

# MHI REPORT 2021

MITSUBISHI HEAVY INDUSTRIES GROUP INTEGRATED REPORT For the Year Ended March 31, 2021



## A Conversation with the Chairman of the Board

Shunichi Miyanaga Chairman of the Board

**Corporate Management and** 

Today, people are beginning to reconsider the state of modern capitalism, and attention is focusing on the future of corporate management and governance.
To obtain a different perspective on these issues, we invited Professor Takahiro Nakajima of Institute for Advanced
Studies on Asia, the University of Tokyo, a globally recognized expert in philosophy who is well-versed in capitalist theory, to have a conversation with Chairman Shunichi Miyanaga.

## The State of Modern Capitalism and the Transformation of Corporate Management

Miyanaga Thank you for taking time out of your busy schedule to be here today. I have read quite a few of your books, and I believe your profound insights can be applied to corporate management in many ways. Today, I would like to share opinions and hear your suggestions on how to approach management in our changing world.

Nakajima Thank you for inviting me. I have very much been looking forward to our conversation as well. To begin, in your position as the head of an enterprise active in every part of that world and with your abundant experience in corporate management on a global scale, I would like to ask how you view the changes taking place in the global economy and in corporate management.

Miyanaga For many years, I worked in our Metals Machinery business, and I did business with people in the steel industry including metals machinery manufacturers in many countries, such as Germany, the UK, the U.S. and South Korea. During this time I experienced first-hand a period of significant changes: technology partnerships mainly with German companies, international expansion, structural changes in the U.S. steel industry to name a few. I believe these experiences were



Takahiro Nakajima Professor, Institute for Advanced Studies on Asia, The University of Tokyo

very beneficial to me. One thing I can say is that until the 1980s, management methods actually varied more than today, due to historical or cultural differences between countries or even between companies. Companies in those days evolved in unique ways within their respective fields and territories; then, in the course of interacting with people from other countries or companies, the companies experienced new development, each in their own unique way. However, starting in the 1990s, globalization brought with it a rapid homogenization in manufacturing, procurement, sales, and consumption.

Nakajima One could say the changes that occurred at that time in the ways companies do business as well as management philosophies and social systems produced modern global capitalism.

**Miyanaga** Yes, I believe so. That process was supported especially by developments in transportation, logistics, and IT. This, I believe, is how our contemporary corporate management model, where competition and the reallocation of capital are conducted on various unified platforms, developed. However, in light of the diverse global issues facing us today, there is growing concern that if the current course of events remains unchanged, we may no longer be able to maintain healthy business cycles. I believe that today we have reached a phase in which, in order to keep improving society and the ecosystems that support it, we need to reconsider our approach both to corporate management and to the business world as a whole.

We must avoid converging on a standard considered the one and only way of doing things at any given time, as trying to maintain a single pattern of success will cause the platform itself to ossify. There can be no true progress in an environment like that. To achieve continuous improvement, we need to be open to discarding certain parts of the business at any time, and to welcome the emergence of people who have the potential to exceed us. All companies, and the business world in general, need to embrace high ethical standards and, while reevaluating established rules and frameworks, to strive at all times not to stifle the aspirations of the next generation who seek to challenge us.

#### Takahiro Nakajima

Professor, Institute for Advanced Studies on Asia, The University of Tokyo. Areas of specialization include: research on Asian philosophies (including Chinese philosophy) and their comparison with Western philosophies; reexamination of Chinese philosophy by using Western philosophical methodology; historical research on other world philosophies; ethics, modern thought, and cultural representation. Recipient of such esteemed awards as the Hajime Nakamura Award and the Watsuji Prize for Culture. Author of numerous publications.

## A Conversation with the Chairman of the Board

Nakajima I agree that giving space to the next generation to create new businesses and technologies is necessary for progress in society. This is an extremely important point of view. I also agree with your point that high ethical standards are needed to achieve healthy business cycles. This doesn't mean simply adhering to rules and regulations. I see corporate ethics as something that enables people to be human, and standards for that are needed.

Against this backdrop, I think companies are again being called on to address the issue of value. For example, in Germany today, new initiatives are underway in which corporate management are joining with experts in philosophy to launch new organizations with the goal of engaging head-on with the debate on value.

Miyanaga I think value is an important consideration in corporate management. The society we live in is extremely complex, and everyone has their own sense of what is valuable. Value also changes with time and cannot be discussed in simple mathematical terms. The value of something also cannot be calculated simply by adding individual elements of value that comprise it.

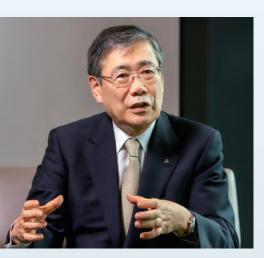
I think where a company's true value exists is in appropriately combining each of its business activities based on its corporate philosophy and the passion that philosophy inspires. A company needs to run its business by continuously combining its activities in a way that will be of optimal benefit to its various stakeholders.

Nakajima This may change the topic slightly, but I am deeply concerned about modern society's tendency to treat people not as individuals but as groups. Much is said about "personalization," but in our digital society, people receive scores even in their personal lives, causing them to exercise self-control on social media, which makes me think they are losing their raison d'être. If the world continues in this way, we will eventually arrive at a kind of totalitarianism where needs and preferences are calculated and everything is designed for comfort. But will people be happy in such a world?

Miyanaga I have wondered the same thing. We need to act now so that every individual can feel truly happy in the future. Instead of doing away with what has become old or eliminating a certain subset of people from the conversation, we need to transform society in an inclusive way and strive for harmony. Through repeated conflict, new value can emerge, making progress toward achieving the optimal condition. I think we've entered an era in which people should envision what they themselves want to become in order to create a world that is healthy and equitable.

Professor Nakajima, you have warned us about modern society's move toward totalitarianism and proposed the concept of "human capitalism," which is the next point I would like to consider.

Nakajima Gladly. Up until now, society has undergone a transition from a capitalism centered on tangible things, which placed value on ownership of objects and viewed humans as simply a source of labor, to a capitalism centered on intangible things, such as events and information. Capitalism centered on intangibles



**66** We need to take action now so that every individual can feel truly happy in the future **77** 

—— Miyanaga

places value on being different and therefore continuously gives birth to difference. Humans are considered one node in a difference-generating network, and humans are losing their agency as a result of this, which is what I view to be the crux of the problem. Capitalism is fundamentally a system whose objective is to seek out the next investment target. And what we need today, I think, is a society that, rather than continuing to invest only in things – tangible and otherwise – invests in people and things that will enrich their lives. This is what I mean by "human capitalism." It is a concept akin to the "healthy and equitable society" you spoke of.

## Pursuing Solutions to the World's Most Pressing Issues

Miyanaga If we assume that, to achieve a better society, capitalism will see a shift in investment focus from tangible things to the intangible and then to people, I think that eventually we will return to the idea that importance should be placed once more on tangible things. The important concept here isn't simply owner-ship of tangible things as before, but rather creating things that will assist in the realization of a world in which all human beings can live fulfilling lives. To solve the various issues affecting mankind–for example, environmental destruction, regional issues, and wealth disparity–I believe it will be important to work with diverse companies, organizations, and communities to develop things that provide value to the people who use them. We need to advance the creation of things as a whole–not just conventional tangible things but also improvements in how things are used and services to enable these new uses. Seen in this light, I think MHI Group is capable of creating this kind of value.

Nakajima I agree. In the context of "human capitalism," the meaning of "tangible things" is being reconsidered. In that respect, the Energy Transition in which MHI is now investing is an initiative that seeks to enrich people's lives while assuring sustainability. To put it another way, the Energy Transition seeks to partially do away with the status quo in order to make room for something new, giving rise to changes in a variety of areas which will establish the conditions in which all people can be happy. At least that is how I view it.

On that topic, I would like to ask you about the future of energy. Looking back over the history of the modern industrialized world, I think the energy revolution is one of the most important events in recent history. What are your thoughts regarding energy going forward?

Miyanaga In the past, mankind transformed hydropower to energy and subsequently succeeded in creating thermal energy from fossil fuels, which have extremely high energy density. Then by converting thermal energy to electricity, we acquired the extremely convenient lives we enjoy today. Now, at this juncture, the issues of climate change and resource scarcity have come into play. Recently, re**66** What we need today is a society that invests in people rather than things and events that will enrich their lives **77** 

—— Nakajima



## A Conversation with the Chairman of the Board

newable energy is garnering attention as a solution to climate change, and yet, all forms of renewable energy–solar, wind, and hydro–have been utilized as energy sources since time immemorial. But while these energy sources themselves date from before the Industrial Revolution, I believe that, through innovations in the technologies used to convert them to electricity and to store the electricity produced, advances are still waiting to be made in all areas, from energy production to utilization. Of course, research and development are underway on hydrogen as a new source of energy, including its manufacture and distribution.

Nakajima So, even though various issues still need to be overcome, and humanity needs to devote its brightest minds to the task to make important technological breakthroughs, in your view the future of energy is bright?

Miyanaga Yes, I believe so. For each region, optimal energy production and storage methods exist. Moreover, progress will continue to be made in these technologies. Even judging from the research and engineering achieved at the current stage, it is clear that replacement of certain existing energy sources and technologies will definitely occur. Achieving economic viability is another important issue, and at this point we cannot be certain what will be best for the world of the future, including how this transition should be carried out. In our view, it will be important to offer a variety of options.

Nakajima I agree. Along with energy, another future risk to society often mentioned is the issue of raw materials. In particular, chemical fertilizer usage in agriculture presents a serious problem in that, unlike organic fertilizers, chemical fertilizers cannot be recycled in the ecosystem. Although this perhaps has little relevance to MHI's businesses, what do you think about problems such as this?

Miyanaga It may be necessary to rethink how resources are used from the perspective of recycling of carbon and other substances in the ecosystem. MHI Group is not involved in agriculture per se, but we are working to create infrastructure to support the creation of a society free from want. Specifically, through advances in cold storage technology, realization of the Cold Chain, and breakthroughs in waste decomposition, biomass energy, and environmentally controlled vertical/modular engineered farming, we hope to contribute to resolving food and resource shortages through the Energy Transition.

## **Corporate Governance in the Years Ahead**

Nakajima When managing a company, it is also important to share your ideas about how to resolve issues like those you just described with your shareholders, the capital markets, and with various other stakeholders.



Miyanaga Absolutely. As corporate managers, we are entrusted with the leadership of the company by society and our shareholders. With the sense of responsibility and joy that comes with that trust, we must constantly consider what our goals are, how we will coexist and prosper together with our many stakeholders, and what we can give back to society–and then work tirelessly to realize them.

This is what I think constitutes true corporate governance. And because each company has its own unique way of doing business, I think there should be greater diversity in how governance is implemented and how it is explained. I believe that if, in the course of explaining our company's goals, our stakeholders indicate points that they do not understand or those which they believe we have dealt with inadequately, responding in good faith as a manager will also lead to the advancement of the company's goals.

Nakajima A friend of mine once said that, as human beings, the pursuit of our ambitions is more important than the pursuit of possibilities. What you said about corporate management's need to consider what our goals are has much in common with this way of thinking.

Miyanaga When pursuing mergers, acquisitions, and business divestitures, while it goes without saying that one should avoid transactions whose sole goal is profit or the acquisition of technologies or business functions, one should focus most on a transaction's impact on realizing the company's vision, on the happiness of the company and employees affected, and the transaction's effect on society, including employment.

It is also important to pass on that way of thinking and determination to subsequent managers and employees. It is by passing these on to the next generation that we forge lasting bonds with society and sustained advancement can be achieved.

Based on this idea, I sometimes use a phrase of my own invention: "forwardlooking resignation." There may be many things I want to do, but, rather than attempting to do them all, first I separate what I can do now from what I cannot. While making sure to value interpersonal relationships, I pour my heart and soul into passing on what I know to those who will succeed me. This is where I find my true value.

Going forward, I hope to continue having serious discussions of important issues and to use my "forward-looking resignation" to help create a society that is healthy and equitable.

Nakajima Mr. Miyanaga, your approach to corporate management resonates deeply with me. I can truly feel your passion, founded in your "forward-looking resignation," to clarify and resolve the world's long-term problems. As a normal member of the public, I have high hopes for MHI's future development.

I think we have had a very meaningful exchange of ideas on a wide variety of topics today. Thank you for giving me the opportunity to speak with you.

Miyanaga Thank you, Professor Nakajima, for taking time out of your busy schedule to be here with me today. I learned a great deal from our conversation.





