

M A S A N
HIGH-TECH MATERIALS



**SUSTAINABILITY
REPORT**

2024

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ABOUT THIS REPORT

This Sustainability Report has been prepared for the purpose of demonstrating the key sustainability issues at Masan High-Tech Materials, how we define and address them, and our sustainability performance in 2024. The content of this report is based on the Company's business activities, the interests of our stakeholders, and material aspects that have a large influence on the economy, the environment, and society.

The Sustainability Report was prepared in accordance with the Global Reporting Initiative (GRI), G4 Guidelines. It reflects the application of and alignment with the recognized international policies, standards and management practices, including the principles set out by the International Council on Mining and Metals (ICMM) Sustainable Development Framework, the United Nations Global Compact (UNGC), the WorldBank's guidelines on involuntary resettlement, Environmental and Social Impact Assessment (ESIA) and other policies as well as standards and practices for sustainable society and environment set out by the International Finance Corporation (IFC).

The report is particularly characterized with its adherence to the UN's sustainable development goals (SDGs) and Vietnam's corporate sustainability index (CSI). This is partially driven by the fact that the Vietnam Chamber of Commerce and Industry (VCCI) has recently provided a means to assess the level of sustainable development among Vietnamese enterprises.

SCOPE AND BOUNDARIES

The scope of Masan High-Tech Materials' business activities covers the operation of the Nui Phao Mining Company Ltd. (NPMC) and the Masan Tungsten Limited Liability Company (MTC) in Vietnam together with the operation of H.C. Starck Tungsten Powders, Chemitas and ChemiLytics in Germany, Canada and China. Therefore, the content of this report includes, but not limited to, our Vietnam operations in Dai Tu District, Thai Nguyen Province.

KEY HIGHLIGHTS



FINANCE

VND **14,336** billion
net revenue

VND **860** billion
contributed to the State Budget

The highest tax-contributing
Vietnamese enterprise in Thai Nguyen province



INNOVATION

Masan Tungsten LLC certified as a
“High-Tech Enterprise”
by the Ministry of Science and Technology
(2025 - 2029)

03 new products
developed at laboratory and pilot scale

03 technological processes
optimized and successfully implemented
in production



HUMAN RESOURCES

2,310 employees
worldwide

64,026 training hours,
39,255 employee participations

482 employees
earned the “Monthly Star Awards” recognition



ENVIRONMENT

8,041,000 m³
of wastewater recycled for production,
accounting for **76.7%** of total water usage
at plants in Vietnam

64.6 hectares
of land rehabilitated



CSR

1,000 relief packages
provided to support residents impacted
by Typhoon Yagi

19 community training sessions held
3,000 residents trained

The ‘Economic Recovery Loan Fund’
478 households supported
VND 17+ billion
total revolving fund (as of Dec. 2024)



RECOGNITION & AWARDS

Recognized as a
“Great Place to Work” in Vietnam
for the second consecutive year

TOP 10 Pioneer of Innovation Brands in Vietnam

TOP 100 Sustainable Enterprises in Vietnam

TOP 100 Vietnam Gold Star Awards



2024 AWARDS AND RECOGNITION



Staying true to its commitment to sustainable development, MHT continues to reinforce its leading position in Vietnam's mining and high-tech materials industry in 2024, creating lasting value for investors, employees, customers, communities, and stakeholders.

Masan High-Tech Materials' dedication to sustainability and operational excellence has been recognized with prestigious awards, including "Top 50 Outstanding Vietnamese Enterprises", "Top 10 Excellent Brands 2024 – Pioneer of Innovation", "Top 100 Sustainable Businesses", and "Great Place to Work". These accolades are not just a source of pride and inspiration for our employees but also a powerful motivation for the company to set new milestones in 2025, advancing its "Growth through Sustainability" journey.

CERTIFICATE OF "TOP 50 VIETNAM THE BEST" FOR MASAN HIGH-TECH MATERIALS

Voted and awarded by Vietnam Report JSC



CERTIFICATE OF "TOP 10 EXCELLENT BRANDS - PIONEER OF INNOVATION" FOR MASAN HIGH-TECH MATERIALS

Voted and awarded by Vietnam Economic Times



CERTIFICATE OF "TOP 100 SUSTAINABLE BUSINESSES IN VIETNAM 2024" FOR MASAN HIGH-TECH MATERIALS

Voted and awarded by the Vietnam Federation of Commerce and Industry (VCCI)



CERTIFICATE OF "TOP 100 VIETNAM GOLD STAR AWARD 2024" FOR NUI PHAO MINING

Voted and awarded by the Central Vietnam Youth Union and the Central Vietnam Young Entrepreneurs Association



CERTIFICATE OF "GREAT PLACE TO WORK VIETNAM 2024" FOR MASAN HIGH-TECH MATERIALS

Survey and certification by Great Place to Work®

CERTIFICATE OF "LEADING BUSINESS ADVOCATE FOR SUSTAINABLE DEVELOPMENT" FOR MASAN HIGH-TECH MATERIALS

Voted by Vietnam Investment Review (VIR)

CERTIFICATE OF MERIT FOR NUI PHAO MINING FOR OUTSTANDING ACHIEVEMENTS IN THE EMULATION MOVEMENT "THAI NGUYEN JOINS HAND IN BUILDING NEW RURAL AREAS AND TALENT PROMOTION MOVEMENT, CONTRIBUTING TO THE EDUCATION AND SOCIAL DEVELOPMENT OF THE COMMUNITY IN 2023"

Voted and awarded by People's Committee of Thai Nguyen Province

CERTIFICATE OF "EXCELLENT ACHIEVEMENTS IN DIGITAL TRANSFORMATION IN 2024" FOR NUI PHAO MINING

Voted and awarded by Department of Information and Communications of Thai Nguyen province

CERTIFICATE OF MERIT "SIGNIFICANT CONTRIBUTIONS TO HUMANITARIAN AND CHARITABLE ACTIVITIES IN DAI TU DISTRICT" FOR NUI PHAO MINING

Voted and awarded by Dai Tu District Red Cross



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VISION AND MISSION



VISION

To be the leading integrated supplier of high-tech advanced materials critical to global innovation.



MISSION

We aim to be the partner of choice for high-tech industries where our products are a key component in evolving and shaping the future of our world. By applying our materials, we will create unparalleled solutions to drive innovation and productivity, delivering superior outcomes for all our partners and stakeholders.



OUR VALUES

Respect

We believe caring for people, environment and community results in mutually beneficial relationships.

Innovation

We strive for excellence in everything we do.

Results

We are passionate about exceeding expectations.



COMPANY PROFILE

Name of the company

Masan High-Tech Materials Corporation (MHT)

English name

Masan High-Tech Materials Corporation

Abbreviated name

Masan High-Tech Materials

Address

23 Le Duan, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam

Telephone

+84 28 6256 3862

Fax

+84 28 3827 4115

Website

www.masanhightechmaterials.com

Enterprise registration certificate

No. 0309966889 issued by the Department of Planning and Investment of Ho Chi Minh City on April 27, 2010, amended for the 22nd time on January 20, 2025

Charter capital

VND 10,991,554,200,000

Stock code on HNX-Unlisted Public Company market (UPCOM): MSR

STRATEGIC PILLARS FOR GROWTH



SUSTAINABILITY



INNOVATION



CUSTOMER SOLUTIONS FOCUS

COMPANY HISTORY

The Company was established on April 27, 2010, focused on mining and resource extraction activities as part of the Masan Group. Significant events in the Company's business are set out below.

2011

- Acceleration of project development for the Nui Phao Project.
- In December, the National Mineral Reserves Assessment Council acknowledged the results of the Nui Phao Project's resources and reserve grade conversion.

2012

In February, MOIT's official approval of the Nui Phao Project's basic mine design was obtained.

2013

In August, the Company received Investment Certificate No. 41122000131 from the People's Committee of Ho Chi Minh City.

2014

- The Nui Phao Project started commercial production of Tungsten Concentrate and Copper Concentrate on March 1, Fluorspar Acid Grade on June 1, and Bismuth Concentrate on September 1.
- Established Nui Phao – H.C.Starck Tungsten Manufacturing LLC ("NHTCM"), a joint venture with HC Stark GmBH of Germany to construct and operate an advanced Tungsten Chemical factory in Vietnam.

2015

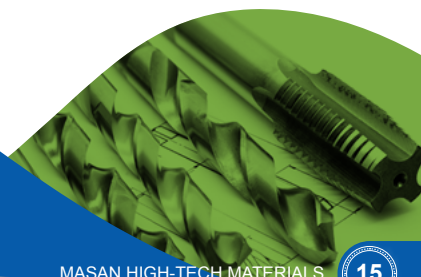
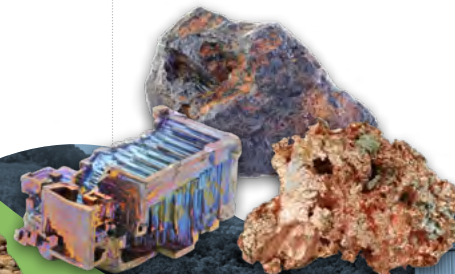
- Record production achieved for all four commodities. NHTCM applied for and obtained the Certificate of High Tech issued by the Ministry of Science and Technology on April 24.
- Achieved design capacity and successfully commissioned the NHTCM Tungsten Chemical factory. Initiatives in committing to further development in processing and increasing performance efficiency.
- In September, the Company successfully completed its listing on Hanoi's UPCOM exchange.
- In September, the Company hosted the 28th International Tungsten Association (ITIA) annual meeting, attended by over 120 global delegates.

2016

- Successfully held the first AGM after listing on April 22; ranked as premium on the UPCOM Board of the Hanoi Stock Exchange.
- Commercial production of Bismuth Cement started on July 1.
- Continued innovation and investment in new processes and technology, cost saving, change in business process, developed cooperation with NHTCM and significantly advanced the production volume and revenue of the value-added tungsten chemical products; In December, Masan Group, through its wholly-owned subsidiaries, successfully completed the tender offer for shares of the Company, thereby providing an exit to Mount Kellett and increasing its ownership in the Company to 93.78%, paving the way for the next round of strategic capital and growth.

2017

- Upgrades undertaken on the tungsten circuit have resulted in tungsten recovery increasing to 67% with room for further improvement through optimization measures.
- A significant price increase across all commodities of the Company coupled with increased operational efficiency allowed the Company to achieve record results in all aspects of production, revenue, and net profit.
- The Company's global brand recognition, underpinned by high-quality and reliable products, resulted in an oversubscribed order book with new customers.
- Commenced procuring third-party tungsten raw materials for processing in the NHTCM factory.



2018

- 2018 Acquired H.C. Starck GmbH's 49% stake in NHTCM for a total cash consideration of USD29.1 million. After the acquisition, the name of NHTCM was changed to Masan Tungsten Limited Liability Company ("MTC").
- Increased the third-party raw material procurement by 300% to maximize utilization at the MTC as well as to satisfy the growing demand for tungsten chemical products.
- Achieved record annual results in all aspects of production, revenue, and net profit.

2019

- Entered into an agreement to purchase the tungsten business of H.C. Starck Group GmbH – a leading manufacturer of high-tech tungsten metal powder and carbides in the world.
- In December 2019, MTC obtained the Decision of the Thai Nguyen People's Committee on the amendment of the Investment Certificate which registered capacity of ST, APT and BTO/YTO are 1,067 tonnes; 8,278 tonnes; 5,000 tonnes per year respectively depending on the production plan and grade.
- In December 2019, the Ministry of Science and Technology issued "High-Tech Enterprise Certificate" to MTC.

2020

- In June, MSR through its wholly owned subsidiary MTC completed the acquisition of H.C. Starck GmbH's global Tungsten business.
- In June, the Company's name was approved to be changed to Masan High-Tech Materials Corporation (MHT) at the Company's Annual General Meeting of Shareholders. This name change was officially effective on 6 August 2020 after the Department of Planning and Investment of Ho Chi Minh City issued the Enterprise Registration Certificate amended for the 17th time.
- In December 2020, the Company completed a private placement of shares to Mitsubishi Materials Corporation ("MMC"), making MMC the second largest shareholder owning 10% of the Company's total fully diluted shares.

2021

- Approved the new maximum ratio of foreign ownership of the Company at the 2021 Annual General Meeting of Shareholders of the Company.
- The integration of H.C. Starck's Tungsten business into MHT has vindicated its effectiveness, the Company achieved net revenue of VND 13,564 billion in 2021.

2022

- Organized the International Fluorine Forum in collaboration with IMFORMED (Industrial Minerals Forum & Research Ltd). This is the first time the Forum has been held in Vietnam.
- In July, H.C. Starck Tungsten Powders ("HCS"), announced the signing of definitive agreements to invest £45m (approx. €52m) into Nyobolt Limited ("Nyobolt"), a fast-charging Li-ion battery solutions company that leverages HCS's advanced tungsten materials in its anode, for a 15% equity interest on a fully diluted basis. This investment is expected to accelerate HCS's vision of becoming a high-tech, value-added business by developing new tungsten applications critical for future technologies.

2023

- In July, H.C. Starck Tungsten Powders (H.C. Starck), a subsidiary of Masan High-Tech Materials, completed the acquisition of Chemitas, a services provider in energy supply, waste management, and logistics based in Goslar, Germany. This strategic move enables H.C. Starck to better manage the entire tungsten supply chain, enhancing manufacturing and logistics capabilities, while aligning with MHT's commitment to delivering comprehensive solutions for worldwide customers.
- In December, the State Securities Commission of Vietnam approved the maximum ratio of 100% of foreign ownership submitted by the Company.
- Nui Phao Mining Co. Ltd., a subsidiary of Masan High-Tech Materials, prepared necessary procedures for the underground mining of 28 million tonnes of ore reserve out of the total reserves of 83 million tonnes at Nui Phao mine, and exploration of the Nui Chiem tungsten-polymetallic mineral area.
- Masan Tungsten LLC, a subsidiary of Masan High-Tech Materials, prepared the necessary procedures for the construction of the largest Tungsten scrap recycling plant in Southeast Asia.

2024

- The company has completed contracts with a new mining contractor and a new blasting service provider, resulting in a cost reduction of up to 10% compared to the previous contractor and optimizing mining operations.
- The company has established a strategic partnership with Vinacomin Minerals Holding Corporation ("Vimico"), a subsidiary of Vietnam National Coal and Mineral Industries Holding Corporation Limited ("Vinacomin"), to become the primary supplier of copper concentrate and sulfide concentrate for Vimico's two cathode copper smelters in Lao Cai.
- In December 2024, the company completed the sale of 100% equity in H.C. Starck for USD 134.5 million to Mitsubishi Materials Corporation. At the same time, the long-term off-take agreement for APT and tungsten oxide between the two parties was officially activated, ensuring stable consumption of these products.
- Masan Tungsten Limited Liability Company has been re-certified as a High-Tech Enterprise by the Ministry of Science and Technology, with the certification valid until December 2029.

FLAGSHIP ASSETS



Nui Phao Mining Company Ltd. (NPMC)



The Nui Phao mine, which is operated by Nui Phao Mining Company Ltd. (“NPMC”), a wholly owned subsidiary of Masan High-Tech Materials, is situated within three communes (Hung Son, Ha Thuong, and Tan Linh) of Dai Tu district in Thai Nguyen province. The site is approximately 80 km from Hanoi and is accessible via highway. Road and rail links connect the mine to the nearest ports of Hai Phong and Quang Ninh province, from where the products can be shipped to international customers.

The major project components are:

- Open pit poly-metallic mine, Waste rock disposal facilities;
- Modern mine plant and facilities, including crushing, grinding, thickening, flotation, leaching and gravity recovery facilities;
- A suite of commercial product streams including Tungsten, Copper, Bismuth and Fluorspar concentrates which are either processed into value-added products onsite (Tungsten and Bismuth) or sold as high-end commodities;

- A Tailings Storage Facility (TSF) with water and tailings management ponds;
- Buffer zones, relocation sites, haul roads, and mine services.

Products from Nui Phao are shipped to worldwide markets (including well-established customer networks) from Quang Ninh Port (in Ha Long City, 197 km to the southeast of the Project site). The port is also used to receive equipment and materials required to run the mine.

NPMC operates at the cutting edge of production of its product suite. Investment in research and development continues to deliver processing, equipment, and chemical improvements. Processing operations are supported by advanced mining and processing management software to maximize recovery and minimize costs and resource losses.



Masan Tungsten Limited Liability Company (MTC)



To fulfil its commitment to the Government regarding down-stream processing investments and increasing the value of Vietnam’s mineral products, in 2013, Nui Phao Mining Company Co., Ltd. established a joint venture with H.C. Starck GmbH (Federal Republic of Germany) - a global leader in high-tech metal/alloy production, particularly high-value tungsten products such as tungsten metal powder and tungsten carbide. This joint venture led to the establishment of Nui Phao - H.C. Starck Tungsten Chemicals Manufacturing.

By 2018, the company acquired H.C. Starck GmbH’s entire 49% stake in the joint venture and subsequently renamed Nui Phao - H.C. Starck Tungsten Chemicals Manufacturing to Masan Tungsten Limited Liability Company (“MTC”). MTC has been certified as a High-Tech Enterprise by the Ministry of Science and Technology (initially in December 2019, and subsequently in December 2024, valid until December 2029).

MTC has implemented the High-Tech Tungsten Refining Plant Project, with a designed capacity of 9,345 tons of WO₃ per year, located in Dai Tu District, Thai Nguyen Province. The plant has been in stable operation since its completion in 2014, producing various tungsten products, including:

- Secured long-term supply source (NPMC) with modern production facilities to produce high-quality products tailored to the specific requirements of individual customers;
- Positive market reputation by affiliation with a technology and skills provider – H.C. Starck which has 100 years of experience and is a leading premium supplier of Tungsten products;
- Processing technology transfer from H.C. Starck Germany, Enhanced processing capacity in line with tungsten market and customer demands;
- Low-grade tungsten sources treated into high-end specific products, Opportunities for further development of in-country tungsten recycling process;
- Low conversion costs and preferential tax policies.

The successful implementation of MTC’s High-Tech Tungsten Refining Plant has firmly positioned Vietnam on the global tungsten industry map as a reliable supplier of high-quality and competitive high-tech tungsten materials.

OUR PRODUCTS

Nui Phao mine is a unique polymetallic deposit with a combination of Tungsten, Fluorspar, Copper, and Bismuth mineralization. These strategic metals play a crucial role in high-tech industries, powering advancements across aerospace, electronics, and energy applications.



TUNGSTEN (W)

Tungsten is a unique element having the highest melting point of all metals (3,422°C), a density (19.3 g/cm³) almost twice that of lead, and a hardness close to that of diamond when in tungsten carbide form.

The name 'Tungsten' originates from Swedish mineralogist Axel Frederik Cronstedt, who observed the density of a tungsten-containing ore and coined the term from tung (heavy) and sten (stone). However, the true credit for the separation of the metal goes to Karl Wilhelm Scheele, an impoverished pharmacist with a modest pension from the Stockholm Academy of Science, who in the mid-1700's discovered more new chemical compounds than perhaps any scientist before or since.

The intrinsic properties of tungsten make it a critical component across all major heavy industries, including manufacturing, energy generation and transmission, construction and infrastructure, and mining, and many light industrial and high-tech industries as well such as automotive, aerospace, electronics, catalysis, medical and pharmaceutical. Tungsten first found a growth market as an alloying addition in tool steels and steel alloys where its ability to contribute high hardness and high-temperature resistance was greatly valued; an application that it still finds use in today. The subsequent discovery and development of Cemented Carbide (a composite of Tungsten and Carbon) in the 1920s completely revolutionized the metal cutting and metal forming industries and tungsten carbide quickly found myriad uses across the industry as its properties enabled rapid increases in process efficiency and part life. Cemented Carbides account for over 60% of tungsten use globally today.

Innovation continues to unlock new possibilities for tungsten. In the last decade, it has emerged as a critical material in high-purity semiconductor gasses for the production of integrated circuits and as a high-performance anode material or dopant in specific Li-Ion battery chemistries.

Marketable Tungsten materials come in a variety of forms such as tungsten chemicals, tungsten metal, and tungsten carbide with each form having different characteristics and applications.

► Tungsten chemicals

Include ammonium paratungstate, ammonium metatungstate, tungstic acid, tungsten oxide, and sodium tungstate with various properties which would be made to fit consumers' required specifications.

Ammonium paratungstate is a white, crystalline powder with very high chemical purity. It is needed primarily as a universal intermediate product in the production of tungsten oxides, tungstic acid, ammonium metatungstate, and organometallic components. The compound is also used directly in catalysis and fine chemistry.

Ammonium Metatungstate, Tungstic acid, and Sodium Tungstate are all tungsten salts that are soluble in water, alcohol, and ammonia. They have excellent chemical purity, high reactivity, and a uniform morphology. The unique properties of these salts allow for special applications in homogeneous and heterogeneous catalysis, fine chemistry, and surface coating technology, as well as in the production of organometallic tungsten compounds.

► Tungsten Metal

Tungsten Metal is used directly as an alloying addition in steel making or for superalloy melts, and otherwise finds use in mill products; solid sintered or deep processed forms such as rods, wires, sheets, etc. The unique metallurgical and physical properties of Tungsten Metal find applications in lighting, defense, aerospace, radiation shielding, and electrical contacts amongst many others.

► Tungsten Carbide

Tungsten carbide (WC) is a compound of tungsten and carbon. The outstanding characteristic of this material is its hardness, which approaches that of diamond. Tungsten carbide is used primarily in the production of industrial tools and wearing parts that are subject to significant stress. Tungsten carbide usage in carbide tools allows for much higher cutting speeds and rate of material removal which in turn improves the efficiency and economy of the manufacturing process. Tungsten carbide usage in wear parts such as pump seals, bearing faces, knives, punches, nozzles, etc. dramatically improves the useful life of the part and is ubiquitous across the energy and materials processing industries.

FLUORSPAR (CAF₂)

Fluorspar, also known as Fluorite, is an industrial mineral from which the element Fluorine is liberated, with two major downstream uses; the production of Hydrofluoric Acid (HF) which is used as a building block for Fluorine Chemicals, and the production of Aluminium Fluoride (AlF₃) which is an important additive to produce Aluminium by electrolysis. Hydrofluoric acid is used as a precursor to a wide range of products including fluorocarbons, fluoropolymers, and fluorine process gases; perhaps the most known application is PTFE, a non-stick fluoropolymer coating used in household cookware and patented by DuPont in the 1930's as 'Teflon'. Fluorocarbons are used globally as the most common refrigerant found in household white goods and air-conditioning systems, and fluorine-based process gases are used extensively in the semiconductor and uranium processing industries. An emerging application for Fluorine with significant growth potential is as an electrolyte additive and polymer separator material in Lithium-Ion rechargeable batteries.



BISMUTH (Bi)

Bismuth is a minor metal with consumer and industrial applications.

For the consumer, bismuth-based chemicals are used in the health and pharmaceutical sector as a radiation protection material and as an active ingredient in medicines for the treatment of nausea, indigestion, and ulcer diseases. Due to its non-toxicity, it has also found use in cosmetics. Industrially, Bismuth is used as a nontoxic pigment in the production of certain paints and the manufacture of electrical components. Bismuth is also used as a catalyst for vehicular emissions control, as well as in the production of low melting point alloys for the reliable work holding of irregularly shaped parts for machining and as a plain bearing alloying addition.



COPPER (Cu)

Copper is a soft, malleable, and ductile metal and finds wide use industrially due to its exceptional thermal and electrical conductivity. Copper is also relatively inert and corrosion-resistant and has been shown to have antimicrobial properties.

The largest application for copper is in the manufacture of electrical cables and wiring. The construction industry is also a major consumer of copper through electrical systems as well as copper piping in plumbing. Its corrosion resistance as well as its aesthetic appeal have made it popular in roofing, and it is commonly found in the construction of domes, spires, and doors. Copper has nutrient qualities and is used as a fungicide in the protection of crops and plants as well as enriching the soil. When copper is mixed with zinc it produces brass, which is also used in a variety of industrial applications.



PROPERTY	INDUSTRY/ TYPE OF APPLICATION
Aesthetics	Architecture, sculpture, jewelry, clocks, cutlery
Bactericide	Door hardware, marine internal combustion engines, crop treatments
Biofouling resistance	General, hydraulic and marine engineering, metalworking, aerospace, power generation, shipbuilding, off-shore oil and gas platforms
Corrosion resistance	Plumbing tubes and fittings, roofing, general and marine engineering, shipbuilding; chemical engineering, industrial processes including pickling, etching and distilling; domestic plumbing, architecture, desalination, textiles, papermaking
Ease of fabrication	All of the above plus printing
Electrical conductivity	Electrical power generation, transmission and distribution, communications, resistance welding, electronics
Environmental friendliness	Essential for health of humans, animals, and crops
Fungicide	Agriculture, preservation of food and wood
Low temperature properties	Cryogenics, liquid gas handling, superconductors
Mechanical strength/ ductility	General engineering, marine engineering, defense, aerospace
Non-magnetic	Instrumentation, geological survey equipment, minesweepers, offshore drilling
Non-sparking	Mining and other safety tools, oxygen distribution
Elasticity	Electrical springs and contacts, safety pins, instrument bellows, electronic packaging
Thermal conductivity	Heat exchangers and air-conditioning/refrigeration equipment, automotive radiators, internal combustion engines, mining

TUNGSTEN PRODUCTION

Masan High-Tech Materials' MTC plant is designed to process the total amount of NPMC tungsten concentrate, along with externally sourced tungsten-containing raw materials, into high-grade ammonium paratungstate (APT) via chemical digestion followed by physical and chemical purification and, finally, crystallization. APT is packaged for external sale or otherwise undergoes calcination to produce blue tungsten oxide (BTO) and yellow tungsten oxide (YTO) for sale to external customers or for further downstream processing within the MHT Group.

H.C. Starck Tungsten's Goslar plant is designed to process intermediate tungsten chemicals produced at MTC as well as being a globally significant recycling operation for most types of tungsten-containing scrap and secondary material. Scrap is processed into high-grade ammonium paratungstate (APT) via chemical digestion followed by physical and chemical purification and, finally, crystallization. APT and tungsten oxides produced at HCS are further processed into tungsten metal powder, tungsten carbide powder, and cast tungsten carbide powder for sale into relevant industrial segments.

► **Roasting / Grinding / Leaching:** Milled ore concentrates and roasted soft scrap are leached at high pressure to form a sodium tungstate solution.

► **Salt Melting / Dissolution:** Hard scrap is dissolved in a salt melt under supply of air. Molten sodium tungstate is casted into crucibles and cooled down before being crushed and dissolved in water under formation of a sodium tungstate solution.

► **Purification:** A continuous technical process to remove the remaining impurities.

