free trauma and bleeding prevention education to first responders, including police departments, schools and community organizations, such as PTAs, Boy/Girl Scouts, civic groups and other non-profit organizations.” St. Luke’s University Health Network is a nonprofit, regional, fully integrated, nationally recognized network providing services at 14 campuses, including in Bethlehem and the Lehigh Valley.

## Run For Your Mother

MTI is in the tenth year of supporting the Run for Your Mother event, which typically engages more than 200 participants annually. In 2021, the MTI team raised and donated \$1,640.

## Our Poland Location helps Szlachetna PACZKA, Christmas 2021

CETCO-Poland participates in a nationwide charity event known as Szlachetna PACZKA, organized by the charity association WIOSNA (“spring” in Polish). The main goal is to provide resources and mental help for families and people in difficult life situations. Our employees organized money, food and household products for local families.

## Donations during the Holy Month of Ramadan

Ramadan is characterized by generous donations to humanitarian programs as much as by prayer, solemnity and celebration.

MTI employees around the globe honored the Muslim holy month by supporting Eid celebrations and also by donating money or helping to distribute food to those in need.

## Barretts, Mont.: Harrison MT K-12 School – Sustainability Activities Support

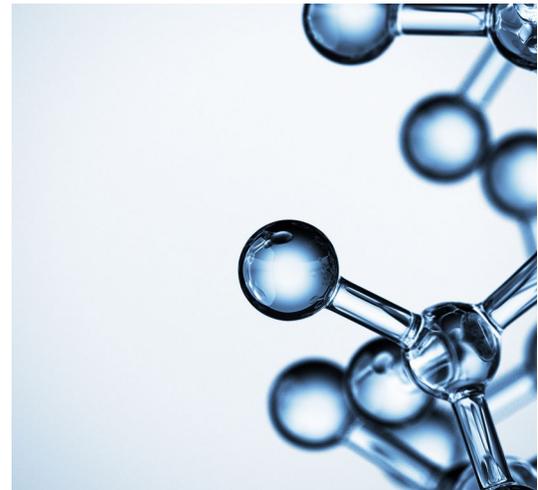
MTI supported a Montana school by engaging its junior high students in sustainability discussions, as they began their spring curriculum centered around sustainability. Students were highly engaged and had many questions and comments around mining equipment, farming equipment, water usage, food sources, diversity and utility sourcing.

## Barretts, Mont.: Local 4-H Mentorship Program and Corporate Support

MTI actively supports the 4-H in Beaverhead County (Dillon, Mont.) by providing annual financial support during the livestock auction. Employees also volunteer their time, mentoring to the community’s youth and serving as judges on the livestock shows.



Wiosna organization’s **Szlachetna PACZKA** is a nationwide project in Poland that helps families in need, especially around Christmas. Thanks to volunteers and donors, families receive care packages including food and necessities, as well as toys and gifts for the holiday. Our employees in Poland supported this important cause by donating food and supporting holiday events.



# New Product Development

New products commercialized in 2021 diversifies our offerings and expand our in-home and personal care portfolio



# Our Product Development Processes and New Products Fortify Growing Market Applications

## Overview

New product development is essential to MTI, with the creation and commercialization of new technologies serving as a core part of our growth and sustainability strategy.

We are constantly evaluating opportunities to improve our existing products, technologies and production processes—or creating new ones—to help reduce MTI’s and our customers’ impact on the environment. Our sustainability goals are aligned with our Lean philosophy of continuous improvement, resulting in the ongoing development of products and technologies in response to customer needs. Additionally, our innovation process provides a mechanism to evaluate how our products support our customers’ sustainability goals.

## Key Objectives



Accelerate the speed of development with a goal to reduce development time by half



Increase number of products commercialized



Enhance the impact of our innovations with a goal to double percent of revenue from new products



Grow portfolio of sustainability-focused products

### Progress Advancing Key New Product Development Objectives in 2021

#### \$730M Potential Revenue

Pipeline Value From Development To Commercialization

#### Commercialized 63 New Value-Added Products

Continued to Leverage Virtual Tools for Trials

#### 18-Month Timeline

From Idea to Commercialization (50%+ Reduction from 40 Month Timeline In 2016) and Progressing Towards Goal of 10 Month Timeline

#### 12% of Total Sales

From New Products\*  
Progress Toward Goal of 20% and Higher

#### +68% Sales Increase

From New Products\* Since 2016

#### 86% of Projects

Developed with Customers

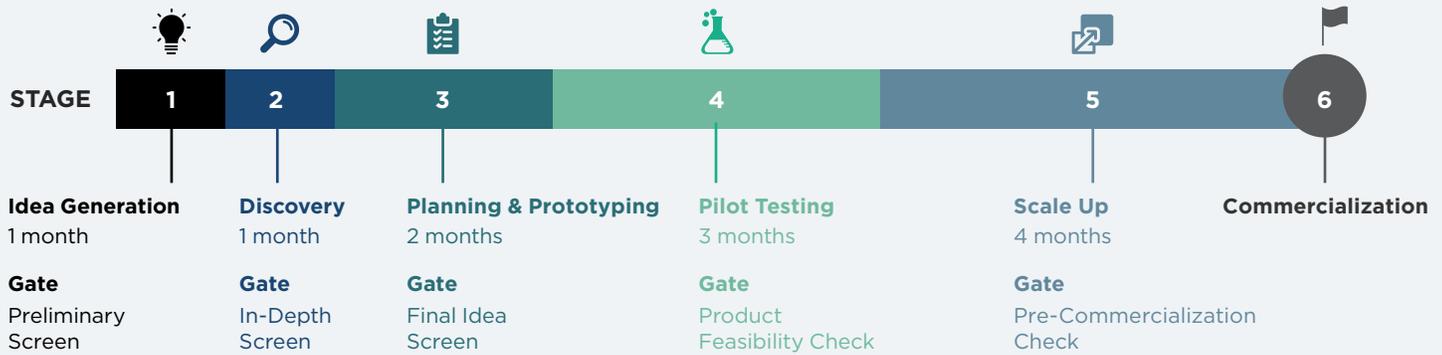
#### MTI Sustainability Indicator: 34%

New Products that Benefit Sustainability Goals

#### Customer Sustainability Indicator: 64%

New Products that Support Customer Sustainability Goals

\*New products commercialized in the last five years.



## We Are Customer Driven

Our new-product development process starts with the customer. Collaborating and listening to the Voice of the Customer (VOC) has always been part of MTI's DNA. It is the foundation of how we innovate closely with our customers, as well as grow our business and deliver consistent value, based on our continuous improvement philosophy, sustainability strategy and culture of innovation.

We use our minerals, surface modification chemistry and formulation expertise to enhance our customers' long-term sustainability by improving their productivity, product quality and overall performance. That translates to external value through market share growth, as well as cost savings and internal value derived from more sustainable packaging materials; lower energy, water and landfill quantities; and reduced carbon emissions.

With the sponsorship of our CEO and LC, our VOC Lead Team is responsible for implementing a variety of enterprise-wide, customer-centric standards in our product development process. These standards include strategic account management, value-selling methodologies, as well as targets to ensure our products meet customer needs. We also utilize a dashboard to communicate our metrics visually to better track trends and measure our continuous improvement.

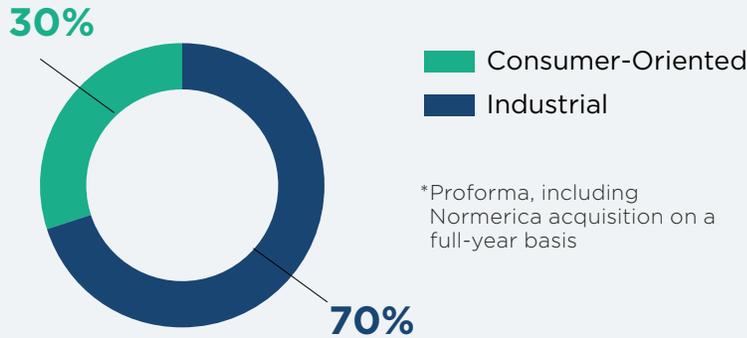
## We Use Stage-Gate Process to Drive Our Product Development Effort

Our new product and process development (NPPD) system is overseen by our Technology Lead Team (TLT), one of our culture-based teams that reports to our CEO. The team members are individuals with significant R&D and commercial expertise from across all businesses. The TLT develops the policies, tools, best practices and metrics to ensure we are staying at the forefront with our innovation and technology initiatives. Our NPPD management system is designed to allow every employee to submit suggestions for new products and processes or improvements of old ones. **In 2021, our employees submitted 214 new product and process ideas.**

Our stage-gate NPPD process ensures projects progress in a focused manner that maximizes the benefits while reducing the time to commercialization. Each development stage has a specifically defined plan and critical metrics to track process toward product goals and growth strategies. This approach allows us to quickly surface knowledge and gaps that are addressed through direct interactions and feedback loops with our customers. Additionally, our system provides a mechanism to evaluate how our products support our customers' sustainability goals.



## 2021 Net Sales by End Market\*



In total, our consumer-oriented products now comprise 30% of our total sales portfolio, providing the foundation for more balanced, higher margin growth.