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Corporate Management and Governance of the Future
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#### **Purpose of Publishing This Report**

Mitsubishi Heavy Industries (MHI) Group aims to achieve growth by contributing to the development of society by responding to current and future issues and needs with a variety of technologies, based on our corporate philosophy set forth in Our Principles. In order to help shareholders, investors, and other stakeholders better understand our philosophy, we have published this MHI Report as an integrated report that provides financial information, including management strategies and operating performance, as well as non-financial information such as management resources, corporate governance, risk management that support our strategies and performance, and the Group's environmental and social activities since fiscal year ended March 2014 (FY 2013).

#### **Reference Guidelines**

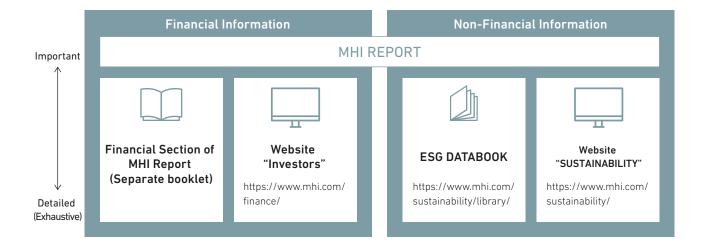
International Integrated Reporting Council (IIRC): International Integrated Reporting Framework Global Reporting Initiative: Sustainability Reporting Standards Ministry of Economy, Trade and Industry of Japan: The Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation

Ministry of the Environment of Japan: Environmental Reporting Guidelines (2018 version)

#### Structure of Information Disclosure



MHI Report contains information that is important to understanding MHI. More detailed information is available on our website. https://www.mhi.com/finance



#### Forward-Looking Statements

Forecasts regarding future performance in these materials are based on judgments made in accordance with information available at the time this report was prepared. As such, these projections involve risks and uncertainties. For this reason, investors are recommended not to depend solely on these projections for making investment decisions. It is possible that actual results may change significantly from these projections for a number of factors. Such factors include, but are not limited to, economic trends affecting the Company's operating environment, currency movement of the yen value to the U.S. dollar and other foreign currencies, and trends of stock markets in Japan. Also, the results projected here should not be construed in any way as being guaranteed by the Company.

## **Our Principles**

Since our foundation, we have consistently striven together with stakeholders to contribute to the development of society through the pioneering *monozukuri*–the traditional Japanese concept of craftsmanship.

- 1. We deliver reliable and innovative solutions that make a lasting difference to customers and communities worldwide.
- 2. We act with integrity and fairness, always respecting others.
- 3. We constantly strive for excellence in our operations and technology, building on a wide global outlook and deep local insights.

MHI Group traces its roots back to 1884, when founder Yataro Iwasaki launched a full-scale shipbuilding business in Nagasaki. Over the more than 130 years since then, we have strived together with our customers, shareholders and other stakeholders to take on the challenges of creating new "monozukuri" ahead of the times. MHI Group has achieved its growth by contributing to the development of society through providing products and services that support people's lives. Our Principles, formulated on the basis of the Three Principles of Mitsubishi Group, are: "We deliver reliable and innovative solutions that make a lasting difference to customers and communities worldwide," "We act with integrity and fairness, always respecting others," and "We constantly strive for excellence in our operations and technology, building on a wide global outlook and deep local insights," and we have consistently adopted Our Principles as immutable philosophy.

Today, as a global leader in *monozukuri* and engineering, MHI Group utilizes its advanced technology to provide integrated solutions in a wide range of fields, from infrastructure such as shipbuilding, transportation systems, commercial aircraft, and power systems, to space systems. Our activities have also expanded worldwide. MHI Group aims to contribute to progress of society more broadly by solving complex global issues, such as rapid urbanization in emerging countries, infrastructure upgrades in developed countries and environmental issues including climate change.



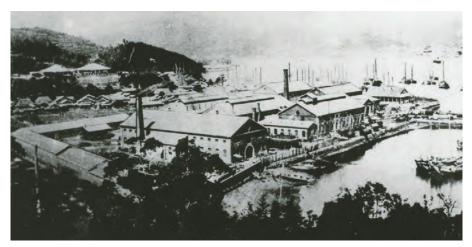
Yataro Iwasaki, MHI's first president

#### Purpose of Our Principles

#### June 1, 1970

The origins of MHI extend far back to 1870, and the fact that we are here today is the fruit of the untiring efforts of our founder, Yataro Iwasaki, as well as successive generations of management and employees. Lessons learned from these predecessors remain engraved in our minds to this day, and, recalling them, we have resolved to establish Our Principles suitable to MHI with its rich tradition in preparation for further leap forward into the future.

The wording of Our Principles is directly based on the idea of the Three Principles of Koyata Iwasaki, the fourth president: corporate responsibility to society, integrity and fairness, and global understanding through business. Our Principles are a concise expression of the Three Principles from the three perspectives: the basic stance of the Company, the mindset of our employees, and the future direction to which the Company should aspire. On this occasion as we marked 100th anniversary of our foundation, and at the start of the turbulent 1970s, we aim to continue moving forward with motivation in response to the changing times. This is the purpose for the establishment of Our Principles which incorporate new sense.



Nagasaki Shipyard & Machinery Works in 1885

## **Group Profile**



Shareholders' equity\*

¥1,366.3 billion

\* Equity attributable to owners of the parent

Human capital

Number of employees



Interest-bearing debt



Training hours per employee

13.1 hours



**R&D** expenses

¥125.7 billion

Property, plant and equipment

¥779.7 billion

Number of patents held

25,968



Capital investment

¥125.5 billion

1,360 people

People undergoing human

rights awareness training

Social and relationship capital

Social contribution expenses

¥1.2 billion



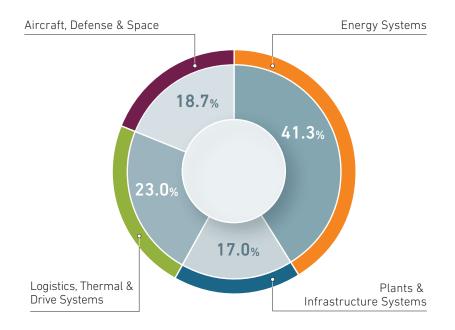
Renewable energy consumption

116 GWh

Water usage



#### Composition of Revenue by Segment (FY 2020)



#### **Energy Systems**

Logistics, Thermal & Drive Systems

#### Main Businesses

- Clean gas and steam power systems\*
- Nuclear power systems
- Compressors
- Marine machinery \*Includes GTCC, steam power and

#### **Plants & Infrastructure Systems**

#### Main Businesses

- Commercial ships
- Engineering
- Environmental systems
- Metals machinery
- Machine tools
- Machinery systems



- Aero engines
- environmental plants

#### Aircraft, Defense & Space



#### Main Businesses

- Material handling systems
- Engines
- Turbochargers
- HVAC systems
- Automotive airconditioners



#### Main Businesses

- Commercial aircraft
- Defense aircraft
- Missile systems
- Naval ships
- Special vehicles (tanks)
- Maritime systems (torpedoes)
- Space systems

## **Progressing Along with Society**

Since its foundation, MHI Group has consistently strived together with society, including our customers, partners, and other stakeholders to take on the challenges of creating new *monozukuri*-the traditional Japanese concept of craftsmanship-ahead of times, thereby continuing to the development of society by providing products and services that support people's lives. Leveraging the ample accomplishments, expertise, and human resources accumulated through the *monozukuri*, we will continue to take on the challenges of building a better future for the world, engaging in issues such as balancing economic development and reducing environmental impact of economic activity.

## Expanding our business domains by taking changes in social values and technological innovations based on manufacturing

As we have progressed along with Japan's modernization, with shipbuilding at our core, MHI Group has diversified its business portfolio by advancing into various mechanical fields such as automobiles, aircraft, turbines, and internal combustion engines.

#### In the post-war years, MHI supported rapid economic growth by responding to the rapidly increasing demand for electricity and brisk private-sector capital investment, while focusing on the shipbuilding business, and preparing for spinning off the automobile business unit.

## 1950's >>

In response to the severe recession, MHI shifted from business model that relied heavily on the shipbuilding business by focusing on growing fields such as power systems and aircraft. MHI also proactively promoted the globalization of its business in search of a way to tap into international markets.

We also honed our advanced technological capabilities, as represented by our efforts in space development.



## Progressing along with Japan's modernization

1880's >>

Supporting post-war reconstruction and rapid economic growth in Japan

Playing a part in a technology-based nation



Nagasaki Shipyard & Machinery Works' first steel steamship, the Yugaomaru



The Nippon, which made a successful roundthe-world goodwill flight



Mitsubishi Westinghouse turbine



The first MU-2A multi-purpose light aircraft



Rolling plant for steelworks





The first

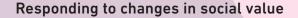
Opening ceremony for the total station construction portion of the Channel Tunnel under the Strait of Dover

## **Present and Future**

Responding to growing energy demand accompanying economic development while also reducing environmental impact of economic activity is an issue we face today. MHI Group contributes to a sustainable society by providing a variety of products and solutions, such as offshore wind turbines utilizing renewable energy, clean gas power, CO<sub>2</sub> capture plant and flue gas desulfurization unit.

## 2000's >>

## Contributing to a sustainable society



Low-carbonization and Decarbonization



Hydrogen co-firing/100% hydrogen firing gas turbine



CCS/CCUS (Carbon capture and its effective utilization)

For details, see page 36

## Responding to the evolution of machinery systems

#### **Electrification and Intelligent Systems**





For details, see page 58

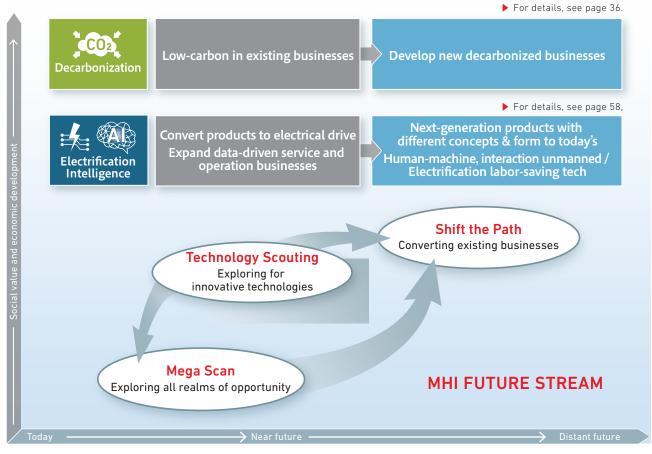


CO₂ capture plant

## **MHI FUTURE STREAM**

As social issues have become increasingly complex and diverse in recent years, MHI Group aims to contribute to both economic development and reduction of environmental burden through its operations. Toward this end, we are exploring all realms of opportunity and pivoting our existing businesses by identifying innovative technologies through our MHI FUTURE STREAM program based on a commitment to continuing to provide environmentally friendlier products and solutions in addition to reducing environmental burden across all of our business activities' constituent processes.

- Expand our business domains by taking on social value changes and technological innovations based on manufacturing
- Take initiatives for the decarbonization and evolution of machinery systems through electrification and intelligent systems



## Sustainability Management

Resolving Social Issues

## **Relationships with Stakeholders**

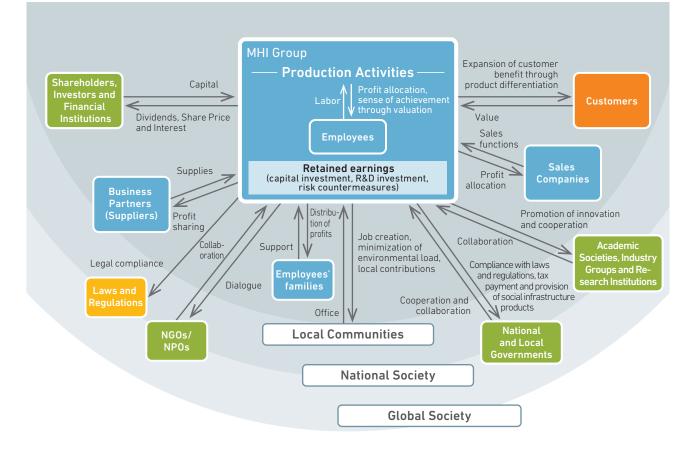
We believe that corporate social responsibility (CSR) fundamentally entails realizing a sustainable society and ensuring a future for people and the planet by providing exceptional products and technologies, conducting business activities that take diverse stakeholders' interests into consideration and optimally returning profits to all stakeholders as a company that helps to move society forward through its operations. We issued CSR Action Guidelines in 2007 to foster a shared mindset among Group personnel and instituted the MHI Group Code of Conduct in 2015. Together, they set common standards on how Group personnel with diverse backgrounds, nationalities and cultures should conduct themselves. We have set analogous policies for the environment and human rights also. Specifically, we issued our Basic Policy on Environmental Matters and Action Guidelines, under which we endeavor to reduce environmental burden, in 1996 and the MHI Basic Policy on Human Rights in 2014.