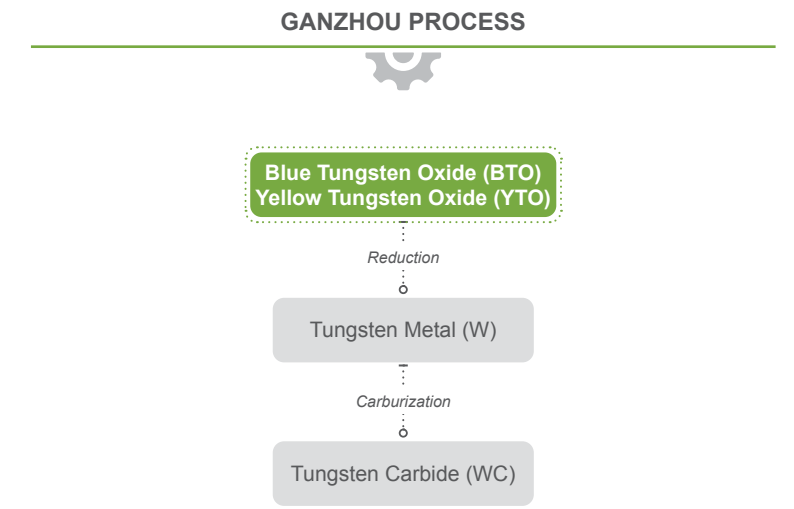
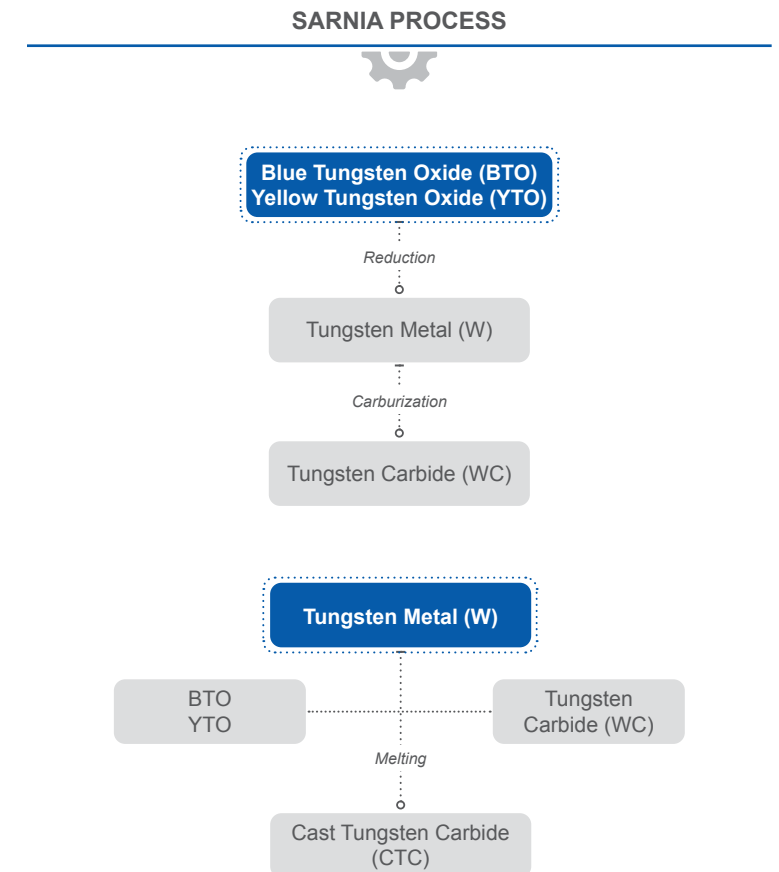
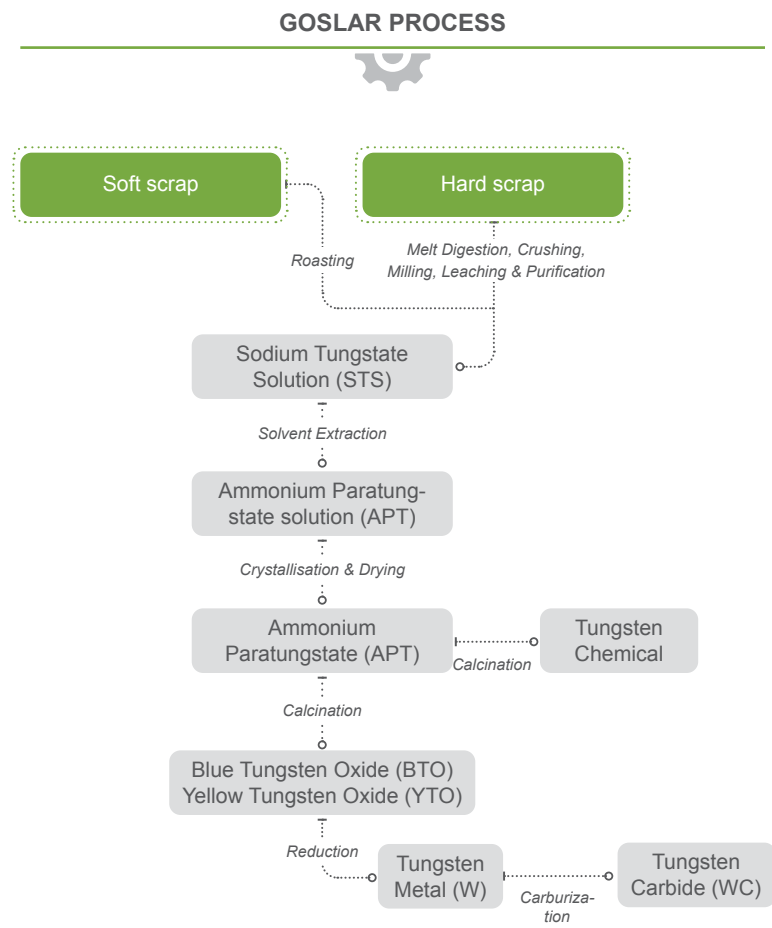
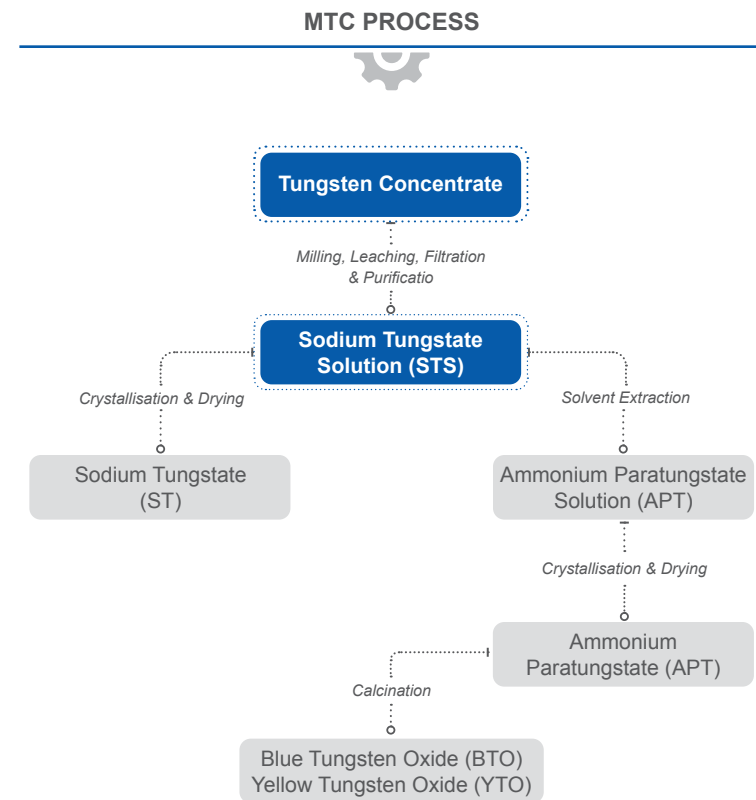
► **Solvent Extraction:** Using organic compounds and sedimentation vessels, sodium tungstate solution is transformed into ammonium tungstate solution in a continuous, closed-loop process.

► **Crystallization:** Ammonia and water are evaporated from the ammonium tungstate solution. Crystalline ammonium paratungstate (APT) is formed from the solution.

► **Calcination:** Tungsten oxides are produced by the calcination of APT.

► **Reduction:** Reduction of tungsten oxides to tungsten metal is carried out in pusher and rotary furnaces. Hydrogen acts as a reducing agent.

► **Carburization:** Tungsten metal powder is converted into tungsten carbide powder through a reaction with pure carbon powder in a high-temperature furnace.





TUNGSTEN AS A CRITICAL MATERIAL

Tungsten is classified as a critical mineral by both those in industry and government because it is a relatively rare metal with unique properties that are highly valued in many high-tech, and defense applications. The demand for tungsten has increased significantly in recent years due to the growing demand for high-tech products and the expansion of the aerospace and defense industries. However, tungsten is a scarce resource with a limited geographic dispersion of crustal abundance; more than 56% of global reserves are located in China, and currently more than 82% of tungsten production occurs in China, which has led to concerns about supply chain security and the potential for price volatility. There is a need for greater investment in sustainable tungsten mining and recycling, as well as diversification of supply sources to ensure the long-term availability and affordability of this important metal.



COMMON TUNGSTEN USES

Mechanical engineering and toolmaking

Today's industrial tools and wear parts must withstand extreme loads while offering durability and long tool life. Exceptionally hard and resistant tungsten carbide is the material of choice for the production of cutting-edge cemented carbides used in tools.

Oil and gas industry

Tungsten finds myriad applications in the extreme environments encountered in O&G. It is used in high-performance drill heads, valves, wear parts, and functional coatings, and in shaped charges that perforate the rock around the well to allow oil and gas to flow out.

Mining

Tungsten's exceptional hardness and thermal resilience make it critical for modern mining. Drill bits and inserts forged from this metal tear through rock with unwavering efficiency, conquering excavation and rock breaking. From tunneling through mountains to carving out critical infrastructure, tungsten stands out as the indispensable hero in these operations.

Medical technology

Precision components made of tungsten metal are used in modern X-ray diagnostics and therapy. For example, to shield and focus hard X-rays or gamma radiation.

Aerospace

In aviation, tungsten or tungsten alloys are used because of their high density and strength in balance weights, vibration protection parts for loading flaps or for balancing rotor blades.

Chemical industry

In the chemical industry, tungsten is used for many applications, especially in the field of catalysts, such as oxidation catalysts.

Electrical industry

A high thermal load capacity of tungsten-copper materials in combination with very good thermal and electrical conductivities predestine these materials for applications in electrical high-performance switching contacts, as heat sinks in the electrical industry, or for use as erosion electrodes.



HIGH TECH MATERIALS FOR A CLEANER ENVIRONMENT

Given the versatility and criticality of Masan High Tech Materials' product portfolio, it is anticipated that our metals will play their part in meeting today and tomorrow's challenges, such as the need for a more efficient use of resources and the reduction of emissions.

Whilst there is certainly a great opportunity for tungsten, fluorspar, copper, and bismuth in future applications, these materials have been contributing to a cleaner environment for many years.

TUNGSTEN

► Energy Efficiency

Tungsten is used in energy-efficient lighting such as LED bulbs, which require much less energy for the same emission of light and have a longer lifespan than traditional incandescent bulbs.

► Renewable Energy

Tungsten is used in the production of renewable technologies such as wind turbines, and solar panels, which help to reduce the reliance on fossil fuels and decrease carbon emissions.

► Lightweighting

Tungsten Carbide tools enable extreme material removal rates and the ability to machine abrasive or challenging materials such as polymer composites and titanium alloys; therefore, tungsten is directly linked to the lightweighting of components and structures. New WC tool technologies such as submicron powder grades, and advanced coatings enable high feed machining which see increasing use across automotive and aerospace to reduce weight and increase the fuel efficiency of vehicles.

► Recycling

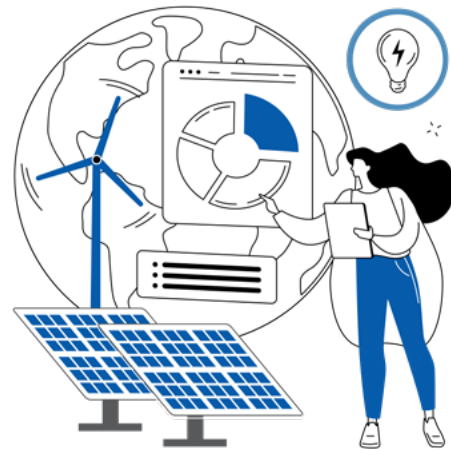
Tungsten has a significant End-of-Life recycling input rate sharing the 5th position in the EOL ranking of all raw materials. This high recycling rate is due to its high economic importance and the fact that most of its end-use applications are for industrial use rather than retail trade.

► Lead substitution

Lead has been identified as an environmentally hazardous and toxic metal that ranks second on the US Government's Top 100 Hazardous substances priority list. Tungsten has a similar density to lead and is completely non-toxic making it a safer and greener alternative, particularly in applications where there is a risk of lead exposure such as in ammunition, fishing weights, ballast weights, and radiation shielding.

► Catalysis

Tungsten is a critical addition in Hydrotreating catalysts used in the oil refining and processing industries. These catalysts help to increase the yield of gasoline and other light hydrocarbons in crude oil processing on the one hand. On the other hand, they make transportation fuels more environmentally friendly by reducing the contents of aromatic hydrocarbons, sulphur, and nitrogen compounds. As global fuel standards become more stringent to protect the environment, their importance has risen and is expected to continue doing so in the coming years. Tungsten is also prevalent in DeNOx catalysts that remove nitrogen oxides from stack gases of combustion power plants, chemical plants, cement plants, or diesel engines by selective catalytic reduction with ammonia or urea.



FLUORSPAR

► Renewable Energy

Fluorine is a chemical element that has several uses in the field of renewable energy. It is commonly used in the production of solar panels as an etching gas during the manufacturing of silicon wafers. It is also utilized as an anti-reflective surface coating to help increase the efficiency of photovoltaic. Additionally, fluorine finds application in wind energy generation as a coating and insulation material for wind turbine blades.

► Energy Transition

Fluorine chemistries are beginning to gain traction as electrolytes for Lithium-Ion batteries and Fuel cells where Fluorine's high ionic conductivity results in a faster charge and discharge cycle, and its thermal and electrochemical stability results in a stable and longer life product. The current forecast is for explosive growth in the usage of Fluorine.

COPPER

Copper is an important component in the shift towards a cleaner and more sustainable energy system. This is because it boasts high electrical conductivity, making it a crucial material for producing and distributing electricity. Copper is present in various forms of renewable power generation such as wind, hydro, and nuclear, and used as windings on electric motors, generators, and transformers. Copper is also vital for electrical transmission and is relatively irreplaceable. The expansion of electrical grid infrastructure is likely to be the bottleneck for the rollout of new energy vehicles and energy storage solutions.



SHAREHOLDERS INFORMATION

SHAREHOLDER STRUCTURE

The shareholder structure of the Company as of December 31, 2024 is as follows:

NO.	SHAREHOLDER STRUCTURE	DECEMBER 31, 2023			
		Number of shareholders	Number of shares held	Value (by par value) (VND)	Shareholding percentage
1	Domestic shareholders	5,893	1,097,483,567	10,974,835,670,000	99.84%
	Institutional shareholders	20	1,044,772,482	10,447,724,820,000	95.05%
	Individuals	5,873	52,711,085	527,110,850,000	4.79%
2	Foreign shareholders	73	1,671,853	16,718,530,000	0.15%
	Institutional shareholders	0	0	0	0%
	Individuals	73	1,671,853	16,718,530,000	0.15%
Total		5966	1,099,155,420	10,991,554,200,000	100%

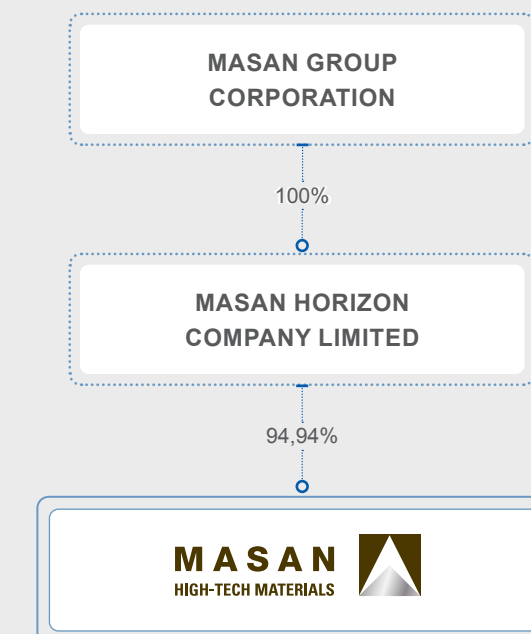
List of shareholders holding at least 5% of the charter capital of the Company

The list of shareholders holding at least 5% of the charter capital of the Company as of December 31, 2024 is as follows:

SHAREHOLDER STRUCTURE	NUMBER OF SHARES HELD	VALUE (BY PAR VALUE) (VND)	SHAREHOLDING PERCENTAGE
Domestic shareholders Masan Horizon Company Limited	1,043,576,153	10,435,761,530,000	94.94%

Major Shareholders - Investors

Ownership structure of Masan High-Tech Materials as of December 31, 2024



INSTITUTIONAL SHAREHOLDERS

Domestic shareholders

Masan Group Corporation (the controlling shareholder through its wholly owned subsidiary, via Masan Horizon).

Masan Group Corporation (“Masan” or the “Company”) believes in **“Doing well by doing good”**. The Company’s mission is to provide better products and services to the 100 million Vietnamese people so that they can pay less for their daily essentials. Masan aims to achieve this by driving productivity with technological innovations, and trusted brands, and focusing on fewer but bigger opportunities that impact the most lives. Masan Group’s member companies and associates are industry leaders in branded fast-moving consumer goods, branded meat, modern retail, F&B retail, financial services, telecommunications, and value-added chemical processing, altogether representing segments of Vietnam’s economy that are experiencing the most transformational growth.

Masan Consumer Holdings - One of Vietnam’s largest local diversified FMCG companies, manufacturing and distributing a range of food and beverage products, including soya sauce, fish sauce, seasoning, chilli sauce, instant noodles, instant coffee, instant cereals, bottled beverages, processed meat, and beer. Recently, Masan Consumer Holdings has grown its product portfolio in the home and personal care.

WinCommerce (Formerly Vincommerce) - the largest modern retail platform in Vietnam. WinCommerce, via WinEco (formerly VinEco), owns 14 high-tech WinEco farms, which provide products of international quality standards.

The CrownX (Consumer retail platform that currently consolidates Masan’s interests in Masan Consumer Holding and Wincommerce).

Masan MEATLife - One of the largest fully integrated (“Feed-Farm-Food” business model) branded meat platform, focused on driving productivity in Vietnam’s animal protein industry and ultimately directly serving consumers with traceable, quality, and affordable meat products.

Techcombank - One of the largest joint stock commercial banks in Vietnam in terms of total operating income, assets, loans, deposits, customers, and distribution network. It has built industry-leading franchises in retail deposits, SME, and retail lending through its consumer-centric ecosystem approach.

Masan High-Tech Materials (MHT) - One of Vietnam’s largest integrated industrial mineral and chemical producers.



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SUSTAINABILITY AT MHT

MHT is dedicated to building a sustainable business that not only ensures our company's long-term growth but also continuously enhances value for our shareholders. Our sustainability strategy is implemented to address global challenges such as pandemic management, climate change, human rights, social transformation, and responsible sourcing.

We believe in making our sustainability commitments public and are always open to dialogue on the topic. Our approach, values, success metrics, and decision-making process are communicated to our employees and shareholders, promoting a common understanding of our sustainability efforts.

At MHT, sustainability is about minimizing impacts on the environment, society, economy, and culture while supporting and sustaining the industries and communities we operate in. Our policies are set at a global level, with a focus on local implementation. By identifying and managing risks, we aim to create a sustainable future for all stakeholders.

DEVELOPMENT OBJECTIVE

Masan High-Tech Materials has set a bold objective to position Vietnam as a leading nation in the development of advanced tungsten and fluorspar products and tungsten recycling technology. The company is actively researching the development of new tungsten products in Vietnam and planning to construct its first Tungsten recycling plant in the country, in line with the global trend towards a circular economy and sustainable development.

These pivotal projects are designed to foster the development of innovative tungsten chemicals in a financially prudent manner. Simultaneously, they aim to diminish dependence on primary raw materials derived from mining activities. Moreover, the overarching goal is to establish Vietnam as a pivotal regional technology hub, particularly in the realm of recycling tungsten and other crucial metals. This ambitious vision underscores the company's unwavering commitment to fostering innovation, championing sustainability, and charting a course for sustained long-term growth.



SOCIAL DEVELOPMENT OBJECTIVE

At Masan High-Tech Materials (MHT), our social development objective is not only to support the local community but also to strive for sustainable growth through responsible business practices. As part of our commitment to promoting the circular economy, we aim to recycle an amount of tungsten equivalent to our annual production, reducing the reliance on primary raw materials from mining activities. In addition, our focus on producing consumer technology products not only benefits the consumer but also the environment. Our products continue to maintain market leadership across important indicators such as customer feedback, customer ratings, and pricing advantage over similar products. This demonstrates our continued value proposition to customers and our commitment to sustainable business practices.

GROWTH THROUGH SUSTAINABILITY

“Growth through Sustainability” Strategy

Since the commencement of its operations, MHT has consistently embraced “Sustainability” as a fundamental element ingrained in its corporate DNA, transcending mere popular jargon. The company continuously researches and improves current production technologies to achieve sustainable growth.

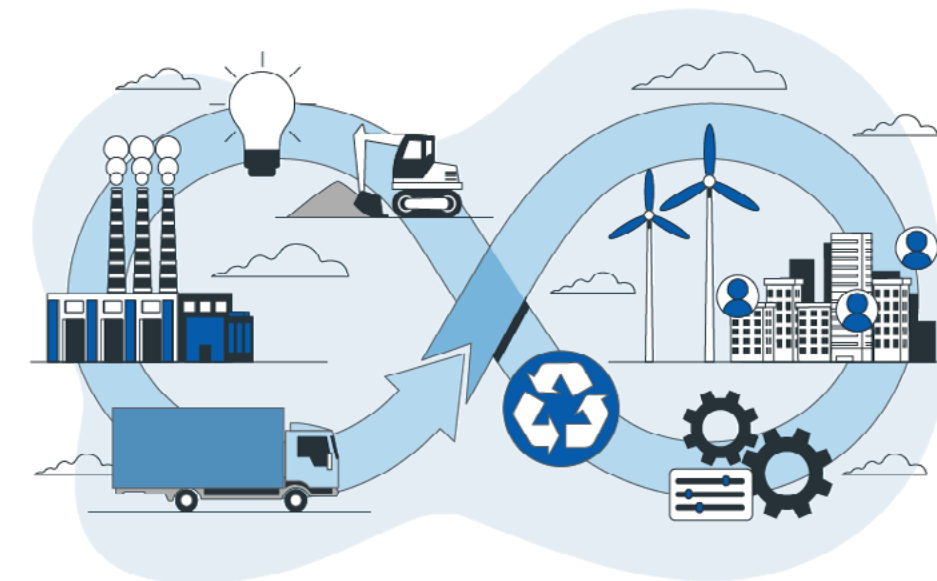
Energy saving and sustainable solutions using advanced materials

In 2024, the Company took a significant step by initiating research into a biomass boiler to replace coal-based boilers. This transition not only enhances boiler’s performance but also helps save operating costs, in particular reducing the entire amount of greenhouse gases emitted from coal use. In addition, the Company is researching to recover the rare metals such as copper and gold from sulfide concentrates disposed from processing plant; Recover Molybdenum, Tungsten, Tin from purification residue cake from MTC plant.

Besides, MHT teams have demonstrated successful efforts in developing and introducing innovative solutions across various consumer segments. This aligns with the strategic objective of moving downstream and engaging more closely with consumers through the creation of new and inventive applications.

The introduction of advanced tungsten powders, branded as “starck2charge,” within the battery materials range, along with the investment in Nyobolt Limited, a pioneering entity in tungsten-based fast-charging battery solutions, exemplifies MHT’s unwavering commitment to developing sustainable and cost-effective solutions to address the world’s energy needs. Through strategic partnerships and investments, particularly with Nyobolt Limited, MHT not only anticipates offering comprehensive and innovative battery solutions but also aims to enhance its presence in B2C business segments by accessing and developing consumer-centric battery and product solutions in the future. To further advance, MHT’s objective of sustainable cost advantage through energy-effective solutions, MHT also completed the acquisition of Chemitas GmbH, an integrated site infrastructure and logistic services provider at H.C. Starck’s site at Goslar Germany and working relentlessly to optimize the energy consumption not only for H.C. Starck but also for other onsite external customers.

MHT is actively serving the sunrise segment of additive manufacturing, commonly known as 3D printing, by leveraging its innovative tungsten products and complementary services under the “starck2print” trademark. The Company is strategically positioned to move further downstream by offering specialized tungsten products differentiated for their flowability and optimized particle size distribution, tapping into a new growth market.



Circular economy-based growth models

Adopting a circular economy-based approach, in contrast to linear and conventional business models, MHT is consciously creating an inclusive growth platform for all stakeholders, encompassing employees, shareholders, society, and the environment.

In 2023, the Company conducted a successful feasibility study for establishing a tungsten scrap recycling plant in Vietnam. This initiative aims to supplement tungsten concentrates supply cost-effectively to its fully owned subsidiary, Masan Tungsten Company Ltd, thereby realizing economies of scale. MHT plans to procure tungsten scraps domestically and internationally, but at that time the tungsten scrap import was not regulated.

In 2024, MHT continued to collaborate with ministries and relevant authorities to promote proposals to amend regulations on scrap import. On January 6, 2025, the Government issued Decree No. 05/2025/ND-CP in which the Government will consider adjusting the list of scraps allowed to be imported from abroad as production materials. This regulation is the basis for MHT to continue researching and developing the project to build a tungsten recycling plant in Vietnam.

Besides, the Company kept working with the Vietnam Institute for Building Materials (VIBM) under the Ministry of Construction to research and convert OTC tailings and waste rock from mining activities into construction materials for a variety of uses including leveling land for infrastructure projects, raw material replacing iron ore in the production of cement clinker, producing aggregate for concrete and unburnt bricks. In 2025, the Company will continue working with regulatory agencies to change the OTC tailings and waste rock management plan for the above purposes.

Operational strategies for sustainable competitive advantages

At Masan High-Tech Materials, people are our greatest asset—the driving force behind our sustainable future. The company prioritizes investment in training programs to improve employees' skills, ensuring a productive and safe working environment and motivate employees through building a specific career path and development roadmap for a competent, motivated and energetic succession team.

As the world's largest polymetallic tungsten mine operator outside of China, MHT is facing significant opportunities from global market volatility. In early February 2025, the US issued a decree imposing a 10% tax on goods imported from China. This increase in tariffs has reduced the amount of Chinese goods exported to international markets as well as exports to the US market. In particular, China has established new export control measures on more than 20 metal products and related technologies, including tungsten and bismuth. These actions by the US and China could become an advantage for MHT in the near future when tungsten and bismuth prices increase due to scarcity of goods on the market.

In pursuit of sustainable competitive advantages, given the positive market trends, MHT has consistently adopted sustainability initiatives in its operations across Vietnam, Germany, Canada, and China. Throughout FY2024, the Company implemented various operational initiatives aimed at achieving cost efficiencies across raw materials, mining, processing, maintenance costs, and general corporate overheads. MHT actively monitors and optimizes the consumption of major consumables and ancillary services, forging strategic partnerships with suppliers, contractors, and service providers. Additionally, the Company is working on developing in-house solutions for critical services in Vietnam and Germany through both organic and inorganic means.



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SUSTAINABILITY FRAMEWORK

Masan High-Tech Materials (MHT) is committed to compliance with international standards of corporate governance for the sustainable and long-term development of the Company. Therefore, the company and its subsidiaries are all developed in a manner that complies with the local regulatory requirements and World Bank guidelines/policies on social and environmental safeguards, the IFC Sustainability Framework, and the Sustainable Development Framework issued by the ICMM for the mining and high-tech materials sector. We integrate these practices into all of our business areas towards the highest standards of transparency and consistency.

The sustainability framework enhances our effectiveness by enabling us to benchmark our performance and continuously improve our sustainability initiatives. Our core values govern our approach, meaning that we place equal importance on investor returns, people and community, the environment, and sound governance that adheres to our ethics. At the highest level, our policies are designed to define the standards of measurement. Procedures are derived to monitor adherence to the Company's standards, while indicators enable top management and stakeholders to track our performance transparently.

Targets are periodically reviewed and updated to align with our aspirations. Finally, reports are consolidated to present the information to our stakeholders. Our commitments and initiatives have been demonstrated through the following objectives.

- Operating consistently in line with leading international practices in all business areas towards transparency and consistency of corporate governance;
- Building and maintaining enduring relationships based on recognition and respect with the stakeholders and contributing to the long-term economic, social, and institutional development of our communities;
- Seeking continual improvement in safety, health, and environmental performance through robust management systems.

We embed our sustainability framework into all our operations, implementing it at the employee level with the aid of a document that outlines clearly and transparently the values employees need to demonstrate in their day-to-day activities. Our policies set out what we believe in and what we promise to achieve in the areas of health and safety, environment, community relations, and supply chain management.