### Growing Consumer-Oriented Portfolio

#### Household and Personal Care

- We are the leader in premium bentonite clay-based cat litter products. Our clumping sodium and calcium bentonite clay litters reduce odors, and our aesthetic additives enhance the customer experience. We continue to evolve our portfolio to strengthen our global position and value proposition, including new eco-friendly and more sustainable packaging for our private-label products to meet consumer preferences. Our cat litter products also include fragrance boosters to extend product lifetime, reduce disposal costs and enhance the odor control.
- We manufacture a wide range of functional agglomerated fabric whitening agents, fragrances, surfactants, visual cues and fabric softening agents. Our products are added to powder laundry detergents and unit dose detergents.
- We are a premier formulator of retinol delivery for a broad range of skin care applications, including pharmaceutical and cosmetic topical skin care creams and lotions.

#### Edible Oil Purification

- Utilizing a unique mineral and process, our bleaching earths are used to purify edible oils and bio-based fuels by removing undesirable chlorophyll, colorants, metals and oxidative compounds, as well as phosphorus. Our advanced Rafinol™ bleaching earth enables our customers to refine and improve the quality and shelf life of edible oils for human consumption and helps enable the production of biodiesel and sustainable jet fuel while supporting our planet's health by reducing the overall carbon footprint.

#### Bio-Agricultural Applications

- Our bentonite clay-based products are added to animal feed, improving animal health by reducing mycotoxin concentrations.
- Our calcium carbonate-based products are widely used in livestock and poultry foods to enhance the nutritional content.
- We enhance farmer crop yields and soil health with Enersol® and Agro-Lig® natural leonardite-based crop growth formulations and calcium carbonate-based soil amendments.



## Food & Pharmaceutical Applications

- Our calcium carbonates function as antacids and digestive aids.
- Our bentonite clays are used in pharmaceuticals and to clarify wine and juices.
- Our talc-based products and organo-bentonites reduce plastic food packaging thickness and weight and increase food freshness.

## Water Treatment

- We have strengthened our technology portfolio specializing in treating complex, non-compliant aqueous streams, enabling us to convert them to water that can be safely discharged.
- Commercialized in 2019, our FLUORO-SORB® adsorbent products trap and retain PFOS and PFAS contaminants to reduce exposure to humans and play a key role in providing access to clean drinking water.
- Our advanced Resistex® and Bentomat® environmental barriers contain wastes and leachates in landfills and mining sites to prevent infiltration of toxic chemicals into ground water.

## Leading Industrial Positions

### Automotive, Agricultural, Industrial, and Infrastructure Castings Made From Iron and Steel

We significantly enhance our customers' processes every step of the way.

- Our foundry customers utilize our specialized Additrol® and Maxicarb® greensand bond formulations. These solutions improve iron and steel casting performance and productivity and reduce the emissions of our customers' foundry sands by 10–25% while enhancing the greensand's recyclability.

- Our leading portfolio of Refractory products improves the productivity of steelmaking operations, reduces energy consumption and provides our customers with the lowest overall cost/ton of steel produced.
- Our talc is a key component in the ceramic catalytic emissions control system in automotive and truck engines.

## Residential and Commercial Construction

Our products protect and enhance the safety, functionality and aesthetics of buildings.

- Our calcium carbonate, Specialty PCC and talc—used in roofing, resilient flooring, joint compounds, block, pavers, glass, windows, sealants, plastics, paints and coatings—improve performance and durability and reduce requirements for resins, adhesives and plastics.
- Our Voltex® below-grade waterproofing products prevent water ingress damage.
- Our Liquid Boot® vapor barriers reduce harmful vapors that could enter buildings from the surrounding soil.

## Paper and Packaging

Our broad technology portfolio improves the sustainability of the papermaking process.

- Our PCC enables customers to use significantly less pulp and fiber (trees) and energy than traditional fillers and serves as a key solution for filling and coating high-quality printing paper.
- Technologies, such as the FulFill® platform of products, including ENVIROFIL® PCC and NewYield® PCC, improve fiber consumption and enable waste recycling. These are creating more value for customers and driving penetration in high-growth markets.



## Enhancing Sustainability Via Packaging Initiatives

### Carbon Neutral Pet Care Packaging

MTI continued to lead in the improvement of sustainability for pet care products. Our European pet care business (Sivomatic, headquartered in Moerdijk, Netherlands) launched a carbon-neutral product, SivoCat® EcoCare, which appeared in stores in late 2021. The product was certified carbon neutral by a third-party agency, Climate Neutral, that required detailed audits of the production process, from bentonite mine to disposal of the product after use in the home. In addition, the cardboard box packaging for SivoCat EcoCare was made from 100% recycled material—another example of Sivomatic’s sustainability leadership in the European market.

In the United States, sustainability gains were realized by both increasing post-consumer recycled content (PCR) and “light-weighting” a cardboard box package for one of our largest cat litter customers. An MTI team working with a box supplier was able to reduce the box weight by 6.6% and increase PCR content by 8% without reducing strength or changing the appearance of the product on the customer’s shelf. These seemingly minor changes resulted in a significant sustainability gain due to the large unit volume of this product sold. On an annual basis, these changes will reduce the total need for corrugate by 90 tons, reduce the use of virgin corrugate by 170 tons and increase the use of PCR by 80 tons. These changes represent a savings of approximately 2,900 trees that will not need to be harvested to support virgin box production.

The 2021 Normerica acquisition will support additional sustainability gains as integration into MTI proceeds. With Normerica, came new suppliers, including one with a proprietary capability to use larger amounts of PCR in box production. As the supplier bases are rationalized, their ability to support sustainability gains will be an important part of the supplier-selection process

### Personal Care Packaging Reduces Waste and Increases Recyclability

In the previous two year’s reports, we highlighted sustainable packaging investments that demonstrated our commitment to improving the sustainability of how we manufacture our personal care products for customers. Our new packaging equipment started operation in mid-2020 and is enabling our customers to switch from their previous multilayer plastic tubes to solid aluminum squeeze tubes and glass bottles. With this enhanced equipment, we now produce personal care products that can be readily recycled in the well-developed aluminum can and glass bottle recycling process—avoiding the more complicated and more resource-intensive process associated with plastic materials. Working with our customers on redesigning the containers and packaging, we reduced post-consumer packaging waste by 25% with the removal of 2.4 million plastic packaging trays. We also increased our standard pack size for plastic/foil bags of MICROSPONGE® C116A from 250g to 1kg, resulting in a 75% reduction in bag usage.



## Our Product Safety

Supplying safe and sustainable products designed to meet the needs of our customers is a main goal of MTI. We strive to ensure that our products are safe and in compliance in regulations, which requires that our products are certified by independent experts and public institutions. We also have a policy of continually evaluating safer formulary components to reduce hazard and risk for both MTI and our customers. Nearly all MTI products include at least one of three minerals—bentonite, carbonates or talc—which are inherently safe for many applications. As with all naturally occurring materials, our minerals contain auxiliary components, which we monitor and measure concentrations, for specific applications.

Many of our products are formulas that use monomers, fatty acids, inorganic additives, polymers and surfactants to interact with the surface of our minerals and create a desired physical and chemical property. We evaluate the safety of these additives and ensure that we are using the safest additive at the lowest effective concentration. In many of our businesses, we disclose specific formula components and concentrations to our customers for joint safety reviews. We regularly update all our Safety Data Sheets and other hazard communications to ensure we meet or exceed all applicable safety regulations and to inform our stakeholders of any potential hazards to enable them to work safely with our products.

All MTI manufacturing facilities have quality management systems that are utilized for measuring, interpreting and reporting data to our customers.

- More than 35% of our manufacturing facilities are certified to ISO 9001:2015 Standards.

- Our carbonate manufacturing facilities that provide ingredients into human food adhere to ISO 22000/ FSSC 22000 Food Safety Management Certification.
- Our bentonite operations that supply minerals into animal feed mycotoxin binders are FAMI-QS certified.

### Bentonites

MTI mines bentonite clay in several global locations. Bentonite is commonly referred to as the “mineral of a thousand uses” and is a natural mineral derived from volcanic ash. Based on our extensive experience selectively mining for specific applications and modifying the surface of the mineral to deliver high performance, bentonite clay has major consumer and industrial applications.

MTI’s bentonite-based formulations are regulatory approved for several applications, including:

1. Bentonite is certified as Generally Recognized As Safe (GRAS) per USA FDA 21 CFR184.1155 for direct food use as well as many other USA FDA CDR’s for indirect and packaging use.
2. Several of our bentonite-based products meet the requirements for the Bentonite and Purified Bentonite Monographs listed in the United States Pharmacopeia (USP), the National Formulary (NF) and European Union Pharmacopeia for pharmaceutical active agents and excipients.
3. Meets the requirements for purifying wine and juices including Food Chemical Codex and the International Organization of Vine and Wine (OIV) Code of Oenological Practices.
4. Listed in several sections of Association of American Feed Control Officials for inclusion into animal feed.



5. Several of our facilities are FAMI-QS certified. FAMI-QS is the quality and feed safety management system for the specialty feed ingredients and their mixtures.
6. Approved by the European Food Safety Authority as a binder and mycotoxin reduction agent.
7. Our bleaching earth products meet the requirements of FEDIOL, the European Union vegetable oil and protein meal industry association.
8. Our Bentomat® and Voltex® geosynthetic clay barriers are certified by the Polish National Institute of Public Health to use in contact with drinking water. Our geosynthetic clay liner products are also tested annually for compliance with stringent industry standard specifications, and our testing labs are audited by the Geosynthetic Research Institute to ensure accurate testing data.
9. Several of our building waterproofing, drilling products and our PFAS adsorbents, FLUORO-SORB® adsorbent are NSF/ANSI 60 and 61 Certified to standards for the control of equipment that comes into contact with either potable water or products that support the production of potable water.
10. Several of our products are kosher and halal certified.