We have also endorsed international human rights standards, most notably the Universal Declaration of Human Rights.

We value input from various stakeholders connected with our business activities, including customers, suppliers, business partners, Group employees and local communities. We place priority on incorporating their input into our management.

In addition to input gleaned from stakeholders in the course of day-to-day operations, we also endeavor to keep abreast of societal views through dialogue with NGOs and thought leaders with expertise in sustainability and social issues.

Meanwhile, we are building mutually cooperative relationships with NPOs and conducting activities to help resolve global societal problems in addition to responding to the needs of and challenges facing communities in which our operations are located.



#### MHI Group involvement with society

### **Global Initiatives**

#### **Conformity with International Norms and Information Disclosure**

As a global company, MHI Group always conducts its business activities in accord with international norms. We joined the United Nations Global Compact in 2004. As a signatory, we are committed to propagating and practicing its Ten Principles pertaining to human rights, labor, the environment and anticorruption. We are also committed to compliance with ISO 26000, an international standard on organizational social responsibility. We apply its guidance to our sustainability activities. We strive to disclose information on our activities in accordance with reporting standards such as the Sustainability Reporting Standards of the Global Reporting Initiative. To address climate change in particular, we joined the international NPO CDP in 2004. We aim to completely decarbonize the Group's business activities by 2050 in accord with the MHI Group Long-Term Environmental Target set in December 2017. As a first step, we are targeting a 44% reduction (relative to FY2014) in our business activities' total direct (Scope 1) and indirect (Scope 2) CO<sub>2</sub> emissions by 2030. We have also endorsed the Task Force on Climate-Related Financial Disclosures' (TCFD) recommendations and follow them with respect to analysis, disclosure, etc.

#### Efforts toward the Task Force on Climate-related Financial Disclosures

Offering solutions to address the issue of climate change is MHI Group's contribution and responsibility to society. Efforts to do so are part of the Group's business strategy and determined after Groupwide discussion. Initiatives on reducing environmental burden are carried out across the entire Group. We conducted the initiatives and analysis below centered on the energy-related products business, which has the biggest impact on the environment.

3

#### Climate scenario for the Under 2°C increase goal

#### Power demand will grow worldwide and share of renewable energy will increase.

United States and Europe: Power demand is increasing due to the progress in electrification. Meanwhile, society is aiming for decarbonization as the penetration of renewable energy.

#### Southeast Asia:

Power demand is increasing by economic growth. Stable power supply is required in addition to renewable energy.

## 2 Climate-related risks an opportunities

- Downward trend in the market for new coal-fired thermal power facilities.
- Meanwhile, demand still remains for the thermal power with low environmental emissions with the energy security needs.

Strong demand for modernizing existing power plants reducing CO<sub>2</sub> and other environmental emissions for stable energy supply.

 Solid market expected over medium- to long-term demand for new gas power plants with expansion of the LNG market

#### Business strategies risk management

- Optimization of resources for the market after 2021 (reorganization, personnel shifts, etc.)
- Provision of solutions for lowcarbon needs

Collaboration with renewable energy toward realizing a decarbonization society in the future (e.g., the development of hydrogen-powered gas turbines).

- Promotion of state-of-the-art technologies (IGCC, highly efficient GTCC/USC<sup>1</sup>, CCS/ CCUS<sup>2</sup>)
- Provision of Al/IoT technology solutions
- Development of Key Index Approach (QoEn<sup>™</sup> Index)<sup>3</sup> to support necessary energy supply with high-quality energy infrastructure in accordance with the characteristics and needs of target area.

#### Financial impact

7.

Disclosure of results at earnings announcements, business strategy meetings, etc., upon examination within business forecasts.

\*1 Ultra super critical

\*2 Carbon capture and storage/carbon capture utilization and storage

\*3 QoEn™ is a registered trademark of Mitsubishi Heavy Industries, Ltd.

Company-wide objectives

management indicators.

ess)	Provide energy so- lutions to enable a decarbonized world	<ul> <li>Help build infrastructure that will realize a decarbon- ized society by 2050</li> <li>Help decarbonize energy-intensive sectors by 2050</li> <li>Help build a circular society/closed-loop systems</li> <li>Decarbonize MHI Group's business activities by 2050</li> </ul>	7 Hereautrice Hand stemp
Business Contribution (Business)	Transform society through AI and digitalization	<ul> <li>Expand offerings of sustainable, user-friendly Al- enabled/digital products</li> <li>Propose future energy management solutions</li> <li>Foster environment conducive to creative product development</li> </ul>	8 stort vork AND 8 stort vork AND 11 stortensierer ↑ 11 stortensierer ↑ 12 stortensierer ↑ 13 storten ↑ 13 stortensierer
Business Co	Build a safer and more secure world	<ul> <li>Improve key infrastructure's resilience</li> <li>Automate/reduce manpower requirements of key infrastructure</li> <li>Continuously upgrade cybersecurity across all MHI Group products</li> <li>Productize cross-domain security technologies</li> <li>Cultivate engineers capable of both safety- and security-minded product development</li> </ul>	3 GOO HALTH AND MILLING AND M
Foundation to Support Business (Corporate)	Promote diversity and increase em- ployee engagement	<ul> <li>Create new value with diverse human resources</li> <li>Ensure workplaces are safe and comfortable</li> <li>Develop healthy, dynamic human resources capable of contributing to society</li> <li>Support/facilitate every employee's autonomous/selfmotivated growth</li> <li>Increase engagement</li> </ul>	4 court 10 recents C = C + C + C + C + C + C + C + C + C +
Foundation to ( (Cor	Enhance corporate governance	<ul> <li>Further expand Board of Directors' deliberative purview</li> <li>Promote legal/regulatory compliance and honest, fair and impartial business practices</li> <li>Further increase socially responsible sourcing's prevalence in global supply chains</li> <li>Create opportunities to present nonfinancial information</li> </ul>	16 radiance hereine Service Se

long term through solutions to social issues, MHI Group has identified materiality it should be addressing. In response to the increasing importance of sustain-

Sustainable Growth through

Resolving Social Issues

**Materiality** 

Materiality of MHI Group

Materiality

ability in international standards and guidelines, as seen in recent years in the Sustainable Development Goals (SDGs) adopted by the United Nations, growing ESG Investment, and the EU taxonomy and subsequent changes

To enhance corporate value and grow in the medium to

Laying the Groundwork for Sustainability Management

in megatrends influencing the MHI Group, in 2020 we reviewed the materiality identified in 2015 and added five

The materiality we identified is reflected in the 2021 Medium-term Business Plan announced in October

2020 and targets have been set for each, with progress

regularly monitored as part of the Group's non-financial

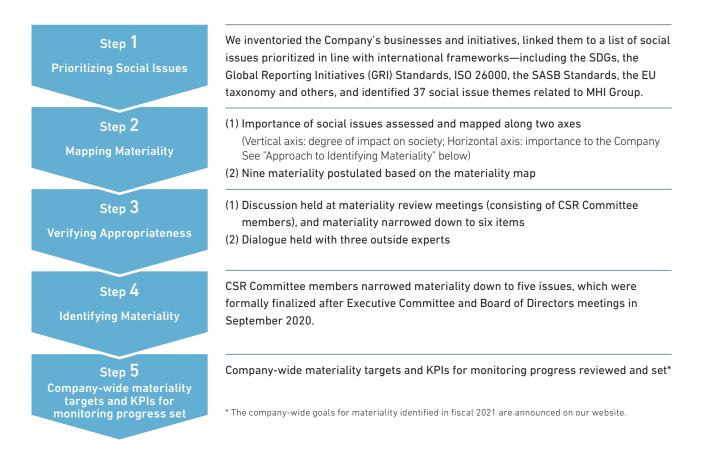
SDGs

new items as noted below.

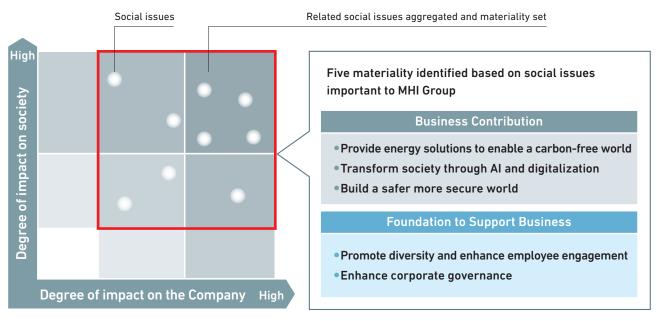
Corporate Governance

#### Sustainability Management

#### **Processes Defining Materiality**



#### Approach to Identifying Materiality



#### Their Opinions •As the world shifts direction toward decarbonization, putting forth decarbonization rather than low-carbon goals is more in line with the times.

Design Studies, Rikkyo University Mariko Kawaguchi	<ul> <li>What about specifying your approach to adapting to climate change? Adaptation is one area in which we expect something of MHI. You can create a powerful message by reevaluating your approach with the understanding that disasters and climate change come as a set.</li> </ul>
Chief Executive Officer, Sustainability Forum Japan Board Member	<ul> <li>The current materiality represents a significant improvement over those announced in 2015 because they also encompass the Company's development strategy.</li> <li>It is important to demonstrate the relationship between materiality and your medium- to long-term development strategy.</li> <li>Materiality would be further improved by an outside-in perspective on your own business, based on the social issues.</li> </ul>
Toshihiko Goto	<ul> <li>Given that more than half of MHI's business is overseas, materiality needs to be compiled with an awareness of their relationship to human rights as well.</li> </ul>
Professor, Graduate School of Engineering Special Advisor to the President Institute of Engineering Innovation, School of Engineering, the University of Tokyo Ichiro Sakata	<ul> <li>If you can put forth ideas for overcoming the trade-off between the shift to smart technologies and increased energy consumption associated with the growing volume of information traffic, this should have an impact on your business strategy and materiality.</li> <li>Taking issues of digitalization and data into consideration based on MHI's future growth might result in a more forward-thinking discussion. Those elements can provide a new driver toward efforts to achieve a better society.</li> </ul>

## Response to Opinions

Specially Appointed Professor, Graduate School of Social

Resolving Social Issues

Based on these dialogues, our materiality now reflects both decarbonization and energy issues in an effort to clearly set forth MHI Group's response to climate change. In addition, based on suggestions regarding digitalization and data, we have incorporated an AI/Digitalization item as part of our business materiality. We have also positioned respect for human rights as a more important issue of materiality given the expansion of MHI Group's business activities around the globe. With regards to the relationship between materiality and our mediumto long-term development strategy, we established our Medium-Term Business Plan with an understanding of the materiality identified, and will conduct regular monitoring of our materiality targets.

## **Objective-setting meeting with outside directors** (Step 5 of determination process)

Step 5 of the materiality determination process involves setting company-wide objectives and selecting KPIs for monitoring progress. This step was performed mainly by a task force comprising young and mid-level employees who will shoulder MHI Group's future. In May 2021, the task force met with outside directors and discussed the objectives and metrics.

Whereas many companies set such quantitative management objectives and metrics on a top-down basis, the process at MHI was anchored by selected task force members. At the meeting, outside directors said that the discussion of objectives and metrics in the context of the connection between societal issues and MHI Group's

value creation was an excellent experience for the Group and task force members.

They also commented on the need for continued proactive discussion. We will continue to foster lively discussion.



## Dialogue held with experts to discuss identifying materiality (Step 3 of determination process)

On September 4, 2020, a dialogue was held with three experts to discuss identifying materiality. Valuable opinions were offered by the three based on their knowledge of their respective areas of expertise.

## A Message from the President & CEO



# Towards a Prosperous Society for Everyone Everywhere

To integrate cutting-edge technology into expertise built up over many years to provide solutions to the world's most pressing issues and provide better lives



#### **MHI Group Mission**

FY2020 saw change on a scale rarely experienced, caused not only by the COVID-19 pandemic but also by shifts in the social and industrial underpinnings of our world. Global issues – including climate change, human rights, increasing wealth disparity, and the geopolitical risks that accompany them – became more severe, while in the economic sphere rapid changes related to decarbonization, digital transformation (DX), and risk management occurred.

For MHI Group to achieve sustained growth in our changing world, I believe it is essential to clarify what we should change and what we should keep the same about the Company.

