



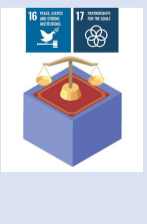


Material Issues for MHI Group - Progress in FY2022

Material Issues [Officer in Charge]	Company-wide Goals	Progress Monitoring Indicator (KPI)	Scope	Initiatives and Progress in FY2022	
Provide energy solutions to enable a carbon neutral world  [CSO and Senior General Manager, Growth Strategy Office]	Reduce the CO₂ emissions of MHI Group. Achieve Net Zero CO₂ emissions from its operations by 2040 (Scope 1 and 2)	Reduce total CO₂ emissions from business activities (Scope 1 and 2) by 50% by 2030 (compared to 2014 levels), and achieve net zero by 2040.	MHI Group (Global)	<ul style="list-style-type: none"> Reduced CO₂ emissions in 2021 by 42% (compared to 2014 levels). Forecasting a reduction in 2022 CO₂ emissions of 47% (compared to 2014 levels). Drafted basic concepts and management systems for Carbon Neutral Management. Began installation of the renewable-energy power generation equipment at Mihara Machinery Works to achieve a Carbon Neutral Factory. (to be completed by the end of FY2023) 	
	Contribution to society throughout the value chain by 2040. Achieve Net Zero CO₂ emissions from its entire value chain by 2040 (Scope 3 + reduction through CCUS)	Reduce CO₂ emissions across the entire value chain (Scope 3 + CCUS contribution for CO₂ reduction) by 50% by 2030 (compared to 2019 levels) and achieve net zero by 2040.		MHI Group (Global)	<ul style="list-style-type: none"> Disclosed CO₂ emissions for 2021 in ESG DATABOOK 2022. Calculating CO₂ emissions for 2022.
		Develop products and services that contribute to decarbonization of the energy supply by 2040 (Energy Transition)		MHI Group (Global)	<ul style="list-style-type: none"> Successfully completed the world's largest hydrogen mixed firing validation test with 20% hydrogen at Plant McDonough-Atkinson's high-efficiency large-frame GTCC facility. Formed alliance with ExxonMobil which will advance next-generation carbon capture technologies and enable integrated CCS offering by deploying MHI's CO₂ capture technology as part of ExxonMobil's end-to-end CCS solution. Contributed to restarting and safe & stable operation of existing nuclear plants in Japan. Jointly have been developing advanced light water reactor SRZ-1200, which will meet the world's highest standards of safety, with Hokkaido Electric Power Co., Inc., The Kansai Electric Power Co., Inc., Shikoku Electric Power Co., Inc. and Kyushu Electric Power Co., Inc. Also, developing new type reactors (small light-water reactors, high temperature gas-cooled reactors and fast reactors) in order to meet the diversified needs in the future.
		Develop products and services that contribute to conservation, decarbonization, and automation of energy use by 2040 (Smart Infrastructure)		MHI Group (Global)	<ul style="list-style-type: none"> Awarded Pre-FEED contract for carbon capture plant at a cement production facility in UK. To expand use of carbon capture in hard-to-abate sectors, signed collaboration agreement with ArcelorMittal, BHP and Mitsubishi Development Pty Ltd*1 for development of carbon capture in the steel industry. Signed a MoU with Fortescue, voestalpine and Mitsubishi Corporation to jointly evaluate green ironmaking plant using HYFOR*2 process.
	Develop and prove new products and services that contribute to the carbon cycle		MHI Group (Global)	<ul style="list-style-type: none"> Working toward demonstration of biowaste utilization (hydrolysis) and recycling of decommissioned large structures. 	
Transform society through AI and digitalization  [Senior General Manager, Growth Strategy Office]	Expand lineup of useful and sustainable AI/digital products meeting needs of customers and users	Steadily increase the number of newly developed advanced AI and digital solutions (services, products, R&D) that solve customer issues	MHI Group (Global)	<ul style="list-style-type: none"> Confirmed the basic performance of the prototype for the next generation unmanned forklift (based on ZSynX), and conducting demonstration activities for an automated picking solution at YHH*3. Further development of intelligent logistics systems is also continuing. An automated material handling system for maritime transportation is under development. An intelligent system for operation of industrial machines is under development. Within our central R&D organization, MHI Group conducts advanced research and development, and the results are applied widely across our business areas. This allows us to promote the development of solutions such as AI and digital products and services for diverse business units. 	
	Contribute to a sustainable society through future-oriented energy management strategies that use AI and digitalization to appropriately and efficiently manage power supply and demand	Propose optimal energy infrastructures to customers according to the characteristics of the region		MHI Group (Global)	<ul style="list-style-type: none"> Conducted feasibility study of optimal energy infrastructure solutions for Southeast Asia, considering regional characteristics based on an assessment balancing social, economic, and environmental factors.