## Carbonates

MTI mines limestone and dolostone in several locations. These ground calcium carbonates and calcium magnesium carbonates are widely used as an industrial and consumer mineral. Our Specialty Minerals business unit manufactures granular and powder products at several facilities as an ingredient for a wide range of industrial and consumer products.

MTI carbonates are regulation-approved for several applications including:

1. Calcium carbonate is Generally Recognized As Safe (GRAS) per USA FDA 21CFR184.1191 for direct food use as well as many other USA FDA CDR's for indirect and packaging use.
2. Several of our calcium carbonate products meet the requirements for the Monographs listed in the United States Pharmacopeia (USP), the National Formulary (NF) and European Union Pharmacopeia for pharmaceutical active agents and excipients.
3. Several of our facilities and products are certified for the Food Safety System Certification (FSSC) 22000 management system.
4. Several of our calcium carbonate products are kosher and halal certified, gluten free, organic, natural and vegan.
5. Listed in several sections of Association of American Feed Control Officials for inclusion into animal feed, including as a source of calcium, a major nutrient for the animals.
6. Several of our products are NSF-14 certified for plastic piping systems and NSF 60 certified for drinking water treatment.
7. Several of our grades meet the California Proposition 65 and European Union 170i purity standards.

## Talc

MTI mines talc at our Barretts, Mont., facility and produces a wide range of natural and purified powdered products. Major commercial applications of our talc include: anti-caking, automotive plastics, blown and cast films, ceramics, coatings, food, pharmaceuticals, paints, rubber, roofing, as well as sealants.





1. GRAS (Generally Recognized as Safe) by FDA 21 CFR 169.179, 169.182.
2. Many of our products are GRAS as an anticaking agent up to 2% in table salt, 21 CFR 182.2437.
3. Several of our grades are generally approved as pigment or colorant in the manufacture of articles which come into contact with food and also generally approved for use in olefin polymers used in the manufacture of articles, which come into contact with food, under 21 CFR 177.1520. 174.5 (d), 175.105, 175.125, 175.300, 175.380, 175.390, 176.170 (b) (2), 176.180 (b) (1), 176.200, 177.1210, 177.1350, 177.1460, 177.2600 (c) (1), 182.70 and 182.90.
4. Generally approved for use in Olefin Polymers which come into contact with food 21 CFR 177.1520.
5. Generally acceptable for use in vanilla powder 21 CFR 169.179 and 169.182.
6. Several of our products meet the requirements for the Monographs listed in the United States Pharmacopeia (USP), the National Formulary (NF) and European Union Pharmacopeia, Japanese Pharmacopeia (JP) and Food Chemical Codex (FCC) for pharmaceutical active agents and excipients.
7. Several of our talc products are kosher and halal certified.
8. Our talc products are continuously tested to ensure that there are no irritating impurities present that can impact the usability of the products.

## Conflict Minerals

MTI is committed to responsible sourcing of the materials used in the manufacture of our products. We engage with our suppliers to take steps to ensure that the component parts and products we procure do not contain conflict minerals that finance violence in central Africa. We expect our suppliers that supply parts and products to us containing conflict minerals to certify that such conflict minerals do not directly or indirectly finance or benefit armed groups in the Democratic Republic of the Congo or an adjoining country. We require those suppliers to provide us with information regarding the sourcing of conflict minerals in the components they supply to us.

We also expect our suppliers to undertake reasonable due diligence of their supply chain and to respond to questionnaires and related inquiries when requested by us. MTI must annually comply with a U.S. Securities and Exchange Commission (SEC) rule known as the Conflict Minerals Rule. The Rule requires publicly traded companies such as MTI that use conflict minerals in their products to make public disclosure of the origin of those minerals. We have developed processes and procedures to enable us to comply with the requirements of the SEC's Conflict Minerals Rule. We conducted an evaluation of our product lines sold in 2021 and received reports and certifications from our suppliers that the parts and products supplied to us in 2021 are conflict-free. To learn more, read our [SEC disclosure](#).

## Product Recalls

MTI did not have any product recalls in 2021. As part of our corporate responsibility, MTI has formal product recall policies to fulfill our obligation to protect our customers and consumers from suspected defective products.

## Advertising, Labeling and Marketing

MTI did not receive any notices of violations in 2021 for non-conformance with regulatory labeling and/or marketing codes. MTI did not incur any legal and regulatory fines, did not have any settlements and did not receive any enforcement actions in 2021 associated with false, deceptive, or unfair marketing, labeling, and advertising of either branded or private label products. MTI manufactures both branded and private label products. We sell our branded products with MTI product names and labels to our customers and consumers to whom we advertise and market. We also make and sell private label products labeled with our customers' product names, for which MTI conducts very minimal advertising and marketing.



## Building a Sustainable Supply Chain Through Supplier Collaboration

Our suppliers are our partners, and they play an essential role in MTI's sustainability strategy. In addition to the supply of raw materials and services needed for our operations, formulations and daily functions, our suppliers are a critical source of sustainable innovation. Our joint projects enable MTI to offer our customers significantly improved products and services.

MTI has over 1,400 suppliers globally, with a spend of \$680 million dollars. Approximately 300 of these suppliers are considered "strategic suppliers," and, in 2021, we used virtual tools to ensure their compliance with MTI standards and documented the results in our Supplier Quality Management (SQM) program. All our suppliers are expected to comply with MTI's Supplier Code of Conduct, Anti-Corruption and Anti-Bribery Policy, Conflict Minerals Policies, as well as Standard Terms and Conditions. This ensures that all procurement decisions are made with integrity and objectivity, separated from any personal considerations or benefits. All MTI employees are instructed to adhere to the MTI Code of Conduct when dealing with suppliers.

In 2021, MTI did not incur any legal, regulatory fines or settlements associated with violations of bribery, corruption or anti-competitive standards.

To assess the overall performance and adherence to key policies, we regularly audit and evaluate our suppliers using our Supplier Quality Management Process (SQM). Our SQM supplier evaluation forms contain the following elements:

1. Safety – Safety is the number-one priority that must be demonstrated in suppliers' policies and practices. We expect suppliers to promote risk-reduction programs and record metrics. Metrics include reportable incidents, lost-workday incidents, as well as near misses with corrective actions identified to improve safety.
2. Environment – We expect our suppliers to set emissions- and waste-reduction targets to achieve improvements in sustainability similarly to MTI.
3. Supplier Compliance and Ethics – We assess how our suppliers promote integrity and ethical behavior and operate to prevent criminal conduct and violation of laws, including, but not limited to: modern slavery, child labor, human trafficking, conflict minerals and anti-corruption. At a minimum, all our suppliers confirm their support and adherence to ethical behavior practices.
4. Supplier Social Responsibility – We ensure suppliers have comprehensive policies that promote diversity, inclusion and outreach to their communities.
5. Product Quality and Product Safety – Suppliers must notify MTI immediately if any new product safety or registration information becomes available. If non-conformances occur, the supplier must take the required actions to correct the non-conformance through internal controls. In addition, the supplier Certificate of Analysis helps provide consistent control around nominal specification values.
6. Customer Service – We expect our suppliers to produce and deliver materials or goods on the required timeline, with any potential non-compliance communicated in advance. The supplier documentation is timely, accurate and complete in all areas.
7. Quality System – Every supplier must have documented policies and procedures in place to provide quality products. Each supplier must meet at least annually with the MTI location(s) it services to review specifications and perform annual self-audits to verify compliance.
8. Continuous Improvement – Each supplier must proactively recommend improvement opportunities that will enhance quality, reduce costs and address market changes.
9. Commercial – All suppliers are required to have documented disaster-recovery and long-term supply plans that specifically address conducting business with MTI. We verify that our suppliers have implemented measures to thwart cyberattacks and have detailed protocols to maintain business operations if cyberattacks occur.



In selecting suppliers, we look to source as much as possible from local suppliers to benefit the communities where we work and to reduce logistics costs and delivery times. MTI only conducts business with reputable suppliers who are capable of providing the required goods and services. One of our goals is to identify partnerships with diverse suppliers, including small, minority-owned and women-owned businesses that can provide competitive sources of materials and services.

In 2022, we will be developing a more robust Supply Chain Sustainability Strategy. Our five-year strategy will incorporate a Responsible Supply Chain Management System. Improving our metric tracking on key sustainability elements will allow us to enhance our overall Sustainability Strategy, including setting targets to demonstrate our results.