As for what we should change, we should adjust our responses to the economic environment and the society that surrounds us by becoming more flexible rather than rigidly holding on to our conventional way of doing things. Changes in values are impacting our business operations significantly. As today's world increasingly measures value in terms of intangible assets rather than physical ones, a shift has occurred where asset utilization has become more important than asset possession. In the manufacturing industry, this shift is moving focus away from the conventional approach of simply making products and delivering them to the customer. In the technology sphere, a paradigm shift concerning value creation has been underway for quite some time. No longer is value created simply by possessing largescale computation and analysis systems, proprietary technologies, or vast amounts of data, and it is precisely by the applied use of such assets in careful combination that MHI Group has created value thus far. Going forward, we will prioritize creating value not merely from our technologies themselves but from the complete spectrum of our corporate activities as a whole.

As for what should remain the same, we must maintain the MHI Group Corporate Mission, which drives us in each of our roles. The MHI Group Mission states: To integrate cutting-edge technology into expertise built up over many years to provide solutions to the world's most pressing issues and provide better lives. Throughout our 137-year history, MHI has achieved growth while serving as a leader in solving the world's issues. Indeed, solving hard problems is in our DNA, which is a fact we take pride in. Our Principles, based on the Three Principles of Mitsubishi Group<sup>-1</sup>, are solidly embraced by all employees and demonstrate the steadfastness of our core philosophy. In the years ahead, we will continue to strive at all times to fulfill society's wants and needs.

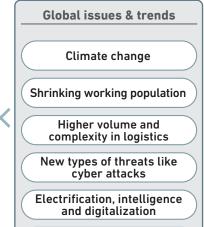
\*1 Refer to page 10.

#### **MHI Group Mission**

Integrate cutting-edge technology into expertise built up over many years to provide solutions to some of the world's most pressing issues and provide better lives

#### **Core strengths**

- Infrastructure systems that support our modern lives
- Defense products that protect us on land, at sea and in the air
- Space and deep sea systems that open up unknown parts of our world and universe
- High performance, high reliability products
  - High temperature, high speed, high pressure
  - Complex and large-scale structures and systems
  - Optimized control of large-scale systems



Shift in value from ownership to usage

#### MHI Group's key focal themes

- Realize a carbon neutral world
   Upgrading of current infrastructure
- Decarbonization and diversification of fuels
- CO<sub>2</sub> conversion and usage
- Air conditioning and chilling with natural refrigerant
- Improve quality of life
   Smart and networked machinery
  - systemsAutomation of logistics
- Electrified and intelligent mobility and industry
- Build a safer world
  - Integrated defense
- Cybersecurity

## **MHI Group Vision**

Under the unified MHI Group Mission, we have set three key themes for achieving our vision for 2030: Realize a carbon neutral world; Improve quality of life; and Build a safer world. We then divided our operations into three broad business areas: Energy & Environment; Infrastructure; and Aircraft, Defense & Space. Going forward, as we optimize our business portfolio, we will drastically increase our corporate value through two primary growth engines: the Energy Transition, which aims to achieve Carbon Neutrality by 2050, and New Mobility & Logistics, which seeks to integrate many disparate machinery systems and digital technologies.

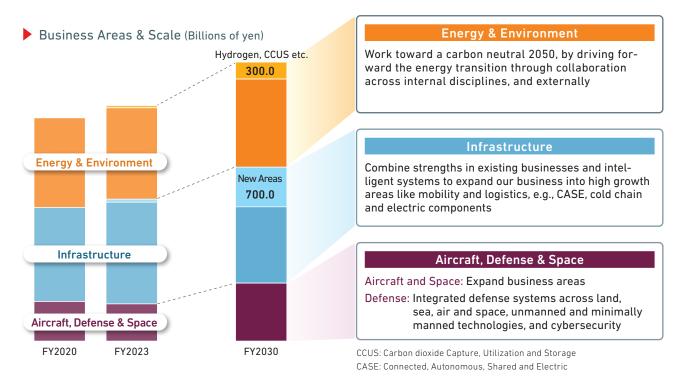
In today's increasingly complex and diverse society, MHI Group chooses to focus on harmony rather than conflict. Harmony for us means seeking to skillfully coordinate seemingly opposing elements by responding to environmental changes as they occur in order to create value. For example, to realize Carbon Neutrality, rather than defining the problem in terms of binaries such as "the environment or the economy" or "renewable energy or fossil fuels," we think the answer lies in a combination of both elements, i.e., "both the environment and the economy" and "both renewable energy and fossil fuels." This approach, I believe, will lead to more real-world solutions to these issues.

The world we aim for is one in which everyone everywhere can enjoy safe and prosperous lives–a world in which there are no regional or industrial disparities in such areas as energy costs and energy supply stability. This aspiration is aligned with the overarching principle of the United Nations' Sustainable Development Goals (SDGs): Leave no one behind.

To make this world a reality, we believe MHI Group has two roles to fulfill. The first is to develop solutions to diverse global issues by combining our accumulated technologies, assets, and expertise using our peerless integration skills. The second role is to introduce specific solutions to the world in the areas of the Energy Transition and New Mobility & Logistics.

#### MHI Group in 2030

Drastically increase our corporate value through the primary growth engines of Energy Transition and New Mobility & Logistics while managing our portfolio



## 2021 Medium-Term Business Plan Targets (FY2021-2023)

In October 2020, we formulated our 2021 Medium-Term Business Plan based on the results of the 2018 Medium-Term Business Plan, which spanned from FY2018 through FY2020, and our vision for 2030.

In our 2018 Medium-Term Business Plan, we targeted a top line of 5 trillion yen, which included mergers and acquisitions. During this period, however, growth stagnated due to accelerated maturation of our businesses, intense price competition from our competitors, and impact from the COVID-19 pandemic. Another major challenge has been improving profitability through fixed cost reductions and organizational transformation. Additionally, development of SpaceJet, our regional passenger jet project, was put on hold due to changes in the business environment and other factors.

In view of the aforementioned circumstances, in our new 2021 Medium-Term Business Plan, which spans from FY2021 through FY2023, rather than targeting top line expansion, we decided to focus on improving our fundamental competitiveness as a path to future growth. Over the next three years, we will strengthen our businesses and solidify our growth fundamentals, aiming for over 5 trillion yen in revenue by 2030.

In our 2021 Medium-Term Business Plan, we have identified two central themes: developing growth areas and strengthening profitability.

#### **Developing Growth Areas**

MHI Group has designated two primary growth areas which will be targets for strategic resource application: the Energy Transition and New Mobility & Logistics. The Company will invest 180 billion yen mainly in these two areas, aiming to create new businesses which will generate over 100 billion yen in revenue by FY2023.

#### **Grow Businesses through the Energy Transition**

Build hydrogen and CO<sub>2</sub> solutions business scale in addition to decarbonizing existing infrastructure

Business Volume (Y-axis)		lume (Y-axis)	Social Impact	Strategy
Hydrogen/CO <sub>2</sub>		Hydrogen/CO <sub>2</sub>	Carbon-free fuels Capture and use remaining CO2 emissions	Leverage MHI strengths Form strategic partnerships Technical validation to commercialization
	Steam Power	(Ammonia) Decrease in new installations Transition to ammonia firing	Decrease social burden by utilizing existing assets	Develop ammonia-fired boilers Innovate in maintenance
	GTCC	(Ammonia/Hydrogen) Transition to ammonia/hydrogen firing	Stable peaking power source	Develop and validate hydrogen- and ammonia- fired gas turbines
	Nuclear Power	Proceed with plant restarts Ready for possible new installations	Carbon-free base load power source	Restart existing plants and construct SSFs Develop a next-generation light water reactor
2021		203	80	

With the Energy Transition, we seek to contribute to the attainment of humanity's greatest challenge: Carbon Neutrality. To realize a world in which all people can lead prosperous lives, an incremental roadmap must be created which accounts for the industrial conditions of diverse countries and regions. Consideration must be paid to variations in the time required to develop the necessary infrastructure in each location, the need to utilize existing assets, and the portion of development costs to be borne by the consumer. MHI Group aims for an Energy Transition in which problems are approached from the dual perspectives of economic viability and stable energy supply. This will require us to pool together all of our technologies and resources while following a strict timeline of aggressive milestones in order to reach our ultimate goal.

The first step in the Energy Transition is decarbonizing existing infrastructure. We will do this by dramatically increasing the efficiency of existing thermal power plants with groundbreaking retrofits as well as by installing carbon capture systems featuring our world-leading technologies. MHI Group has already begun validation testing of a gas turbine using a 30% hydrogen fuel mix, which significantly reduces carbon dioxide emissions during power generation. Another project is underway to develop power generation technologies using ammonia-based fuels. We also believe that nuclear power is indispensable to providing stable, carbon-free energy to society. Safety and security are the most important challenges that need to be addressed in nuclear power. At MHI Group, we are striving to develop the world's safest nuclear reactor, which we believe will help regain public trust in nuclear power.

In the next step, we will combine diverse technologies in order to build hydrogen and CO<sub>2</sub> solutions ecosystems. Hydrogen offers limitless possibilities but requires largescale investment and the development of new technologies involved in manufacture, transport, storage, and utilization. As a hub for hydrogen development, MHI Group will manage both upstream and downstream partners, including startups. We will establish decarbonization technologies by 2025 by integrating diverse technologies and know-how from around the world. Regarding to the CO<sub>2</sub> solutions ecosystem, we have already achieved the world's largest-scale carbon capture system. Going forward, we will focus on carbon storage, conversion, and utilization. New efforts will include active investment on a number of fronts and participation in exciting international projects.

In the New Mobility & Logistics space, we will seek to address the world's logistics issues as well as our customers' pain points by integrating systems and equipment offering diverse functionality with an emphasis on intelligent, systematized operation. In addition to software and systems development, we will provide solutions in the material handling area with our own unique approach.

Specifically in the area of logistics, we will develop a standard platform which seamlessly integrates diverse products and systems through application of our proprietary Digital Twin simulation and analysis technology, providing automated logistics and Cold Chain solutions. These new solutions will address issues including volatility from fluctuating demand, staffing needs, and safety and quality assurance. We have already launched concept demonstrations and will collaborate with customers in the beverage and cold storage industries to complete them.

As the world's problems grow increasingly complex, MHI Group views the current moment as a prime opportunity for us to make maximum use of our various technologies and many years of expertise. Our goal is to create new businesses in the Energy Transition and New Mobility & Logistics spaces which will earn 1 trillion yen in revenue by 2030. Many countries around the world have set aggressive carbon neutrality targets. By combining MHI Group's numerous products and solutions, we will make significant contributions towards realizing these targets while also meeting our growth goals in the Energy Transition space. In the area of New Mobility & Logistics, we will proactively seek out opportunities for mergers, acquisitions, and partnerships with third parties to facilitate entry into new markets and market development.

#### A Message from the President & CEO

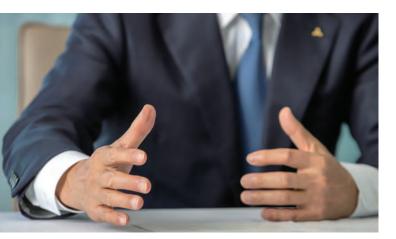
#### **Strengthening Profitability**

As we implement the 2021 Medium-Term Business Plan, we will take dynamic steps to minimize the impact from the COVID-19 pandemic. Businesses that were greatly affected early in the pandemic–such as our Aero Engines and Logistics & Thermal Systems segments–are already beginning to recover. Going forward, we will work to reduce fixed costs and prepare for market recovery by pursuing minimally manned and automated technologies to improve productivity.

In our existing businesses, above all we must continue business portfolio optimization, shore up business fundamentals, and increase profit margins. Continuous strengthening of our earnings structure, while steadily improving and expanding our technologies and customer base, is also important considering how closely interlinked our businesses are with basic social infrastructure. We must constantly review our business processes-including reducing SG&A and improving cash conversion cycle (CCC)-and execute necessary organizational transformation. Also, keeping a close eye on advances in IoT, communications technologies, and monitoring functionality, we will take advantage of newly arising business opportunities for after-sales services and maintenance, and take steps to increase recurring revenue. In the Thermal Power segment, we will respond to the trend toward decarbonization by shifting resources into after-sales service operations and optimize production capacity.

## **Value Creation Initiatives**

To create value in line with targets from the 2021 Medium-Term Business Plan and into the future, in May 2020, we identified Materiality the Company must address: 1) Provide energy solutions to enable a carbon neutral world; 2) Transform society through AI and digitalization; 3) Build a safer and more secure world; 4) Promote diversity and increase employee engagement; 5) Enhance cor-



porate governance<sup>2</sup>. These mission statements, which are based on analysis of the global environment and our businesses, outline MHI Group's approach to achieving sustained growth.