OUR SUSTAINABILITY VALUES

Sustainability means more than taking responsibility for one's environment, employees, and supply chains. It must take all stakeholders into account, as well as compliance with applicable laws, regulations, and guidelines.

As a company having global presence, MHT demonstrates a high level of responsibility to all its stakeholders including customers, employees, investors, and the communities in which it operates.

These commitments are summarized in the MHT Code of Conduct, which was published in 2022.

The employees of MHT are taking all reasonable and necessary steps to comply with the Code, the law, as well as the Company policies and procedures.

CODE OF CONDUCT - The basis for our success

01 Fair Competition

MHT is committed without reservation to fair competition and fair contracting practices with its business partners. Any forms of collusion, or coordination that result in an unfair advantage for one party are prohibited among competitors, as is the abuse of a dominant market position.

02 Business and financial records

Documents, including those in electronic form, are the property of MHT and are kept secure. Personal data is treated with the utmost care and in strict confidence. MHT's financial reports are prepared according to the relevant legal requirements and internationally accepted accounting practices and principles. All necessary measures to prevent money laundering are taken within MHT's sphere of influence.

03 Compliance with International Commercial Law and Provisions on Exports

MHT complies with all international agreements, conventions, and treaties, as well as national laws controlling trade and financial transactions, and consistently monitors compliance with international and national export control laws.

04 Company assets

All employees are similarly responsible for the protection of MHT's material and immaterial assets. Particular importance is attached to the results of scientific research and technical developments, such as inventions, patents, and other know-how. It is prohibited to disclose company and business secrets to third parties in any form. Third-party confidential information that is within MHT's responsibility must also be protected with the same care.

05 Conflicts of interest

MHT has a zero-tolerance policy for bribery and corruption. MHT does not enter into business relationships whose existence or desired scope is dependent on the payment of bribes. At MHT, preventing corruption also means obtaining information about business partners in advance. Business decisions on behalf of MHT may not be influenced by the acceptance of advantages or the granting of benefits and privileges ("perks").

06 Behaviour toward Government Agencies; Cooperation

The Company is committed to complying with all laws and legislation regulating its businesses. Therefore MHT is dealing with all relevant government agencies cooperatively and with an open approach. If an employee learns that a government agency, legislative body, or other authorized institution, is investigating MHT, the legal department must be informed immediately.

07 Environmental Protection and Safety

MHT and its employees bear responsibility for protecting people and the environment following all legal and regulatory requirements in the relevant jurisdiction, as well as international industry practice. The Health & Safety, Environment, and Quality policies are the primary guide for all employees on these matters. Safety is the top priority in all dealings involving products that pollute the environment. Additionally, every employee shares the responsibility for ensuring occupational safety in his or her area.

08 Labour and Employment

MHT does not tolerate discrimination, harassment, abuse, or corporal punishment in any form, whether by business partners, candidates or applicants, or employees. Furthermore, MHT has a zero-tolerance policy towards any form of forced labor, modern slavery, or the most severe form of child labor.

09 Behaviour towards Suppliers of Raw Materials

MHT is working together with partners whose stance on ethical, social, and environmental policy matters is consistent with that of MHT. For this reason, all suppliers of raw materials have to prove that all applicable guidelines laws, and regulations, like the OECD Due Diligence and EU regulation for conflict raw materials, are complied with and that they own all of the necessary permits, authorizations, and approvals. Furthermore, all parties involved in our supply chain commit to comply with our purchasing guidelines.

10 Ensuring Compliance

MHT does not tolerate any legal violations whatsoever and consistently complies with the guidelines and rules described. Therefore compliance with this Code of Conduct, the law, and the Company's policies is subject to regular reviews, executed on behalf of the executive management by the supervisors.

11 External Relations

MHT has a policy on how to deal with external stakeholders and who is authorized to communicate with them. Therefore, in all matters concerning the company, employees who do not have authorization must avoid giving the impression that they speak on behalf of the company.

12 The Compliance Organisation and Contact Persons

Your Line Manager/ Supervisor is the first point of contact for any questions you may have regarding the Code of Conduct.

If the matter concerns your supervisor, you can contact the HR department or your next higher supervisor.

The Executive Management Team performs the corporate compliance function in the MHT Group. A member of the Team is your contact person for any questions you may have regarding the Code of Conduct. Inquiries can also be made anonymously, and all reasonable efforts are made to maintain confidentiality, although MHT is, of course, obligated to initiate investigations to comply with the law and support law enforcement.

If you have specific legal questions, particularly regarding whether certain actions are lawful, please contact the appropriate Legal Department.

MHT guarantees that no employee will be subject to discrimination, retaliation, or any other adverse treatment based on the employee having made a report in good faith.

SUSTAINABILITY GOALS REFLECTED IN HCS POLICIES AND REGULATIONS

Our vision is to be the leading integrated supplier of sophisticated high-tech materials critical to global innovation. To sustain and continuously improve all our processes and functions we focus on the following:

Customer satisfaction

We increase customer satisfaction and loyalty by responding:

- Flexibly,
- with the desired quality (Zero defect strategy)
- and competitively on customer requirements

Occupational health & safety

Our employees enjoy a working environment in which they:

- Stay healthy
- and are actively involved in its improvement

We implement the necessary safety measures and pursue a Zero accidents strategy.

Employee satisfaction

We promote employee satisfaction through:

- A secure job
- Performance-based remuneration
- An appreciative management culture
- A culture of coexistence
- And the elimination of cultural and language barriers

Sustainability

We commit to working responsibly with the resources at our disposal. For this purpose, we:

- Use our recycling expertise, offer our customers a “closed loop” process and buy our raw materials responsibly (Conflict-free sourcing)
- increase our process efficiency of energy use and availability of our production equipment
- improve both our environmental and energy performance continuously to achieve climate neutrality by 2045 at the latest
- offer our employees flexible working hours, good training and needs-based education

Competitive Ability

We maintain our competitive advantage in the marketplace:

- based on our Code of Conduct and in compliance with ISO 37301
- by demonstrating a high level of security of supply through a “multi-supplier” strategy in which we continuously develop our suppliers
- by increasing process efficiency continuously
- through innovations in technologies and products. We identify new trends at an early stage and align our research and processes accordingly
- by maintaining our know-how through active knowledge management
- with a strong corporate culture

IT safety

Availability of systems and data is ensured by negating third-party criminal influence. Both personal and company data are handled responsibly.

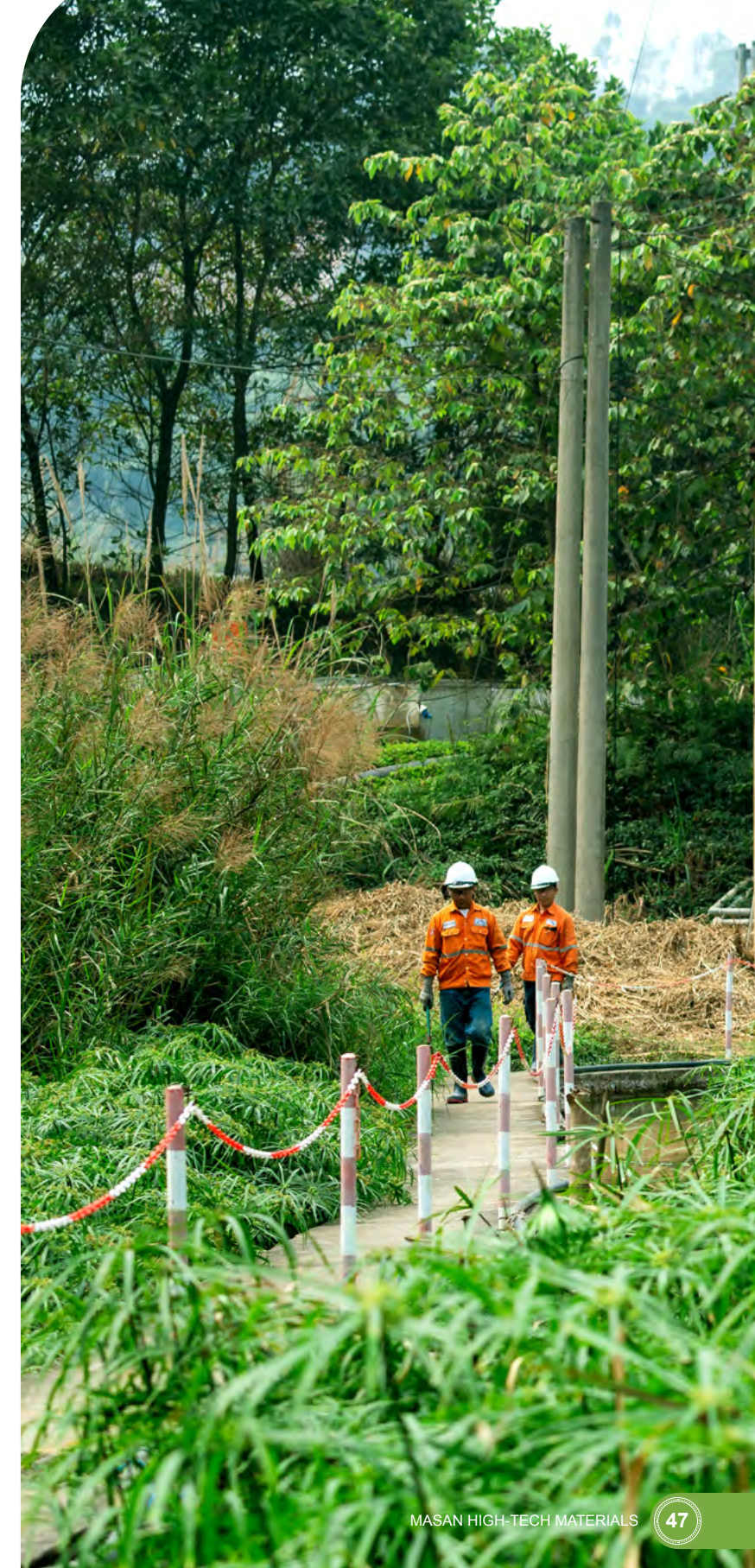
Continued existence of the company

To manage risks to the continued existence of the company, we will:

- Actively manage the financial situation of the company in accordance with the defined KPIs (e.g.: sales, net income) including liquidity targets
- Monitor the sales and supply markets and react flexibly
- React flexibly to transport and storage risks
- Develop concepts to mitigate risks such as natural disasters and force majeure

APPLICABLE STANDARDS

- ✔ The standards mentioned in MHT Annual & Sustainability Report 2020
- ✔ ISO standards (ISO 9001, ISO 14001, ISO 45001, ISO 50001)
- ✔ Eco-Management and Audit Scheme (EMAS)
- ✔ OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- ✔ REGULATION (EU) 2017/821 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum, and tungsten, their ores, and gold originating from conflict-affected and high-risk areas
- ✔ Modern Slavery Act
- ✔ REACH (Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals), RoHS (Restriction of Hazardous Substances)



ENERGY MANAGEMENT COMMITTEE

ENERGY MANAGEMENT COMMITTEE AT NPMC AND MTC

The Energy Management Committee has been operating since 2019 to develop and monitor management initiatives with the goal of saving and using energy efficiently and effectively. In 2023, the Energy Management Committee maintained its commitment to implementing the efficient energy projects and meeting savings targets.

In 2024, the total energy consumption at MHT was approximately 838,293 GJ, representing a decrease of about 23,732 GJ compared to 2023. However, when considering the energy consumption per unit of output, it is approximately 4.84 GJ per ton of product, representing an increase of 0.17 GJ per ton compared to 2023. This increase is attributed to the low grade ore/concentrate fed to the processing plant, which resulted in lower output, while the energy consumption for the equipment remained nearly unchanged.

NPMC – ESTIMATED ENERGY SAVINGS REACH 2,792 GJ

NPMC's production, maintenance and repair operations for equipment and facilities were streamlined through the introduction of multiple solutions. Some ongoing measures have been continued since 2023 and new projects have been implemented in 2024, including:

Solutions	Energy saving	(GJ eq)
Improve the performance of the water return pump from Oxide Tailings Cell (OTC) to Nui Phao plant.	40,358 (kWh)	145
Optimize the loading and unloading of NPMC 6 Atlas Copco air compressor, control the no-load time to minimize energy waste	683,106 (kWh)	2,459
Optimize the settings of CP501 air compressor to reduce energy consumption while still supplying air for the neutralization area and Bismuth Cement circuit	52,149 (kWh)	188
Total	775,613 (kWh)	2,792

We are well aware that low grade feeds would lead to a higher energy consumption per unit of output, from early 2024, various energy-saving solutions have been put into place at NPMC and MTC. In addition, we also sought ways to reduce fuel consumption, such as coal and oil. It was projected that more than 8,377 GJ of energy had been saved overall (converted from electricity and coal energy), resulting in a slight increase of the energy consumption per unit of output compared to 2023.

MTC – ESTIMATED SAVINGS REACH 5,585 GJ

In the framework of the Vietnamese – German Energy Dialogue funded by the German Federal Ministry for Economic Affairs and Climate Action (BMWK), the German Agency for International Cooperation (GIZ) established the Energy Efficiency and Climate Protection Club (EEC) in Thai Nguyen Province. MTC was invited to join the Club by Thai Nguyen Department of Industry and Trade. The purpose of EEC is to promote the economical and efficient use of energy in our businesses. It also serves as a forum for exchanging ideas on energy efficiency and climate protection. In 2024, MTC participated in several training sessions organized by GIZ in collaboration with local energy consulting firms for

the Club members. Additionally, GIZ conducted a preliminary energy audit at MTC to propose energy-saving solutions to energy efficiency in the operations of the Company. Joining the Club is an opportunity for MTC to seek solutions to improve energy efficiency management at the Company.

In 2024, MTC continued to maintain the energy management system in accordance with ISO 50001:2018 and implemented a number of solutions as follows:

Solutions	Energy saving	(GJ eq)
Install temperature controllers for each crystallization unit to regulate the steam valve for better supply.	19,956 (kWh)	72
Control the dryer temperature in Na ₂ SO ₄ Wastewater Evaporation and Crystallization system. The crystallization dryer uses hot air from the WA270 heat exchanger to dry the product. The air is heated with high pressure steam. Review the actual temperature requirements of the dryer to control the valve and reduce the steam consumption.	211,966 (kWh)	763
Recycle the Na ₂ SO ₄ wastewater (raffinate) back to the BA363 dissolving tank to reduce steam consumption for the Wastewater Evaporation and Crystallization system.	128.9 tons of coal	3,442
Increase the ATS charging volume of the APT crystallizer from 5 to 6-7 m ³ /batch through the top-up method to utilize the heat transfer surface and reduce the discharge frequency to save steam.	49 tons of coal	1,308
Total		5,585

To explore additional energy-saving solutions, in 2024, MTC conducted tests by mixing wood pellets/wood chips with coal for the boiler operations at MTC plant to improve the combustion of coal. The tests showed that co-firing wood pellets or wood chips with coal increased the complete burning efficiency of the coal in the boiler, resulting in an estimated

energy saving of about 3%. This initiative aligns with the Company's commitment to exploring sustainable energy solutions, using energy efficiently to reduce environmental impact.

FOCUS 2 25

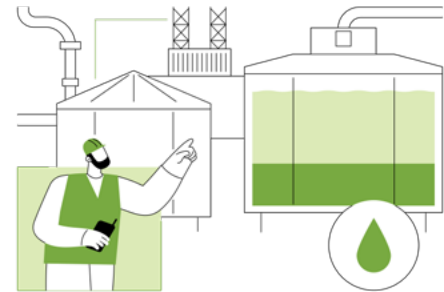
Maintain energy management system according to ISO 50001:2018 at MTC



Implement an energy audit for the period 2022-2024 and regular reporting as required.



Continue to maintain energy-saving solutions such as: Improve the performance of the water return pump from Oxide Tailings Cell (OTC) to Nui Phao plant; Enhance the performance of the air compressor to reduce energy waste at Nui Phao plant, among others.



Control and repair the air leaks in air compressor areas

In 2025, MHT will conduct regular inspections using ultrasonic detection equipment to identify air leaks in the compressor areas at NPMC and MTC. This activity will help the Company promptly plan for leak repairs, thereby saving energy in the operations of the plant. Additionally, MHT is researching to upgrade the compressor system by replacing outdated equipment to enhance the operational efficiency of the system.

Research on the installation of biomass boilers at MTC plant

The current boiler at the MTC plant uses coal, which is a significant source of greenhouse gas emissions (approximately 19,000 tons of CO₂ per year, accounting for about 60% of the total greenhouse gas emissions from MTC). In 2025, MTC will cooperate with a consulting firm to research and install the biomass boiler to replace the existing coal-fired boilers. The successful implementation of this project will help reduce operating costs for the Company, while also estimating a reduction of approximately 97% in annual CO₂ emissions compared to the coal-fired boiler.

Research on the trial installation of a hydropower model at NPMC

Electricity generation based on hydropower has long been known as a form of clean energy with significantly lower greenhouse gas emissions compared to fossil fuels, reducing greenhouse gas emissions. In 2025, NPMC plans to test and install a mini hydropower generator to harness energy from the water flows at the wastewater treatment plant to generate electricity for lighting. If the results are positive, the Company will consider replicating this model in the following years as a clean energy solution to help mitigate greenhouse gas emissions.





INNOVATION SUSTAINABILITY

Innovation has always been crucial for making substantial advancements in corporate environmental performance and sustainability. From its very beginning, Masan High-Tech Materials has developed a reliable platform for fostering a corporate culture focused on innovation and sustainability.

Masan High-Tech Materials operates two processing improvement research facilities serving the process plant and one research and development (R&D) center serving long-term research projects. These facilities are focused on technological research and innovation across the entire mineral and metal processing chain, which is one of the key pillars enabling Masan High-Tech Materials to maintain its market position and ensure sustainability. With ongoing commitment and continuous high investment in technology and innovation all over the process chains, Masan High-Tech Materials secures the application of the most advanced technologies in the processing and production of Tungsten, Fluorspar, Bismuth, Copper, and other materials. This also results in significant improvements in labor productivity towards sustainability, environmental protection, and contribution to the green economy.

Substantial funding and person-hours are dedicated to enhancing consistency of product quality and production efficiency. Superior and more precise production processes result in increased product yields, reduced waste, and minimization of important environmental factors. Consumption of items such as energy, water, reagents, and other auxiliaries can all be reduced and the production of waste and by-product streams minimized, therefore improving the sustainability and environmental impact of the processes.

Masan High-Tech Materials is committed to comprehensive advanced technological development and innovation. This is demonstrated through the automated and efficient production facilities Masan High-Tech Materials has invested in and is currently operating along with utilizing the latest in analytical laboratory technology in combination with extensive pilot plants that can mimic all parts of its own and customer's

manufacturing processes. With the ability to conduct systematic research and development activities for hydrometallurgical, pyrometallurgical, and classical physical metallurgical process technologies, these facilities are pivotal in refining and improving our products and processes.

MHT not only invests in technology but also focuses on human development and the promotion of a culture of innovation in the organization. Programs such as "Innovation Day" and "MHTers Initiative Contest" have attracted wide participation from employees, raising awareness of the importance of innovation. This encourages each individual to proactively propose and contribute ideas to create the future and promote the sustainability of the Company.

These efforts have been recognized through the certification of the MTC plant in Vietnam as a "High-Tech Enterprise" (2025-2029) by the Ministry of Science and Technology at the end of 2024. This marks the second time MTC has met the Ministry's stringent requirements to obtain this prestigious certification.

In 2024, MHT's Operational Technology and Innovation Department implemented many R&D projects to improve production efficiency and aim at sustainability and circular economy. These projects not only optimize the processes for existing metallic materials but also pave the way for future materials, focusing on the following key areas:

- a) Developing new products based on current processes to improve production efficiency and revenue.
- b) Improving and optimizing processes to increase production efficiency and minimize environmental impact.
- c) Building a culture of innovation at MHT.

DEVELOPING MORE NEW PRODUCTS

Improved Efficiency in Developing High-Purity Sodium Tungstate (ST)

Customers have increasingly high requirements for ST products with higher purity levels. As a result, laboratory research activities and large-scale commissioning have been conducted. The new production process has been successfully implemented on a full-scale operational basis, offering benefits such as reduced reprocessing costs, increased overall plant capacity, high-quality product production and revenue.

High-Quality Synthetic Calcium Tungstate

In 2024, engineers successfully researched and applied a method for the production of high-quality synthetic Calcium Tungstate at an industrial scale, generating tens of billions of revenue VND per year. This has significantly enhanced production efficiency at the plant, and improved the utilization of capital and assets, contributing to the sustainability of the company. Especially, it is an environment-friendly process without generating hazardous waste and significantly reducing the caustic soda consumption in the production process.

OPTIMIZING PRODUCTION PROCESSES TO REDUCE THE CONSUMPTION OF CHEMICALS, ENERGY, AND CO₂ EMISSIONS

Significant Reduction in Caustic Consumption

Sodium hydroxide (also known as caustic soda) is a key reagent in the tungsten industry, accounting for significant costs in the production of high-quality tungsten products. Therefore, research to reduce caustic soda consumption is always a key task of engineers at MHT. In 2024, our engineers successfully researched and tested a push washing method, saving over 1,000 tons of caustic soda consumption, equivalent to VND 6 billion per year. This solution contributes to reducing the environmental impact and enhances the sustainability of the company's production process.

Energy Efficiency

Enhancing energy efficiency is also a focus area of Masan High-Tech Materials' research and development activities. Innovation in this area not only creates a reduction in direct and indirect CO₂ emissions but also delivers substantial cost savings to the business. In 2024, our engineers researched and developed a solution to improve the crystallization technology and the re-processing of defective products, which was successfully applied at the plant, resulting in a reduction in steam consumption. As a result, the Company can save over VND 2 billion for coal and reduce more than 1,000 tons of CO₂ emissions per year.

Within the framework of energy-saving and greenhouse gas emission reduction, our engineers completed the lab-scale test phase to utilize the heat from processing the sulfide-contained tailings stream at the plant. This project is being proposed in partnership with Vietnamese scientists under the Net Zero Science and Technology Program to research at a larger scale and collect more data to design a more optimal recovery process. The process is also designed to produce sufficient steam to supply the MTC plant for many years, generate part of the electricity consumed at Nui Phao mine as well as create significant revenue for the company and contribute to the state budget.

In addition, our engineers developed plans to test other potential solutions that could further reduce steam consumption scheduled to implement in the following years. Especially, MTC plant developed a plan to replace coal and oil with biomass materials - a sustainable energy source reducing the reliance on fossil fuels.

Participation in Global Energy Reduction Programs

As a subsidiary of the Masan Group towards the global market, Masan High-Tech Materials actively engages in Government programs and keeps up with global trends to enhance energy efficiency and mitigate environmental impacts. This is not only done at each of its operating plants but also in a holistic approach covering the entire life cycle of the materials that it produces.

Energy Management and Sustainability Teams have been established at all of Masan High-Tech Materials' production sites which are in turn overseen by the Sustainability Committee. They undertake a combined effort to reduce energy consumption, minimize waste, and develop new energy concepts. These teams also work in cooperation with external partners involved with sourcing, developing and implementing renewable energy strategies.

In addition, MHT has been actively engaged in the tungsten scrap recycling industry in both domestic and international markets for many years. Recently, MHT planned to construct a recycling facility in Vietnam, allowing the Company to access low-cost tungsten sources, secure the materials and prevent the disposal of these valuable materials through landfills. This helps to preserve primary tungsten resources and promote the circular economy model.

In addition, MHT also aims to research and develop the recycling technology of other critical metallic materials in Vietnam and Southeast Asia, meeting the demand for industrialization and modernization. For example, we continue previous research projects with German researchers. MHT is currently implementing additional laboratory research to perfect the critical metal scrap recycling process in the future, including batteries and urban mining.

Research of Resource Recovery from Tailings and Waste Streams

At Nui Phao Mining plant, the production process generates two primary tailings streams, which contain a significant amount of valuable minerals. Over the years, Masan High-Tech Materials has constantly sought solutions to recover these minerals to better utilize resources, generate additional revenue, create more jobs, and contribute more to the state budget.

In 2024, our engineers successfully researched and tested a process for recovering Molybdenum from the hazardous wastewater streams at MTC plant. The outcome of this research is expected to generate billions of Vietnamese Dong, increasing potential revenue for the plant and reducing environmental impacts.



BUILDING A CULTURE OF INNOVATION

Innovation towards sustainable development plays a strategically important role in the business, improving operational efficiency, social welfare and economic growth. Recognizing this, MHT has focused on the culture of innovation in our sustainable development strategy. In 2024, the Company organized “**Innovation Day**” with the theme “**MHT with Green and Sustainable Innovation**”, offering opportunities for engineers to exchange ideas, work together and share their orientations with the company’s leadership. This also reaffirmed our commitment to innovation sustainability.

In addition, the Company also promoted cooperation with domestic and international experts to update and apply new technologies to the production processes as well as enhance the professional knowledge of engineers. For example, R&D engineers frequently exchange ideas and collaborate with professors from the University of British Columbia (Canada), the University of Melbourne (Australia), tungsten researchers in Germany, and professors from Hanoi University of Science and Technology and Hanoi University of Mining and Geology.

It can be affirmed that MHT’s commitment to innovation through sustainability is a long-term, consistent strategy. This is not only our current orientation but also an essential part of MHT’s culture today and in the future.



R&D Engineers at MHT Innovation Day



The R&D Manager introduces MHT’s Research Projects to University Professors



SUSTAINABILITY MINING - RAW MATERIALS

The Mining and Geology (M&G) Department's continues to focus on producing sustainable mining outcomes by:

- Reducing costs
- Utilising renewable energy options
- Optimising mine rehabilitation strategies
- Considering low-impact mining techniques (i.e. underground mining)
- Minimising ore loss and dilution
- Ensuring consistent and sufficient fresh ore for the Processing Plant
- Exploring further revenue-generating opportunities.

In 2024, the M&G team mined roughly 1.59 million bank cubic meters (MBCM) of material, yielding 1.51 million tonnes or 473,623 BCM of mineral ore, at a strip ratio of around 2.4 (BCM waste/BCM ore). Approximately 3.26 million tonnes of combined ore from the mine and recovered existing stockpile material was fed to the crusher.

The focus in the early part of 2024 was on the recovery of existing stockpiles, while after March all efforts were concentrated on the restart of drilling and blasting operations and the supply of fresh ore to the Process Plant. All mining operations complied with the required environmental and community standards.



1.59 MBCM
of material



473,623 BCM
of mineral ore



3.26 million tonnes
of combined ore from the mine and
recovered existing stockpile material was fed
to the crusher

SUSTAINABILITY MINING

In 2024, the M&G team:

- Completed drilling programs to monitor possible contaminants in the water table.
- Completed all required grade control drilling during fresh ore mining to allow accurate planning/input to the Process Plant.
- Maintained consistent feed grade to the mill in line with the monthly updated plans and forecasts.
- Continued to optimize waste dumping strategies by categorizing waste products based on sulfur content, soil parameters, etc. Starting April 2025, High Sulphur (Potential Acid Generating – PAG) wastes will be dumped into mined out pits below the water table and/or encapsulated in surface waste dumps. Low Sulphur materials (Non-Acid Generating – NAG) will be used in the Tailings Storage Facility development, for road construction, encapsulation and general dumping in surface waste dumps. Efforts will also be made to reduce the disturbed footprint and to ensure dumps are immediately rehabilitated upon completion.
- Converted some PAG material to NAG material by considering the acid neutralizing capacity of the material, which will allow reduced dumping in PAG dumps and reduced environmental impact.
- Continued to develop a program to market waste products from the mining operation, including saprolite/soil and NAG rock for general civil works fill, crushed aggregate products, artificial sand and reclaimed Oxide Tailings Cell material.
- Changed to a new Excavate/Load/Haul/Dump contractor, and continued to monitor and develop the contractor by improving the maintenance and operational strategies used.