## Salient Risks

MTI updated our human rights policy in 2021 and our Supplier Code of Conduct in early 2022 for both our internal operations and our supply chain to protect against potential salient human rights risks. We conducted interviews with stakeholders and examined potential issues that were described by both internal and external stakeholders. Based on the countries where we operate, our business activities and the suppliers with which we engage, we have identified the following six salient human rights risks in our supply chain:

1. Forced labor
2. Child labor
3. Occupational health and safety
4. Harassment and discrimination
5. Working hours
6. Living wages

These supply-chain and operations salient risks are not exclusive to MTI, but are associated with all mining, manufacturing and technology companies and their supply chains. We want to emphasize that MTI is not aware of any specific concerns in our supply chain and operations; however, we understand that some risks are more common in certain geographies. We also understand that this list is not exhaustive, and that MTI must continually examine our supply chain for these and other potential risks. MTI has strategies to identify, prevent and mitigate these salient risks, including: our management systems, internal and external auditing practices at least every two years, supplier selection, evaluation and approval systems, as well as due diligence procedures to uncover and monitor these risks. For any concerns that are raised within our own operations, we take immediate action to investigate reports, using our Human Resources, Internal Audit, and Legal policies and procedures to apply any needed corrective action. Under our Code of Business Conduct and Ethics, MTI does not tolerate retaliation against anyone who makes a report. For risks that occur in our supplier operations, we conduct a dialogue with our suppliers, and, if needed, investigate and identify ways to mitigate the risks. As discussed in detail on [page 19](#) of this report, any person can report a concern on MTI or MTI's suppliers to [MTI Compliance Hotline](#) for review.



# Appendix

# Environmental Performance Appendix

## Emissions

	NEW 2025 REDUCTION TARGET (%)	2018	2019	2020	2021	TARGET YEAR 2025	% REDUCTION FROM 2018
<b>Scope 1 Direct GHG CO<sub>2</sub><sup>1</sup> (ton)</b>	<b>25</b>	<b>441,881</b>	<b>390,782</b>	<b>348,770</b>	<b>368,434</b>	<b>331,000</b>	<b>16.6</b>
Performance Materials		250,515	228,440	185,846	192,357		
Specialty Minerals		123,773	99,716	99,554	110,973		
Refractories		67,593	62,626	63,370	65,105		
<b>Scope 1 Direct GHG CO<sub>2</sub> Intensity<sup>1</sup> (lbs/ton)</b>	<b>33</b>	<b>97</b>	<b>84</b>	<b>82</b>	<b>70</b>	<b>65</b>	<b>27.9</b>
Performance Materials		137	114	100	73		
Specialty Minerals		115	93	98	99		
Refractories		387	383	422	391		
<b>Airborne Pollutants<sup>1</sup> (tons)</b>	<b>55</b>	<b>6,873</b>	<b>4,964</b>	<b>5,265</b>	<b>5,403</b>	<b>3,090</b>	<b>21.4</b>
Performance Materials		6,369	4,488	4,726	4,728		
Specialty Minerals		436	417	483	615		
Refractories		69	60	56	60		
<b>Airborne Pollutants Intensity<sup>1</sup> (lbs/ton)</b>	<b>55</b>	<b>1.5</b>	<b>1.1</b>	<b>1.2</b>	<b>1.0</b>	<b>0.68</b>	<b>31.9</b>
Performance Materials		3.5	2.2	2.5	1.8		
Specialty Minerals		0.4	0.4	0.5	0.5		
Refractories		0.4	0.4	0.4	0.4		
<b>Airborne Pollutants (tons) by Category<sup>1</sup></b>	<b>55</b>	<b>6,873</b>	<b>4,964</b>	<b>5,265</b>	<b>5,403</b>	<b>3,090</b>	<b>21.4</b>
Carbon Monoxide (CO)		455	471	430	428		
Nitrogen Oxides (NOx)		2,176	2,025	1,830	1,815		
Sulfur Dioxide (SO <sub>2</sub> )		4,101	2,324	2,874	3,030		
Volatile Organic Compounds (VOC)		140	144	130	130		
<b>Scope 2 Indirect GHG CO<sub>2</sub><sup>2</sup> (ton)</b>	<b>40</b>	<b>154,573</b>	<b>158,578</b>	<b>120,850</b>	<b>105,320</b>	<b>93,000</b>	<b>31.9</b>
Performance Materials		92,801	98,959	72,364	54,696		
Specialty Minerals		48,802	48,571	38,835	40,931		
Refractories		12,173	11,048	9,651	9,693		
<b>Scope 2 Indirect GHG CO<sub>2</sub> Intensity<sup>2</sup> (lbs/ton)</b>	<b>40</b>	<b>34</b>	<b>34</b>	<b>28</b>	<b>20</b>	<b>20</b>	<b>41.2</b>
Performance Materials		51	49	39	21		
Specialty Minerals		46	45	38	37		
Refractories		70	68	64	58		

### Notes:

- Total emissions for CO<sub>2</sub> and airborne pollutants are provided for both stationary combustion sources and mobile sources. Many of the Specialty Minerals, Refractories and Performance Materials facilities report emissions of nitrogen oxides (NOx), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO) and volatile organic hydrocarbons (VOCs) to the local authorities. This data has been used where available. If no plant estimates are available, emissions have been calculated using total fuel usages and the United States Environmental Protection Agency (EPA) most recent emission factors. This data covers 100% of our material air quality emissions. Since there are no significant combustion processes (dryers, kilns, etc.) or fuel usage by mobile equipment at the Paper PCC facilities, these sites are not included in our data.
- MTI utilizes the GHG Protocol methodology and utilized USA 2020 Egrid data, 2021 UK DEFRA, and 2019 International Energy Agency database estimates for the Scope 2 emission factors.



## MTI Sourcing of Electricity

SOURCE OF ELECTRICITY	2019 ELECTRICITY (MWH)	PERCENTAGE (%)	2020 ELECTRICITY (MWH)	PERCENTAGE (%)	2021 ELECTRICITY (MWH)	PERCENTAGE (%)
Total Electricity (MWh)	640,623	100	585,210	100	625,088	100
Sourced from Electrical Grid	391,698	61.1	359,362	61.4	363,839	58.2
MTI PCC Plants Electricity Sourced from Host Paper Mills	246,878	38.5	223,983	38.3	247,524	39.6
Direct Purchase from Black Hills Energy Wind Turbines	-	-	-	-	11,523	1.8
Sourced from Onsite Solar Panels	2,048	0.3	1,865	0.3	2,202	0.4

## TOTAL ENERGY USE-Increase energy efficiency

TOTAL ENERGY USAGE (GJ) FOR MTI AND SUBSIDIARIES	2018	2019	2020	2021	% REDUCTION FROM 2018
<b>MTI</b>	<b>7,483,887</b>	<b>7,664,145</b>	<b>6,913,921</b>	<b>7,263,478</b>	<b>2.9</b>
Performance Materials	3,579,483	3,944,733	3,406,876	3,469,392	
Specialty Minerals	3,418,096	3,300,458	3,112,088	3,363,231	
Refractories	486,308	418,954	394,958	430,854	
TOTAL DIRECT ENERGY USAGE (GJ)	2018	2019	2020	2021	% REDUCTION FROM 2018
<b>MTI</b>	<b>5,143,051</b>	<b>5,357,902</b>	<b>4,807,163</b>	<b>5,013,160</b>	<b>2.5</b>
Performance Materials	3,135,365	3,466,880	2,970,812	3,014,234	
Specialty Minerals	1,605,655	1,548,409	1,512,485	1,648,140	
Refractories	402,031	342,613	323,866	350,785	
TOTAL INDIRECT ENERGY USAGE (GJ)	2018	2019	2020	2021	% REDUCTION FROM 2018
<b>MTI</b>	<b>2,340,837</b>	<b>2,306,243</b>	<b>2,106,758</b>	<b>2,250,318</b>	<b>3.9</b>
Performance Materials	444,119	477,853	436,063	455,158	
Specialty Minerals	1,812,441	1,752,050	1,599,603	1,715,091	
Refractories	84,277	76,340	71,092	80,069	

## WATER

In 2021, our Paper PCC satellite plants obtained most of the water from our host paper mill facilities, whereas our Performance Minerals business depended on Ground Water resources primarily. Overall, about 70% of the water we use is derived from alternative (non-potable) sources, with the majority of the non-potable water coming from our host paper mills' process water.



For our PCC process, we have a recycle loop in which we receive the process water from the paper mill, make our PCC product and recycle and reuse 70% of the water back to the paper mill in the form of our product slurry and 15% to host mill water treatment plant.

## Process Water Used Source

2021 Process Water Used from Source, Billion Gallons

SUBSIDIARY BU	SURFACE (LAKES, PONDS, RIVERS, CREEKS)	BORE / WELL WATER	HOST PAPER MILL	MUNICIPAL / CITY WATER	MTI TOTAL BY BU
Minteq				0.01	0.01
PCC	0.41		4.20		4.62
Performance Materials				0.03	0.03
Performance Minerals	0.21	1.46	-	0.03	1.70
<b>MTI Total by Source<sup>1</sup></b>	<b>0.63</b>	<b>1.46</b>	<b>4.20</b>	<b>0.07</b>	<b>6.36</b>

1. Process water used is MTI's total water used and includes our cooling tower water.

From a water discharge perspective, our Paper PCC satellite plants primarily recycle water back to the host mill from where we obtained most of our water. Our Specialty Minerals plants primarily discharge back to natural water sources. The primary difference between MTI's water used and discharge is the amount of water that contains our PCC product and is shipped as our PCC product slurry to the host paper mill.