#### \*2 Refer to page 19.

Each Materiality has specific targets, which were set mainly by a working group consisting of young and mid-career employees who will lead the Company in the future. We hope that each employee will feel personally invested in achieving these targets. I believe that these goals, which were finalized after consultation with outside experts and represent the most serious consideration to date of how MHI Group can address society's issues while creating value, are an important asset for us.

MHI Group's greatest resource is our people. One of the major goals mentioned above involves promoting diversity and increasing employee engagement. We are already working to acquire and develop human resources with diverse skills, to increase opportunities for dialogue between employees with different backgrounds, and to create a work environment and corporate culture that responds flexibly to differing work styles. For example, as part of an initiative to generate value from AI technologies, in addition to securing talented engineers, we will also improve IT literacy within our management team and indirect departments so that they can make appropriate decisions swiftly.

My goal is to foster a corporate culture that accepts difference. As a typical Japanese company, MHI Group previously only offered homogeneous career plans and workplace culture, and the working environment was approximately the same from one position to the next. I want to change that, because I strongly believe that being stimulated by opinions and values different from our own gives rise to new ideas and inspires us to take up new challenges.

As one approach to reinventing our corporate culture, we opened the new Yokohama Hardtech Hub (YHH) startup incubator in October 2020. Located on land formerly occupied by one of our production facilities, YHH's goal is to support startups working in manufacturing. YHH functions as a space where a variety of partners, such as corporations, local governments, and educational institutions can collaborate freely and creatively. In addition to forging ties between various organizations and developing startup businesses, YHH will provide our employees with opportunities to broaden their perspectives and nurture their entrepreneurial skills.

#### A Message to our Shareholders and Investors

MHI Group aims to achieve a world free from regional and industrial disparity–a world in which everyone can live prosperously. Indeed, our businesses are directly involved in finding solutions to the world's most pressing issues.

We recognize that our shareholders' expectations toward MHI Group focus on our achieving sustained growth while making long-term contributions to society. To respond to these expectations, MHI Group will continuously improve our technologies, integrate these technologies with those of a diverse group of business partners, and achieve innovation in a variety of areas, including the Energy Transition.

MHI Group appreciates that we offer a tremendous variety of products and solutions, which tend to be highly specialized. As such, we will always endeavor to provide information to our shareholders and investors in a succinct and easy to understand format.

We will work especially hard to continuously share information about our growth areas and value creation

goals. We will also increase efforts to engage our stakeholders in a dialogue about our roadmap for value creation.

MHI Group is wholly committed to finding solutions to the world's most pressing issues while achieving sustained growth. We appreciate your continued support.

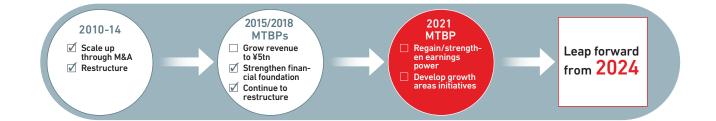


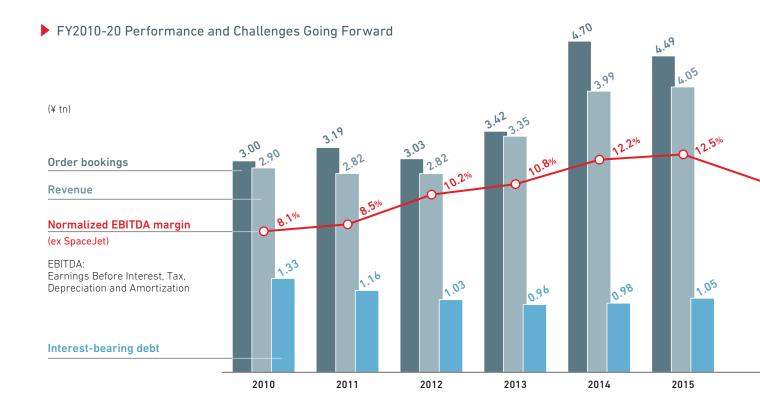
## 2021 Medium-Term Business Plan (MTBP): Roadmap

## Initiatives in Pursuit of Dynamic Medium/Long-Term Growth

In the first half of the 2010s, MHI Group grew its order bookings, sales and EBITDA by restructuring and scaling up its operations through M&A. Based on such success, we endeavored to continue expanding in scale and strengthen our financial foundation under our 2015 and 2018 MTBPs. Despite these efforts, our growth encountered setbacks, as did our EBITDA margin, but we succeeded nonetheless in strengthening our financial foundation. Additionally, our operating environment has changed drastically in the wake of the COVID-19 pandemic and rapid decarbonization. Such change is expected to be compounded by major changes in the industrial structure also.

In response to such challenges, we will lay the groundwork for a leap forward from 2024 by regaining and strengthening earnings power and developing growth areas under our 2021 MTBP.





## **Recap of Previous MTBPs**

Under our previous MTBPs, we restructured its operation and aimed to achieve a revenue growth target of ¥5 trillion, but order bookings stagnated as many of our businesses reached maturity against a backdrop of increasingly diverse societal needs and changing values. Moreover, we did not move quickly enough to boldly reallocate resources and invest in growth, and as a result did not develop new businesses as much as we could have.

Reforming our profit structure, including by reducing SG&A expenses, has become an urgent priority amid

earnings deterioration stemming largely from changes in the competitive environment, intensification of price competition, investments in SpaceJet development and the pandemic's impacts.

On the bright side, we have remained financially sound by continuing to restructure over the past decade. While reducing risk assets, we have endeavored to also reduce working capital to increase cash flow. Through such efforts, we have shortened our cash conversion cycle (CCC).

☐ Grow revenue to ¥5tn	✓ Strengthen financial foundation	Continue to restructure
<ul> <li>Changes in competitive environment, intensification of price competition</li> <li>Failure to invest in growth fast enough</li> </ul>	<ul> <li>Reduction of risk assets</li> <li>Improvement in total asset turnover</li> <li>Improvement in CCC</li> </ul>	<ul> <li>Adopt portfolio management, cash flow management</li> <li>Streamline/flatten organization</li> <li>Lay groundwork to pursue synergies</li> </ul>





## 2021 MTBP: Overview

#### 2021 MTBP Targets

## Regain/strengthen earnings power and develop growth areas

Profitability	Profit margin on business activities: 7% ROE: 12%	
	Create new businesses with ¥100bn of annual revenue potential by increasing growth investment→increase their revenue to ¥1tn by FY2030	
Growth potential	Main areas of growth investmentEnergy transitionNew mobility and logistics	
Balance sheet Financial soundness	Total asset turnover: 0.9x Maintain status-quo interest-bearing debt level	
Shareholder returns	All-time record DPS	
Regain earnings nov	ver	

<b>Regain earnings power</b> (7% profit margin on business activities)	Upgrade growth potential	Strengthen shared foundation
<ul> <li>Reduce fixed expenses, boost productivity</li> <li>Increase services' share of revenue</li> <li>Reduce SG&amp;A expenses</li> </ul>	<ul> <li>Drastically reallocate resources</li> <li>Increase growth investment</li> <li>Strengthen intra-Group and external collaborations</li> </ul>	<ul><li>Strengthen core technologies</li><li>Digitalization</li></ul>

## 2021 MTBP: Overview

The 2021 MTBP's key themes are regaining and strengthening earnings power and developing growth areas.

To regain and strengthen earnings power, we plan to reduce fixed costs, boost productivity and restructure our operations through such means as increasing services' share of revenues, improving business processes and reforming our organization. We aim to achieve a 7% profit margin on business activities and 12% ROE by fiscal 2023. Specific measures through which we intend to regain and strengthen earnings power include (1) minimizing the Space-Jet program's expenses, (2) recovering from the pandemic's impacts, (3) growing existing businesses, (4) rectifying deficiencies and restructuring and (5) reducing SG&A expenses.

To develop growth areas we will focus on (1) energy transition and (2) new mobility and logistics, two spheres in which we can leverage MHI Group's diverse products and wealth of technological expertise to address challenges and capitalize on trends as our increasingly digitalized society confronts new threats such as climate change and cyberattacks. We plan to invest in these two spheres on a priority basis in the aim of creating new businesses collectively generating ¥1 trillion of annual revenue by fiscal 2030.

In the SpaceJet program, we have decided to slow down or pause development in light of the market environment and the program's status. The commercial aircraft business as a whole, however, is a long-term growth opportunity in our view. We will upgrade its production processes' efficiency and develop new technologies to set the stage for full-fledged recovery from 2024.

Our capital allocation plan<sup>\*1</sup> is to invest in growth businesses and operational expansion. We intend to fund such investments by increasing our earnings power and operating cash flow and curtailing investment in Space-Jet. During the 2021 MTBP's term, we plan to invest ¥180 billion in growth businesses in particular.

We plan to maintain a sound financial foundation<sup>2</sup>, if not strengthen it, and increase shareholder returns to their highest level ever by boosting our profitability and growth potential.

\*1, 2 For more details on our capital allocation plan and financial foundation, see CFO Dialogue on page 50. Laying the Groundwork for Sustainability Management

## 2021 MTBP: CSO Message (Accelerate Growth)



## Unconstrained ideas and technological innovation are key to MHI Group's future

The future growth of MHI Group will come from two areas, with one being 'energy transition'<sup>3</sup> and the other 'new mobility & logistics'. Under the 2021 MTBP, we intend to create new businesses collectively generating ¥1 trillion of annual revenue by fiscal 2030 by intensively allocating management resources to these two growth drivers and combining new technologies with the knowhow we have amassed so far. Our Growth Strategy Office, which we established in April of 2020, has been tasked with overseeing investment and business expansion within these two areas in coordination with other relevant business units.

In the energy transition space, we will pursue realization of a carbon-neutral society by 2050. We already manufacture the world's most efficient gas turbines and equipment used for capturing, utilizing and storing carbon dioxide (CCUS). By retrofitting existing power plants with these technologies, we are helping to reduce CO<sub>2</sub> emissions. Our next task is to encourage the production, transportation, storage, and subsequent use of green

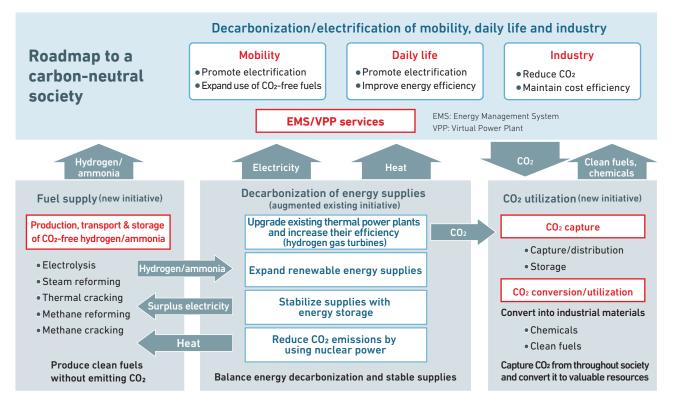
#### 2021 MTBP: CSO Message (Accelerate Growth)

fuels, particularly hydrogen (and its derivatives, such as ammonia), to build a value chain which fosters stable demand.

\*3 For details on energy transition, see Special Feature: New Challenges Toward a Carbon-Neutral Society on page 36.

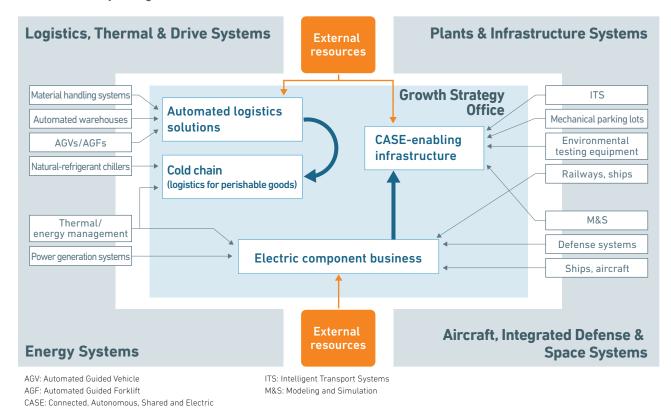
In the new mobility and logistics space, we will develop new markets through cross-organizational initiatives led by the Growth Strategy Office and deliver new value by digitalizing a broad range of products and technologies and embedding AI into them. To meet customers' increasingly diverse and sophisticated needs, we are transforming into a solutions provider that solves customers' problems through integrated control of various machinery systems. We will accelerate this transformation. We will first apply this solutions model to the logistics business as a model case. Specifically, we will address customers' challenges and meet their latent needs by proposing automated logistics and cold-chain solutions, for example. Building cold chains is becoming increasingly important to meet transport needs that require stringent temperature control. Cold chains' importance has been amplified by the pandemic in addition to recent lifestyle changes. Using smart software, we will knit together existing MHI Group products into systems, with said products including automated warehouse systems, forklifts and refrigeration units for buildings and trucks. We will then apply cold chain logistics engineering to those systems to facilitate the continuous maintenance of optimal environments during the transport and storage phases. The result is cold chains that are more advanced than anything seen before. Another thing we are working on is upgrading our transportation infrastructure solutions, as exemplified by sophisticated Electronic Road Pricing systems like ERP2, which MHI

#### Energy Transition



has built for Singapore. Urban traffic congestion and associated environmental ills have become a societal problem in rapidly growing Asian metropolises. ERP2 collects driving data in real-time from every vehicle within range of its sensors. It can also analyze traffic bottlenecks and accidents. Using the data collected by ERP2, Singapore seeks to optimize traffic flows on an area-by-area basis by granularly adjusting the locations where tolls are charged and toll charges per kilometer driven. These adjustments help to alleviate traffic congestion.