		Increase the number of products linked to future-oriented energy management systems			<ul style="list-style-type: none"> Started external verification with expanded control functions for heating equipment for use in carbon neutral EMS products.
Improve our working environment to produce creative products	Improve employees' awareness of creative time and environments		MHI Group (Global)	<ul style="list-style-type: none"> The following were implemented in order to make MHI a more creative workplace: <ul style="list-style-type: none"> Internal community site (EKKYO BASE): Organized collaboration projects (8 times with 3,000 total participants). Expanding opportunities for dialogue and co-creation between MHI Group employees and other companies to foster new business development and organizational culture improvement. Future Design Task Force: R&D on co-creation is ongoing in order to establish future design processes. Formulated a human resource development plan in the field of Digital Innovation, under the strategic goal of developing approximately 20 thousand Digital Innovation experts groupwide. Advanced efforts in promoting groupwide use of CRM (Customer Relations Management), utilization of data foundation, and development of future IT architecture. Launched human resource development program at YHH for entrepreneurship from October 2022. 	
Build a safer and more secure world  [CTO]	Boost the resilience of products, businesses, and infrastructure	Carry out various disaster impact assessments, and promote the development and practical application of resilient designs and technologies	MHI Group (Global)	<ul style="list-style-type: none"> Developed resilience indicators for products and services based on recovery and resistance. Goal setting is underway for each business unit and has been completed for 8 of the total 31 business units. A company internal meeting was held on "Risk Assessment and Measures for Resilience and Business Development." (Collaboration with Kyoto University Disaster Prevention Research Institute) Typhoon damage simulation was presented in the MHI Technical Review and International Conference (AJK2023). Disaster prevention simulations including tsunamis, typhoons and heavy rains were carried out for seven Japanese factories in the company. A study of the disaster countermeasure system was carried out. (Nuclear Energy Systems) 	
		Promote the development and practical application of technologies that enable the remote operation and automatic inspection of products, businesses and infrastructure	MHI Group (Global)	<ul style="list-style-type: none"> Confirmed functional performance of the unmanned forklift prototype of the intelligent logistics system (ZSynX). Started system design on the highway Vehicle-to-Infrastructure system, which uses wireless communication to connect ICT-enabled "connected" vehicles and related infrastructure components, in preparation toward realizing a future of autonomous mobility. Continued to promote the research & development of unmanned defense equipment. Continued to promote research & development of intelligent operation systems for paper converting machinery. Delivered a monitoring platform (Synx-Supervision) for steelmaking plants. A remote monitoring and operation support system (MaidAS) for a waste incinerator plant has been verified and presented at a major academic conference. Demonstrated a security check patrol with a single-rotor unmanned drone. Developing a labor-saving system for ferry cargo handling. Developing a solution for automating the nut tightening work of aircraft panels by human and robot cooperation. Demonstrated the automatic generation function for an inspection map in a catalytic inspection system of a flue gas treatment unit. 	
	Continuously strengthen cybersecurity measures for all MHI products	Promote the development and practical application of cybersecurity technologies	MHI Group (Global)	<ul style="list-style-type: none"> In FY2022, cybersecurity R&D investments increased 3.0 times the level of FY2020. In order to strengthen the security resistance of our factories, evaluation and verification of network security detection devices were conducted in Sagamihara Machinery Works, YHH, Nagoya Guidance & Propulsion Systems Works – Komaki North Plant and other locations. The basic security requirements set by Charter of Trust*4 were reflected in the company standards. Industrial control system security manager meetings were held twice to share the security measures of factory infrastructure. 	
Promote diversity and improve employee engagement  [In charge of HR]	Project new value through participation of diverse human resources	Increase the ratio of women on the Board of Directors to at least 30% by 2030	MHI	<ul style="list-style-type: none"> Continued our training program for potential future executive candidates in collaboration with each business unit. 	
		Double the ratio of women in management positions by 2030 (compared to FY2021)	MHI Group (Global)	<ul style="list-style-type: none"> Expanded various employee support systems with consideration to childcare and caregiving in order to enable employees to continue their careers. Promoting a workplace environment and organizational culture allowing for a balance of professional and private life. 	