## Process Water Discharge Destination

2021 Process Water Discharged To Location, Billion Gallons

SUBSIDIARY BU	SPECIFIED DISCHARGE POINT PER PERMIT	RECYCLE TO HOST MILL	MUNICIPAL/CITY WASTE TREATMENT	MTI TOTAL BY BU
PCC	-	1.75	0.08	1.83
Performance Materials	-	-	0.02	0.02
Performance Minerals	1.56	-	-	1.56
<b>MTI Total by Source</b>	<b>1.56</b>	<b>1.75</b>	<b>0.10</b>	<b>3.41</b>

## Process Water Used and Discharged by Region

2021 Process Water Used in Region from Source, Billion Gallons

REGIONS	SURFACE (LAKES, PONDS, RIVERS, CREEKS)	BORE/WELL WATER	HOST MILL	MUNICIPAL/CITY WATER	MTI TOTAL
Americas	0.45	1.46	1.95	0.02	4.08
Europe	0.18	-	0.97	0.04	1.19
Asia	-	-	1.28	0.01	1.29
<b>MTI Total</b>	<b>0.63</b>	<b>1.46</b>	<b>3.88</b>	<b>0.07</b>	<b>6.36</b>

2021 Process Water Discharge in Region to Source, Billion Gallons

REGIONS	HOST MILL	MUNICIPAL/CITY WATER	SURFACE (LAKES, PONDS, RIVERS, CREEKS)	MTI TOTAL
Americas	1.01	0.08	1.44	2.53
Europe	0.39	0.02	0.12	0.52
Asia	0.36	0	-	0.36
<b>MTI Total</b>	<b>1.75</b>	<b>0.10</b>	<b>1.56</b>	<b>3.41</b>

	FRESHWATER USED* (BILLION GALLONS)	FRESHWATER USED INTENSITY** (GAL/TON PRODUCED)
Minteq	0.01	73
PCC	0.41	6,995
Performance Materials	0.03	21
Performance Minerals	1.70	2,987
<b>MTI Total</b>	<b>2.15</b>	<b>995</b>

\* Freshwater consists of surface water, bore/well water and municipal/city water

\*\* Intensity is calculated from the sites that use freshwater production

	FRESHWATER USED* (BILLION GALLONS)	FRESHWATER USED INTENSITY** (GAL/TON PRODUCED)
Americas	1.93	2,622
Europe	0.22	350
Asia	0.01	8
<b>MTI Total</b>	<b>2.15</b>	<b>995</b>



## Historical Trend in Process Water Used and Discharged

Absolute & Intensity Process Water Used and Discharged for MTI And Subsidiary Business Units

	NEW 2025 REDUCTION TARGET (%)	2018	2019	2020	2021
<b>Process Water Used (Billion gals)</b>	<b>20</b>	<b>7.41</b>	<b>7.60</b>	<b>6.31</b>	<b>6.36</b>
Performance Materials		0.04	0.05	0.05	0.03
Specialty Minerals		7.60	7.54	6.26	6.32
Refractories		0.01	0.01	0.01	0.01
<b>Process Water Used (gals/ton produced)</b>	<b>30</b>	<b>838</b>	<b>819</b>	<b>743</b>	<b>604</b>
Performance Materials		14	15	13	6
Specialty Minerals		1,491	1,520	1,398	1,276
Refractories		32	32	32	29
<b>Process Water Discharged (billion gals)</b>	<b>20</b>	<b>4.13</b>	<b>4.14</b>	<b>3.26</b>	<b>3.41</b>
Performance Materials		0.01	0.02	0.01	0.02
Specialty Minerals		4.25	4.12	3.25	3.40
<b>Process Water Discharged (gals/ton produced)</b>	<b>33</b>	<b>465</b>	<b>446</b>	<b>383</b>	<b>324</b>
Performance Materials		3	5	3	3
Specialty Minerals		834	832	725	694

Process Water Used, 2018-2021 by Region, Billion Gallons

REGION	2018	2019	2020	2021
Americas	5.26	5.07	3.90	3.77
Europe	1.36	1.34	1.25	1.30
Asia	1.01	1.19	1.17	1.29
<b>MTI Total</b>	<b>7.63</b>	<b>7.60</b>	<b>6.31</b>	<b>6.36</b>

Process Water Discharged, 2018-2021 by Region, Billion Gallons

REGION	2018	2019	2020	2021
Americas	3.17	3.14	2.26	2.47
Europe	0.71	0.66	0.62	0.58
Asia	0.36	0.34	0.38	0.36
<b>MTI Total</b>	<b>4.24</b>	<b>4.14</b>	<b>3.26</b>	<b>3.41</b>



# Wastes

## Landfill Waste

	NEW REDUCTION TARGET (%)	2018	2019	2020	2021	TARGET YEAR 2025	% REDUCTION FROM 2018
<b>Landfill Waste Disposed (ton)</b>	<b>20</b>	<b>208,946</b>	<b>213,360</b>	<b>175,954</b>	<b>181,012</b>	<b>167,157</b>	<b>-13.5</b>
Performance Materials		25,864	14,319	9,631	10,329		
Specialty Minerals		177,906	194,416	162,016	165,965		
Refractories		5,176	4,625	4,306	4,718		
<b>Landfill Waste Disposed (lb/ton)</b>	<b>30</b>	<b>46</b>	<b>46</b>	<b>41</b>	<b>35</b>	<b>32</b>	<b>-23.9</b>
Performance Materials		14	7	5	4		
Specialty Minerals		70	78	72	67		
Refractories		30	28	29	28		

## Hazardous Waste

MTI is committed to reducing hazardous waste and developing actions and timelines

HAZARDOUS WASTE (TONS)	2021
<b>Hazardous Waste (tons)</b>	<b>224</b>
Performance Materials	109
Specialty Minerals	90
Refractories	25

## Safety Metric Summary

	2018	2019	2020	2021
Total Fatalities	0	0	0	0
Employee+ Part-Time Employee + MTI Directed Contractors Fatalities	0	0	0	0
Independent Contractor Fatalities	0	0	0	0
Percent of MTI Sites Injury Free	84%	87%	90%	90%
Total Recordable Injury Rate (TRIR)	1.28	1.12	0.60	0.74
Lost Workday Injury Rate (LWIR)	0.16	0.26	0.22	0.24
Number of Recordable Injuries	49	43	22	31
Number of Lost Workday Injuries	6	10	8	10

# Global Reporting Initiative (GRI) Content Index

We continue to follow the GRI Standards as a guide for identifying, measuring and disclosing our non-financial impacts. Our 2021 Corporate Responsibility and Sustainability Report has been prepared in reference to the GRI Standards.

GRI STANDARD (DISCLOSURE)	DESCRIPTION	LOCATION
<b>Organizational Profile</b>		
102-1	Name of the organization	Minerals Technologies Inc.
102-2	Activities, brands, products, and services	Minerals Technologies Inc. is a resource- and technology based company that develops, produces and markets worldwide a broad range of specialty mineral, mineral based and synthetic mineral products and related systems and services. MTI's products are available globally and not restricted in any form.
102-3	Location of headquarters	622 Third Avenue, 38th Floor New York, NY 10017 USA
102-4	Location of operations	2021 Form 10-K, pp. 21-30
102-5	Ownership and legal form	MTI is a publicly traded corporation (NYSE: MTX).
102-6	Markets served	Corporate Responsibility & Sustainability Report: About MTI; pp. 6-9; 68-69 2021 Annual Report: inside cover; pp. 11-13; 18-19
102-7	Scale of the organization	Corporate Responsibility & Sustainability Report: Inside cover; pp. 6-10; 68-69 2021 Form 10-K pp. F-1 to F-44
102-8	Information on employees and other workers	Social pp. 50-65
102-9	Supply chain	Building a Sustainable Supply Chain, pp. 74-75
102-10	Significant changes to the organization and its supply chain	No significant changes occurred related to our organization or supply chain following our 2021 acquisition of the Normerica pet care business in North America and SPCC assets in United States.
102-11	Precautionary Principle or approach	Throughout our operations and our product development, we are guided by the precautionary principle and carefully monitor and consider the effects on the environment, health and safety.
102-12	External initiatives	Strong Commitment to Mining Sustainably, pp. 48-49; Enhancing Sustainability Via Packaging Initiatives pp. 71; Community Engagement, pp. 63-65



102-13	Membership of associations	<p>MTI employees hold numerous relevant industry and professional memberships including the following significant organizations:</p> <p>Association for Manufacturing Excellence (AME)</p> <p>American Society of Safety Professionals (ASSP)</p> <p>Industrial Minerals Association (IMA)</p> <p>Sorptive Minerals Institute (SMI)</p> <p>American Society of Mechanical Engineers (ASME)</p> <p>American Petroleum Institute (API)</p> <p>American Conference of Governmental Industrial Hygienists (ARCGIS)</p> <p>American Industrial Hygiene Association (AIHA)</p> <p>American Board of Industrial Hygiene (ABIH)</p> <p>Produced Water Society (PWS)</p>
<b>Strategy</b>		
	Statement from senior decision-maker	A Message From Our Chairman and CEO, pp. 1-3
<b>Ethics and Integrity</b>		
102-16	Values, principles, standards, and norms of behavior	<p>As the Corporate Compliance Officer, the General Counsel of MTI has ultimate responsibility for monitoring compliance with MTI's Policies on Business Conduct and all related MTI policies and procedures. MTI's Summary of Policies on Business Conduct provides an overview of key policies for conducting MTI's business legally and ethically and is publicly available in MTI's preferred employee languages: Bahasa Melayu, Chinese, Dutch, English, Finnish, French, German, Gujarati, Hindi, Japanese, Korean, Polish, Portuguese, Spanish, Thai, and Turkish.</p>
102-17	Mechanisms for advice and concerns about ethics	Compliance With Laws, Permits, Regulations and Company Values, pp. 20-21
<b>Governance</b>		
102-18	Governance Structure	Sustainability Governance & Accountability, pp. 15-22; 2020 Proxy Statement, Committees of the Board of Directors, pp. 21
102-19	Delegating authority	Sustainability Governance & Accountability, pp. 15-22; How Sustainability is Integrated in Our Strategy, pp. 16-17; Culture-Based Lead Teams, pp. 24
102-20	Executive-level responsibility for economic, environmental, and social topics	Board Oversight of Risk, ESG and Sustainability, pp. 15-22 Leadership Commitment to ESG and Sustainability, pp. 15-22