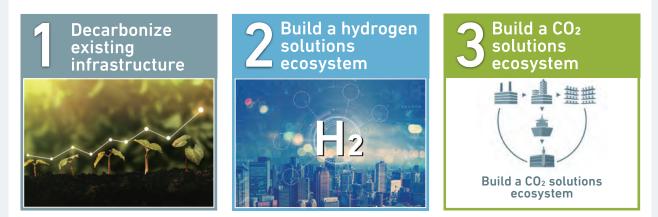
In order to design such comprehensive solutions for our customers, we will have to increase our technological expertise, from digitalization to artificial intelligence. That will require greater internal cooperation across traditionally autonomous business units, as well as more external partnerships. Once the group has rebuilt its profitability, my role as CSO is to expedite our commercial success and ensure that we provide solutions to the problems faced around the globe. With many of our product lines reaching maturity, our group's future will depend on the ideas and technologies that we can come up with. Keeping that in mind, we will be working on transforming our corporate culture to become more open, less bureaucratic and more risktaking, willing to try and fail.



#### New Mobility & Logistics

# New Challenges Toward a Carbon-

# Build an innovative solutions ecosystem to realize a carbon neutral future



## Basic approach to realizing a carbon-neutral society

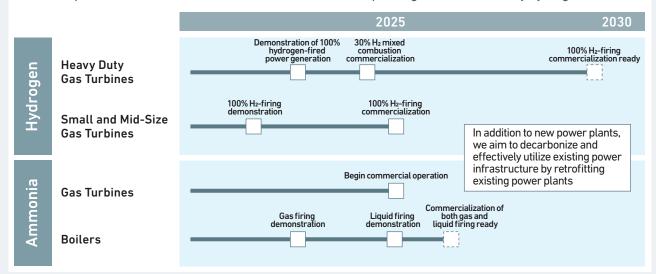
Efforts to decarbonize are accelerating globally amid a widespread recognition that global warming and climate change associated with it are challenges facing all of humanity. Another challenge that must be addressed in earnest is ensuring stable, economical energy supplies. We believe this challenge requires both short- and longer-term initiatives backed by MHI Group technologies and resources. While we plan to decarbonize and enable more efficient use of existing infrastructure in the near term, we aim to build hy-drogen and CO<sub>2</sub> ecosystems instrumental to bringing about a carbon-neutral society in the longer term.

# Decarbonize existing infrastructure

Electric power is essential to both people's daily lives and industry. We must both ensure stable supplies of electricity and reduce its societal costs. Toward this end, we will decarbonize existing thermal power plants and promote utilization of nuclear power as a stable, largescale and carbon-free source of electricity. To decarbonize thermal power, we are endeavoring to validate and commercialize carbon-free power generation that is fueled by hydrogen and/or ammonia and enables effective utilization of existing infrastructure. As a first step, we are testing gas turbines that burn a fuel mix containing 30% hydrogen. We aim to commercialize

# **Neutral Society**

Roadmap to validation and commercialization of carbon-free power generation fueled by hydrogen/ammonia



\* The above diagram includes New Energy and Industrial Technology Development Organization (NEDO) projects' development outcomes.

them by around 2025. We are also developing combustors, a key technology for enabling 100% hydrogen-firing, for both large and smaller gas turbines. We aim to commercialize 100% hydrogen-fired turbines by around 2030. We are developing technology for ammonia-fired power generation also. We are targeting commercialization by around 2025. To adequately improve our gas turbines' reliability and thoroughly test them before delivering them to customers, we have integrated the entire process from development through production and testing at our Takasago Machinery Works.

We will contribute to nuclear power plants' safety and stable operation over the near term by helping customers restart existing plants, improve the safety of operational plants on an ongoing basis and build a nuclear fuel cycle in Japan. To achieve the highest level of nuclear safety in the world, we are developing next-generation light water reactors that will realize a new concept of safety through the use of innovative technologies and stronger safeguards against all types of disasters. We aim to commercialize them by the mid-2030s. We are also developing small modular reactors, fast reactors and microreactors to meet increasingly diverse future societal needs. From an even longer-term perspective, we are pursuing the development of nuclear fusion reactors, a dream energy source. Through such short- and longer-term initiatives, we will contribute to the realization of a decarbonized society through nuclear power technology.

### Next-generation light water reactor



Special Feature: New Challenges Toward a Carbon-Neutral Society

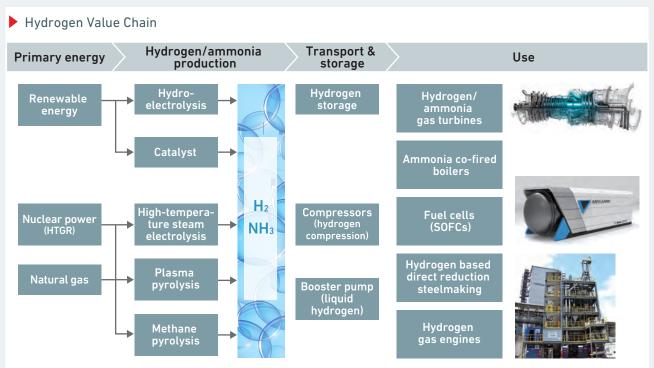
# Build a hydrogen solutions ecosystem

Pure hydrogen does not exist in nature. It is expensive to produce because its production is highly energy-intensive. Additionally, if hydrogen is to be produced and used at different locations, it would require both a means of transport and storage infrastructure. These issues must be addressed at every link in the hydrogen value chain, from the supply of primary energy required for production through transport, storage and even use. MHI Group aims to build a value chain in proactive collaboration with other companies. We are also participating in leadingedge projects globally.

In the U.S., for example, we are involved in an advanced clean energy storage project in Utah. The project produces hydrogen through wind- and solar-powered hydro-electrolysis and stores it in underground salt caverns. Some of the hydrogen is supplied to power plants equipped with hydrogen-fired gas turbines developed by MHI Group. We plan to supply the project with an 840MW- class hydrogen-fired gas turbine that will initially be fired with a 30%-hydrogen fuel mix from 2025 before eventually transitioning to 100% hydrogen.

We are also launching an initiative to utilize nuclear energy to produce hydrogen. We aim to mass-produce hydrogen efficiently and stably using high-temperature gas reactors that generate heat at temperatures in excess of 900°C. The hydrogen thus produced will meet large-scale hydrogen demand for purposes such as decarbonizing the steel industry.

Additionally, we developed the world's first hydrogenbased fine ore reduction (HYFOR) process for the steel industry and commenced the operation of a HYFOR pilot plant. Since the HYFOR process uses pure hydrogen as a reducing agent, consequently, the CO<sub>2</sub> footprint is close to zero. We will continue to test and develop this game-changing process to realize CO<sub>2</sub>-free steel production.



\* The above diagram includes NEDO projects' development outcomes.

# Build a CO<sub>2</sub> solutions ecosystem

CO<sub>2</sub> capture and storage technologies and initiatives that productively utilize captured CO<sub>2</sub> are garnering considerable attention as pathways to carbon neutrality.

In 1990, MHI Group and Kansai Electric Power Co. (KEPCO), Inc., started jointly developing technologies to capture CO<sub>2</sub> from flue gases. Today, MHI Group is the global market share leader in CO<sub>2</sub> capture from exhaust gases, with proven track records that include the world's largest CO<sub>2</sub> capture project in the U.S. In the UK, MHI's Advanced KM CDR Process™ was selected to be used in the project to capture CO<sub>2</sub> from a biomass power station in recognition of MHI Group's track records, state-of-theart retrofittable CO<sub>2</sub> capture technology and technical capabilities of capturing CO<sub>2</sub> from diverse exhaust gas sources. The UK project aims to realize the world's first commercial-scale carbon-negative power plant (net negative CO<sub>2</sub> emissions) by combining bioenergy, which can achieve carbon neutrality (net zero CO<sub>2</sub> emissions) by using plant-based fuels, and CO<sub>2</sub> capture technology from exhaust gas. To promote widespread adoption of CO<sub>2</sub> capture technology across a broad range of industrial sectors, including at cement plants, LNG liquefaction plants and waste incineration plants, we will focus on more feasible applications by developing simple CO<sub>2</sub> capture systems.

Liquefied CO<sub>2</sub> (LCO<sub>2</sub>) carriers are expected to be in growing demand as a key link in the CCUS (CO<sub>2</sub> capture, utilization and storage) value chain. We will proactively develop technologies in collaboration with external partners to develop an LCO<sub>2</sub> carrier business in the aim of forming a CO<sub>2</sub> value-chain market.

Building a value chain that encompasses CO<sub>2</sub> capture, transport, storage, distribution, conversion and utilization is essential to realizing a CO<sub>2</sub> ecosystem. We are working on doing so. Specifically, we started building a digital platform named CO<sub>2</sub>NNEX<sup>™</sup> in collaboration with IBM Japan, Ltd., to render visible CO<sub>2</sub> flows within the ecosystem. CO<sub>2</sub>NNEX<sup>™</sup> will enable us to visualize and coordinate flows of CO<sub>2</sub> for which options are currently limited to storage and utilization, and optimize the overall value chain through such means as assessing CO<sub>2</sub> flows from an investment or cost perspective and efficiently matching emitters with users.

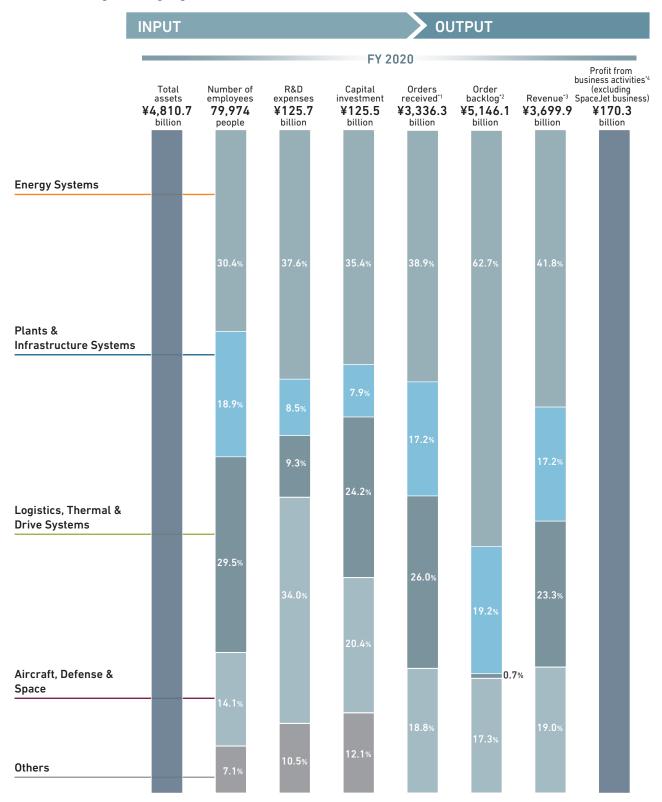
## Roadmap to CO<sub>2</sub> Ecosystem-building

Create a solutions ecosystem covering carbon capture, transport, storage, and conversion/use Expand carbon capture product lineup by 2023



# **Business Strategies**

### Business Segment Highlights



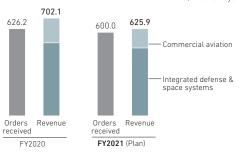
\*1 Others, eliminations or corporate ¥–32.4 billion \*2 Others ¥0 billion \*3 Others, eliminations or corporate ¥–45.7 billion \*4 Others, eliminations or corporate ¥15.8 billion. Not including ¥-116.2 billion in SpaceJet investments