SUSTAINABILITY RAW MATERIALS

H.C. Starck Tungsten Powders' raw material sourcing is based on two principles: the continuous expansion of recycling activities and fair, ethical, and environmentally friendly raw material sourcing.

The stringent, globally applicable procurement guidelines detailed in the Responsible Supply Chain Management System (RSCM) guarantee that H.C. Starck Tungsten Powders buys raw materials only from suppliers who comply with strict requirements regarding environmental protection, occupational safety and social responsibility.

H.C. Starck Tungsten Powders condemns all activities in connection with the unlawful exploitation of mineral resources, regardless of their location. As part of this commitment, the company have implemented an on-going policy of only purchasing conflict-free raw materials that consistently meet OECD requirements (relevant version of the "OECD Due Diligence Guidance for Supply Chains of Minerals from Conflict-Affected and High-risk Areas"), and the "Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, ores, and gold originating from conflict-affected and high-risk areas".

Before starting to work with a supplier, the Purchasing and Legal Departments conduct a detailed check to confirm that the potential

vendor meets all legal and RSCM process requirements. This check is repeated on a regular basis during the whole time of the business relationship. Also, H.C. Starck Tungsten GmbH has incorporated due diligence requirements into legally binding agreements with direct suppliers. H.C. Starck Tungsten Powders has repeatedly been awarded the certificate for "conflict-free" processing Tungsten raw materials; the last audit was conducted in October 2021. All corresponding evaluations were carried out by independent auditors on behalf of the Responsible Minerals Initiative (RMI), a joint initiative of the Responsible Business Alliance (RBA) and the Global e-Sustainability Initiative (GeSI).

Both the H.C. Starck Tungsten Powders Raw Materials Procurement Statement and the current OECD 5-Step Report, audit report and certificate can be viewed and downloaded from the H.C. Starck Tungsten Powders website.

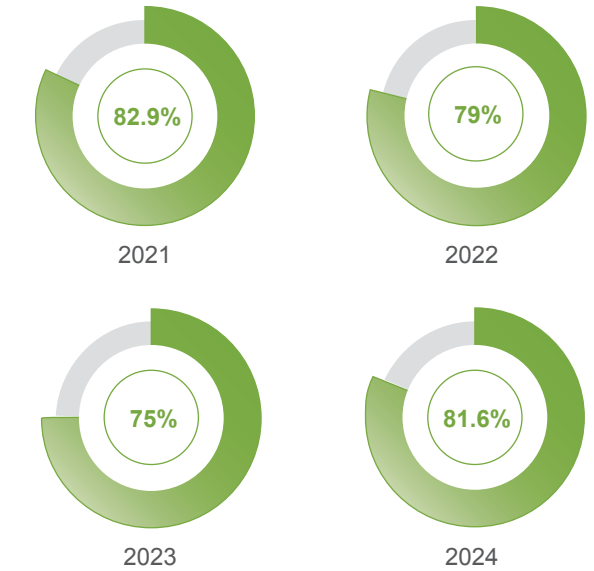
In January 2023, the German Act on Due Diligence in the Supply Chain "Lieferkettensorgfaltspflichtengesetz (LkSG)" came into force. Even though the Goslar site is not directly affected due to its size (less than 3,000 employees in Germany), some of the law's requirements must also be implemented by H.C. Starck Tungsten GmbH in Goslar. However, due to an overarching EU regulation, the Corporate Sustainability Due Diligence Directive (CSDDD), which was adopted in 2024, enforcement

of the LkSG is currently partially suspended until the requirements of the CSDDD are implemented in German law. As this point was already largely covered by our existing RSCM, we commissioned TÜV NORD Cert in 2023 to carry out a gap analysis. The measures resulting from the analysis were successfully completed in 2024, meaning that we are now prepared for the CSDDD.

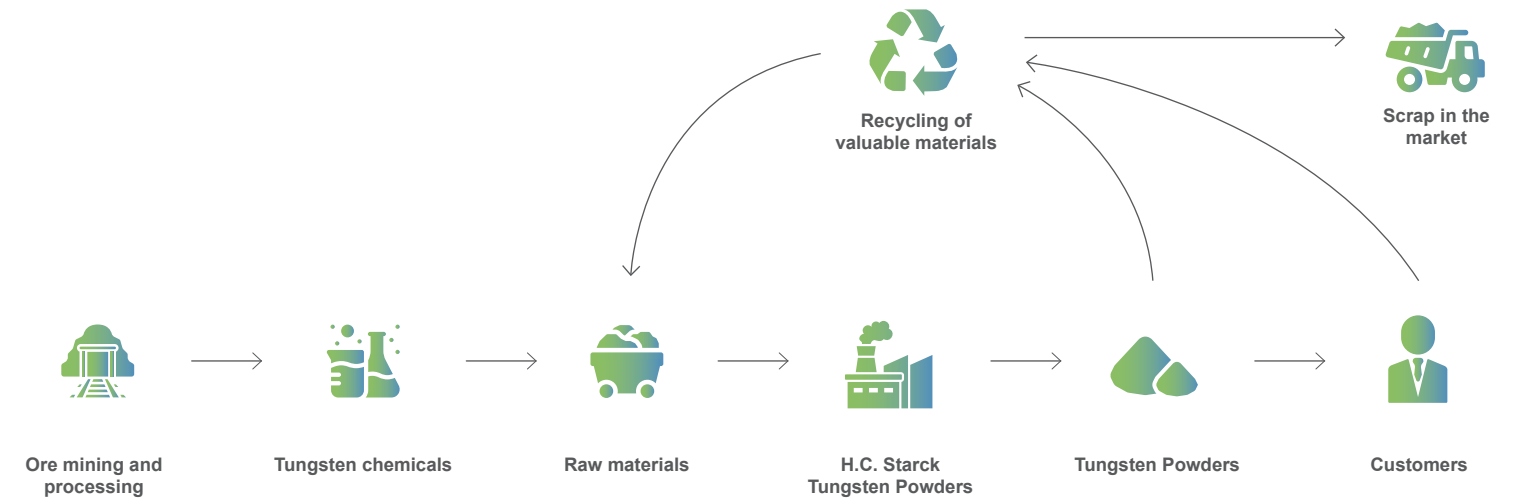
In 2024 we bought 4.842 tons of raw materials in Goslar with a Recycling rate of 81,6%

At the Goslar site, the focus is on the recycling of scrap metal as a raw material, which we obtain both on the free market and from our customers. Intermediates such as APT or tungsten oxides are mainly purchased from MHT. While the plant in Sarnia gets tungsten oxide from Masan High Tech Materials and within the scope of a swap from another, selected supplier, the site in Ganzhou is currently supplied by JV Partner in Ganzhou.

The global end-of-life recycling rate of tungsten is approximately 30% and, thus, belongs to the top third of the recycled metals. With our highly efficient recycling platform in Goslar, we cover approx. 80% of our raw material needs from scrap.



Recycling rate of raw materials - Goslar



Backed by decades of experience we are able to recycle almost all our products and compounds after use

SUSTAINABILITY PROCESSING

In 2024, MHT's Processing Operations at Nui Phao (NPMC and MTC) maintained and improved their sustainability performance across all functional areas, with the goal of contributing to the overall sustainability of Masan High-Tech Materials.

MHT VIETNAM MINERAL PROCESSING

DEVELOPING MORE WITH LESS

The Nui Phao Operation is committed to responsible mining and resource optimization, processing approximately 3.2 million tons of polymetallic ore in 2024. This ore contains valuable minerals including Tungsten, Bismuth, Fluorspar, and Copper. Recognizing the importance of sustainable resource utilization, we continuously seek innovative ways to maximize extraction efficiency while minimizing environmental impact. Our approach includes enhancing processing technologies, optimizing waste streams, and developing new products to ensure long-term resource sustainability.

A key focus of our sustainability-driven innovation is the development of value-added products from byproducts and lower-grade materials. In 2024, we introduced a new product: low-sulphur magnetite, which serves as a high-quality raw material for the domestic steel industry, reducing reliance on imports and contributing to a more sustainable supply chain. Additionally, we upgraded a magnetic byproduct into a low-grade fluorite product, transforming what was previously considered waste into a commercially viable resource. These initiatives align with our commitment to circular economy principles, reducing waste generation and improving overall resource efficiency.

In line with our strategic mine plan, Masan High-Tech Materials successfully transitioned mining activities from the East to the West pits throughout the year. While the year was marked by lower head grades, we maintained operational efficiency by processing lower-grade stockpiles, ensuring continued metal recovery while extending the life of the resource. The transition to the larger orebody in the Western pit was carefully managed to sustain production levels and minimize disruptions.

Additionally, significant design enhancements were completed for the Oxide Expansion Project, aimed at increasing tungsten recovery from bulk oxide flotation concentrate. These improvements were implemented in the second quarter of 2024, enhanced recovery rates, reduce material losses, and contribute to overall operational sustainability.

Through ongoing innovation, responsible resource management, and process improvements, Nui Phao continues to strengthen its position as a leader in sustainable mining and high-tech materials production. Our commitment to sustainability ensures that we not only extract value from our resources but do so in a way that minimizes environmental impact and supports long-term industry growth.



3.2 million tons

of polymetallic ore in 2024

SUSTAINABLE PROCESSING INITIATIVES IN NPMC

Operations in 2024 placed a strong focus on reducing power consumption through a series of targeted initiatives, each designed to enhance energy efficiency, optimize resource utilization, and lower the environmental footprint of our activities. These initiatives spanned multiple operational areas, leveraging technological advancements and processing optimizations to achieve meaningful energy savings.

One of the key improvements was the optimization of jaw crusher power consumption through the automation of the crusher choke feed. By ensuring a more consistent material feed, this automation minimized energy waste and improved overall equipment efficiency. In the milling circuit, power reductions were achieved by decreasing the weight of the mill liners, leading to lower energy requirements without compromising grinding performance.

Fuel efficiency was also improved through the optimization of tungsten burner operation. By fine-tuning temperature settings and airflows, diesel consumption was reduced, lowering both fuel costs and greenhouse gas emissions. These refinements were complemented by broader process efficiency enhancements that contributed to an overall reduction in energy intensity across the operation.

Water management was another critical area of improvement. The implementation of the Site Water Treatment Plant significantly reduced the need for energy-intensive water pumping operations, while process plant modifications enabled lower overall water consumption. The increased use of recycled water sources - such as the Cut-Off Trench - further minimized reliance on fresh water, supporting our sustainability objectives.

Further enhancements were made through commencement of ore characterization studies, which identified new opportunities to optimize crusher and milling power usage. These insights led to options for circuit reconfigurations and process simplifications.

These collective initiatives demonstrate our commitment to continuous improvement and responsible resource management. By integrating energy-saving measures into core processes, Nui Phao is not only enhancing operational efficiency but also reinforcing its position as a leader in sustainable mining and materials production.

SUSTAINABLE PROCESSING IN MTC

MTC consistently endeavors to drive innovation and optimize processes, underscoring its unwavering commitment to sustainable development and its obligation to contribute to the creation of a greener future.

Operational Improvements

In line with our commitment to enhancing operational efficiency, MTC has made significant strides in optimizing the leaching process. By fine-tuning reaction times and automating filtration systems, we have successfully reduced the cycle time for each batch. This initiative has resulted in a notable improvement in recovery efficiency compared to the previous years, even though the input ore grade was similar or lower. These improvements underscore our focus on achieving higher productivity with minimal environmental impact.

Optimizing Low-Grade Ore Processing

As part of our resource optimization strategy, MTC has implemented a dedicated project to separate low-grade ore sources for targeted leaching processes. This approach allows us to optimize critical variables such as NaOH concentration and reaction times, leading to significant reductions in energy usage and chemical consumption. These efforts not only enhance the overall efficiency of our operations but also contribute to a more sustainable use of resources.



Leveraging High Technology for Operational Excellence

At Masan High-Tech Materials (MHT), the integration of advanced management software and state-of-the-art processing technology plays a critical role in ensuring efficiency, sustainability, and resource optimization. MHT's high-tech approach has positioned it as a leader in Vietnam's mining industry, with all processed products - including Tungsten, Bismuth, and Fluorspar - recognized by the Ministry of Industry and Trade as key industrial products.

A key differentiator for MHT is its adoption of the world's most advanced mining and processing management software, making it the only mining company in Vietnam to leverage such cutting-edge digital solutions. This technology enhances real-time monitoring, process automation, and data-driven decision-making, leading to improved productivity and reduced operational inefficiencies. By utilizing predictive analytics, MHT can proactively manage equipment performance, minimize downtime, and ensure optimal resource extraction.

Additionally, MHT operates a Tungsten chemical production line based on German technology, a benchmark for efficiency and precision in the global mining sector. This advanced system not only maximizes metal recovery rates but also minimizes resource losses, ensuring that every ton of ore is utilized to its highest potential. By optimizing the value of mineral resources, MHT contributes to both economic growth and sustainable mining practices, reducing environmental impact while meeting the increasing demand for high-tech materials.

Through the integration of advanced software, automation, and precision processing technologies, MHT continues to set new industry standards, reinforcing its commitment to innovation, sustainability, and resource efficiency. These high-technology solutions ensure that MHT remains at the forefront of Vietnam's mining sector, delivering value while minimizing environmental footprint.





SUSTAINABLE SUPPLY CHAIN MANAGEMENT

MHT is committed to operating responsibly and sustainably in all areas of the Company's business, including initiatives aimed at strengthening the sustainable supply chain of the Supply Chain Management Department (SCM Department).

In the context of the mining and mineral processing industry facing many environmental, social and economic challenges, the Company's Supply Chain Management Department has made continuous efforts to improve its sourcing capacity, increasing its negotiating power to effectively manage the continuous supply of raw materials for both Nui Phao and MTC.

In 2024, the SCM Department implemented many initiatives towards a sustainable supply chain. Below are the main solutions:



Responsible Sourcing

- **Supplier Code of Conduct:** Develop a comprehensive Supplier Code of Conduct that outlines our expectations regarding the treatment of workers, human rights, environmental stewardship, anti-bribery & compliance practices.
- **Green Supply Chain:** Implement a supplier selection process based on sustainability criteria, including the use of renewable energy, safe mining practices, and minimizing environmental impacts.
- **Supplier Audits:** Enhance audits and monitoring of suppliers and supply chain partners to assess compliance with ethical and responsible supplier practices, ensuring compliance with international standards such as the Organization for Economic Co-operation and Development (OECD) Due Diligence Guidelines.
- **Supplier Development and Training:** Provide training to suppliers on safety management and sustainability.

Protecting the environment and minimizing environmental impact

- **Reducing Carbon Footprint:** We actively optimize logistics, working with carriers to optimize and combine small shipments, reducing the number of shipments and significantly reducing carbon emissions, using renewable energy and improving fuel efficiency.
- **Waste Minimization & Circular Economy:** We strictly adhere to the MHT Waste Management Plan including recycling and responsible waste disposal programs thereby significantly reducing our environmental footprint. In 2024, we successfully collected 265 tonnes of material for recycling. Additionally, all packaging used to cover outdoor storage materials is reused, reinforcing the circular economy model.

Improve resource efficiency

- Apply processes to recycle mineral by-products from mining and processing to reduce waste.
- Implement advanced technologies to reduce energy and material consumption in the production process.

Social responsibility

- **Fair Labor Practices:** We are committed to ensuring safe working conditions and ethical labor practices.
 - » 100% of SCM workers are equipped with appropriate Personal Protective Equipment (PPEs).
 - » We implement multiple safety management methods, including Job Hazard Analysis (JHA), Take5 assessments, and periodic safety training, to maintain a secure working environment.
- **Community Engagement:** In alignment with company policies, we actively support local employment and workforce development.
 - » We prioritize hiring non-skilled local workers and invest in training programs to upskill them into skilled labor, fostering economic growth in the community.

Currently, 80% of our warehouse workers are from the local area. When they joined us, they had no prior skills. Through two years of training, they have developed capabilities such as using computers, writing emails in English, operating trucks and forklifts, and handling warehouse tasks at international standards. This transformation reflects the significant efforts of the SCM Department and the Company's commitment to workforce development.

Economic Sustainability & Governance

- **Risk Management & Compliance:** We implement strategic policies to mitigate risks related to climate change, resource scarcity and regulatory compliance, ensuring long-term sustainable development.
- **Technology & Innovation:** We leverage information technology (IT) solutions to enhance transparency, efficiency and sustainability tracking in the supply chain.
 - » Currently, we use IT applications to manage our main consumables and grinding balls.
 - » In addition, we are working with the IT team to digitize five more forms, helping to streamline workflows and improve operational efficiency.

Thanks to these initiatives, the Supply Chain Management Department is contributing to shaping a sustainable supply chain that meets environmental, social and corporate governance (ESG) criteria.





SUSTAINABILITY HUMAN RESOURCES

Human resource management (HRM) is considered the key to the sustainable development of an organization, not only focusing on “caring for” employees but also maximizing their potential, creativity, and engagement. This lays a solid foundation for a talented, dedicated and creative workforce that is eager to help the organization to achieve its goals.

MHT sets important and consistent goals from strategy to execution with a global focus on HRM. This includes designing organizational structures and redesigning employee benefits, developing young global leadership, continuously promoting a lifelong learning culture, driving Diversity, Equity, Inclusion, and Belonging (DEIB) strategy, and elevating the People Value Proposition (PVP) to create superior employee

experiences. Based on the guiding principles of our Vision, Mission, and Core Values of “Respect - Innovation - Results” along with our Code of Conduct, together we establish common goals, remain steadfast in our long-term vision, and continuously move forward, pursuing the ambition of sustainable development for Masan High-Tech Materials globally.

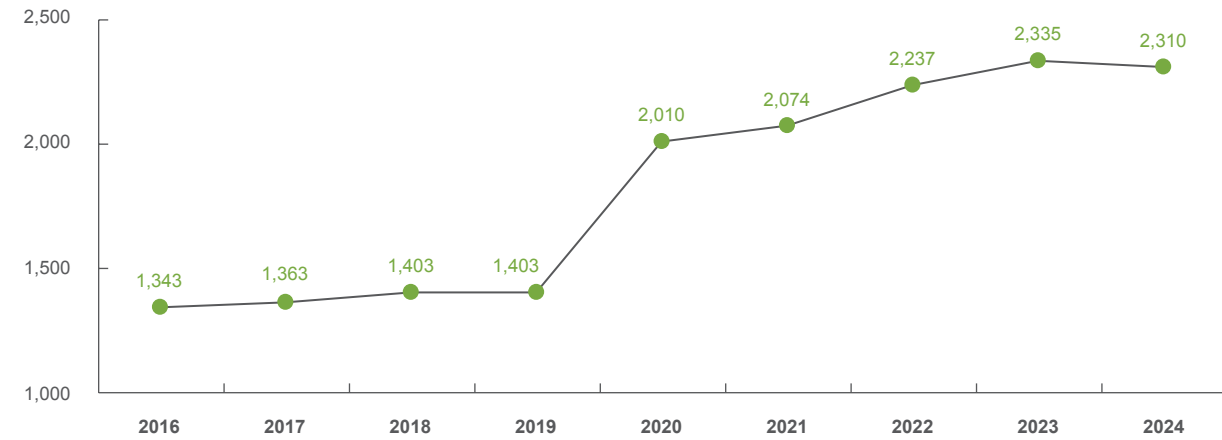
Thanks to all employees' efforts and Management's firm commitment to human capital development, combined with the promotion of production and business emulation movements and the development of outstanding benefit policies, in 2024, Masan High-Tech Materials was recognized as a “Great Place to Work®” for the second consecutive year by the global authority on workplace culture Great Place to Work.



WORKFORCE STRUCTURE

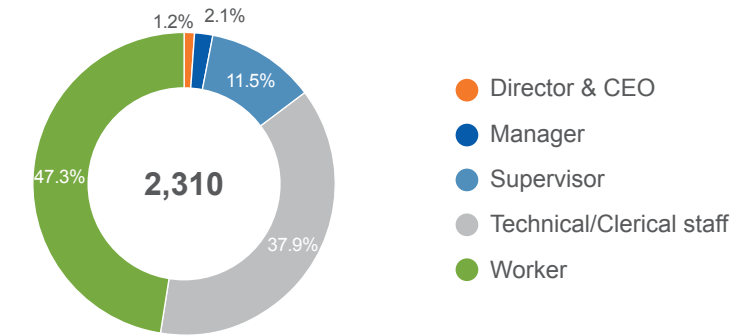
At MHT, we continue to build a diverse workplace and encourage the inclusion and of belonging for all employees through a streamlined and effective human resource management system, enabling us to attract, retain talent as well as create a long-term, productive and sustainable work environment.

The total number of employees in MHT globally is provided in the chart below:



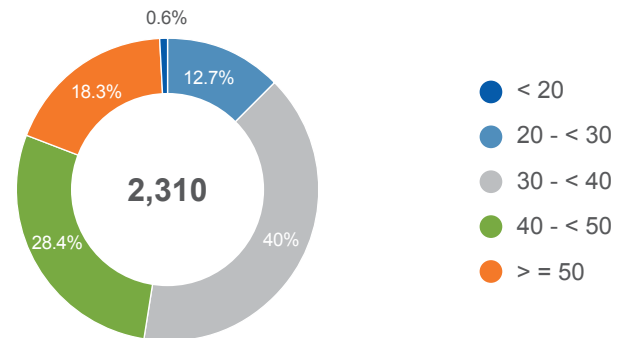
By rank

Direct operators represent the highest percentage of MHT's workforce structure, at 47.3%, followed by technicians and supervisors accounting 37.9% and 11.5% respectively. Board members and middle management account for 1.2% – 2.1% respectively.



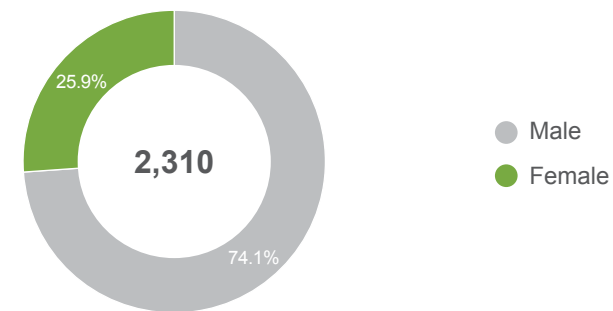
By age

The Company's employee age tends to increase; however, it is still within the golden working age, primarily between 30 and 40 years old, representing 40.0%. The increase in the working age group reflects the stability and commitment of the workforce, contributing to accumulating more knowledge and experience and laying a solid foundation for building excellent successors.



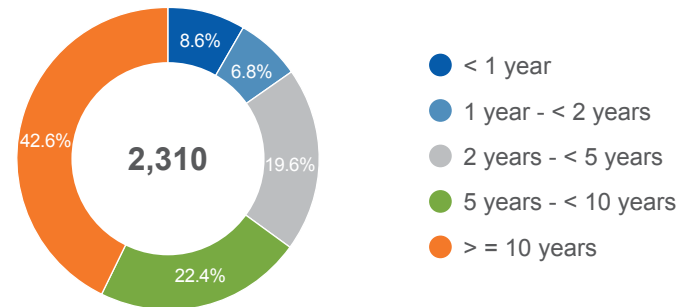
By gender

Promoting gender equality in the workforce is a core objective, contributing to the realization of MHT's commitment to sustainable development. MHT focuses on enhancing the participation of female employees at all levels, particularly in leadership positions. In 2024, the percentage of female employees at MHT reached 25.9%. At the plants in Vietnam only, this rate rose to 28.3%, a significant increase compared to the same period of last year. The rate of female employees at MHT Viet Nam is expected to account for 30% of the total workforce structure by 2030.



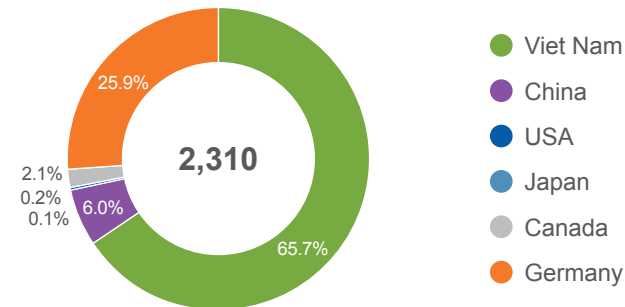
By length of service

MHT continues to be honored as “Enterprise for Employee” and “Great Place to Work” certified for two consecutive years, which is a testament to a friendly and engaged work environment. In 2024, 42.6% of employees have been working at MHT for over 10 years, 22.4% for 5-10 years, and 19.6% for 2-5 years. Especially, the addition of 15.4% new hires brought fresh energy, contributing to the continued development and success of MHT.



By country

With six production facilities as well as business operations and sales offices globally, the workforce percentage of MHT by workplace is 65.7%, 25.9%, 6.0% and 2.1% in Vietnam, Germany, China and Canada respectively, with the remainder in USA and Japan.



Total number of employees and average income at MHT Viet Nam

YEAR	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total employees	1,343	1,363	1,403	1,403	1,403	1,454	1,575	1,539	1,518
NPMC	1,027	1,072	1,150	1,157	1,096	1,133	1,219	1,199	1,197
MTC	316	291	253	246	307	321	356	340	321
Of which									
Vietnamese	1,236	1,261	1,303	1,309	1,329	1,394	1,516	1,503	1,495
Expatriates	107	102	100	94	74	60	59	36	23
Average income (VND million per month) for Vietnamese employees	10.3	11.1	11.4	11.8	11.9	11.9	12.3	12.6	12.9

(* In compliance with the information security policy, the detailed information of employees working in other countries shall not be provided)

SUSTAINABLE LEARNING AND DEVELOPMENT

People are at the heart of every sustainable development strategy. At MHT, we are committed to investing in human resources with clear directions: promoting a lifelong learning culture, developing young leadership capabilities alongside elevating employee value through a clear People Value Proposition (PVP) strategy, and implementing a comprehensive approach to Diversity, Equity, inclusion, and Belonging (DEIB).

With the goal of promoting a lifelong learning culture, Masan High-Tech Materials aims to build and organize learning sessions through flexible training programs, technology-driven applications, and practical learning initiatives. This not only enhances individual capabilities but also ensures the organization’s readiness for future trends and changes. We also integrate leadership development activities, including young leadership, into the organization’s learning journey, thereby building the future generation of leaders who are ready to lead the organization in a globalized environment and adapt to the changes, contributing to the creation of sustainable value for the organization and society.

In 2024, we implemented comprehensive, flexible training and development programs with various forms:

• 04 Leadership discussion sessions

In our ongoing effort to foster a culture of openness and collaboration, the leadership discussion series are conducted and a cornerstone in our journey of building an open and transparent environment. The program aims to shed light on collective and individual success, challenges, and the invaluable lessons learned. This also offers an opportunity for leaders and managers to share their thoughts, as well as a chance for employees to raise questions and directly listen to insightful responses from management.

• 08 Coaching topics

This is designed to support employees in developing soft skills, enhancing critical thinking, problem-solving, and strengthening business acumen.

• Training program for multi-area capability for the Metallurgy Team

All metallurgists underwent a reassessment of their current capability, as a result, six of them are ranked at a higher capability level. Capability determination serves as a basis for us to develop appropriate recognition policies, individualized learning and development plans to achieve higher performance.

• 07 new leader assimilation sessions conducted across departments

This program was to help new leaders quickly adapt, promote their capability, and determine the resources to support them to accomplish tasks and contribute to the organization’s overall goals.

• Top 30 Outstanding employees in the Tradesman Skill Contest (Maintenance Department)

This program offers a professional playground to identify and develop talents with strong skills. Individuals were recognized and rewarded according to company policies.

These efforts demonstrate our value of Respect through facilitating all employees to learn, develop, and have their contributions recognized fairly - celebrating individual value; Innovation by designing flexible training programs, encouraging creative thinking and continuous learning, helping the organization adapt to change; and Results through ensuring that every effort will bring specific results, from increased productivity to a well-prepared workforce for future challenges.