102-21	Consulting stakeholders on economic, environmental, and social topics	Stakeholder Engagement, pp. 23-24
102-22	Composition of the highest governance body and its committees	2021 Annual Report; Sustainability Governance & Accountability, pp. 16-18; 2022 Proxy, pp. 14-18
102-23	Chair of the highest governance body	Douglas T. Dietrich is our Chairman and CEO. Robert L. Clark is our Lead Independent Director
102-24	Nominating and selecting the highest governance body	2022 Proxy Statement, pp. 13-27
102-25	Conflicts of interest	MTI Code of Conduct; 2022 Proxy Statement, pp. 28
102-26	Role of highest governance body in setting purpose, values, and strategy	2022 Proxy Statement, pp. 13-28
102-29	Identifying and managing economic, environmental, and social impacts	2022 Proxy Statement, pp. 13
102-31	Review of economic, environmental, and social topics	2022 Proxy Statement, pp. 18-20
102-32	Highest governance body's role in sustainability reporting	2022 Proxy Statement, pp. 18-20; A Message from Our Chairman and CEO, pp. 1-3; A Message From BOD Chair of the Corporate Governance and Nominating Committee, pp. 4; Sustainability Governance at MTI, pp. 15-22
102-33	Communicating critical concerns	Sustainability Governance & Accountability, pp. 15-22; Stakeholder Engagement, pp. 24-25; 2021 Form 10-K, pp. 15-21
102-35	Remuneration policies	2022 Proxy Statement, pp. 40-78
102-36	Process for determining remuneration	2022 Proxy Statement, pp. 40-78
102-37	Stakeholders' involvement in remuneration	2022 Proxy Statement, pp. 12
<b>Stakeholder Engagement</b>		
102-40	List of stakeholder groups	Stakeholder Engagement, pp. 23-24
102-41	Collective bargaining agreements	We respect our employees' right to join, or refrain from joining, any lawful organization, including trade unions and works councils and we are committed to complying with all applicable local and national laws pertaining to freedom of association and collective bargaining; MTI's Human Rights Policy
102-42	Identifying and selecting stakeholders	We identify our stakeholders as those entities that can affect or be affected by our actions, objectives and policies.
102-43	Approach to stakeholder engagement	Stakeholder Engagement, pp. 23-24; Voice of the Customer, pp. 68
102-44	Key topics and concerns raised	Stakeholder Engagement, pp. 23-24
<b>Reporting Practice</b>		
102-45	Entities included in the consolidated financial statements	MTI's Annual Report on Form 10-K for the Fiscal Year Ended December 31, 2021, Exhibit 21.1.

102-46	Defining report content and topic Boundaries	MTI determined that our governance, health and safety programs, progress towards 2025 targets, new product development, supply chain, and our policies and practices in taking care of our employees and stakeholders are pertinent to ensure our company's long term sustainability.
102-48	Restatements of information	There are no significant restatements of information compared to the previous report.
102-49	Changes in reporting	This report represents MTI's work to reference the GRI Standards reporting framework.
102-50	Reporting period	January 1-December 31, 2021
102-51	Date of most recent report	MTI 2021 Sustainability Report published July 27, 2022
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	Jared Kornblatt, Corporate Communications email at sustainability@mineralstech.com
102-54	Claims of reporting in accordance with the GRI Standards	This report aligns with GRI Standards and has utilized the GRI content index with reference
102-55	GRI content index	This document represents the company's content index.
102-56	External assurance	MTI is not seeking external assurance for this report. MTI has started to investigate external assurance requirements.

## ECONOMIC

GRI STANDARD (DISCLOSURE)	DESCRIPTION	LOCATION
<b>Economic Performance</b>		
201-1	Direct economic value generated and distributed	2021 Annual Report, inside cover, pp. 11-13; Sustainable Growth, pp. 5-10; 2021 Form 10-K pp. F-1 to F-44
201-4	Financial assistance received from government	No material governmental financial assistance was received.
<b>Market Presence</b>		
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	All male and female employees are paid at least 100% of the local minimum wages.
<b>Indirect Economic Impacts</b>		
203-1	Infrastructure investments and services supported	Sustainable Growth, pp. 5-12



Anti-Corruption		
103-1	Explanation of the material topic and its Boundary	Compliance with Laws and Regulations, pp. 20-21 with all policies referenced; Supplier Collaboration, pp. 74-75; MTI's 2022 Anti-Corruption and Anti-Bribery Policy
103-2	The management approach and its components	Compliance with Laws and Regulations, pp. 20-21 with all policies referenced; Supplier Collaboration, pp. 74-75; MTI's 2022 Anti-Corruption and Anti-Bribery Policy
103-3	Evaluation of the management approach	Compliance with Laws and Regulations, pp. 20-21 with all policies referenced; Supplier Collaboration, pp. 74-75; MTI's 2022 Anti-Corruption and Anti-Bribery Policy
205-2	Communication and training about anti-corruption policies and procedures	Compliance with Laws and Regulations, pp. 20-21 with all policies referenced; Supplier Collaboration, pp. 74-75; MTI's 2022 Anti-Corruption and Anti-Bribery Policy
205-3	Confirmed incidents of corruption and actions taken	MTI is not aware of any instances of corruption in 2021. Supplier Collaboration statement, pp. 74-75.
Anti-competitive Behavior		
206-1	Legal actions for anticompetitive behavior, anti-trust, and monopoly practices	MTI is not aware of any incidents of anti-competitive behavior, anti-trust or monopolistic practices in 2021.

## ENVIRONMENTAL

GRI STANDARD (DISCLOSURE)	DESCRIPTION	LOCATION
Energy		
103-1: Management Approach	Explanation of the material topic and its Boundary	2025 Environmental Targets, pp. 40; Scope 2 Emission Reductions and Electricity, pp. 42-44; Appendix, pp. 77-78
103-2	The management approach and its components	2025 Environmental Targets, pp. 40; Scope 2 Emission Reductions and Electricity, pp. 42-44; Appendix, pp. 77-78
302-1	Energy consumption within the organization	2025 Environmental Targets, pp. 40; Scope 2 Emission Reductions and Electricity, pp. 42-44; Appendix, pp. 77-78
302-3	Energy intensity	2025 Environmental Targets, pp. 40; Scope 2 Emission Reductions and Electricity, pp. 42-44; Appendix, pp. 77-78
302-4	Reduction of energy consumption	2025 Environmental Targets, pp. 40; Scope 2 Emission Reductions and Electricity, pp. 42-44; Appendix, pp. 77-78
Water		
103-1: Management Approach	Explanation of the material topic and its Boundary	Environmental Targets, pp. 40; Water (Used & Discharged), pp. 44-46; Appendix, 78-81; SASB Index

103-2	The management approach and its components	Environmental Targets, pp. 40; Water (Used & Discharged), pp. 44-46; Appendix, 78-81; SASB Index
303-1	Interactions with water as a shared resource	Environmental Targets, pp. 40; Water (Used & Discharged), pp. 44-46; Appendix, 78-81; SASB Index
303-4	Water discharge	Environmental Targets, pp. 40; Water (Used & Discharged), pp. 44-46; Appendix, 78-81; SASB Index
303-5	Water consumption	Environmental Targets, pp. 40; Water (Used & Discharged), pp. 44-46; Appendix, 78-81; SASB Index
<b>Biodiversity</b>		
103-1: Management Approach	Explanation of the material topic and its Boundary	Strong Commitment to Mining Sustainably, pp. 48-49
103-2	The management approach and its components	Strong Commitment to Mining Sustainably, pp. 48-49
304-2	Significant impacts of activities, products, and services on biodiversity	Strong Commitment to Mining Sustainably, pp. 48-49
304-3	Habitats protected or restored	Strong Commitment to Mining Sustainably, pp. 48-49
<b>Emissions</b>		
103-1: Management Approach	Explanation of the material topic and its Boundary	2025 Environmental Targets, pp. 40; Scope 1 and Airborne Pollutants Emission Reductions, pp. 41-44; Appendix, pp. 77-78
103-2	The management approach and its components	2025 Environmental Targets, pp. 40; Scope 1 and Airborne Pollutants Emission Reductions, pp. 41-44; Appendix, pp. 77-78
305-1	Direct (Scope 1) GHG emissions	2025 Environmental Targets, pp. 40; Scope 1 and Airborne Pollutants Emission Reductions, pp. 41-44; Appendix, pp. 77-78
305-2	Energy indirect (Scope 2) GHG emissions	2025 Environmental Targets, pp. 40; Scope 1 and Airborne Pollutants Emission Reductions, pp. 41-44; Appendix, pp. 77-78
305-3	Other indirect (Scope 3) GHG emissions	MTI does not currently report Scope 3 emissions. We are obtaining data and plan to report in future.
305-4	GHG emissions intensity	2025 Environmental Targets, pp. 40; Scope 1 and Airborne Pollutants Emission Reductions, pp. 41-44; Appendix, pp. 77-78
305-5	Reduction of GHG emissions	2025 Environmental Targets, pp. 40; Scope 1 and Airborne Pollutants Emission Reductions, pp. 41-44; Appendix, pp. 77-78
305-6	Emissions of ozone-depleting substances (ODS)	MTI does not believe we use any ozone depleting substances
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	2025 Environmental Targets, pp. 40; Scope 1 and Airborne Pollutants Emission Reductions, pp. 41-44; Appendix, pp. 77-78