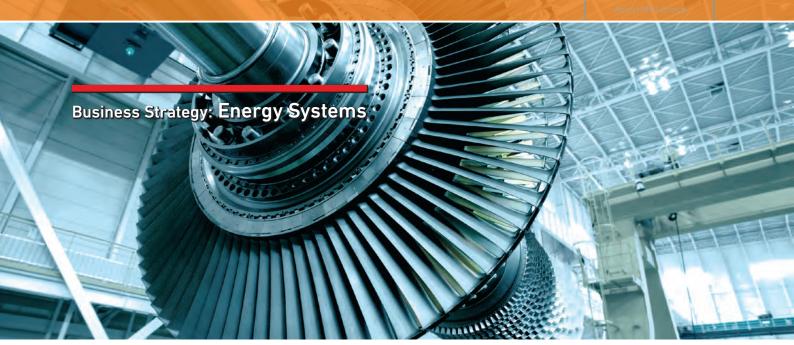
# Revenue by Segment (FY 2020 results and FY 2021 plan)

# **Energy Systems**



- Commercial aircraft
- Defense aircraft
- Missile systems
- Naval ships
- Special vehicles
- (tanks) • Maritime systems
- (torpedoes)
- Space systems





J-Series gas turbine, the largest and most efficient in the world

# **Current Status Assessment**

Strengths	Clean Gas and Steam Power	<ul> <li>Systems offering world's highest levels of thermal efficiency and output</li> <li>Highly reliable gas turbines achieved with the world's only combined cycle power plant validation facility that realizes long-term verification from development through design, manufacture, and demonstration</li> <li>Wide ranging product lineup for a full range of output levels, from small and medium to large-sized</li> <li>Cutting-edge decarbonization and other eco-friendly technologies (high-efficiency GTCC, aero-derivative gas turbines, IGCC, high-efficiency USC,*1 CCS/CCUS,*2 AQCS,*3 SOFC,*4 geothermal, biomass-fired, hydrogen/ammonia-fired) and integration capabilities</li> </ul>
	Nuclear Power Systems	<ul> <li>World's only comprehensive nuclear power plant manufacturer capable of providing a one-stop service from development through design, manufacture, construction, and maintenance</li> <li>Encompassing not only light-water reactors but also the entire nuclear fuel cycle, including fuel manufacturing/reprocessing facilities and fast reactors</li> <li>World-highest level safety technologies and product quality, and ample track record as the leading company in domestic nuclear power</li> </ul>
	Renewable Energy	<ul> <li>Building wind power systems business in collaboration with partners</li> </ul>
	Compressors	<ul> <li>Extensive track record in petrochemical (ethylene and fertilizer) plant market</li> <li>Integrated production and quality control processes encompassing every step from optimal pairing of internally manufactured steam turbines and compressors to test operation</li> <li>Extensive track record of supplying global companies</li> <li>Entry into high-barrier businesses through long-term planning</li> </ul>
	Aero Engines	<ul> <li>Well-balanced product portfolio (narrow/wide-body aircraft, Boeing/Airbus, new/legacy)</li> <li>Supplier of core combustor technologies to all OEMs*<sup>5</sup>; MRO*<sup>6</sup> capabilities</li> <li>Access to MHI Group's turbo-machinery technology</li> </ul>
	Marine Machinery	<ul> <li>High market share in turbocharger business for two-stroke marine engine segment</li> <li>Providing solution technology for energy saving and compliance to strengthened environmental regulations</li> <li>Wide-ranging customer network, both domestic and international</li> </ul>
Weaknesses	Clean Gas and Steam Power	<ul> <li>Imbalanced regional coverage at the global level</li> </ul>
	Nuclear Power Systems	• Little experience in global business
	Compressors	• Small share of oil and gas market
	Aero Engines	<ul> <li>Influenced by the business strategies deployed by manufacturers of aircraft engines</li> </ul>
	Marine Machinery	Limited scale of business and product portfolio
Opportunities	Clean Gas and Steam Power	<ul> <li>Acceleration of global decarbonization movement and demand for highly efficient, clean electric power in response to environmental regulatory tightening</li> <li>Need for load adjustments in connection with growth in renewable energy</li> <li>Need for high-efficiency conversion of existing power plants</li> </ul>
	Nuclear Power Systems	<ul> <li>Growing need for carbon-free, large-scale stable power sources and greater energy self- sufficiency (new and replacement facilities)</li> <li>Rising need for effective use of existing nuclear power plants (more plants being restarted, achievement of 60 years in operation)</li> </ul>
U	Compressors	<ul> <li>Integration with MHI Group products, such as gas turbines</li> <li>Plant replacement demand</li> <li>Decarbonization-driven growth in demand for CO<sub>2</sub> compressors for CCUS and compressors for promising carbon-free fuels such as hydrogen and ammonia</li> </ul>
	Aero Engines	<ul> <li>Market expansion driven by growth in aircraft demand</li> <li>Expansion of MRO operations to service best-selling engine (PW1100G)</li> <li>Decarbonization-driven demand for more efficient engines</li> </ul>
	Marine Machinery	• Strengthened environmental regulations aiming at CO2 reduction and zero GHG emissions

Threats	Clean Gas and Steam Power	<ul> <li>Further escalation of competition with international competitors</li> <li>Uncertainty of future energy portfolio</li> </ul>
	Nuclear Power Systems	• Escalating competition with other power sources
	Compressors	• Escalating competition, rise of Chinese manufacturers • Cutbacks in new-plant investment in response to transition away from fossil fuels; decrease in customers' plants in operation
	Aero Engines	<ul> <li>Sluggish market growth due to pandemic</li> </ul>
	Marine Machinery	<ul> <li>Less business opportunity due to unfavorable domestic shipbuilding market conditions</li> </ul>

# Overview of FY2020 and Priority Strategies in the 2021 Medium-Term Business Plan

Consolidated orders received were down year on year at ¥1,299.2 billion, largely as a result of a decline in steam power and GTCC\*<sup>7</sup> orders from year-earlier levels that were boosted by large-scale new construction projects. Revenue totaled ¥1,546.0 billion, a year-on-year decrease attributable largely to reduced sales in the steam power and aero engine businesses. Despite a gain on sales of securities related to the offshore wind power systems business, profit from business activities declined to ¥127.6 billion from a year-earlier level inflated by one-off profits arising due to the settlement of the dispute related to a South African project. This decline was largely a result of the deterioration in the profitability of steam power construction projects.

Sustainability Management

MHI Group will build an innovative ecosystem in pursuit of a carbon-neutral society. Our thermal power systems business plans to commission into operation large gas turbines that burn a fuel blend containing 30% hydrogen in the U.S. by 2025 as a step toward decarbonization of thermal power generation. At the same time, we will develop and demonstrate new combustors as the key enabling technology of 100% hydrogen-fired power generation. Additionally, we will shift the coal-fired thermal power business's primary focus to maintenance and innovation, promote decarbonization of existing power plants and propose fuel-switching retrofits in the aim of transitioning in stages to biomass and/or ammonia fuels and fuel blends to realize carbon neutrality.

In the nuclear power business, we are working with electric utilities to restart existing light-water reactor plants, installing severe accident management facilities and preparing for completion of a fuel cycle facility's construction. In FY2020, we completed construction of Japan's first severe accident management facility. We will also develop a next-generation light-water reactor that will bring to fruition some of the safest reactors in the world thanks to the deployment of revolutionary technologies. We are aiming for commercial operation by the mid 2030's. Additionally, we will develop future reactors (e.g., small modular light-water reactors, high-temperature gas-cooled reactors, fast reactors, micro-reactors, nuclear fusion reactors) to be able to meet diverse needs for power sources in the future. Lastly, we are building out our wind power systems business in collaboration with partners.

Clean Gas and Steam Power	<ul> <li>Develop and demonstrate hydrogen-fired gas turbines and other clean power products in pursuit of a decarbonized society</li> <li>Expand the number of gas turbine order bookings and improve profitability by reducing costs</li> <li>Expand advanced maintenance and innovation businesses</li> <li>Expand industrial businesses through energy solutions</li> </ul>
Nuclear Power Systems	<ul> <li>Provide support for the restart of domestic light-water reactor plants and the installation of severe accident management facilities, and strengthen service operations to contribute to stable supply and higher economic efficiency after restarting</li> <li>Support the completion of nuclear fuel reprocessing facilities, support maintenance work after completion, and achieve the nuclear fuel cycle domestically in Japan</li> <li>Decommission light-water reactor plants, and provide support for TEPCO's Fukushima Daiichi nuclear power plant</li> <li>Promote development of next-generation light-water reactors and future reactors (e.g., small modular light-water reactors, high-temperature gas-cooled reactors, fast reactors, micro-reactors, nuclear fusion reactors) that will achieve some of the world's safest reactors thanks to the deployment of revolutionary technologies.</li> </ul>
Compressors	<ul> <li>Expand operations by allocating more resources, including staff, to after-sales service</li> <li>Strengthen competitiveness in new construction projects; maintain stable order bookings in oil and gas sector and top market share in chemical sector</li> <li>Accelerate new-energy initiatives (ultra-high-speed peripheral compressors for hydrogen sector, geared compressors for CCUS)</li> </ul>
Aero Engines	<ul> <li>Ramp up MRO business's new model (PW1100G-JM) service operations and parts repair business</li> <li>Increase production by ramping up new Nagasaki plant's capacity utilization</li> <li>Strengthen design and technological capabilities by deepening collaboration, including joint development programs, with aircraft engine makers</li> </ul>
Marine machinery	<ul> <li>Participate in global R&amp;D partnerships together with the other major players in the maritime industry to accelerate the development of technology toward zero GHG emissions</li> <li>Expand MET turbocharger business (expand and maintain market share in the two-stroke engine market as a stable business and accelerate to penetrate the four- stroke engine market for further business expansion)</li> <li>Expand service business by strengthening global network</li> </ul>

# Business Initiatives in the 2021 Medium-Term Business Plan

\*1 USC: Ultra super critical \*2 CCS/CCUS: Carbon capture and storage/carbon capture utilization and storage \*3 AQCS: Air quality control systems \*4 SOFC: Solid oxide fuel cells \*5 0EM: Original Engine Manufacturer \*6 MRO: Maintenance, Repair and Overhaul \*7 GTCC: Gas turbine combined cycle



CO<sub>2</sub> Capture Plant (U.S.A.)