Despite common challenges and difficulties, we continued to maintain our learning activities and record a total of 64,026 learning hours and 39,255 attendees as of December 31, 2024. The average learning hours per MHT learner increased from 30 hours in 2023 to 40.5 hours in 2024, an increase of approximately 35%. These efforts not only support the development of employees but also play a vital role in realizing the organization's strategic goals. In 2024, we remain focused on human resource development through comprehensive strategies, from recruitment and training to promoting a lifelong learning culture. This not only helps staff improve their skills and expertise but also encourages them to unleash their potential in an open and creative work environment.

With a long-term vision, we are aware that human resources development is not just investment in the present but also a solid foundation for the future. This demonstrated our commitment to building a fair, transparent, and diverse work environment, where every employee has the opportunity to grow and contribute. We are proud of the progress we have made and are committed to continuing to implement innovative, engaging, and sustainable HR initiatives towards a more prosperous future for everyone.



64,026
learning hours



39,255
attendees

ELEVATING PEOPLE VALUE PROPOSITION (PVP)

People Value Proposition (PVP) rapidly becomes a crucial factor in organizations due to its key role in attracting, engaging, and retaining top talents as well as enhancing the employer brand. These are values that MHT is committed to offering employees in order to attract, retain, and develop the talents.

At MHT, we elevate our PVP by continuing innovation and adapting in organizational design through actions towards optimizing performance and cost saving, enhancing interaction as well as strong human resources development. This helps us maintain a stable workforce through the stages, restructuring, building a lean, effective organization. In 2024, no employees at MHT lost their jobs due to the economic crisis, natural disasters, or pandemics.

In addition, the Company focused on improving operational efficiency and optimizing human resource management by consolidating our policy system. In 2024, we issued and updated 5 important HR guidelines and policies, including: Guidelines for Timekeeping, Guidelines for guaranty bonus for MTC Processing Department, Guidelines for flight booking, Guidelines for reimbursement to Employee, Recruitment policy and Procedure. These improvements aim not only to enhance employee experience but also to strengthen transparency, fairness, and efficiency in the operational processes.

Employee engagement and satisfaction are considered key to our corporate sustainability. Our salary policy is adjusted in a flexible and practical manner. We continue maintaining and strengthening the financial and non-financial compensation programs in the context of markets that remain volatile. The maintenance and improvement of our benefit system is not only a testament to our commitment to employees but also a long-term strategy to sustain our competitive edge in the labor market.

In addition, the Company places special emphasis on automation and optimizing labor productivity. The Company quickly caught up with the trend of integrating HR Tech into management processes, digitizing human resources management activities. A series of applications have been developed and deployed, helping employees reduce paperwork, increase productivity, and improve labor efficiency. Typical applications include M-Point earning program for employees using the Chatbot application platform; Personal protective equipment management; Office equipment management with Dashboard and SKU applications; In-kind benefit delivery and gift giving to employees, PPE management; and Hazard Report application. The adoption of automation solutions and process improvements through digital technology enables employees to work more efficiently, save costs and time, thereby enhancing work quality and employee experience.



In 2024, we recognized significant efforts and achievements from the workforce with 93 Star Awards for individuals and teams. A total of 482 employees were honored with the monthly Star Awards. In addition, following the success of the 2023 Annual Star Awards program, in 2024, the Company continued to implement the Annual Star Awards Program to recognize 30 individuals who made positive contributions and brought value to the Company throughout the year. These recognitions clearly show the collective strength and efforts of the teams, those who create significant achievements for the development of the Company. The recognition culture has become a cornerstone in valuing and appreciating employee contributions, no matter how big or small. It reflects how we provide opportunities for employees to take ownership, demonstrate their capabilities, innovate, and contribute.

In 2024, the turnover rate was tightly controlled at 12.5%, down from 14% in 2023, reflecting our successful efforts in talent retention. However, the turnover rate of operators remains a concern. In addition, the involuntary turnover rate increased to 19% due to the process of promoting workforce localization, knowledge transfer, and streamlining

throughout 2024. This process proved cost effectiveness, improved labor productivity and motivated local employees who now hold crucial roles in the organization, as well as optimize operational processes. It helps us reduce pressure on recruitment and enhance labor efficiency.

Alongside this, the number of labor discipline violations was similar to that of 2023. This proved that we constantly maintain and implement internal regulations and employee behavior management. The violations are mainly related to compliance with labor regulations and work performance and most cases are employees directly working at the plant. The disciplinary rate which remains moderate is a remarkable achievement, reflecting the effectiveness of management measures and training programs. However, we will still continue conducting regular training, building a stronger compliance culture, and improving support policies to reduce violations in the future.

Looking towards 2025, employee engagement and enhancing awareness of internal regulations will be the key to ensuring long-term sustainable development.



Annual Star Awards Program

SUPERIOR EMPLOYEE EXPERIENCE - FOUNDATION OF SUCCESS

If “customer experience” brings a business loyal customers, “employee experience” brings an organization talents who are willing to dedicate and contribute to its development. Among many attractive choices, they still choose to become part of the organization. With that in mind, each employee at MHT is not only an “internal customer” but also “brand ambassador” of the Company; therefore, we focus on building a committed team through the direction of building and promoting activities of superior employee experience - foundation of success.

The year 2024 continued to stand out with achievements in building an engagement culture, ensuring that every MHTer feels cared for, nurtured, lives and works in an environment of diversity, equity, inclusion, and belonging where they are willing to continuously contribute to the sustainable development of Masan High-Tech Materials.

MHT is the second home of every employee, a place where we work every day with respect and innovation to achieve excellent results together. More importantly, it's a place where we can share, learn, boldly overcome challenges, and fully engage in activities to improve ourselves each day. Please join us in looking back on the journey of leading MHT by culture through photos of proud and meaningful engagement activities which highlight the dedication, effort and commitment to the Company, Trade Union and Employees in 2024:



The Employee Conference

► The Employee Conference was successfully held for the first time with the participation of nearly 200 delegates representing nearly 1,500 employees of the Company. The journey of leading MHT by culture is like the journey of building a MHT home, where each employee is a crucial piece in the overall cultural mosaic that is unique and distinctive in MHT home. Each employee will continue to color the picture every day, making it more diverse, more inclusive, and “like home”.

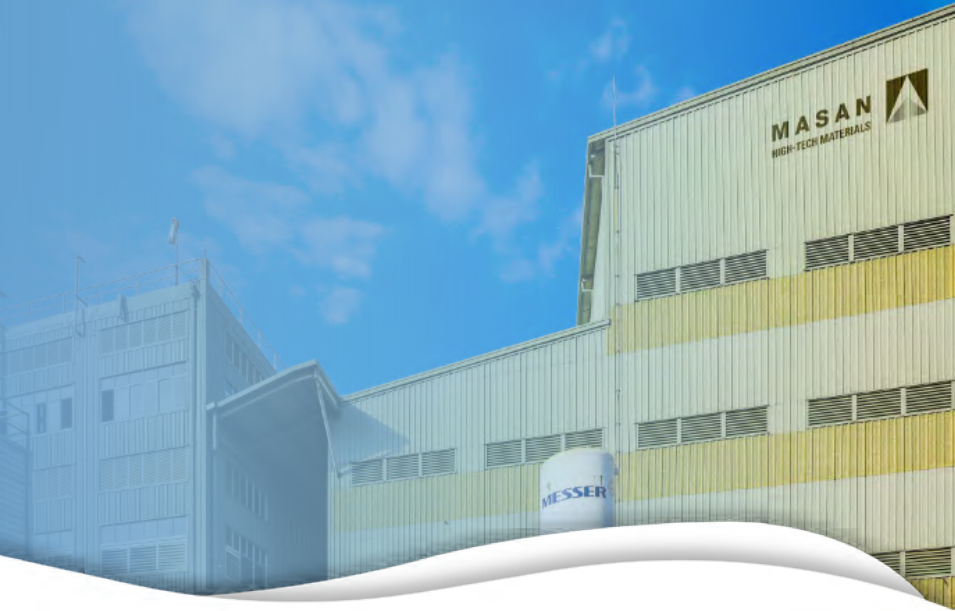
► Companionship, understanding, empathy, and sharing of the employees are the source of motivation that helps us constantly design and improve welfare programs. Together we build, adjust, and supplement policies and guidelines, well with -being for the employees, including Travel support policy; Guideline for accommodation benefits, shift meal allowances; Guideline for funeral, wedding and sickness support; Guidelines for mobile phone provision and mobile charge support; Online training course on Code of Conduct for employees, etc. In addition, we organized labor dialogue to share, listen to opinions, exchange ideas and address the concerns of employees, thereby enhancing mutual understanding, cooperation, and efforts to build harmonious, stable, transparent and progressive labor relations. In particular, the “Your Voice Matters” - whistleblowing service, plays a role as a platform for receiving constructive, fair, and transparent feedback with the goal of creating a great place to work for all employees based on the core values. We understand that every employee expects a work culture where even the smallest ideas and opinions are heard, respected, and developed effectively.



14 Years ANNIVERSARY

18/06/2010 - 18/06/2024

MHT GO



SERIES OF ACTIVITIES TO CELEBRATE THE 14TH ANNIVERSARY OF THE COMPANY

Marking 14 years of MHT development and going global, moving forward together, we proudly celebrated this milestone with meaningful activities with the theme “MHT GO.”

Innovation Day

This started with the Innovation Day under the theme “Green Innovation, Sustainable MHT,” which was held for the first time at MHT, with the participation of over 200 employees. Through practical experience corners and Talk show, the event offered a great opportunity for us to learn, exchange ideas, and understand the importance of innovation in the 14-year journey of development of Masan High-Tech Materials, thereby helping us promote a culture of innovation, shaping the future and contributing to the green and sustainable development of the Company. Especially, the Contest “Small initiatives, shape the future” attracted a wide participation of individuals and teams, with 22 typical initiatives valuable in production and building a safe and effective working environment.



Innovation Day



Activities in Innovation Day

International Children’s Day - Joy and engagement

The connection between employee family and MHT family through the Site Tour program was a special highlight in the meaningful gifts for future MHTers on the occasion of International Children’s Day, June 1st. More than a vibrant summer trip, what we aim for is the connection between individual families and MHT family with attention, care, companionship and understanding. The tour helps the children socialize, engage, love and feel proud of the place where their parents work every day, thereby motivating them to learn harder and have a broader view of future career orientations. And the most meaningful thing is that children understand and value parental nurture, diligently learn and become the pride and solid rear for their parents to feel peace of mind to work and dedicate themselves to the sustainable development of Masan High-Tech Materials.



International Children’s Day - Joy and engagement

“Ring the MHT Golden Bell” Contest

The contest “Ring the MHT Golden Bell” held for the first time at MHT was an intellectual playground for MHTers to learn about the 14-year journey of the Company’s development through 2 rounds: Online Round - “MHT Exploration” and Offline Round - “MHT Reach Further” saw the participation of nearly 200 contestants. Especially alongside the contestants were the Rescue Team - members of the management team and managers representing the true spirit of “Servant leaders”, helped the contestants come back the stage and continue competing for the “golden bell” title. The cohesion between employees and managers was demonstrated through every small action, working hard and playing hard together.



“Ring the MHT Golden Bell” Contest

Summer Tour Program 2024

With the theme “MHT Go,” all MHTers and loved ones embarked on journeys to explore famous tourist destinations from mountains to beaches from the North to South of Vietnam, including sunny and breezy Sam Son beach, Emeraldal Ninh Binh resort, mystical mist and majestic mountains of Sa Pa, and the blue sea, white sand, and crisp sunshine of Quy Nhon, Binh Dinh. Each destination was not only an exploration journey but also an opportunity for relaxing and “healing” alongside our families and colleagues.

The summer tour program of 12 trips full of emotions, with the participation of 1,085 employees and 642 family members, provided MHTers and their families with wonderful experiences and unforgettable memories, making a summer holiday exciting and colorful for our beloved MHT family.



Summer Tour Program 2024



MHT Amazing Race

MHT Amazing Race - Seasons 4 & 5

Caring for the health of employees is a crucial factor in building a happy and healthy workforce. We provide a safe and comfortable working environment, encouraging employees to prioritize their physical and mental well-being by regularly exercising for both the employees and their families. The MHT Amazing Race - Seasons 4 & 5 continue to leave our footprints on the journey of millions of strong, resilient MHTers' footsteps who are willing to break all limits. Embracing within each MHTer is the sportsmanship, desire to reach further, and live a healthy life to serve the Company and build their own families better each day because they are also a father, mother, wife, husband or children in their family who together establish a habit of exercise every day.

At MHT, we are proud to have built a culture of physical training and sports with continuous persistence and we continue to expand not only online and offline internal running competitions, Masan Group but also external ones. In 2024, MHTers conquered 55,392 km, equivalent to 69,240,000 steps. Every race has a finish line, and the most meaningful one we aim for is that every MHTer feels "healthier" every day with MHT Amazing Race.

Mental well-being and employee engagement programs

The annual activities on the employees' mental well-being are maintained and paid attention by the Company and the Trade Union, which help us understand expectations from employees to design more suitable, engaging programs; Beloved Shutdown programs, Children's Day, Mid-Autumn Festival, or gifts for Workers' Month focused on health and family bonding, caring more deeply about every employee; or the moments to laugh, hold hands, play games on the occasions of International Women's Day (March 8), Vietnamese Women's Day (October 20), and especially, small gifts sent the loved ones who are mothers, wives, and lovers of MHT men.

The "Trade Union Meal - Bond of Love" program was organized for the first time at MHT. This is a special occasion for our management team and the Executive Committee of the Trade Union to show their care and share with the employees. Over 1,000 meals with a diverse menu were served and handed to each employee of the Company.



The "Trade Union Meal - Bond of Love" program



Activities on International Women's Day (March 8)

Talk show: Promoting the culture of Diversity, Equity, Inclusion, and Belonging (DEIB)

The special program to welcome March of love is a great opportunity for MHT female employees to receive love, share and shine more confidently and radiantly each day. The efforts to achieve gender equality and promote DEIB culture, valuing and honoring DIVERSITY, ensuring EQUITY and INCLUSION, while fostering a sense of BELONGING for all employees, are key management goals in the sustainable development of the Company and show the role of women in the business and production activities.

Promoting gender equality in the workforce is a core objective, contributing to the realization of MHT's commitment to sustainable development. MHT focuses on enhancing the participation of women at all levels, particularly in leadership positions. In 2024, the rate of female employees reached 28.3%, a significant increase compared to the same period last year (25.3%). MHT sets the target of achieving 30% female employees in the workforce by 2030.

We believe that we can truly be ourselves only when we are in the home where we BELONG. It is a place where every MHTer's voice is heard, every idea is valued, and every MHTer has the opportunity to shine. Then, MHT is HOME! We work together, harmonize with mutual RESPECT, strive to learn, improve, constantly drive INNOVATION to move forward, and enjoy well-deserved RESULTS together.

Masaners care for Masaners Fund

The spirit of "No one left behind" is a guiding principle for us to accompany, take care of each other through "Masaners care for Masaners Fund" (established on 18/06/2021). Every year, employees and the Company contribute to the Fund to maintain and develop meaningful activities. As of now, the Fund plays an important role to help timely visit, support people with disadvantaged conditions, and scholarships to the students with outstanding academic performance, and give gifts to the employee's parents who are the elderly, or have meritorious services to the revolution, etc. We not only care for MHTers but also extend our support to their families.

In 2024, Typhoon Yagi, the strongest typhoon hitting Vietnam in 30 years, has wreaked havoc on millions of people in the northern provinces of the country, including Thai Nguyen province. Many MHT employees and their families were affected. Faced these challenges and difficulties, we have urgently initiated several actions to provide maximum and timely support to employees and their families, including the development of a typhoon employee-affected support plan based on accessible groups;

Establishment of a volunteer team to connect rescue operations and come to encourage and provide essential items for houses in need. The team continued monitoring the situation and listening to Employee's difficulties in order to develop material and non-material support plans to Employees and their families to overcome post-flood damages; Enhance awareness for community, sharing without private gain; Coordinate with local authorities and Masan Group to proactively and effectively support Employees and their families. The spirit of togetherness, resilience and determination to overcome the challenges by each MHTer is the core value for all our activities, enabling us to recover from the aftermath of the storm and stabilize work and life.

All engagement programs and activities not only care for the employees' well-being, but also for their families, parents, spouses, and children by providing them with both practical material and spiritual values because we understand that only when having a solid rear, MHTers feel more assured to work and strive to contribute.



Providing essential supplies to workers and families affected by Typhoon Yagi



Coordinating with local authorities to support people moving



WE ARE PROUD OF BEING “GREAT PLACE TO WORK” CERTIFIED FOR THE SECOND CONSECUTIVE YEAR

There is no better experience than feeling proud of the place where you work.

Masan High-Tech Materials is certified “Great Place to Work” for the second consecutive year. This achievement is based on over 1,000 employees’ feedback in the Great Place to Work Trust Index Survey - one of the most prestigious global organizations in corporate culture certification.

According to the survey, employee satisfaction reached 90%. Masan High-Tech Materials was highly rated by employees in terms of benefits, job satisfaction, a friendly and equal work environment, customer focus, and trust in leadership.

The Great Place to Work 2024 survey reveals that to date 21.9% of employees have worked at the Company for 5-10 years, while 40.3% have been with the Company for over 10 years. MHT is not only a place that attracts talent but also a company where every employee is valued and has the opportunity for sustainable career development.

The “Great Place to Work” certification is a testament to MHT’s efforts in delivering the best values for its employees, further reinforcing the image of a manufacturing enterprise that always places people at the center of its development. This is also a well-deserved recognition for all employees of Masan High-Tech Materials, who have continued to keep going, contributing to creating a professional, safe, cohesive, and humane work environment.



Let’s look back at the key figures of the survey:

► Flexible Benefits

96% of our employees said that they can take time off from work when they think it’s necessary.

► Job Satisfaction

95% of our employees said that they feel a sense of pride when they look at what we accomplish.

► Leadership

95% of our employees es said that the management is approachable, easy to talk with.

► Friendly Workplace

95% of our employees said that they are made to feel welcome when they join the company.

► Customer Focus

95% of our employees said that we are customer-focused, adapting our solutions to our customer requirements.

► Diversity & Inclusion

95% of our employees expressed that they are treated regardless of their gender.

Over the past year MHT has made significant strides, including changes in management, business establishment and adjustment, production plan adaptation to the current circumstances, organizational restructuring, and enhancing employee experience. In 2025, we continue to set out important and consistent goals, determine clear strategies, develop a plan and together follow the right track with the ambition of sustainable development for Masan High-Tech Materials.

FOCUS 2025

Continue to promote a lifelong learning culture

- Self-learning & Peer-learning
- Management Talk, Coaching and Mentoring
- Assimilation & 360 assessment
- Internal trainer community

Elevate People Value Proposition (PVP)

- Strengthening internal communication
- Be - Peer - Family - Community Connection Focus
- Instill Masan’s Code of Conduct (CoC)
- Continue to conduct the Survey “Great Place to Work” 2025

Foster the rejuvenation and localization of the Management

- Align with Masan Group’s directions
- Apply flexible solutions tailored to specific industry

Promote DEIB strategy

- Leadership commitment
- Integrating DEIB into all activities
- Continuous assessment of the implementation results

SUSTAINABILITY HEALTH & SAFETY

HEALTH AND SAFETY MANAGEMENT AT MHT VIETNAM



MHT has successfully developed and deployed two in-house applications, NPSafe and Hazard Report, replacing the previous paid OCSafe system, resulting in cost savings while offering superior functionalities:

- NPSafe integrates Incident Management System and Management of Change (MOC) to enhance safety oversight.
- Hazard Report, built on the Power Apps platform, includes two core features: Hazard Reporting and Task Observation.



Regular training, guidance, and safety compliance assessments have been conducted for key contractors, including Thuy Dung, GAET, CODECO, May Viet Nam, Ngoc Tung, and Hoang Minh, ensuring adherence to occupational health and safety standards.

Advanced Training Programs: Over 100 supervisors and engineers have undergone specialized training on Root Cause Analysis (RCA) and Incident Investigation. This initiative enhances their technical expertise and equips them with essential skills to proactively improve the quality of incident investigations and prevent recurrence.



- MHT continuously updates safety management documentation to comply with legal regulations and adapt to new operational requirements. Recent updates include: Chemical Management Guidelines, Isolation and Work Permit Procedures, Incident Classification and Reporting Process, Security Screening for Personnel and Vehicles, Periodic Health Checkup Guidelines.
- Regular legal compliance reviews and technical safety inspections are conducted on vehicles; construction machinery, equipment before granting access to mining and processing areas; safety briefings for operators; installation of on-site safety signage to enhance traffic safety within the mining zone.



Comprehensive Safety Culture Initiatives to foster a strong safety culture, including:

- A documentary film on health, safety, and fire prevention management at MHT.
- A writing and drawing competition on the theme "Safety Culture at MHT."
- A recognition and reward program to honor individuals contributing to workplace safety.
- The "Safety Day 2024" event, aimed at raising awareness and engagement.
- These activities not only reinforce MHT's internal safety culture but also create a positive impact on contractors operating within MHT's mining and processing facilities.



Health and safety awareness sessions are organized for employees exposed to hazardous working conditions, reinforcing best practices for occupational safety and well-being.



2024 KEY ACHIEVEMENTS



EMPLOYEE HEALTH CARE

Operations of the MHT Clinic

The MHT Clinic is responsible for daily healthcare services for MHT employees and contractor personnel, while also maintaining full readiness to respond to emergency situations. Equipped with modern medical facilities and operating 24/7, the station is staffed by a dedicated team of 10 medical professionals, including 3 general and specialist doctors, 5 nurses, 2 paramedics.

In collaboration with the Emergency Response Team, the Clinic Team actively participates in regular emergency drills covering diverse scenarios. These exercises ensure proficiency in rescue equipment and real-world response coordination, maximizing efficiency during critical incidents.

Additionally, MHT maintains strong partnerships with local authorities and healthcare facilities, ensuring seamless cooperation in fire and

rescue operations as well as emergency medical assistance whenever required.

To enhance expertise and ensure compliance with legal regulations, the MHT Clinic provides ongoing training in various fields, including continuous medical education, occupational health, radiation safety, and chemical safety.

In 2024, the Medical Station conducted 4,431 medical consultations for employees, covering general health check-ups and medical treatment, prescription and medication distribution, nutritional counseling and personalized fitness guidance, proper medication usage, specialized monitoring and consultation for employees with chronic conditions.

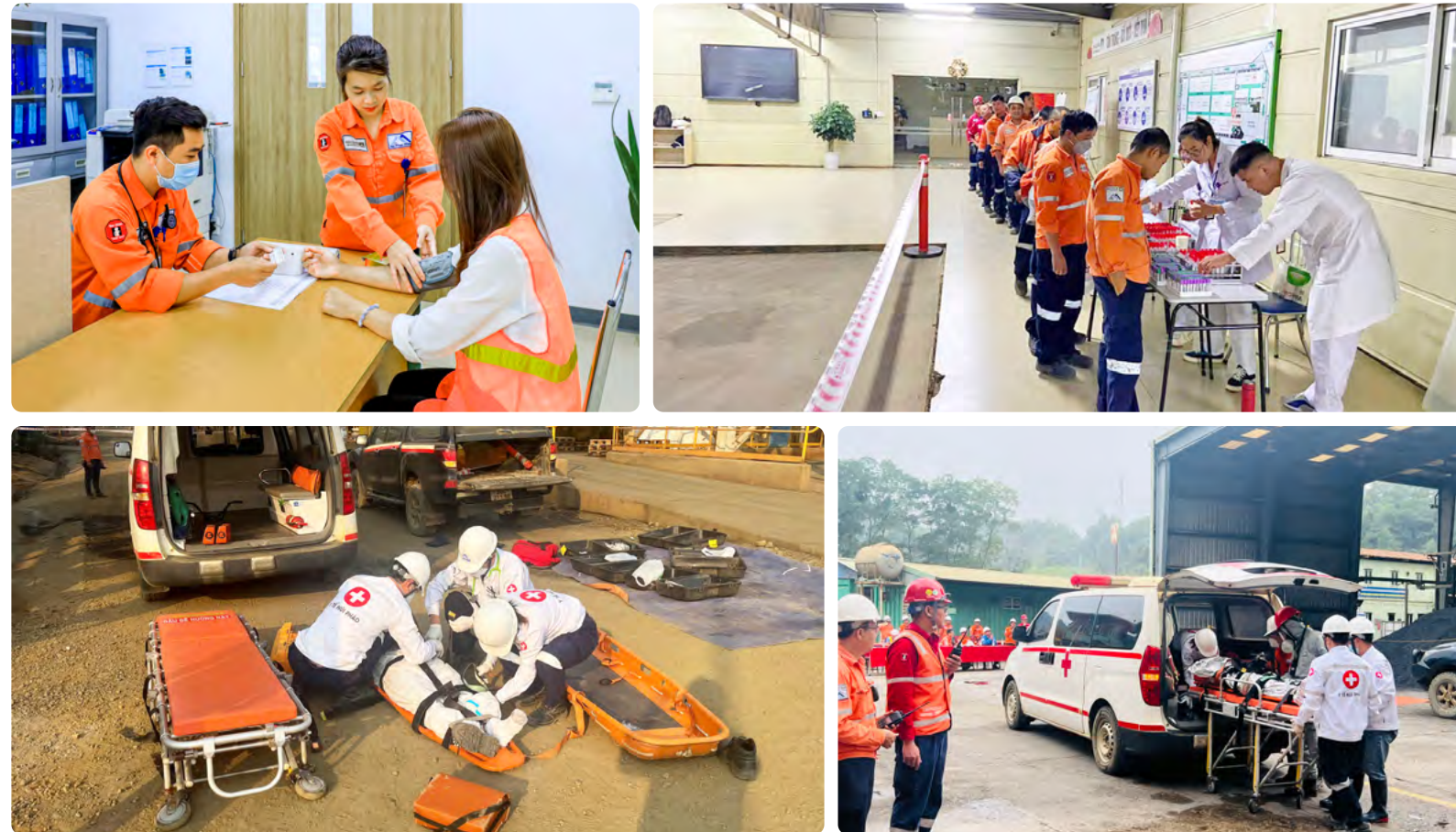
Periodic Health Check-ups and Occupational Disease Control

Health examinations are conducted before assigning new employees to their roles. To ensure employees' well-being, the company organizes annual health check-ups combined with occupational disease screenings, conducted twice a year. In 2024, the Health & Safety (HS) Department carried out 824 health check-ups in the first round and 1,395 health check-ups in the second round.

To optimize costs and align with operational needs, the Clinic implemented an on-site sample collection process at both the Thai Nguyen site and Hanoi office before hospital visits. This approach allows

employees to receive their results on the same day, enabling immediate health consultations and improving service efficiency.

Additionally, in 2024, the MHT Clinic provided guidance for contractors to organize health check-ups for their employees at MHT, ensuring compliance with company-mandated health standards and alignment with the working environment.



Community Health Training and Support

MHT continued to focus on health training, awareness programs, and community support initiatives, including:

- Mandatory occupational disease prevention training for employees before starting work, along with additional occupational health training
- Publication and awareness campaigns on key health topics such as heatstroke and heat exhaustion prevention, seasonal flu prevention, and thermal shock mitigation.
- Conduct first aid and safety awareness sessions for students and teachers at Phuc Linh and Ha Thuong primary and secondary schools, reaching over 3,000 participants.
- Conducted 45 first aid training courses for 547 MHT employees and contractors, totaling 2,188 training hours.
- Provided medical and safety support for company-organized events.

The Clinic Team was highly recognized for its professionalism and expertise in collaboration with local healthcare facilities, conducting free medical check-ups, health consultations, and medication distribution for 225 policy beneficiaries and veterans in Tan Linh and Khoi Ky communes on July 27. Additionally, the team actively assisted in emergency situations and delivered medical services to the surrounding communities.