		In accordance with the MHI Group Human Rights Policy, raise awareness of diversity among Group employees through education and other efforts	MHI Group (Global)	<ul style="list-style-type: none"> Started development of educational materials (e-learning) on the topic of respecting human rights in MHI Group. About 75 thousand employees world-wide took the course. 	
	Ensure safe and comfortable workplaces	Reduce the number of serious accidents to zero		MHI Group (Japan)	<ul style="list-style-type: none"> A subcontractor's fatal accident occurred. The root cause analysis was undertaken immediately to prevent recurrence and measures were announced to all departments in MHI. The rate of lost-worktime injuries was less than the industry average. Conducted early detection and root cause analysis based on data from past accidents, and studied and developed countermeasures across divisions.
Maintain a labor (work absence) accident frequency at a rate that is equal to or lower than the industry average					
	Improve our environment that maximizes employee performance, and develop human resources who are healthy, energetic and able to contribute to society	Raise the employee awareness survey's "engagement" score above the global average by FY2030	MHI Group (Global)	<ul style="list-style-type: none"> The 4th MHI Group Employee Survey was undertaken in March 2023. President's Town Meeting was held at 4 sites in Japan. Announced pulse survey tool to all MHI Group and continuing operational improvement. 	
Enhance corporate governance  [GC]	Further enhance deliberations by the Board of Directors	Maintain the ratio of Independent Outside Directors on the Board of Directors at 50% or more		<ul style="list-style-type: none"> Maintained the percentage of independent outside directors at 50% (6/12) and worked to speed up decision-making processes and strengthen oversight functions. 	
		Assess the effectiveness of the Board of Directors annually to ensure and improve it	MHI	<ul style="list-style-type: none"> Engaged in the following initiatives to evaluate the effectiveness of the Board of Directors in FY2022. <ul style="list-style-type: none"> Conducted questionnaires to all members of the board. Discussed the results of these evaluations in meetings of independent outside directors and reported the same to Board of Directors meetings. Established policies based on the results of the effectiveness evaluation and finalized the draft of disclosure, both by the resolutions of the Board of Directors. Also started planning the agenda schedule for FY2023. 	
	Promote legal compliance and honest and fair business practices	Maintain the number of serious laws/regulation violations at zero		MHI Group (Global)	<ul style="list-style-type: none"> There were no serious laws/regulation violations. Case studies related to compliance were published monthly to raise awareness within the company. Compliance information tailored to each region was shared with Group companies outside Japan in an effort to prevent compliance issues. Ensuring that overseas group companies set up hotlines for reporting on compliance issues.
		Continue activities that promote an open organizational culture			<ul style="list-style-type: none"> Implemented the following compliance training for employees both within and outside Japan. <ul style="list-style-type: none"> Japan: e-learning, discussion-based training, job grade-based training Outside Japan: e-learning
Further promote responsible (CSR) procurement in the global supply chain	Promote sustainability and CSR procurement activities with partners to build a sustainable supply chain		MHI Group (Global)	<ul style="list-style-type: none"> Implemented a CSR questionnaire for overseas partner companies with a certain amount of regular purchase orders from MHI, and obtained their agreement to the MHI Group Supply Chain CSR Promotion Guidelines. 	
	Offer continuous educative information to suppliers/business partners in order to establish and maintain sustainable supply chain			<ul style="list-style-type: none"> Delivered educational materials on CSR procurement when sending the periodical CSR questionnaire for partner companies, and confirmed widespread understanding within each company. Performed CSR procurement education at business briefings and meetings with partners 	
	Create opportunities to explain non-financial information	Conduct ESG briefings to investors at least once a year	MHI Group (Global)	<ul style="list-style-type: none"> Held an ESG briefing in March 2023 to explain MHI Group's framework for addressing sustainability and the progress toward achieving KPIs for each material issue. 	

*1 Mitsubishi Development Pty Ltd: A wholly owned subsidiary of Mitsubishi Corporation that has contributed to global industries for more than 50 years through its developments in the mineral resources sector.

*2 HYFOR (Hydrogen-based Fine-Ore Reduction): A novel direct reduction process for iron ore fines concentrates from ore beneficiation, developed by MHI Group company Primetals Technologies.

*3 YHH (Yokohama Hardtech Hub): A co-creation space operated by MHI in Yokohama.

*4 Charter of Trust: An initiative by private corporations to build trust in cybersecurity. MHI has participated in this initiative since April 2019.