Effluents and Waste		
103-1: Management Approach	Explanation of the material topic and its Boundary	2025 Environmental Targets, pp. 40; Our Waste and Spills, pp. 46-48; Appendix, 82
103-2	The management approach and its components	2025 Environmental Targets, pp. 40; Our Waste and Spills, pp. 46-48; Appendix, 82
306-2	Management of significant waste-related impacts	2025 Environmental Targets, pp. 40; Our Waste and Spills, pp. 46-48; Appendix, 82
306-3	Waste generated	2025 Environmental Targets, pp. 40; Our Waste and Spills, pp. 46-48; Appendix, 82
Environmental Compliance		
103-1: Management Approach	Explanation of the material topic and its Boundary	Environmental, pp. 37-50; MTI Environmental Health and Safety Policy
103-2	The management approach and its components	Environmental, pp. 37-50; MTI Environmental Health and Safety Policy
103-3	Evaluation of the management approach	Environmental, pp. 37-50; MTI Environmental Health and Safety Policy
Supplier Environmental Assessment		
308-1	New suppliers that were screened using environmental criteria	Sustainable Supply Chain, pp. 74-75
308-2	Negative environmental impacts in the supply chain and actions taken	MTI is not aware of any negative environmental impacts in the supply chain.

## SOCIAL

Employment		
401-1	New employee hires and employee turnover	Our People, pp. 53-58
Occupational Health and Safety		
103-1: Management Approach	Explanation of the material topic and its Boundary	Safety, pp. 25-35
103-2	The management approach and its components	Safety, pp. 25-35
103-3	Evaluation of the management approach	Safety, pp. 25-35
403-1	Occupational health and safety management system	Safety, pp. 25-35
403-2	Hazard identification, risk assessment, and incident investigation	Safety, pp. 25-35
403-3	Occupational health services	Safety, pp. 25-35
403-4	Worker participation, consultation, and communication on occupational health and safety	Safety, pp. 25-35
403-5	Worker training on occupational health and safety	Safety, pp. 25-35

403-6	Promotion of worker health	Safety, pp. 25-35
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Safety, pp. 25-35
403-8	Workers covered by an occupational health and safety management system	All MTI employees, part time and contractors on site are covered by our health and safety management system
403-9	Work-related injuries	Safety, pp. 25-35
403-10	Work-related ill health	Safety, pp. 25-35
<b>Training and Education</b>		
103-1: Management Approach	Explanation of the material topic and its Boundary	Advancing Our People-Focused Culture Through Training; Onboarding and Talent Management, pp. 59-61; Safety, pp. 25-35
103-2	The management approach and its components	Advancing Our People-Focused Culture Through Training; Onboarding and Talent Management, pp. 59-61; Safety, pp. 25-35
404-2	Programs for upgrading employee skills and transition assistance programs	Advancing Our People-Focused Culture Through Training; Onboarding and Talent Management, pp. 59-61; Safety, pp. 25-35
404-3	Percentage of employees receiving regular performance and career development reviews	Advancing Our People-Focused Culture Through Training; Onboarding and Talent Management, pp. 59-61; Safety, pp. 25-35
<b>Diversity and Equal Opportunity</b>		
103-1	Explanation of the material topic and its Boundary	Diversity and Inclusion, pp. 54-58
103-2	The management approach and its components	Diversity and Inclusion, pp. 54-58
<b>Supplier Social Assessment</b>		
414-1	New suppliers that were screened using social criteria	Supply Chain Sustainability, pp. 74-75
414-2	Negative social impacts in the supply chain and actions taken	MTI is not aware of any significant negative supply chain developments.
<b>Public Policy</b>		
415-1	Political contributions	MTI did not make political contributions
<b>Customer Health and Safety</b>		
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	MTI is not aware of any non-compliance concerning the health and safety impacts of products and services. Product Safety; Conflict Minerals, Product Recalls, pp. 71-74



# Sustainability Accounting Standards Board's Resource Transformation – Chemicals Industry Standard

ACCOUNTING METRIC	CODE	DISCLOSURE
<b>Greenhouse Gas Emissions</b>		
Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	RT-CH-110a.1	368,434 tons of CO <sub>2</sub> , none are covered under emissions-limiting regulations.
Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	RT-CH-110a.2	For details, see 2025 Environmental Targets: Strengthening Our Goals and Emissions, pp. 41-43
<b>Air Quality</b>		
Air emissions of the following pollutants: (1) NOX (excluding N <sub>2</sub> O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	RT-CH-120a.1	(1) 1,815 tons (2) 3,030 tons (3) 130 tons (4) not reported
<b>Energy Management</b>		
(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	RT-CH-130a.1	(1) 7,263,478 GJ (2) 17% grid electricity (3) 15% renewable (4) 0.1% Self-Generated Renewable Energy
<b>Water Management</b>		
(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	RT-CH-140a.1	(1) 2.15 billion gallons withdrawn from freshwater sources; 1% from High or Extremely High Baseline Water Stress regions.  (2) 6.36 billion gallons total water used composed of 2.15 billion gallons freshwater and 4.20 billion gallons of reused/recycled non-potable water from host paper mill; 15% of the total 6.26 billion gallons from High or Extremely High Baseline Water Stress regions.
Number of incidents of non-compliance associated with water quality permits, standards, and regulations	RT-CH-140a.2	Zero incidents
Description of water management risks and discussion of strategies and practices to mitigate those risks	RT-CH-140a.3	For details, see <i>Water Use</i>
<b>Hazardous Waste Management</b>		
Amount of hazardous waste generated, percentage recycled	RT-CH-150a.1	224 tons, 11% tons recycled, 33% incinerated for fuel value
<b>Community Relations</b>		
Discussion of engagement processes to manage risks and opportunities associated with community interests	RT-CH-210a.1	For details, see Community Engagement
<b>Workforce Health &amp; Safety</b>		
(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	RT-CH-320a.1	(1) 0.74 (2a) 0 (2b) 0
Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	RT-CH-320a.2	For details, see <i>Our Safety Foundation</i>



**Product Design for Use-phase Efficiency**

Revenue from products designed for use-phase resource efficiency	RT-CH-410a.1	60% of our total company revenue was derived from products and services that enhance both MTI's and our customer's sustainability objectives. For details, see <i>Sustainable and Clean Technology Products</i>
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**Safety & Environmental Stewardship of Chemicals**

(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	RT-CH-410b.1	Not reported
Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	RT-CH-410b.2	(1) We closely follow the European Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) to protect human health and the environment.  (2) MTI is committed to reduce our hazardous waste generation and is developing plans and timelines, including substituting non-hazardous chemicals in our processes and laboratories and minimizing the volume of waste generated during equipment maintenance. Our advanced Resistex® and Bentomat® environmental barriers contain wastes and leachates in landfills and mining sites to prevent infiltration of toxic chemicals into ground water.

**Genetically Modified Organisms**

Percentage of products by revenue that contain genetically modified organisms (GMOs)	RT-CH-410c.1	Not applicable, 0% of our products contain GMO's
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**Management of the Legal & Regulatory Environment**

Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	RT-CH-530a.1	We engage with key shareholders on sustainability, which includes ongoing and evolving dialogues with local communities, interactions with our suppliers and customers, as well as collaborations with governmental officials and regulators that oversee our operations to enhance our sustainability practices.
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**Operational Safety, Emergency Preparedness & Response**

Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	RT-CH-540a.1	In 2021, 39 incidents in the form of environmental releases, with only 7 being reportable occurrences.  All of the spills were classified as small and 100% of the spills were contained and captured in our comprehensive spill response
Number of transport incidents	RT-CH-540a.2	Not reported

**Activity Metrics**

Production by reportable segment	RT-CH-000.A	Not reported
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# Task Force on Climate-related Financial Disclosures (TCFD) Index

Mineral Technologies recognizes that climate change represents a risk to our operations and has undertaken a proactive approach to mitigate this risk. We are committed to providing transparency on our climate change risk management, governance, and performance. Our Board of Directors and management team provide oversight and actively manage climate change-related risks. A summary of our response to the TCFD-recommended disclosures is below.

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## Governance

### Board oversight

Mineral Technologies' (MTI) Board of Directors has primary responsibility for oversight of risk and strategy for the company, which includes our sustainability efforts as well as climate-related risks and opportunities.

The Corporate Governance and Nominating Committee is directly responsible for reviewing and evaluating MTI's programs, policies and practices relating to social, environmental and governance issues which could impact the long-term sustainability of our business. This includes strategy and risk, environmental performance and 2025 targets among other topics.