SAFETY MANAGEMENT

Workplace Injury Incident Statistics

In 2024, through the strong commitment and efforts of the Management Team, employees, and contractors, MHT achieved significant results in reducing the rate of injury incidents. The Lost Time Injury Frequency Rate (LTIFR) and Total Recordable Injury Frequency Rate (TRIFR) were recorded at 0.64 and 2.12, respectively. These key safety performance indicators exceeded the 2024 targets (LTIFR: 1.5 and TRIFR: 2.7) and

showed notable improvements compared to 2022 and 2023. These results were driven by the effective and consistent implementation of the Occupational Health and Safety Management System, aligned with the highest standards, along with various support programs initiated by the HS department.



To enhance workplace safety management, we have developed a new risk reporting application with a more intuitive and user-friendly interface, enabling employees and contractor supervisors to report risks more easily. Additionally, the Management Team actively participates in on-site safety activities, reinforcing a strong commitment to maintaining high safety standards and fostering continuous improvement.

Training programs on “Safety & Health” remain a prerequisite before work commencement. In 2024, the HS department introduced a new training module on root cause analysis and incident investigation aimed at improving investigative methods and enhancing the skills of key personnel. The transition to new contractors posed safety management challenges. To address this, we standardized the contractor onboarding process, including training and assessment plans for contractor personnel, vehicles, equipment, and machinery, thereby contributing to overall Health & Safety performance improvement.

Key initiatives include:

- Strengthening on-site safety inspections, particularly in high-risk areas, to identify, assess, and promptly implement corrective actions.
- Organizing large-scale toolbox talks on critical safety topics.
- Recognizing and rewarding employees who demonstrate outstanding contributions to safety observation and implementation.

SAFETY INDICATOR	2023	2024
TRIFR	2.10	2.12
LTIFR	1.47	0.64
Reported Hazards	4,122	5,011
Vehicle Inspections	4,573	4912
Take 5 (Pre-task Risk Assessment)	12,533	17,483
Task Observations	637	687
Safety Recognition Program (No. of Employees & Contractors Awarded)	18	198

2023 & 2024 Safety Performance Details

Occupational Health & Safety Management System

MHT is working towards achieving ISO 45001:2018 certification for its Occupational Health and Safety Management System. Compliance assessments have been conducted, and corrective measures are being implemented to ensure full adherence to the standard requirements.

MHT continuously updates and refines procedures, guidelines, and regulations to align with job characteristics and operational demands, minimizing workplace accidents, injuries, and occupational diseases.



Hazard Identification & Workplace Risk Management

Risk Assessment

- MHT has developed a risk assessment framework for safety in production and maintenance activities, with continuous monitoring and updates on preventive and corrective measures.
- Employees are encouraged to proactively identify hazards, assess risks, and report them before and during work execution via Take 5 assessments and the MHT Hazard Report application. This enables timely implementation of preventive measures to protect both themselves and their colleagues.
- A comprehensive real-time hazard analysis and incident investigation tracking system has been implemented, allowing management to identify prominent safety issues and take appropriate control actions.

Workplace Hygiene & Environmental Conditions

- Conducted periodic environmental monitoring with a total of 1,689 workplace condition samples and ergonomic/psychological assessments for 133 employees to control harmful factors and prevent occupational diseases.
- Classified hazardous job positions and applied appropriate welfare policies.
- Conducted food safety assessments and monthly food sample testing in company canteens/kitchens.
- Maintained water filtration systems in production areas, offices, and emergency washing stations.
- Regularly tested drinking water quality to ensure compliance with safety standards.
- Water was sprayed twice daily on internal mine roads to reduce dust dispersion.

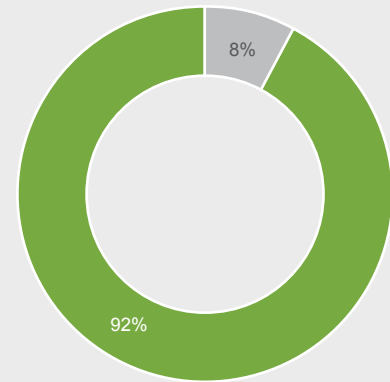
Vehicle & Equipment Safety

- Collaborated with the Maintenance Department to establish a safety management system for machinery and equipment requiring stringent occupational safety compliance, ensuring timely inspection, certification, and decommissioning per legal regulations.
- Ensured 100% of machinery and equipment underwent safety inspections before operational approval.
- Developed a legal compliance matrix for supplier/contractor personnel and vehicles, enforcing compliance before entering company premises.
- Established an on-site office and dedicated personnel to optimize safety briefing and legal/technical inspections at the main gate.
- Conducted competency assessments before authorizing the operation of vehicles/machinery within company premises and planned additional training where necessary.

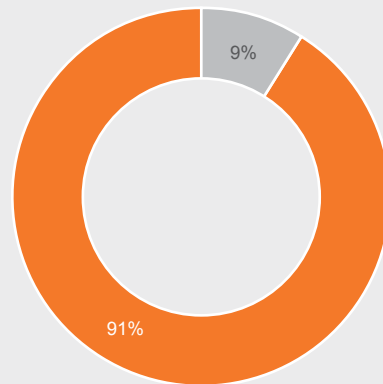
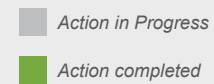


Safety Supervision & Inspections

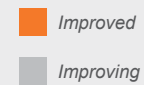
- Intensified workplace safety inspections with the participation of the Leadership Team, HS Department, and relevant departments.
- Conducted regular monthly inspections, particularly during plant shutdowns for maintenance.
- Issued Safety Observation Reports after each inspection, outlining recommendations for management improvements and implementation.



Completion rate of recommendations from safety observation reports



Status of Contractor's Non-Conformance Improvements



Contractor Safety Assessments

Conducted annual evaluations of major contractors' compliance with occupational health and safety regulations, identifying gaps and supporting contractors in developing robust safety management systems.

Building a Safety Culture

In 2024, MHT launched multiple initiatives to enhance safety awareness and foster a strong safety culture:

- Organized safety discussions with the participation of the Plant Director and senior management to enhance risk identification and incident prevention.
- Conducted awareness campaigns on seatbelt usage and pedestrian safety.
- Promoted awareness and reminded employees to stay observant and avoid using mobile phones while walking.

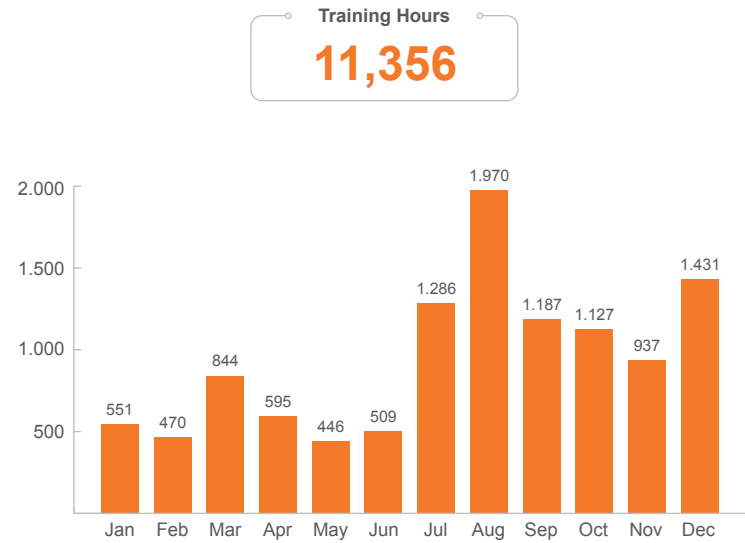
- Published relevant safety notices addressing key issues within the Company.
- Monitored and controlled vehicle speed limits within internal roads.
- Expanded the "Safe Start – Rank Your Day (R.Y.D)" program, encouraging proactive safety engagement among employees and contractors.
- Continued the "Safety Reward Program" to recognize employees demonstrating exemplary hazard identification and risk management practices.



CEO sharing safety practices with employees and contractors

Enhancing Safety Awareness & Competence

- Regularly conducted training on workplace safety, chemical safety, radiation safety, and the operation of regulated machinery.
- Scheduled internal safety training sessions every Monday and Thursday.
- Developed a training matrix for each department position as a foundation for training planning and compliance monitoring.



2024 Training Statistics



<p>Further refine the Occupational Health & Safety Management System in line with company growth and legal regulations.</p>	<p>Enhance digital transformation and resource optimization through safety management software.</p>	<p>Improve employee healthcare, pre-employment health screenings, and emergency preparedness.</p>
<p>Strengthen safety inspections and awareness campaigns involving company management.</p>	<p>Continuously improve safety training in line with legal requirements and specialized workforce needs.</p>	<p>Increased hazard identification, risk assessments, and corrective actions for a safer work environment.</p>
<p>Improve incident investigation efficiency and corrective action execution.</p>	<p>Conduct contractor safety compliance audits to enhance overall safety performance.</p>	<p>Maintain recognition programs to encourage proactive hazard identification, risk management, and safety culture development at MHT.</p>

OCCUPATIONAL HEALTH AND SAFETY NETWORK

The network of Occupational Health & Safety Network (OHS Network) serves as an effective bridge between employees and employers in ensuring occupational safety and health (OSH). Under the direction of the internal Trade Union, in 2024, the OHS network with the participation of nearly 50 members, has made meaningful contributions to the workplace's occupational safety and health.


The OSH highlights in 2024 include:


- ✔ Inspecting area safety during work shifts
- ✔ Reminding employees to comply with safety regulations
- ✔ Consulting with Management on outstanding safety issues
- ✔ Supervising firefighting and prevention activities
- ✔ Communicating safety information to employees
- ✔ Implementing 5S at the workplace
- ✔ Holding monthly meetings to assess, draw lessons learnt with consultation from the Health and Safety Department
- ✔ Participating in volunteer activities organized by the Company and the Trade Union


In 2024, the OHS network optimized the activities using technology, enabling them to quickly report hazards through the Hazard Report application, and prepare daily reports easily using Microsoft Forms. Weekly and monthly reports are generated automatically, saving time for managers.


In addition, the Company in collaboration with its Trade Union implemented some special programs to encourage and motivate everyone to participate more actively. Monthly and quarterly rewards were given to individuals with outstanding contributions, including the recognition of 8 outstanding OSH officers 2024.

Outstanding achievements in 2024:

Conduct nearly **2,000** safety inspections across the processing plant 

200+ hazards were detected and reported in a timely manner. 

Address safety issues including the installation of additional emergency showers and eyewashes; installation of restrooms in the shift change area of the copper flotation circuit; replacement of substandard fire extinguishers; improvement of copper washing technology; improvement of facilities in the STC area, etc. 

 5S movement has been widely implemented across all departments of the company such as Maintenance, Processing, MTC, Security, Human Resources, ERT, SCM, etc.

Along with these achievements, we regularly review our work performance, what we have achieved and what needs to be improved, including skills to identify, intervene and control high risk and specific hazards as well as develop action plans to improve the efficiency of the network of OHS officers in 2025 and following years.

FOCUS IN 2025

In 2025, the OSH network will continue to play a key role in ensuring safety and health at the workplaces.





SUSTAINABILITY SECURITY

SECURITY

In 2024, the Security, Emergency Response, and Compliance Department (SE&C Department) effectively fulfilled its advisory role to the Board of Directors and the Executive Management of MHT by implementing measures to prevent and proactively eliminate risks and violations within the company. It ensured the security of facilities, enforced fire prevention and fighting protocols, and established emergency response plans to effectively support the company's business activities. At the same time, it promoted a culture of compliance with legal regulations, internal standards, and ethical norms, contributing to the protection of the company's reputation and ensuring stability and sustainable development, as follows:

Physical Security

Prevented theft and loss throughout the entire plant and operational areas of the company; closely monitored goods entering and leaving the plant; developed and implemented cross-check procedures between departments (Security, Processing, and SCM); and strengthened personnel responsible for escorting the company's products to the point of purchase to guarantee the safety and integrity of products.

Supply Chain Security

Ensured safe logistics and procurement activities to reduce the risk of loss. Provided counsel and facilitated resolutions to complex issues arising with business partners to prevent financial and legal fraud, thereby ensuring win-win cooperation with contractors and suppliers.

Internal Security

Maintained a strong and reliable human resources team, advised on the purging or non-hiring of individuals with complicated backgrounds, and participated in the development of HR strategies. Investigated and addressed fraudulent activities, negative behaviors, and violations by employees, gradually fostering a culture of voluntary compliance.



Compliance

Conducted 5 audits, identifying potential risks in the operations of some departments, and proposed measures for remediation and improvement.

Community Security

Contributed to resolving existing issues and relationship conflicts between the company's business expansion and community interests by preventing, addressing, and harmonizing these factors. Notably, signed and maintained a Coordination Regulation with the Public Security of Ha Thuong Commune and Hung Son Townlet, effectively assisting in resolving emerging issues and ensuring security for blasting activities. Advised on and ensured security for Management in community engagement activities, as well as in meetings and dialogues to address concerns of residents in the An Long cluster - Hung Son Town and Hamlet 13 - Tan Linh Commune. Developed and implemented security plans to prevent disturbances and ensure public order during the Lunar New Year and National Day (September 2).



Ensure facility security and staff safety

FIRE FIGHTING AND RESCUE

In 2024, the SE&C Department organized 16 drills to respond to incidents related to fire prevention and fighting, hazardous chemicals, and rescue operations. These included 7 fire and rescue drills, 6 drills for hazardous chemical incidents and rescue of victims exposed to chemicals, 1 drills for rescuing victims from deep pits and heights, and 2 heat stroke rescue drills. The drills were conducted at high-risk locations, enhancing employee preparedness and ensuring safety for both people and equipment.

In addition, forces and resources were allocated to participate in ministerial-level fire prevention and fighting drills and the “Community Safety, Fire Prevention, and Fighting” skills competition organized by the People’s Committee of Thai Nguyen Province.

Supported responses to 2 fire incidents at Wiha Co., Ltd. (Song Cong) and the wood workshop in Hamlet 8, Quan Chu Commune (Dai Tu).



Incident response and victim rescue drills



Fire prevention and rescue drill



SUSTAINABILITY ENVIRONMENT MANAGEMENT

WATER RESOURCE AND WASTE-WATER MANAGEMENT

Water resource management is a crucial aspect of sustainable environmental management. At MHT, continuous efforts are made to implement circular solutions, wastewater treatment, and reuse initiatives, ensuring quality and enhancing the company's environmental performance in 2024.

Water consumption

The water sources for production at MHT include surface water and groundwater (self-extracted or provided from suppliers), deionized water and recycled water. In 2024, the total water volume used by MHT was 12,285,000 m³.

YEAR	2020	2021	2022	2023	2024
TOTAL VOLUME OF WATER USE (thousand m³)	12,136	12,740	11,797	12,105	12,285
NPMC and MTC	10,231	10,986	10,024	10,273	10,483
Surface water	2,517	2,355	2,346	2,450	2,442
Ground water for domestic use	31	8	0	0	0
Recycled water	7,682	8,623	7,677	7,822	8,041
• Water from OTC	2,163	2,286	2,254	3,069	3,274
• Water from STC	4,415	5,474	4,987	3,096	2,547
• Water from PTP	443	137	48	386	874
• Recycled from Cut-off trench	662	726	388	666	630
• Recycled water from V-notch (OTC downstream)	0	0	0	604	716
HCS (Goslar, Sarnia and Ganzhou)	1,906	1,754	1,774	1,832	1,802
Surface water	1,742	1,599	1,598	1,661	1,648
Water from suppliers	157	148	167	162	146
Deionized water	7	7	8	9	8

Due to the nature of mining operations, the NPMC plant consumes significantly more water than the MTC, Goslar, Sarnia, and Ganzhou plants, accounting for 85% of MHT's total water usage. Notably, 76.7% of the water used at NPMC is recycled, aligning with MHT's 'Reduce – Reuse – Recycle' strategy.



Other water sources

At our Goslar, Sarnia and Ganzhou plants in Germany, Canada, and China, beside using water extracted from local rivers, we also use water supplied by vendors in the form of steam and deionized water that used in specific tungsten production stages. In 2024, 146,000 m³ of deionized water were used there, accounting for 1.3% of the total water use of all MHT's plants.



Surface water

NPMC and MTC used water extracted from the Cong River for production purposes under the License granted by Thai Nguyen Provincial People's Committee. The water source extracted by NPMC is also used to provide and support irrigations of surrounding local communities. In 2024, NPMC has provided 107,713 m³ of water for local agricultural irrigations.

At HCS plants in Germany, Canada and China, surface water is sourced from local rivers. In 2024, MHT used 4,090,000 m³ of surface water (of which: 2,442,000 m³ for NPMC and MTC, 1,648,000 m³ for plants at Goslar, Sarnia and Ganzhou), accounting for 33% of the total water use of all plants.



Recycled water for production

Reusing wastewater in processing not only reduces industrial water supply and wastewater treatment costs but also reduce pressure on water resources.

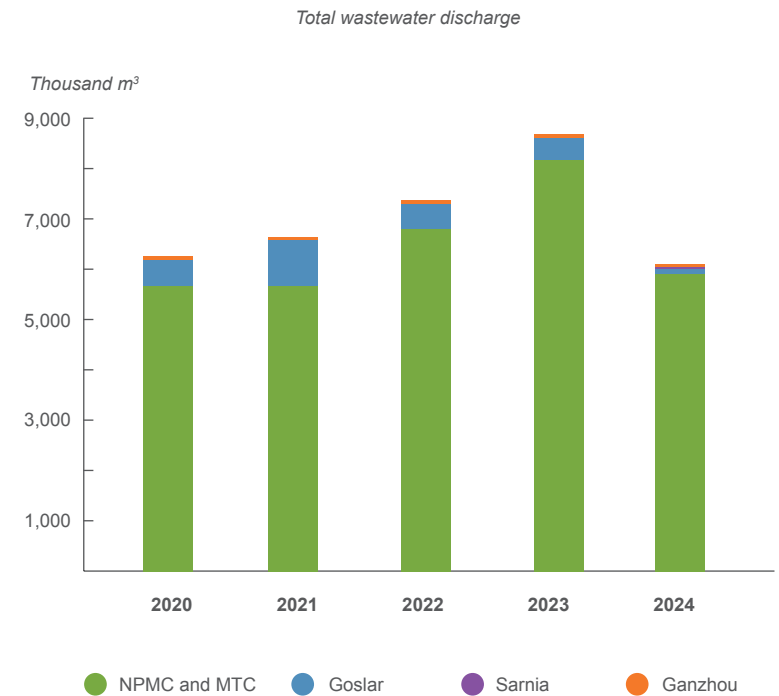
At Nui Phao processing plant, the main water source used for production is circulated wastewater. Wastewater from the TSF (OTC and STC ponds) and other ponds (PTP, COT, V-notch) is circulated to the processing plant for reuse. In addition, water from mine dewatering used in mining activities is also partly recycled to the processing plant for reuse. In 2024, NPMC re-circulated and re-used 8,041,000 m³ of wastewater for production, accounting for 76.7% of the total water use in MHT, an increase of 2.7% compared to 2023.

Utilizing circulating wastewater as a resource helps minimize water pollution and optimize raw water consumption. This key approach has been integral to MHT's strategy for smart and sustainable water resource management.

Wastewater discharge quality and quantity

MHT plants are all licensed to discharge wastewater according to the laws of the host-country or have contractual agreements with an approved third party (Industrial Zone Management Board) to treat our wastewater before discharging into the environment.

In 2024, the total amount of wastewater discharge was 6,027,000 m³. Of which, the majority came from Nui Phao mine (including the MTC plant), accounting for 5,900,000 m³. Wastewater was collected, treated and monitored to meet the standards of the host country before being discharged into the environment.



At NPMC and MTC, our wastewater sources (production wastewater, domestic wastewater) and contaminated rainwater are collected into reservoirs, then pumped for treatment at the wastewater treatment plant with a capacity of 36,000 m³/day. At the discharge points, NPMC operates automatic monitoring stations to monitor the wastewater quality before being discharged into the environment. The treated wastewater consistently meets the discharge limits set by the permit issued to NPMC by the Ministry of Natural Resources and Environment. In 2023, the completion of the additional treatment system No.2 helped

resolve and treat the previous backlog of wastewater at STC pond, reducing pressure on the pond and ensuring safe operations. As a result, the volume of treated water in 2024 decreased by approximately 26% compared to 2023, aligning with discharge levels from 2019–2021.

NPMC continuously seeks and implements environment-friendly technical solutions to improve wastewater quality while demonstrating its commitment to aquatic ecosystem protection. In 2024, NPMC carried out dredging, sludge removal, and the replacement of hundreds of floating cyperus rafts (Thuy truc) at the biological filtration area near discharge point DP2. This initiative enhances natural sedimentation and significantly improves wastewater quality before discharge. The growth of 'Thuy truc' and aquatic species in the filtration area serves as clear evidence of the effectiveness of this solution.

Chemitas and the Goslar plant have an agreement for the treatment and release of wastewater and Chemitas has the license to directly discharge wastewater and rainwater through the central wastewater treatment plant. For indirect discharge into the sewerage system, there is a contract between HCS Tungsten GmbH, HCS Infrastructure GmbH and Chemitas, which performs the operation duties. Preparations are currently underway for the formal exemption from the indirect discharge permit. Wastewater volume is estimated based on chemicals and fresh water purchases rather than direct measurement.



Hundreds of floating cyperus rafts (Thuy truc) at the biological filtration area near discharge point DP2

WASTE MATERIAL MANAGEMENT

Topsoil, rock from mining operations, and tailings from processing operations are the three main forms of waste materials produced by the mine. These materials are classified and managed through dedicated

processes to prevent pollution risks and maintain site aesthetics. They are categorized into renewable and non-renewable materials towards a circular economy model.

YEAR	2020	2021	2022	2023	2024
RENEWABLE MATERIALS (m³)	987,051	960,883	501,079	390,189	590,273
Waste rock for construction of TSF wall-dam	482,233	699,031	72,157	270,947	415,139
Soil for TSF dam construction	112,675	129,694		81,046	-
Waste soil and rock for other civil projects	392,143	132,158	428,922	38,196	122,364
Stockpiled rock					52,770
NON-RENEWABLE MATERIALS (m³)	3,963,178	2,439,943	3,121,620	2,840,245	1,496,722
Non-potentially acid generating waste rock dumped into Waste Dump	3,312,552	1,718,013	1,165,685	2,228,903	567,343
Potentially acid generating waste rock is submerged in STC	650,626	721,930	1,955,935	610,101	929,379
Waste rock with high arsenic content (As > 1000 ppm)	-	-	-	1,241	-
TAILING (ton)	3,566,034	3,442,556	3,503,484	3,291,211	3,046,688
OTC tailings	2,154,965	2,104,799	2,439,290	2,605,905	2,543,302
STC tailings	1,411,069	1,337,757	1,064,194	685,306	503,386

Renewable materials (m³)

Some waste soil and rock is used as building materials for internal mine works (TSF wall-dam construction, road repairs, leveling, stockpile, etc.), and the remaining material is disposed into designated waste dumps. In 2024, the Company reused 590,273 m³ of waste soil and rock for construction of TSF and other civil projects.



590,273 m³
waste soil and rock reused

Non-renewable materials (m³)

Non-potentially acid generating waste rock which has not been reused is stockpiled in the dedicated Northern and Southern waste dumps of the open pit. Waste rock with potential for acid generation is submerged in sulfide tailing cell (STC) to prevent oxidation of the sulfide that generates acid.

In 2024, mining activities generated 1,496,722 m³ of waste soil and rock; 567,343 m³ of non-potentially acid generating waste rock was dumped into the waste dumps; 929,379 m³ of potentially acid generating waste rock dumped in STC for submerge. Nui Phao mine's processing plant produced 503,386 tons of sulfide tailings which were submerged in the STC, and 2,543,302 tons of oxide tailings stored in the OTC.

At Goslar, Sarnia and Ganzhou sites, which are well established manufacturing sites where site disturbance occurs less frequently, the issue of renewable and nonrenewable materials is much less complicated and is still managed by local regulations as and when ground activities occur.

Recycle of OTC tailings

Building on the study results from 2023, OTC tailings have been proven suitable for use as building materials, including cement clinker additives, fill materials for civil and infrastructure projects, and aggregates for concrete and non-fired bricks. In 2024, the company received conformity certification from the Institute for Building Materials under the Ministry of Construction. Decision No. 36/QĐCN-VLXD certifies the quality of OTC (oxide tailings) as a fill material for construction and infrastructure projects in compliance with BS EN 13242:2022+A1:2007 and Certification of standard conformity No. 32/2024/DNSX-VLXD valid from January 24, 2024 to January 23, 2027.

The OTC tailings product's standard conformity was declared by the Company and its documents were met the requirements and approved by Thai Nguyen Department of Science and Technology. During the study and preparation of legal procedures, we reported it to Thai Nguyen Province People's Committee, Department of Natural Resources and Environment, Department of Construction, Department of Science and Technology, and Vietnam Minerals Department for their comments and guidance. Currently, we have reported to the Ministry of Natural Resources and Environment for approval of transfer of OTC tailings to entities in demand of using them as leveling materials for construction, roadbase, and clinker cement production.

The recycling and reuse of OTC tailings will help supplement the shortage of materials in Thai Nguyen province and neighboring areas, save costs, ease pressure on Nui Phao tailings storage facilities, extend its life and enhance the safety of environmental protection works.

Maximizing recovery of waste rock

As natural resources become increasingly scarce, waste and discarded materials are now considered valuable resources for recycling and reuse. At the Nui Phao mine, the mining operations generate a significant volume of overburden, which is currently stockpiled at the mine site, waste dumps or used for mine operations. To maximize the use of these materials and minimize resource waste, in 2024, the Company partnered with Vietnam Institute for Building Materials under Ministry of Construction to study, test and evaluate technical properties of these waste rocks for suitability as construction materials. Among the types of waste rock, there are some waste rocks such as marble, granite, meta sediment, which are found to have significant potential for use as building materials.

Research results have confirmed that the mixture of Marble, Granite, and Meta-sediment rocks meets the required physical and mineralogical properties for use as construction aggregates. These materials are suitable for graded crushed stone in road and pavement base layers according to TCVN 8859:2023, coarse aggregates for concrete and mortar as per TCVN 7570:2006, and crushed sand for concrete and mortar in compliance with TCVN 9205:2012. This presents a significant opportunity for the Company to supply raw materials for the building material sector.

In 2022, Ministry of Natural Resources and Environment approved in principle permitting NPMC to recover and use waste soil generated from the mining operations as leveling material for construction projects within Thai Nguyen province. Building on this approval and the study findings on waste rock, the Company plans to report to the Ministry of Natural Resources and Environment for getting approval of the recovery and use of waste rocks as a building materials. This initiative will enable more efficient resource utilization, reduce the waste rock volume and environmental impact.



WASTE MANAGEMENT

In 2024, MHT continues to maintain measures for the waste to be collected, classified, processed and recycled in accordance with the Law. Effective waste management plays a crucial role in ensuring environmental sustainability and minimizing environmental impact.

YEAR	2020	2021	2022	2023	2024
TOTAL OF WASTE VOLUME (ton)	14,873	18,808	26,537	27,405	24,194
TOTAL RECYCLING RATE	81%	84%	68%	73%	68%
NPMC and MTC	13,600	17,030	24,607	26,027	23,213
Non-hazardous waste	11,655	15,010	17,285	20,117	16,489
Hazardous waste	1,945	2,002	7,322	5,910	6,715
Recycled waste	11,149	14,486	16,892	19,317	15,974
Recycling rate	82%	85%	69%	74%	69%
HCS (Goslar, Sarnia and Ganzhou)	1,274	1,778	1,930	1,378	981
Non-hazardous waste	975	1,444	1,124	924	708
Hazardous waste	298	334	805	454	273
Recycled waste	893	1,334	1,042	740	366
Recycling rate	70%	75%	54%	54%	37%

At MHT, trainings on waste classification and environmental policies are always given to new employees of the Company and contractors in advance of work to improve the effectiveness of waste classification and enhance waste recycling. In 2024, 183 new employees received training and 638 employees underwent refresher training on energy saving and waste classification.

At Goslar and Sarnia, the byproducts of the processing are often rich in metals. Therefore, they are recycled and used by other companies as raw materials. The waste recycling rates at Goslar and Sarnia plants

are very high for an average of 47% from both. At MTC plant, the rate of waste recycling is also very high, more than 70%, mainly coming from the use of primary leach residue (PLR) that meets low grade limestone standards to provide for pH neutralizing operations at Nui Phao Mining.

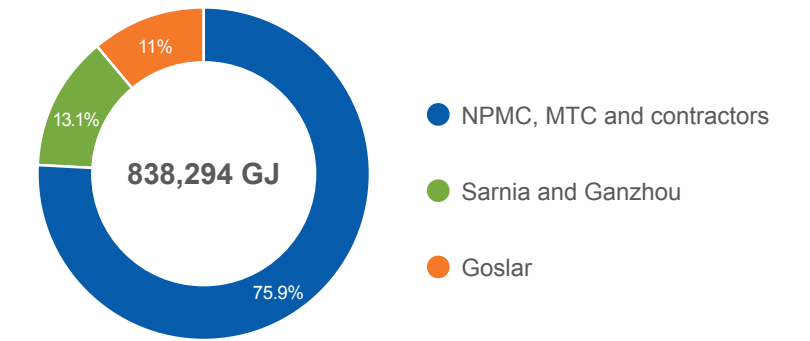
At Sarnia, recycling and waste reduction opportunities are continuously monitored. In 2024, the company continued to reduce the amount of packing materials by using reusable containers for customers and implemented dunnage of goods diverted from the waste stream.

ENERGY AND GREENHOUSE GAS EMISSION

Energy consumption

Using energy economically and efficiently is a practical solution to help protect the environment and reduce greenhouse gas emissions. This is not only vital in the production and operations of business, but also for the socio-economic development of the country.

The energy consumed in NPMC and MTC plants in 2024 is 827.407 GJ; in contractors working at Nui Phao mine is 228.813 GJ; in HCS's Sarnia and Ganzhou is 339,939 GJ. In which, NPMC, MTC and contractors at the mine are the most energy intensive plants with consumption rate of 75.6%. In Sarnia and Ganzhou, energy consumption is quite low, accounting for about 13.3 % while the Goslar's consumption level accounts for 11.2 % of MHT and contractors' overall energy use of MHT and its contractors.



YEAR	2020	2021	2022	2023	2024
NPMC (GJ)	568,721	645,832	607,887	589,031	584,103
Power	534,576	608,549	564,202	556,176	554,392
DO	32,596	35,583	41,670	31,122	28,366
Gasoline	1,549	1,700	2,014	1,734	1,344
Contractors working at the mine	385,645	415,154	453,562	251,534	228,813
DO	385,641	415,087	453,419	251,534	223,805
Gasoline	4	67	143	-	8.25
MTC (GJ)	185,197	261,314	277,323	272,993	243,304
Power	60,158	66,262	70,270	70,316	63,086
DO	12,458	17,796	23,837	6,077	2,857
Gasoline	-	-	3	-	2
Coal	112,581	177,256	183,213	196,600	177,358
HCS (Goslar, Sarnia and Ganzhou) (GJ)	330,406	402,280	375,262	341,651	339,939
Power	150,583	174,856	160,172	150,933	151,679
Natural Gas	161,543	207,493	195,830	172,031	172,966
DO	17,282	18,783	1,087	929	909
FO	998	1,148	18,173	17,757	14,384

In 2024, MTC continued to operate and successfully sustained the certification for its energy management system according to ISO 50001:2018 after the inspection assessment was conducted by a third party (TUV NORD Vietnam Co., Ltd.) on December 26, 2024. MTC's Energy ISO Board has been proactive and making efforts to maintain system maintenance, set energy targets, and monitor continuous improvements to strictly control energy consumption.

At Goslar, Sarnia and Ganzhou, energy targets were also set and continuous improvements were made to demonstrate a commitment to improving energy performance.

At Sarnia, operating an ISO 14001:2015 environmental management system includes not only specific environmental aspects and compliance goals, but also implementing improvements to reduce energy consumption to reduce carbon emissions and improve the dust collection ability of air-borne particles.



Greenhouse gas emission

At the end of 2023, during the 28th Conference of the Parties (COP28) to the United Nations Framework Convention on Climate Change (UNFCCC), negotiators from nearly 200 countries reached a final agreement. The deal includes deep cuts in greenhouse gas emissions and strengthened financial commitments to support global climate action efforts. By establishing foundations for a transition of rapidity, equity and justice, the COP28 agreement is believed to be a sign of “the beginning

of the end” of the fossil fuel era. From this agreement, MHT, as well as other businesses around the world, will face various challenges and need significant intelligence to research and implement solutions for greenhouse gas emission reduction and energy source conversion. For the time being, MHT continues the practice of greenhouse gas emission calculation. At the same time, energy-saving solutions are also being studied and promoted.

YEAR	2020	2021	2022	2023	2024
NPMC (ton of CO₂eq)	128,090	145,865	130,974	114,456	104,000
Total of direct GHG	2,495	2,889	4,954	2,897	2,485
• From gasoline, diesel	2,495	2,889	3,247	2,401	2,215
• From blast	-	-	142	218	99.6
• From refrigerants	-	-	1,565	278	-
• From wastewater	-	-	-	-	170.4
Total of indirect GHG	125,596	142,975	126,021	111,560	101,515
Contractors working at the mine (ton of CO₂eq)	28,148	30,945	33,807	18,359	17,052
Total of indirect GHG	28,148	30,945	33,807	18,359	17,052
MTC (ton of CO₂eq)	27,367	35,981	36,556	36,069	29,436
Total of direct GHG	13,233	20,413	20,867	21,965	17,928
Total of indirect GHG	14,134	15,568	15,689	14,104	11,508
HCS (Goslar, Sarnia & Ganzhou - ton of CO₂eq)	23,599	24,853	21,957	21,227	20,981
Total of direct GHG	10,624	13,384	12,110	10,913	10,589
Total of indirect GHG	12,976	11,469	9,847	10,314	10,391

• Direct GHG emissions (scope 1)

Direct greenhouse gas emissions are generated from the use and consumption of gasoline, natural gas, diesel, fuel oil and coal for vehicles, equipment, boilers and backup generators using refrigerants. In 2024, NPMC and MTC directly emitted 20,413 tons of CO₂eq; HCS's Goslar, Sarnia and Ganzhou plants emitted 10,589 tons of CO₂eq. Starting from 2024, the blasting at Nui Phao mine is performed by GAET contractor, so the greenhouse gas emissions from blasting activities are classified as indirect emissions (scope 3).

• Indirect GHG emissions (scope 2)

Indirect greenhouse gas emissions are generated from the use of power for all production and operational activities of factories. In 2024, NPMC and MTC indirectly emitted 113,023 tons of CO₂eq; HCS's Goslar, Sarnia and Ganzhou plants emitted 10,391 tons of CO₂eq.

At Sarnia plant, specific improvements were implemented and applied for energy consumption to reduce our carbon footprint as recorded in Scope 1 & Scope 2 activities, and improved dust capture of air borne particulates.

• Indirect GHG emissions (scope 3)

Scope 3 emissions includes all other indirect emissions arising from related value chain activities, originating from sources that we do not own or control. Emissions encompass both upstream activities (related to purchased raw materials for production) and downstream activities (associated with products sold and used by customers). Measuring scope 3 emissions is a complex process, requiring a great deal of effort, commitment and cooperation from all stakeholders but is crucial in shaping an effective emission management strategy. MHT continues to collect necessary information from stakeholders for the goal of calculating scope 3 emission in the following years. In 2024, the calculation of scope 3 emissions was carried out for contractors directly operating at the mine. Emission data amounted to approximately 17,052 tons of CO₂ from mining operations, mine construction, and blasting activities.

• Carbon footprint

Carbon Footprint is the total amount of greenhouse gas emissions that come from the production, use and end of life of a product or service. At NPMC and MTC, we initially calculated greenhouse gas emissions for each product line in accordance with IPCC guidelines. This will be the premise for MHT to find solutions to control greenhouse gas emissions for each product when exporting to foreign countries.

The results of calculation of total greenhouse gas emissions for each product at NPMC and MTC are as follows:

WO ₃	CaF ₂	Bi	Cu
1.33	0.41	48.2	1.27

NPMC product Carbon footprint (tCO₂ eq/mtu)

ST	APT	BTO	YTO
0.071	0.071	0.076	0.076

MTC product Carbon footprint (tCO₂ eq/mtu)

• Greenhouse gas inventory report

Greenhouse gas (GHG) inventory is the process of collecting information and data on sources of greenhouse gas emissions, calculating the amount of greenhouse gas emissions and absorption within a defined scope and a specific year using the methods and procedures given by the competent authorities.

Currently, at MHT Vietnam we are implementing the greenhouse gas inventory according to Scope 1, 2, and 3 emissions. In 2024, MHT participated in multiple workshops on GHG inventory organized by government agencies and certified organizations in this field. NPMC and MTC are collaborating with a qualified consultant for assessing and verifying the GHG inventory data collected by the company. The results of GHG inventory and data assessment and verification will be submitted to Thai Nguyen Province People's Committee by March 31, 2025 in accordance with regulations.



ENVIRONMENTAL REHABILITATION

In 2024, Nui Phao mine continued to conduct the rehabilitation plan in the areas where soil disturbance occurred, and take care of trees planted from previous years in order to reduce erosion, improve soil and improve ecosystems.

The Company completed the revegetation of approximately 0.71 hectare in the newly dumped slopes of the North waste dump. These slopes were planted with acacia trees and combined with the sowing of local grass seeds to enhance biodiversity, prevent erosion and protect the soil, making the environmental restoration and rehabilitation erosion and landslide prevention more effective.

In 2024, besides planting 1,550 acacia trees on the new area, the Company continued caring for previously planted acacia trees in the waste dumps with an area of approximately 5.78 hectares and other areas of approximately 2.5 hectares. Total quantity of fertilizer used for

planting and caring for trees in all areas in 2024 was around 3.65 tons. The total area that has been rehabilitated by the end of 2024 is 64.61ha.

Before proposing the planting of acacia trees for environmental restoration and rehabilitation, NPMC conducted surveys and assessments of the existing vegetation status around the Project area. The results showed that acacia trees grow well and steadily, contributing to erosion and landslide prevention. Long-term monitoring has shown that hybrid acacia trees thrive, rapidly greening the land and adapting well to the soil and microclimate conditions at Nui Phao mine. Their nitrogen-fixing roots improve soil quality, while the planted areas support the growth of microorganisms, insects, and native flora and fauna. Therefore, in the long term, planting acacia trees will be more potential for revegetation and biodiversity than other tree species. The acacia planting areas are preserved for growing naturally, which help enhance biodiversity and restore the area closer to its original natural state.



CPEP – Climate Protection Project through the Energy crops planting

Since 2016, NPMC and UFU (Independent Institute for Environmental Issues - Federal Republic of Germany) signed a cooperation agreement on energy crop pilot at Nui Phao mine site. This project is under the cooperation framework between the Ministry of Natural Resources and Environment of Vietnam and German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) in the field of environmental protection and climate change. The eight-year cooperation project aimed to:

- i. Identify suitable plant species for land rehabilitation, erosion prevention, and support future environmental rehabilitation and closure of Nui Phao mine;*
- ii. Research and develop bioenergy sources to reduce greenhouse gas emissions and adapt to climate change;*
- iii. Calculate the biomass and CO₂ absorption capacity of Acacia trees;*
- iv. Study the potential for soil reclamation and improvement in the energy crop areas.*

The project was successfully completed by 2024 under the cooperation agreement between NPMC and UFU. On October 31, 2024, the Ministry of Natural Resources and Environment, in collaboration with UFU, organized a workshop on energy crop project review on post-mining land in Viet Nam. The project outcomes identified several plant species (Acacia, VA06 grass) suitable for environmental rehabilitation at the mine, with potential for broader adoption in the surrounding communities to support economic development. Significant increases in biodiversity have been observed in areas planted with acacia trees and VA06 grass. These advantages include attracting various animal species, plants, and insects, as well as increasing microorganism activity to improve soil structure, etc. Regarding CO₂ absorption, one hectare of 6-year acacia trees (at a density of 1,300 trees/ha) can absorb approximately 172 tons of CO₂ (relatively similar to some studies in Vietnam).



Sample taking by NPMC and UFU

ENVIRONMENT COMPLIANCE AND TRANSPARENCY

Environment Monitoring

Environmental monitoring is an indispensable activity, determining the effectiveness of environmental protection activities. In 2024, NPMC and MTC took 8,048 environmental samples for monitoring and wastewater quality control. These included 462 surface water samples, 614 groundwater samples, 6811 wastewater samples, 93 solid waste and sediment samples, 33 emission gas samples, 19 ambient air samples and 16 noise measurements.

In addition, NPMC is obliged to conduct annual monitoring, as part of the “Thai Nguyen Provincial Monitoring Network Project” implemented by Thai Nguyen Department of Natural Resources and Environment (DONRE). Twice a year, Thai Nguyen DONRE monitors NPMC’s discharge points. The company’s wastewater discharge meets regulatory standards, according to monitoring results. These results are publicly available on the online portal of the Department of Natural Resources and Environment.

Automatic monitoring stations for wastewater, ambient air and vibrations are also continuously operated to always ensure timely provision of data for environmental quality control and assessment. In 2024, the online wastewater monitoring stations at NPMC were upgraded with a new data transmission and management system (datalogger), which improved the data transmission rate to the Department of Natural Resources and Environment compared to previous years and ensured compliance with current regulations.

In Goslar, the wastewater is monitored by online analytics in the area of the central wastewater treatment plant. In addition, the limit values are monitored by the responsible water supervisory authority. In 2024, 5 samples were taken by the regulatory authority. All sample parameters were within the allowable limits. Additionally, in November 2024, the round scrapers of the stabilization tank at the wastewater treatment plant were further repaired and refurbished after the corrosion-resistant lining was replaced at the end of 2023 to improve wastewater treatment efficiency.

For monitoring the emissions, Chemitas operates a total of 14 measuring points to monitor the situation at the entire Goslar site (MPO) and to intervene if necessary if anomalies or exceedances should be detected, as the official measurements are not published promptly. Of these, 7 are located on the MPO site and 7 off-site in the immediate vicinity. The limit values (annual mean values) according to TA-Luft (4.5.1 TA-Luft 2021) apply to all assessment areas that are located outside the plant premises (MPO). Sampling and analysis are carried out on a monthly cycle (monthly averages).



Environmental monitoring at NPMC discharge points

Reporting and Information Transparency

In 2024, NPMC and MTC submitted a total of 6 reports to regulators, in which 4 annual environmental reports, 2 reports on annual water resources.

In 2024, although the Ministry of Natural Resources and Environment (MONRE) did not conduct periodic environmental protection inspections at Nui Phao Mine, the Company proactively implemented environmental protection measures to fully comply with legal regulations and further enhance its environmental management. As a result, during the on-site inspection for the issuance of the Environmental License, the Ministry of Natural Resources and Environment recognized NPMC’s seriousness and efforts in implementing corrective measures, investing in environmental protection. In addition, NPMC continues to improve certain areas as recommended by the inspection team to further strengthen environmental protection at Nui Phao mine.

In Germany, HCS submitted numerous reports to the various Federal and State Ministries covering Hazardous waste, emissions, inspections, and accidents. Further reports are required on a 3-4-year cycle as per the applicable regulations again covering emissions, waste or inspections.

Environmental Management System

Compliance with laws in the field of environment is always a top priority for MHT.

At MTC, Goslar, Sarnia and Ganzhou, the EMS according to ISO 14001:2015 standard continues to be maintained as a tool to measure, monitor and improve the environment. The Goslar site continue to maintain the Eco Management and Audit Scheme (EMAS), the world’s strictest environmental standard and validated to the plant in 2022.

At NPMC, the environmental management system according to ISO 14001:2015 standards has also begun to be built and established. NPMC is currently continuing to make efforts to overcome the difficulties and complete ourselves for the upcoming evaluations.

Environmental Impact Assessment Report for NPMC Mining Pit Expansion Project

In compliance with the Law on Environmental Protection 2020, NPMC collaborated with a consulting firm in 2024 to prepare an Environmental Impact Assessment (EIA) Report for the adjusted project ‘Mining and Processing of Tungsten, Fluorite, Bismuth, Copper, and Gold at Nui Phao, Dai Tu District, Thai Nguyen Province’, aimed at expanding the open pit westward. The report is expected to be submitted to the Ministry of Natural Resources and Environment for approval in 2025.

Environmental License for Nui Phao mine

Strict compliance with environmental regulations and legal procedures is always a priority for MHT to demonstrate its commitment to environmental compliance.

Following the Law on Environmental Protection 2020 and Decree No. 08/2022/ND-CP dated January 10, 2022, NPMC submitted the application for an environmental license for Nui Phao mine to MONRE in June 2024. On October 6, 2024, MONRE conducted an on-site inspection at the Company. The Inspection team confirmed that the application for the environmental license basically met the requirements, and the environmental protection facilities complied with regulations. All Inspection team members agreed to propose MONRE to consider and approve the environmental license once the Company revised and perfected the application based on the comments from the Inspection team. Currently, we are finalizing it and submit to MONRE for approval at the earliest time.

Since the enactment of the Law on Environmental Protection 2020, numerous Decrees and Circulars have been promulgated and enforced. These regulatory changes have had a significant impact on business operations. As a business that is always committed to compliance, MHT regularly updates and reviews new regulations to apply in our operations. Especially, the Government’s Decree No. 05/2025/ND-CP, dated January 6, 2025 with amendments has had a direct and positive impact on MHT’s operations. Accordingly, NPMC will be allowed to continue using other environmental Licenses such as Certificate of completion of environmental protection works when discharge Permit expires.

Environmental Incident Handling

Environmental incidents are issues that no business wishes to encounter. However, when an incident occurs, handling and reporting it promptly are crucial to demonstrating a company's responsibility in environmental protection.

On August 12, 2024, a leak incident occurred at Nui Phao mine involving a tailings pipeline from the processing plant to the tailings storage facility. The leak resulted in tailing slurry containing approximately 70.8 tons of solids and 1,068 m³ of process water (based on the water and solids density) was released into the containment sump area adjacent to the Bat Stream. Most of the material was contained and isolated, however a small portion of the tailings spilled into the environment via the Bat Stream. The cause of the incident was due to the sulfide tailings pipeline which takes waste from the processing plant to the STC being rusted, resulting in leakage.

Upon detecting the leak, the Company immediately suspended the plant's operations, isolated and cleaned up the leaking pipeline section; mobilized equipment and personnel to prevent the tailings from flowing to the downstream streams. At the same time, the Company conducted a monitoring along the Thiec, Cat, and Phuc Linh Streams to determine the extent of the tailings discharge and took environmental samples.

Thanks to swift containment efforts, the majority of the leaked tailings sludge and wastewater were recovered, preventing significant environmental impact. The incident lasted only for a short period, and the tailings components were classified as common waste. Post-incident assessments and inspections confirmed no harm to crops or aquatic life in downstream streams, with surface water quality showing only minimal changes compared to pre-incident levels. These results reflect NPMC's commitment to environmental and social responsibility. The incident was also reported to relevant authorities and local government, demonstrating transparency in environmental management at NPMC.

To prevent similar incidents in the future, the Company conducted a comprehensive review of the tailings and wastewater pipeline system to ensure that any potential leaks are contained within designated collection pits on-site. Additionally, a scheduled inspection and replacement plan has been implemented, along with the selection of appropriate materials and the adoption of technical measures for regular monitoring, maintenance, and upkeep of the pipeline system.

Prevention and Response to Environmental Incidents

Preventing and responding to environmental incidents plays a critical role in maintaining environmental sustainability, protecting human health, and preserving ecosystems. By raising awareness, implementing preventive measures and developing response measures, we can minimize negative environmental impacts and ensure sustainable development for both present and future generations. At MHT Vietnam, preventing and responding to environmental incidents is always prioritized and carried out in compliance with relevant legal regulations. In 2024, NPMC and MTC updated the Environmental Incident Response Plan prepared in 2022 and submitted to regulatory authorities for monitoring and coordination in accordance with regulations. The updated plan includes additional potential incidents that may occur and proposes response measures, including management and technological solutions suitable to the actual conditions.

Additionally, given the nature of the mining industry, NPMC conducts annual inspections and dredging of drainage ditches, ponds around the mining pit, process plant and other areas before rainy season in order to collect storm water and wastewater to avoid any environmental impact.

In 2024, to address concerns from the local people regarding rainwater runoff in the Northwest area of the North Waste Dump, NPMC constructed a cut-off trench along the foot of the waste dump to collect seepage rainwater and rainwater runoff from the slopes. This environmental protection work also helps prevent potential environmental risks (if any) that may affect the local community. The cut-off trench was reported to local authorities, the Ministry of Natural Resources and Environment and updated in the environmental records.

ESG – The Three Pillars of Sustainability

Environment, Social and Governance (ESG) has become a trend and an essential part of business operations today. Economic indicators are not the only ways that a business's performance is acknowledged and assessed; environmental protection, social contributions, and community benefits are all taken into consideration.

In March 2024, MHT established the Environment, Social, and Governance Committee ("ESG Committee") to achieve the following goals:

- i. *Establish and integrating ESG standards into business operations of the Company;*
- ii. *Develop an ESG strategy to reduce risks, improve efficiency, enhance reputation and value for the Company.*

In October 2024, MHT's ESG goals for the 2025-2030 period were issued with topics based on the United Nations' sustainable development goals and IFC (International Finance Corporation) performance standards. These ESG goals were selected in accordance with production and business activities in mining, processing and refining industries. The Sustainability meetings at MHT are held monthly to monitor and update the plans and progress of ESG goals, discuss, agree and propose appropriate solutions to the current situation in order to deliver the set goals.

In 2024, MHT set an ESG goal to reduce Cong River water consumption at the MTC plant, achieving a savings of approximately 22,604 m³ - equivalent to 5.75% of the total 392,811 m³ consumed by MHT in 2023.

Building a sustainable ESG supply chain is also one of MHT's ESG goals, aligned with Masan Group's direction through the Sustainable Supply Chain Guideline issued in January 2025. To achieve the goal of a sustainable supply chain, in 2025, MHT will classify suppliers, conduct surveys, and evaluate their ESG status. Based on the results, MHT will establish criteria for selecting suppliers and support them in improving their ESG performance in production activities.



FOCUS 2 25

Complete all commitments in the EIA Report and current regulations:

- Complete periodic reports on environmental protection and water resource extraction.
- Complete the periodic monitoring program; operate automatic, online monitoring stations to ensure required data transmission rate.
- Continue environmental rehabilitation and restoration in mining areas alongside mining operations.

Complete the EIA Report for the “Mining and Processing of Tungsten, Fluorite, Bismuth, Copper, and Gold at Nui Phao, Dai Tu District, Thai Nguyen Province (Adjusted)” and submit it to the Ministry of Natural Resources and Environment for approval in 2025.

Obtain an environmental license for Nui Phao mine from MONRE after the adjusted EIA Report is approved.

Continue working with MONRE to get approval of the OTC tailings recycling Project for use as leveling materials. Maintain Certification of standard conformity for OTC tailings product in accordance with BS EN 13242-2002+A1-2007 issued by Vietnam Institute for Building Materials under Ministry of Construction.

Collaborate with Vietnam Institute for Building Materials to assess and obtain Certification of standard conformity for waste rock for use as building material in accordance with current standards.

Maintain certifications for the energy management system (ISO 50001:2018) and Environmental Management System (ISO 14001:2015) at MTC plant.

Implement ESG KPIs for the 2025-2030 period: Reducing greenhouse gas emissions; Decreasing water consumption from the Công River; Increasing waste recycling rates; Supporting local communities in infrastructure development, economic growth, and raising awareness of safety and environmental protection; Sustaining workforce development; Ensuring compliance with safety and product labeling regulations.

Develop a sustainable supply chain: A sustainable supply chain is a management model that integrates ethical, environmental, social, and economic responsibilities to create long-term value for businesses, communities, and the environment. MHT has set a goal that by December 31, 2025, 50% of its Tier 1 suppliers will comply with Masan Group’s Sustainable Supply Chain Policy.

To achieve this, in 2025, MHT will:

- Develop criteria for supplier classification;
- Categorize and determine the number of Tier 1 suppliers;
- Engage with Tier 1 suppliers to collect evidence demonstrating compliance with Masan

Complete the Greenhouse gas inventory report as required and engage a third-party to verify it before submitting to regulatory authority and providing it for customers and investors.



COMMUNITY SUSTAINABILITY

COMMUNITY HIGHLIGHTS

► Economic Recovery Loan Fund

- In 2024, 24 households accessed loans with a total value of VND1.2 billion through our family economic advancement program. By the end of 2024, 478 households had borrowed from the Economic Recovery Loan Fund, totaling over VND17 billion in disbursed revolving funds (the fund's initial value was over VND6 billion).
- 100% of households expanded their production and business activities, increased their income, and improved their family's economic well-being.

► Local Economic Development

- Supported the establishment of the Hung Son Town Honeybee Cooperative with 15 households and over 500 bee hives.
- Supported the establishment of the Khuon Ga Tea Cooperative in Hung Son Town with 8 households and a tea cultivation area of 5 hectares.
- Assisted with the Nhat Thuc Tea Cooperative's brand enhancement by creating a new website at www.nhatthuctea.com and professional packaging for the OCOP product "Bach Long Huong Tea".
- Assisted the Hung Son Town Safe Vegetable Cooperative in agricultural production: Conducted training on waste sorting, established an environmental protection team, and donated 10 waste collection bins placed at the Xuan Dai vegetable field.

► Social Welfare & Community Development

- Organized 19 training and community sessions for over 3,000 participants on various topics including electrical safety, drowning prevention, responsible use of mobile phones, environmental protection, and many other life skills.
- Presented meaningful gifts on the new school year opening ceremony; provided facility support to Doi Can High School, Tan Linh Primary School, and Phuc Linh Kindergarten.
- Awarded numerous scholarships to students, who strive for academic excellence despite difficult circumstances, through the "Lighting the Faith, Supporting Students to School – For the Love of Learning" program – Season 11 of Dai Tu District and the "Godmother program" of Nui Phao Mining.
- Distributed 40 gifts to veterans, martyrs' families, and policy beneficiaries on War Invalids and Martyrs' Day (July 27).
- Delivered 140 Tet gifts worth 70 million VND to poor households and families facing extreme difficulties during the Lunar New Year.
- Supported the construction and repair of 3 great unity houses for poor households, with a total cost of VND 40 million. Distributed 1,000 relief packages worth over VND 300 million, including essential products from Masan Group, to promptly assist residents severely affected by Typhoon Yagi and the historic flood in Thai Nguyen province.

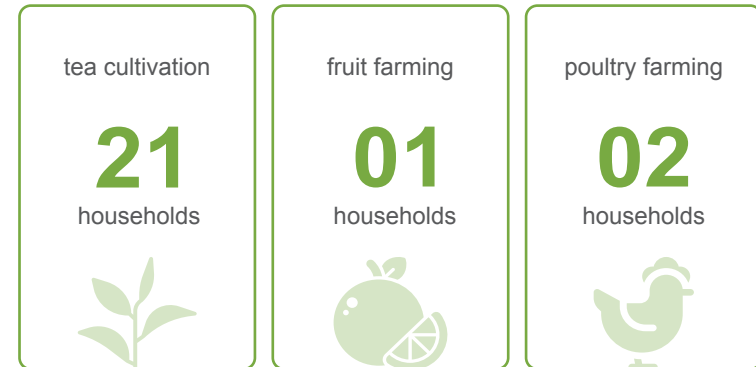
► Healthcare, Clean Water & Environmental Sanitation

- Organized a medical team comprising company doctors and healthcare professionals to provide free health check-ups, consultations, and medication for 225 policy beneficiaries and veterans in Tan Linh and Khoi Ky communes.
- Collaborated with the Hematology - Blood Transfusion Center (Thai Nguyen Central Hospital) to successfully host a voluntary blood donation program under the theme "A Drop of Blood Given, A Life Saved". The program attracted 229 employees, resulting in 226 blood units donated.
- Donated 150 waste bins worth VND 30 million to support a cleaner and greener environment in Tan Linh commune.
- Provided 12 new sanitation equipment sets to Phuc Linh Kindergarten, enhancing hygiene conditions for young children, with a total support budget of VND 20 million.
- Contributed VND 20 million towards toilet installations (toilets and handwashing stations) for classrooms at the Vai Thai ethnic minority school, Yen Son commune, Ha Quang district, Cao Bang province.