In addition, the entire Board follows a formal, monthly schedule for consideration of environmental, health and safety, and social matters, which are reviewed at each regularly scheduled board meeting. Overall corporate responsibility efforts, including sustainability and climate-related matters and progress, are periodically reviewed with the Committee as well as the full Board at regularly scheduled board meetings.

### Management oversight

MTI's Leadership Council (LC) under the direction of our Chair/CEO oversees businesses, functional areas, and culture-based lead teams - all of which integrate sustainable processes and practices into their strategies and identify and manage risks. The entire LC, which is composed of our senior business and resource unit executives, is actively engaged in the management of MTI's broad sustainability practices. Our CEO champions sustainability at an organization level; each business unit leaders helps drive sustainability practices and initiatives as part of their overall business strategy.

In addition, we have a Sustainability Lead Team (Team), comprised of senior leaders across the organization with functional expertise, including within the areas of Environmental, Health, and Safety; Legal and Compliance; Investor Relations; Finance; Corporate Communications; Human Resources; Global Supply Chain; Research and Development; Manufacturing; and Commercial. The Team reports directly to our Chairman and CEO, has full-team meetings at least once a month. Sub-teams meet more frequently and provide regular progress updates to the LC, the Committee, as well as the full Board. The Team seeks to ensure a comprehensive approach to developing and progressing our companywide ESG and sustainability strategies and initiatives, driving alignment across the organization to address emerging ESG risks and opportunities. The Team's other focus areas include managing progress toward achieving our 2025 environmental targets. our 2025 environmental targets.



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## Strategy

### Climate Related Risks and Opportunities

We have identified climate-related risks and opportunities that may affect us over the short-, medium- and longer-term. These include:

#### 1. Regulatory Risks

Current and emerging regulations are relevant and always included in the Company's processes for identifying and assessing climate-related risks because our operational footprint includes many countries with different regulatory requirements, and the consequences for non-compliance could negatively impact our operations, financial performance, and reputation. In particular, we are subject to certain requirements under the Clean Air Act. In addition, certain of the Company's operations involve and have involved the use and release of substances that have been and are classified as toxic or hazardous within the meaning of these laws and regulations. Environmental operating permits are, or may be, required for certain of the Company's operations and such permits are subject to modification, renewal, and revocation. We are also subject to land reclamation requirements relating to our mining operations. In addition to environmental and health and safety laws and regulations, we are subject to a wide variety of other federal, state, local and foreign laws and regulations in the countries where we conduct business. The Company regularly monitors and reviews its operations, procedures and policies for compliance with these laws and regulations.

#### 2. Reputational Risk

Reputation is relevant and always included in MTI's processes for identifying and assessing climate related risks due to the potential negative impact of lost revenue that may arise from customers' dissatisfaction with MTI's failure to substantially meet its goals for emissions reduction and /or a lack of participation in various environmental disclosure platforms. Additionally, we regularly assess how we might be influenced by a changing climate and take seriously the potential for business disruption that could occur under extreme weather and natural disasters, and reputational risk from not proactively addressing climate change issues including the potential negative impact of lost revenue and increased expenses that could arise from damaged infrastructure.

#### 3. Market opportunities including the opportunity to provide products to support reduction goals of partners

Shifts in supply and demand are relevant and always included in the Company's processes for identifying and assessing climate related risks due to the potential impact of decreased revenues that could arise from not capitalizing on new market opportunities, as well as increased revenue from energy-efficiency product demand. We are constantly evaluating opportunities to improve our existing products, technologies and production processes—or creating new ones—to help reduce MTI's and our customers' impact on the environment.

### Impact on strategy

Our Board and Management teams consider sustainability as a vital driver to our long-term growth. As a global resource- and technology-based manufacturing company, we recognize the significance of climate change and responsible consumption and production, and our role in addressing our stakeholders' interest in these issues. We have a responsibility to ensure compliance with all environmental regulations in the locations where we operate, which includes reducing the impact of our operations on people, communities, and the planet. We are aware of the risks posed to our business by climate changes (including physical risks) and have been working to reduce environmental impact through more efficient manufacturing process and best practice adoption. Additionally, we are focused on evolving our new product development processes and pipeline to meet our own environmental goals and address customers' most pressing sustainability challenges. We are accelerating the speed with which we bring products to market and we are increasing the percentage of new products with a sustainability benefit.



## Climate resilience

We recognize the risks associated with climate change and the potential impacts they may cause on our operations and strategy. Underpinning our business strategy, and climate resilience, sustainability-advantaged products account for the majority of our 2021 revenue. In 2021, about 60% of our total company revenue was derived from products and services that enhance both MTI's and our customer's sustainability objectives. We categorize our sustainable products into the below segments:

### 4. Energy Efficiency:

We have several businesses where our products improve our customers' operations by making them more sustainable and productive while creating less waste/scrap.

### 5. Pollution Prevention:

MTI has a broad product pipeline designed to sequester CO<sub>2</sub> from paper mill exhaust stacks, to prevent pollution from spreading in the environment, to remove contaminants from water and soil and to improve the quality of water for safe discharge.

### 6. Green Building:

Our Building Materials business offers several product groups designed to protect the health of occupants by improving the performance of the building envelope.

### 7. Sustainable Agricultural:

MTI mines leonardite and produces a line of agricultural crop yield improvement formulations. Our humic acid and nutrient formulations are used by our customers for application to agricultural crops to enhance plant health and improve yields.

### 8. Alternative Energy:

In our drilling products business, we manufacture and sell a complete line of bentonite and additive grouting solutions for the geothermal heat loop installation industry. Our grouts are mixed with sand or graphite at the job site to enhance geothermal heat loop systems for household and commercial building heating and cooling.

We regularly implement climate-related scenario analysis by using modeling software and incorporate qualitative and quantitative aspects in the portfolio analyzation process.

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## Risk Management

### Process to identify climate risk

Minerals Technologies integrates a company-wide, multi-disciplinary risk management process, which includes climate-related risk and opportunities, into our operations and business strategy. The Board has responsibility for risk oversight, including understanding critical risks in the Company's business and strategy, evaluating the Company's risk management processes, and seeing that such risk management processes are functioning adequately. It is management's responsibility to manage risk and bring to the Board's attention the most material risks to the Company. The Company's management has several layers of risk oversight, including through the Company's Strategic Risk Management Committee and Operating Risk Management Committee.

### Process for managing climate risks

The MTI Board of Directors has primary responsibility for risk oversight, including understanding critical risks in the Company's business and strategy, evaluating the Company's risk-management processes, as well as seeing that such risk management processes are functioning adequately. Management communicates routinely with the Board, Board Committees and individual directors on the significant risks identified and how they are being managed, including through formal reports by the Strategic Risk Management Committee to the Board that are given at least annually. Risks are reviewed regularly by the entire Board at each Board meeting.



The risk oversight focus areas reviewed by the Board include: risks related to the Company's capital structure; mergers and acquisitions; capital projects; cybersecurity; environmental, health and safety risks; and geopolitical and associated market risks. The Corporate Governance and Nominating Committee is directly responsible for reviewing and evaluating MTI's programs, policies and practices relating to ESG issues which could impact the long-term sustainability of our business, including climate-related strategy and risk. The entire board regularly considers topics such as the potential value creation, vulnerability, and timing of climate and any other risk or opportunity including reputational, financial, strategic, and operational concerns. Strategic Risk Management Committee and Operating Risk Management Committee.

### Climate risk integration

As part of MTI's company-wide, multi-disciplinary risk management process, climate-related risks and opportunities are integrated as part of our overall enterprise risk management process. MTI's management and Board routinely communicate about risk identification, management, and integration. Our senior management, Leadership Council, and Sustainability Lead Team collectively collaborates with the Board to address climate-related and other risks. The Board implements its risk oversight function through Committees, which provide reports regarding their activities to the Board at each meeting. These risks include, but are not limited to, climate-related risks. The Audit Committee reviews the Company's major financial risk exposures, and the steps management has taken to monitor and control such exposures. The Corporate Governance and Nominating Committee reviews risks associated with the Company's governance practices, Board composition and refreshment, and committee leadership. The Compensation Committee considers and reviews risks related to the design of compensation programs and arrangements applicable to both employees and executive officers, including the Company's annual and long-term incentive programs. MTI implemented the beforementioned company-wide, multi-disciplinary risk management process as we believe climate-related risk directly influences and impacts the duties or all Committees. For the Audit Committee, climate-related risk could negatively impact the Company's financial performance due to natural disasters influenced by climate change. For the Corporate Governance and Nominating Committee, climate-related risk and its management are accounted as part of governance practices. Additionally, climate-related risks also influence our Board composition and director skills matrix. For the Compensation Committee, climate-related risk directly ties to its duties as personal performance under our incentive compensation plan is tied to achieving specific sustainability-related projects, as well as quantifiable financial targets.

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## Metrics

### a) Metrics used

We track our Scope 1 and 2 carbon emissions to assess climate-related performance.

### b) Scope 1 and Scope 2 GHG emissions (2021)

Scope 1 emissions: 368,434 tons of CO<sub>2</sub>

Scope 2 emissions: 105,320 tons of CO<sub>2</sub>

### c) Targets

We have established 2025 environmental reduction targets in six focus areas, including Scope 1 and 2 emissions to continue to reduce our environmental footprint.

- Our target is to reduce Scope 1 emissions 25% by 2025 vs 2018 baseline, up from 20%
- Our target is to reduce Scope 2 emissions 40% by 2025 vs 2018 baseline, up from 15%



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