ECONOMIC RECOVERY LOAN FUND

In 2024, MHT collaborated with the Dai Tu District Social Policy Bank, the entrusted associations of Ha Thuong commune, Hung Son township, Phuc Linh commune, Tan Linh commune to assess and disburse loans to 24 households, granting a total of VND1.2 billion to support household economic development, including 21 households in tea cultivation, 1 households in fruit farming, 2 households in poultry farming. By the end of 2024, 478 households had benefited from the program, with a revolving fund totaling over VND17 billion.



Efforts to Escape Poverty of Mr. Bui Van Long's Family – Hamlet 12, Tan Linh Commune

Mr. Bui Van Long's family, from Hamlet 12, Tan Linh Commune, once lived in poverty, classified as a poor household with 4 members and two young children of school age. However, instead of accepting their hardships, Mr. Long sought opportunities to strive for a way out of poverty, starting with accessing the Economic Recovery Loan Fund of Nui Phao Mining Company (NPMC) to boost their production.

In 2018, Mr. Long's family was granted with VND50 million loan from NPMC's Economic Recovery Fund. He used this amount to transition from growing midland tea to cultivating VN20 tea, planting the new variety on an area of 2,160 square meters. Three years later, this tea cultivation model has brought his family a stable income of 55 to 60 million VND annually, a significant improvement compared to the past. Recognizing the clear effectiveness of the tea farming model, in early 2024, Mr. Long boldly expanded his VN20 tea plantation to 3,600 square meters to further develop his household economy and invest in the future, ensuring stable income and covering the costs of his children's education. His determination stems not only from his belief in the model but also from his love and responsibility toward his family, especially his two young children, for whom he hopes to build a brighter future.

“ I am grateful to Nui Phao Mining for giving my family this opportunity. The loan with favorable interest rates helped us overcome difficult times, develop our economy, and support our children's education. Thanks to Nui Phao's funding, the support of the Farmers' Association, and the dedication of Nui Phao's staff, my family has escaped poverty. I am delighted that my efforts have paid off, and now I can invest further in tea cultivation to ensure a more sustainable life for my family and provide my children with opportunities to study and build a better future. - Mr. Long shared ”



ECONOMIC DEVELOPMENT

Agricultural Development Support

► Supporting Nhat Thuc Tea Cooperative

In 2024, the company continued to partner with the Nhat Thuc Tea Cooperative to develop a new website at www.nhatthuctea.com, aiming to elevate the cooperative's brand recognition, enhance online business on digital platforms, and effectively promote its products. With its modern design, attractive interface, and smart features, the new website represents a technological upgrade that enhances customer experience. Throughout 2024, the company actively supported the cooperative by providing design consultancy for product packaging and funding the printing of packaging for the Bach Long Huong Tea product line. Additionally, the company created opportunities for the cooperative to showcase its products at corporate events, trade promotion programs, and the OCOP Fair in Thai Nguyen Province. Notably, with Nui Phao's support in media connections, several features about Nhat Thuc Tea were produced and broadcast on local and national television channels



► Facilitating Beekeeping practices

A highlight of 2024 was the successful transformation of the Beekeeping Cooperative Group (THT) into the Tan Linh Agricultural Cooperative. From its initial 170 bee colonies at the time of establishment, the cooperative has now expanded to nearly 900 colonies for honey production, yielding over 17 tons of honey annually. Before harvesting or selling, the honey products undergo rigorous quality checks by the cooperative, significantly improving their quality and meeting customer demands. The honey produced by the cooperative is guaranteed to be pure, free from any chemicals or additives, and is consumed in provinces: Thai Nguyen, Hanoi, Hung Yen, Bac Giang, Vinh Phuc, with prices ranging from VND160,000 to 200,000 per liter, depending on the type of floral honey. Over the past year, the company continued to support the cooperative by assisting in the design and printing of product packaging and labels, worth VND29 million. Notably, the company also purchased 100 liters of honey from the cooperative to use as corporate gifts for employees and partners.



CORPORATE SOCIAL RESPONSIBILITY ACTIVITIES

► Environmental Protection

In response to “World Water Day & Earth Hour”, March 2024: The company organized awareness-raising campaigns on water resource protection at local schools under the theme “Water for Peace.”

In response to “World Environment Day”, June 2024: In collaboration with Hung Son Farmers’ Association, the company conducted training sessions on waste classification, established an environmental protection team, and donated 10 waste collection bins placed at Xuan Dai vegetable fields.

In response to the “Clean Up the World Campaign”, September 2024: The company partnered with Tan Linh Women’s Union to promote the classification of solid household waste and donated 150 waste bins (60 liters each) to families along the inter-commune route valued at VND 30 million. This support not only motivated residents to adopt greener lifestyles but also helped Tan Linh Commune meet enhanced environmental criteria in its new rural development efforts.

► Mid-Autumn Festival Celebration with Children

On the occasion of the Mid-Autumn Festival in September 2024, representatives of the Company’s Board of Directors and the leadership of Dai Tu District People’s Committee visited and presented gifts to 40 children undergoing treatment at Dai Tu District General Hospital. The company representatives went to each hospital room to inquire about the children’s health and daily living conditions during their treatment, wishing them a speedy recovery. Additionally, the company provided support of VND 5 million each to 4 communes and towns within the Nui Phao project area to purchase Mid-Autumn Festival gifts for local children. The total value of the gifts donated by the company for this Mid-Autumn Festival occasion amounted to nearly VND 40 million.

► Honoring Revolutionary Contributors and Policy Families

On the occasion of War Invalids and Martyrs’ Day (July 27) this year, the company collaborated with the People’s Committees of Khoi Ky and Tan Linh communes, Dai Tu District Medical Center, and Thai Ha Eye Hospital to organize free health check-ups, consultations, and medicine distribution for 225 war invalids and sick soldiers in Khoi Ky and Tan Linh communes, Dai Tu District. Additionally, a delegation of company officials visited the National Historical Site 27-7 to offer incense and flowers in tribute to heroic martyrs and presented 40 gifts to revolutionary veterans in Dai Tu District as a profound and practical gesture of gratitude. Beyond material support, the July 27 tribute program was an opportunity for MHT employees to show our constant care to war invalids’ families and the community at large.



► Supporting Education and Community Training

Organized 19 training and communication sessions for 3,000 students and community members on various topics, including electrical safety, drowning prevention, responsible phone usage, environmental protection, and other life skills.

Awarded 40 scholarships to underprivileged students striving for academic excellence under the 11th edition of the “Lighting the Faith, Supporting Students to School – For Studious Children” program in September 2024, totaling VND 40 million.

Sponsored VND 20 million for swimming lessons at Tan Linh Primary & Secondary School, where 60 students graduated, with 12 participating in district-level swimming competitions and 3 winning awards, including 1 first prize and 2 third prizes.

Presented meaningful gifts for the new school year in September 2024, totaling nearly VND 100 million, including a ceremonial stage set for Doi Can High School, 16 sets of English classroom furniture for Tan Linh Primary School, and new sanitation equipment for Phuc Linh Kindergarten. Additionally, 5 scholarships were awarded to orphans under the “Godmother” program.

Supported VND 20 million for installing sanitation facilities (toilets and handwashing sinks) in classrooms at the Vai Thai ethnic minority school, Yen Son Commune, Ha Quang District, Cao Bang Province.

► Supporting Infrastructure Development

Supported the construction and repairs of 3 great unity houses for poor households in Phuc Linh, Ha Thuong communes, and Hung Son Town, with a total budget of 40 million VND.

Donated outdoor sports equipment for the cultural house of Phuc Linh Commune.

Expanded the rural lighting system in Ha Thuong, Tan Linh, and Phuc Linh communes.

Provided ceremonial equipment for the cultural house of An Long neighborhood, Hung Son Town.

The total value of support for these activities amounted to over VND 500 million. These contributions have helped residents promote sports activities to improve health, ensure regional security and order, and support communes in achieving advanced and model new rural development goals.



► **Supporting Local Cultural and Social Activities**

In response to Thai Nguyen Province's 2024 Peak Week for the Tet for the Poor campaign, the company has donated VND 70 million, equivalent to 140 gift packages—each valued at VND 500,000—to underprivileged individuals in various communes and towns of Dai Tu District. Additionally, the company has provided 40 in-kind gifts and personally delivered them to disadvantaged households, hoping to ease their hardships, bring joy during the Lunar New Year, and support them in stabilizing their lives and overcoming poverty.

In 2024, the company actively participated in various local cultural and social events, including: The announcement ceremony recognizing Dai Tu District as meeting the New Rural Development standards in 2024, the year of the Wood Dragon 2024 Tea Festival, the establishment of the Cao Lan Ethnic Cultural and Arts Club in Ha Thuong Commune. Joining residents in celebrating the National Great Unity Day in residential areas; Attending and commemorating the founding anniversaries of political and social organizations, as well as summarizing annual activities in communes and participating in gift-giving activities for disadvantaged parishioners. The total value of support for these activities amounted to approximately 500 million VND.

► **Contributing to the Preservation of Cao Lan Ethnic Cultural Values**

On November 28, 2024, MHT collaborated with the People's Committee of Ha Thuong Commune and the Front Work Committee of Suoi Cat Village to organize the launch ceremony of the Cao Lan Ethnic Cultural and Arts Club in Ha Thuong Commune. This initiative marks the latest effort in the company's program to support ethnic minorities, aiming to preserve and promote the intangible cultural values of the Cao Lan people, one of the largest ethnic minority groups in Ha Thuong Commune, Dai Tu District.

The Cao Lan Ethnic Culture and Arts Club was established with 26 members, all residents of Ha Thuong Commune, who share a common desire to preserve and promote the intangible cultural values of the Cao Lan people. At the launch event, attendees enjoyed Sinh Ca folk singing and the Tac Xinh dance, while also participating in cultural exchanges and various entertaining games. Cao Lan folk singing, also known as Sinh Ca, and the Tac Xinh dance are unique forms of traditional performing arts of the Cao Lan ethnic group. They were officially recognized as National Intangible Cultural Heritage in 2012 and 2014, respectively.

The establishment of the Cao Lan Cultural and Arts Club is an important step in continuing the preservation of cultural heritage and strengthening community bonds. This is not only a place for safeguarding and practicing cultural traditions but also a space for interaction and community engagement. The local authorities, Nui Phao Company, and the Cao Lan ethnic community will continue to work together to protect and promote these unique intangible cultural values.

In the future, Nui Phao Company and local authorities hope that the club will serve as a driving force for grassroots cultural and artistic movements in the region and play a key role in developing cultural tourism, attracting interest from both local and wider communities. At the same time, it will help preserve the traditional cultural beauty of the Cao Lan people and instill a sense of pride in future generations.



Tet for the Poor campaign



The Cao Lan Ethnic Culture and Arts Club



2024 ACHIEVEMENTS



01

SUPPORTING LOCAL COMMUNITIES IN ACHIEVING ADVANCED NEW RURAL STANDARDS

- Completed 5 infrastructure projects to support Tan Linh and Phuc Linh communes in meeting the advanced new rural criteria.
- Donated 150 waste bins worth over VND 30 million, contributing to Tan Linh Commune's fulfillment of the environmental protection road criteria and its recognition as an advanced new rural commune.
- Provided support for the construction and renovation of 3 Great Solidarity houses for disadvantaged households in Phuc Linh and Ha Thuong communes, as well as Hung Son town, with a total budget of VND 40 million.

02

SUPPORTING ETHNIC MINORITY COMMUNITIES

- Supported the establishment of the Cao Lan Ethnic Cultural and Arts Club in Ha Thuong Commune to preserve and promote the intangible cultural heritage of the Cao Lan people.
- Provided financial support of VND 20 million for the purchase of restroom facilities (toilets, sinks) for classrooms at Vai Thai ethnic minority education site in Yen Son Commune, Ha Quang District, Cao Bang Province.
- Supported 4 economic development models for ethnic minority women in difficult circumstances, helping them improve household incomes through egg-laying chicken, goat, and cattle breeding initiatives.
- Completed the ethnic minority support report for the 2010–2024 period and addressed gaps in the ESDD report.

03

SUSTAINABLE DEVELOPMENT WITH THE COMMUNITY

- Successfully implemented a long-term, sustainable clean water supply program for local residents, saving approximately 200 million VND in 2024 and projected to save over VND 600 million annually from 2025 onwards.
- Developed a new website for Nhat Thuc Tea Cooperative to enhance production, processing, and market linkages, strengthening brand development.
- Established the Khuan Ga Tea Cooperative in Hung Son Town
- Founded a new Beekeeping Cooperative Group in Hung Son Town
- Supported the installation of 3 km of rural lighting systems in Ha Thuong and Phuc Linh communes.
- Disbursed VND 1.2 billion in loans to 24 households through the Economic Recovery Loan Fund.

04

CARING FOR THE UNDERPRIVILEGED WOMEN AND CHILDREN

- Presented 140 Tet gift packages worth 70 million VND to impoverished households and families in especially difficult circumstances for the Lunar New Year.
- Organized 19 training programs for 3,000 students and community members on topics: safety, environmental protection, and other soft skills.
- Awarded 5 scholarships for orphaned children under the “God-mothers program”.
- Awarded 40 scholarships to disadvantaged students striving for academic excellence through the “Lighting Up Hope, Supporting Students to School – For Studious Children” program.

05

EMERGENCY RELIEF

Swiftly provided urgent assistance and distributed 1,000 relief packages containing essential Masan Group products to families severely affected by Typhoon No. 3 and the historic flood. The total value of aid for residents in Dai Tu District and Thai Nguyen Province was over VND 300 million.

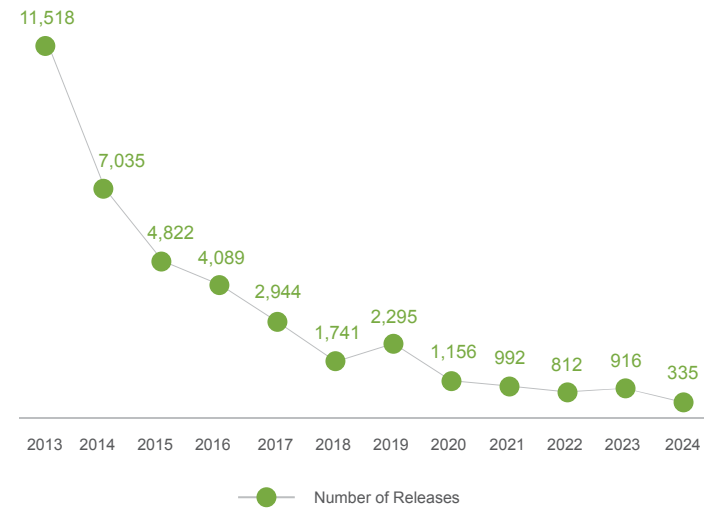
COMMUNITY CONSULTATION AND DIVERSIFICATION OF INFORMATION DISCLOSURE CHANNELS

Community consultation and information disclosure serve as a two-way communication channel between the Company and its stakeholders, particularly the local community. The Community Liaison team actively collaborates with internal departments and partners to maximize access to information for local residents and promptly address their concerns.

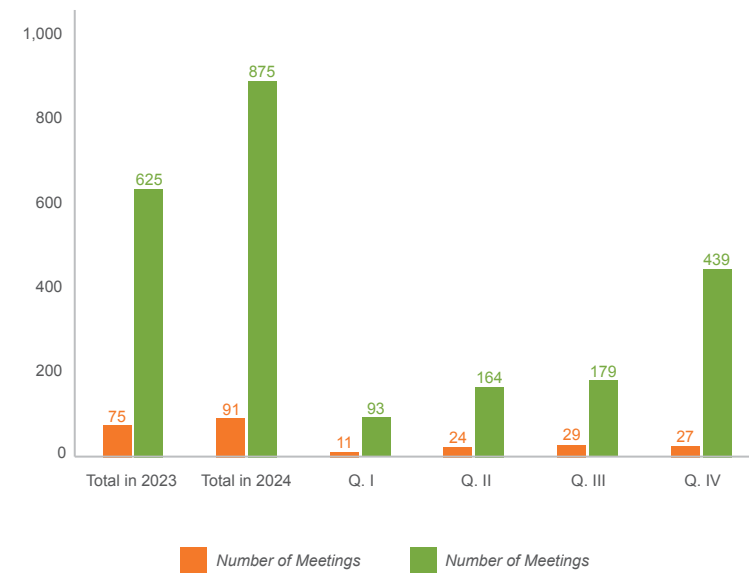
In 2024, key information was primarily shared with the community through written documents, phone calls, and Zalo messages rather than in-person visits to the Information Center. A total of 69 topics were addressed through 335 official documents, in addition to inquiries received via the Company's Information Center hotline.

The Community Liaison team conducted 91 meetings, surveys, and community consultations, engaging 875 participants. These initiatives aimed to assess needs related to infrastructure improvement, economic development, environmental sanitation, and healthcare for the surrounding communities.

Annual Information Disclosure



Number of Meetings, Surveys, and Community Consultations in 2024



335 official documents with 69 topics

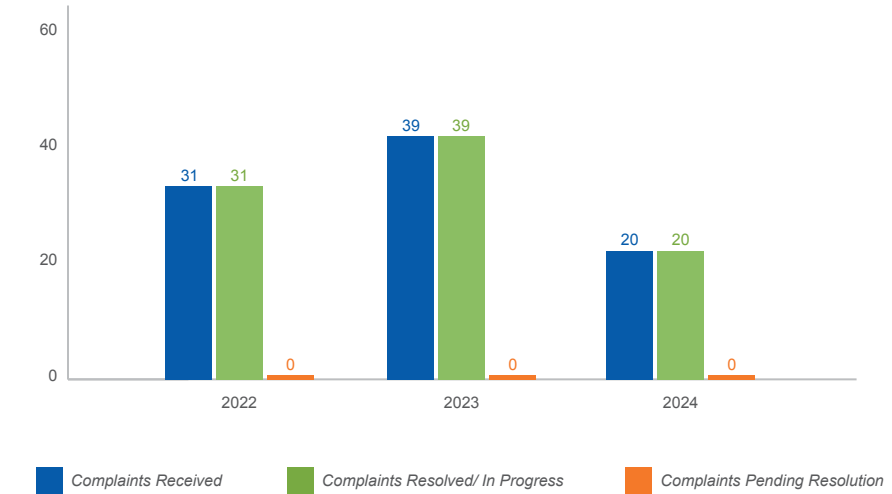
91 meetings, surveys, and community consultations

875 participants

RESOLUTION OF INQUIRIES AND COMPLAINTS

In 2024, the Company received 20 written inquiries and complaints. All cases were acknowledged and forwarded to the relevant departments within the Company, as well as coordinated with local authorities for resolution. The Community Liaison team actively collaborated with internal teams to regularly inspect project areas and surrounding communities, ensuring timely mitigation measures to minimize any impact on the local population.

Resolution of Complaints and Petitions (2022–2024)



SUSTAINABILITY FINANCE

From a financial perspective, MHT achieved net revenue of VND 14,336 billion for FY2024, marking a 2% increase compared to VND 14,093 billion in FY2023. Tungsten revenues were recorded at VND 11,409 billion, reflecting a 0.1% decrease from FY2023, as strong market prices in 2Q2024 and 3Q2024 partially offset lower market demand. Fluorspar revenues decreased by 6% to VND 1,333 billion, driven by lower sales volumes despite higher realized prices. Bismuth revenues declined by 54% to VND 91 billion, compared to VND 201 billion in FY2023, primarily due to reduced sales volumes. Copper revenues reached VND 1,442 billion as the Company continued supplying copper to local customers. Management expects domestic copper sales to remain a key driver in FY2025.

EBITDA for FY2024 stood at VND 1,785 billion, reflecting a 15% improvement compared to FY2023. The EBITDA margin increased to 12.5%, higher than the 11% recorded in the previous year. This improvement was primarily driven by lower unit production costs for NPMC products, resulting from management's cost optimization efforts, as well as higher sales of high-margin product copper.

A major milestone in our strategic transformation was the divestment of HCS for USD 134.5 million, a move that reinforced our focus on high-margin, cash-generating mining and metal refining assets in Vietnam. This divestment also strengthened our balance sheet, positioning MHT to navigate global economic volatility with resilience. Following

this shift, we now have a dynamic and younger leadership team fully dedicated to maximizing efficiency and profitability in Vietnam. With the majority of capital expenditures in plants and equipment completed, MHT is set to become a significant cash-generating business over Nui Phao's mine life.

As part of the HCS divestment, MHT and HCS entered into a long-term off-take agreement for the supply of tungsten intermediates, such as Ammonium Paratungstate ("APT") and Tungsten Oxides, securing a stable foundation for sustained sales volumes. Furthermore, Masan and MHT retain its ownership stake, strategic supplier status and potential profit participation in Nyobolt, a UK-based technology company specializing in fast-charging battery solutions that leverage tungsten and niobium at the anode, with large-scale commercialization underway. The proceeds from the HCS transaction were strategically directed toward deleveraging, improving MHT's net debt-to-EBITDA ratio from 10.7 in FY2023 to 6.2 by the end of FY2024.

Beyond our operations, MHT remains deeply committed to community development. In 2024, we invested VND 3.3 billion in various social initiatives, directly benefiting over 3,500 households, including over 520 ethnic minority families and 105 vulnerable households. Additionally, MHT contributed VND 860 billion in taxes, maintaining our position as the largest corporate taxpayer in Thai Nguyen province.



Net revenue of

VND 14,336 billion

a 2% increase compared to FY2023



EBITDA stood at

VND 1,785 billion

a 15% improvement compared to FY2023



VND 860 billion

contribution to State Budget –
largest Vietnamese taxpayer
in Thai Nguyen Province



CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This communication contains information that may constitute “forward-looking statements”. Generally, the words “believe”, “expect”, “intend”, “aim”, “estimate”, “anticipate”, “project”, “will” and similar expressions identify forward-looking statements, which generally are not historical in nature. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking. All statements that address operating performance, events, or developments that we expect or anticipate will occur in the future – including statements relating to volume growth, share of sales, and earnings per share growth, and statements expressing general views about future operating results – are forward-looking statements.

Management believes that these forward-looking statements are reasonable as and when made. However, caution should be taken not to place undue reliance on any such forward-looking statements because such statements speak only as of the date when made. Masan High-Tech Materials Corporation undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, except as required by law. In addition, forward-looking statements are subject to certain risks and uncertainties that could cause audited results to differ materially from our company’s historical experience and our present expectations or projections. These risks include commodity pricing risks and the prices we obtain for our Tungsten, Copper, Fluorspar and Bismuth are deter-

mined by, or linked to, prices in world markets, which have historically been subject to substantial volatility. Fluctuations in commodity prices can occur due to price shifts reflecting underlying global economic and geopolitical factors, industry demand, increased supply due to the development of new productive resources, technological change, product substitution, and national tariffs. Volatility in global economic growth has the potential to adversely impact future demand and prices for commodities. This has the potential to negatively impact future earnings and cash flows. These risks and uncertainties include, but are not limited to, those described elsewhere in this report and those described from time to time in our future reports filed with the Hanoi Stock Exchange.

This communication is not for distribution in the United States. This communication and the information contained herein are not an offer of securities for sale in the United States. Securities may not be offered or sold in the United States absent registration pursuant to the U.S. Securities Act of 1933, as amended, or an exemption from registration. Any public offering of securities to be made in the United States will be made by means of a prospectus that may be obtained from the issuer or selling security holder and that will contain detailed information about the company and management, as well as financial statements.

ABBREVIATIONS / DEFINITIONS

ACCA	Association of Chartered Certified Accountants
AFFF	Aqueous Film Forming Foam
AGM	Annual General Meeting
ANCO	Argo Nutrition International Joint Stock Company
APEC	Asia-Pacific Economic Cooperation
APT	Ammonium Paratungstate
APT Plant	Tungsten Chemicals Processing Plant of Masan Tungsten LLC
bbl	a barrel of oil unit of measure
BGC	German BG Case
BImSchG	Bundesimmissionsschutzgesetz (Federal Emission Control Act)
BOD	The Board of Directors of the Company
BOJ	Bank of Japan
BTO	Blue Tungsten oxide
C&R	Compensation and Resettlement
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CHESS	Community, Health, Environment, Safety and Sustainability committee
Company	Masan High-Tech Materials/Masan High-Tech Materials Corporation and its subsidiaries
CSI	Corporate Sustainability Index
CSR	Corporate social responsibility
DAW	Days Away From Work
DAWC	Days Away From Work Cases
DAWC 3	Number of Days Away from Work Cases of third party Contractors
DAWCR	Days Away From Work Cases Rate
DEIB	Diversity, Equity, Inclusion, and Belonging
DO	Diesel oil
DP2	Discharge Point 2
DP3	Discharge Point 3
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
EC	Electro-chromic
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EnMS	Energy Management System
ENV	Environment Department
E-PRTR	European Pollutant Release and Transfer Register

ESG	Environment, Social and Governance
FA	Fatal Accidents
FO	Fuel oil
FY	Financial Year
GDP	Gross Domestic Product
GPTW	Great Place to Work
H.C. Starck or HCS	H.C. Starck Tungsten Powders
HC	Headcount
HNX	The Hanoi Stock Exchange
HR	Human Resources
HRD	Human Resources Department
HRM	Human resources management
HSD	Hill Side Dyke
HSS	Health, Safety and Security Department
IC	Integrated Circuit
IED	Industrial Emissions Directive
IT	Information technology
ITIA	The International Tungsten Industry Association
ITLC	International Trade Law & Customs
ITRB	Independent Tailings Review Board
Law on Enterprises	Law on Enterprises No. 68/2014/QH13 dated November 26, 2014 issued by the National Assembly of the Socialist Republic of Vietnam
LCD	Liquid Crystal Display
LTI	Lost-Time-Injury
LTIFR	Lost Time Injury Frequency Rate
M&A	Mergers and Acquisitions
M&G	Mining & Geology
MAINT	Maintenance
MAQ	German Accident Rate
Masan Group	MSN and its subsidiaries
Masan Horizon or MH	Masan Horizon Company Limited
Masan Resources or MSR	Masan Resources Corporation
MCH	Masan Consumer Corporation
MHT	Masan High-Tech Materials Corporation

MNS / MML	Masan Nutri-Science Corporation / Masan MEATLife Corporation
MONRE	Ministry of Natural Resources and Environment
MRTN	Masan Thai Nguyen Resources Company Limited
MSN	Masan Group Corporation
MTC	Masan Tungsten Limited Liability Company
mtu	1mtu = 10kg
NHTCM	Nui Phao - H.C. Starck Tungsten Chemicals Manufacturing
NPAT	Net Profit After Tax
NPMC	Nui Phao Mining Company Ltd
PCDP	Public consultation and information disclosure program
PPE	Personal protective equipment
PROC	Processing
PVP	People Value Proposition
R&D	Research & Development
RMI	Responsible Minerals Initiative
RMIP	Raw Material & Inventory Planning
S&M	Sales and Marketing
SCM	Supply chain management
THW	Total Hours Worked
TNTI	Thai Nguyen Trading and Investment Company Limited
TRC	Total Recordable Cases
TRCR	Total Recordable Cases Rate
TRIFR	Total Recordable Injuries Frequency Rate
TSF	Tailings Storage Facility
UFU	Independent Institute for Environmental Issues - Federal Republic of Germany
USD or US\$ or \$	United States dollar (The official currency of United States of America)
USQ	German Severity Rate
VAS	Vietnamese Accounting Standards
VAT	Value-added tax
VBCSD	Vietnam Business Council for Sustainable Development
VND	Vietnamese Dong (The official currency of Vietnam)
VNR	Vietnam Report Corporation



BACK TO BASICS





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