# **Current Status Assessment**

Strengths	Commercial Ships	<ul> <li>Unparalleled environmental and energy-saving technologies</li> <li>Gas-handling technologies cultivated on LNG/LPG carriers</li> <li>Reliable and economically feasible carbon capture technology supported by commercial track records around the world</li> <li>Engineering capabilities that respond to a variety of decarbonization businesses (e.g., clean fuel / CO<sub>2</sub> utilization) applied abundant experience in chemical reaction technologies</li> <li>Advanced project management and system integration capabilities based on chemical plant and transportation system experience</li> <li>Global extensive experience with APM*<sup>1</sup> and O&amp;M*<sup>2</sup> business</li> </ul>		
S	Engineering			
	Environmental Systems	<ul> <li>Comprehensive engineering capabilities for waste-treatment plants spanning entire project phase, from EPC to 0&amp;M</li> <li>Plant provided with after-sales service based on extensive track record as a plant contractor</li> </ul>		
	Metals Machinery	• Full product lineup and global presence		
	Machinery Systems	Broad scope of business fields and wide-ranging mechatronics technical capabilities		
1 APM: Autom	ated People Mover (fully automated, d	riverless vehicles) *2 0&M: Operation & Maintenance		
Weaknesses	Commercial Ships	Relative cost competitiveness of large hull ratio ships (e.g., cargo ships)		
Wedkilesses	Engineering	Volatility in orders and profit		
	Environmental Systems	Cost competitiveness due to build-to-order manufacturing structure		
	Metals Machinery	• Major market volatility		
	Machinery Systems	Predominantly mature businesses, largely in Japan		
Opportunitie				
Opportunities	Commercial Ships	<ul> <li>Environmental regulations aimed at low-carbon and carbon-free initiatives in marine transportation</li> <li>Growing demand for improved vessel safety/efficiency</li> </ul>		
Opportunities	Commercial Ships Engineering	transportation		
Opportunities		transportation <ul> <li>Growing demand for improved vessel safety/efficiency</li> <li>Global acceleration of decarbonization in all industrial sectors</li> </ul>		
Opportunities	Engineering	transportation • Growing demand for improved vessel safety/efficiency • Global acceleration of decarbonization in all industrial sectors • Growth in demand for 0&M / service business • Growing commitment to decarbonization and environmental impact mitigation • Digital automation of plant operations		
Opportunities	Engineering Environmental Systems	transportation • Growing demand for improved vessel safety/efficiency • Global acceleration of decarbonization in all industrial sectors • Growth in demand for 0&M / service business • Growing commitment to decarbonization and environmental impact mitigation • Digital automation of plant operations • Growing commitment to decarbonization and environmental impact mitigation, growing demand for high-value-added products such as advanced high-strength steel		
0	Engineering Environmental Systems Metals Machinery	<ul> <li>transportation</li> <li>Growing demand for improved vessel safety/efficiency</li> <li>Global acceleration of decarbonization in all industrial sectors</li> <li>Growth in demand for 0&amp;M / service business</li> <li>Growing commitment to decarbonization and environmental impact mitigation</li> <li>Digital automation of plant operations</li> <li>Growing commitment to decarbonization and environmental impact mitigation, growing demand for high-value-added products such as advanced high-strength steel</li> <li>Extension of new (mobility) businesses in response to electrification and smartification (IoT, AI, CASE*3) of society</li> </ul>		
0	Engineering Environmental Systems Metals Machinery Machinery Systems	<ul> <li>transportation</li> <li>Growing demand for improved vessel safety/efficiency</li> <li>Global acceleration of decarbonization in all industrial sectors</li> <li>Growth in demand for 0&amp;M / service business</li> <li>Growing commitment to decarbonization and environmental impact mitigation</li> <li>Digital automation of plant operations</li> <li>Growing commitment to decarbonization and environmental impact mitigation, growing demand for high-value-added products such as advanced high-strength steel</li> <li>Extension of new (mobility) businesses in response to electrification and smartification (IoT, AI, CASE*3) of society</li> </ul>		
3 CASE: Conne	Engineering Environmental Systems Metals Machinery Machinery Systems ected, Autonomous, Shared & Service	transportation Growing demand for improved vessel safety/efficiency Global acceleration of decarbonization in all industrial sectors Growth in demand for 0&M / service business Growing commitment to decarbonization and environmental impact mitigation Digital automation of plant operations Growing commitment to decarbonization and environmental impact mitigation, growing demand for high-value-added products such as advanced high-strength steel Extension of new (mobility) businesses in response to electrification and smartification (IoT, AI, CASE*3) of society Electric Increasingly severe competition as the gap between supply and demand for new ships		
CASE: Conne	Engineering Environmental Systems Metals Machinery Machinery Systems ected, Autonomous, Shared & Service Commercial Ships	transportation Growing demand for improved vessel safety/efficiency Global acceleration of decarbonization in all industrial sectors Growth in demand for 0&M / service business Growing commitment to decarbonization and environmental impact mitigation Digital automation of plant operations Growing commitment to decarbonization and environmental impact mitigation, growing demand for high-value-added products such as advanced high-strength steel Extension of new (mobility) businesses in response to electrification and smartification (IoT, AI, CASE*3) of society Electric Increasingly severe competition as the gap between supply and demand for new ships persists, reorganization of South Korean and Chinese shipbuilding industries		
*3 CASE: Conne	Engineering Environmental Systems Metals Machinery Machinery Systems ected, Autonomous, Shared & Service Commercial Ships Engineering	<ul> <li>transportation</li> <li>Growing demand for improved vessel safety/efficiency</li> <li>Global acceleration of decarbonization in all industrial sectors</li> <li>Growth in demand for 0&amp;M / service business</li> <li>Growing commitment to decarbonization and environmental impact mitigation</li> <li>Digital automation of plant operations</li> <li>Growing commitment to decarbonization and environmental impact mitigation, growing demand for high-value-added products such as advanced high-strength steel</li> <li>Extension of new (mobility) businesses in response to electrification and smartification (loT, Al, CASE*3) of society</li> <li>Electric</li> <li>Increasingly severe competition as the gap between supply and demand for new ships persists, reorganization of South Korean and Chinese shipbuilding industries</li> <li>Increase in new entrants</li> <li>Intensification of competition with competitors</li> </ul>		

# Overview of FY2020 and Priority Strategies in the 2021 Medium-Term Business Plan

Consolidated orders received decreased year on year to ¥575.2 billion due to delays seen in contract negotiations and the order placement processes as a result of worldwide lockdowns undertaken in response to the COVID-19 pandemic that affected the commercial ship, engineering and metals machinery businesses. Revenue was likewise down year on year at ¥637.2 billion, as a result of reduced revenue from engineering and metals machinery. The decrease in profit, among other factors, resulted in a ¥10.2 billion loss from business activities, a worse performance than in the previous fiscal year. Under the 2021 Medium-Term Business Plan, we are pursuing initiatives tailored to each business's characteristics and market environment in the aim of stabilizing and enhancing its earning capacity. In addition, in our domain as a solutions provider for environment-friendly products that contribute to the realization of a decarbonized society, we are expanding business opportunities by working on technology sharing and human resource mobility. We will continue to strengthen service businesses leveraging digitalization and expand life-cycle businesses that support customers throughout entire life cycles of machinery systems and plants.

	<ul> <li>Pursue initiatives tailored to each business's characteristics and market environment in the aim of stabilizing and increasing its earning capacity</li> </ul>			
General	• Expand business opportunities by internal flexible mobilization of human resources and by sharing technology across businesses as a provider of environment-friendly product solutions that contribute to the realization of a decarbonized society			
	• Strengthen service businesses leveraging digitalization			
	• Expand life-cycle businesses that support customers throughout entire life cycles of machinery systems and plants			
Commonsial China	• Build high-density, outfitted ships like government vessels and ferries			
Commercial Ships	• Extend engineering businesses in response to environmental regulations, etc.			
Engineering	• Strengthen decarbonization business (e.g., clean-fuel / CO <sub>2</sub> -utilization)			
Engineering	• Expand O&M / service business through digitalization			
Environmental Systems	<ul> <li>Strengthen ability to provide best solution and cost competitiveness to win orders for new construction projects</li> </ul>			
	<ul> <li>Upgrade engineering capabilities to drive sustained profit growth</li> </ul>			
	<ul> <li>Strengthen decarbonization and other environmental initiatives</li> </ul>			
Metals Machinery	• Expand life-cycle businesses (expand maintenance service businesses, roll out advanced services that leverage digitalization)			
	<ul> <li>Enhance management efficiency through internal resource sharing and flexible mobilization of human resources</li> </ul>			
Machinery Systems	Advancement of service businesses through digitalization			
	<ul> <li>Create electrification/smartification businesses (in the mobility space) through utilization of mechatronics technologies</li> </ul>			

# Business Initiatives in the 2021 Medium-Term Business Plan



Engine Generator Sets for Data Centers

# **Current Status Assessment**

	Strengths	Expertise cultivated in a wide range of product fields and effective utilization of resources within the domain				
	C	Material Handling Systems	• A product lineup that can be consistently offered from ports to warehouses, as well as a strong sales network			
S		HVAC Systems, Automotive Air-Conditioners	• Extensive product lineup and world-class environmental and energy-saving technologies			
		Turbochargers	<ul> <li>Ability to develop high-performance and high quality products leveraging high-speed rotation and heat &amp; fluid dynamics technologies</li> </ul>			
		Engines	• Technological capability to use alternative fuels such as hydrogen			

Weaknesses	Tendency to be affected by short-term economic fluctuations		
W	Turbochargers	<ul> <li>Specialization in the single product makes the business more heavily vulnerable to customer business conditions</li> </ul>	
	Engines	Resources are spread out due to large lineup	

HVAC Systems, Automotive Air-Conditioners		Material Handling Systems	Growing market for logistics solutions with expansion of e-commerce business		
			• Expansion of market for products meeting environmental and energy-saving regulations		
		Turbochargers	• Increase in hybrid vehicles with turbochargers during the shift to electric		
		Engines	<ul> <li>Growing data center market and expanding market for the distributed gas power generation systems market in Southeast Asia</li> </ul>		

Threats	Adverse effects of U.SChina trade friction and COVID-19		
	Turbochargers	• Shrinking market over the longer term due to accelerated growth of electric vehicles	
		Engines	Medium to long-term decline in demand for diesel and gas engines due to energy transition

Laying the Groundwork for Sustainability Management

# Overview of FY2020 and Priority Strategies in the 2021 Medium-Term Business Plan

Consolidated orders received were down year on year to ¥868.0 billion due to a decrease in material handling systems and turbochargers resulting from the negative impact of the COVID-19 pandemic on business conditions. Revenue was down year on year to ¥860.3 billion due to the decrease in material handling systems and turbochargers. Profit from business activities decreased year on year to ¥15.6 billion largely due to the impact of a decrease in sales despite improvements being made through optimization of fixed costs. COVID-19 has wreaked havoc since the second half of FY2019, and the entire Logistics, Thermal & Drive Systems domain has been affected, but revenue bottomed out in the first quarter of FY2020 and is on a trend of recovery. Furthermore, the impact on profit from business activities was minimized by quickly implementing measures such as the optimization of fixed costs.

# Medium volume products are expected to recover to pre-COVID levels in FY2021, General optimize resources and prepare for further growth. • Promote growth strategies in the expanding of our solutions portfolio Material Handling Systems Strengthen sales strategy (reorganization of sales network, introduction of new products) • Grow BtoB area through expansion of product lineup matching the needs of each region **HVAC Systems, Automotive** Strengthen sales (proceeding with direct sales, etc.) Air-Conditioners • Expand lineup of environmentally friendly products • Focus on immediate optimization of fixed costs based on changes in market conditions Turbochargers Accelerate development of new products supporting electrification Focus resources into medium and large core products Place emphasis on promising markets, such as those for data centers and distributed gas power Engines generation systems in Southeast Asia Develop engines fueled by 100% hydrogen and hydrogen blends

# Business Initiatives in the 2021 Medium-Term Business Plan



H-IIB Launch Vehicle No. 9 (H-IIB F9), carrying aboard the H-II Transfer Vehicle "KOUNOTORI9" (HTV9)

# **Current Status Assessment**

Strengths		• Business domain covering the entire value chain of commercial aviation (aero structure, aircraft OEM and operation support including MRO)
	Commercial Aviation	• Design and manufacturing technologies for large composite main wing boxes and other structural components
C		• Over 1,000 in service CRJ fleet as the business assets
		• Leading-edge technologies cultivated by the development of defense and space products
	Integrated Defense & Space Systems	<ul> <li>Defense: Ability to make proposals for integrated defense systems, and expertise and channels cultivated through past and ongoing international projects</li> </ul>
	Space Systems	• Space: Development capabilities in launch vehicles and rocket engines and their world-leading reliabilit
Ma alima and a	Commercial	Biased commercial aviation business portfolio and supply chain
Veaknesses	Aviation	• High sensitivity to foreign exchange fluctuations, as business is concentrated on overseas customers
W	Integrated Defense &	• Defense: A lack of experience in export projects
	Space Systems	• Space: Inadequate cost competitiveness in global markets
pportunities	Commercial Aviation	• Growth opportunity of new aircraft delivery and MRO business along with long-term passenger demand increasing
		<ul> <li>More demands by operators for "total care" operation support to their fleet</li> </ul>
		<ul> <li>Increasing need for innovative technology for environmental adaptation, such as decarbonization and electrification</li> </ul>
0		• Defense: A decision on the Three Principles on Transfer of Defense Equipment and Technology by the Japanese Cabinet
	Integrated Defense & Space Systems	Growth in the domains of space, cyberspace, and electromagnetic spectrum due to revisions of the National Defense Program Guidelines and the Mid-Term Defense Program by the Japanese Government
		• Space: Growing launch market in line with an expanding need for satellites, including the use of space in national security
Threats	Commercial	• Business environment with vulnerability of the passenger demand due to event risks such as conflict economic crisis, epidemics, natural disaster, etc.
Т	Aviation	• Global reorganization across industries, including M&A, and more competition as the result of such industry movement
	Integrated Defense &	• Defense: Budget cuts for Japanese-made frontal combat equipment due to an increase in imported equipment
	Snace Systems	• Space: A risk of price-cutting of overseas launch services due to the entry of U.S. start-ups

# Overview of FY2020 and Business Initiatives in the 2021 Medium-Term Business Plan

Consolidated orders received were down year on year to ¥626.2 billion, mainly due to a decrease in commercial aviation as a result of sluggish demand for aircraft caused by the COVID-19 outbreak. Furthermore, revenue decreased year on year to ¥702.1 billion due to a decrease in commercial aviation despite an increase in defense products such as missile systems and naval ships. Business profit improved year on year to a loss of ¥94.8 billion due to the minimization of SpaceJet expenses.

In the field of commercial aviation, we are working to build a highly profitable production base by further improving production efficiency and strengthening cost competitiveness in the aero structure business for the future recovery of aviation demand, and are also utilizing the composite manufacturing technologies we have developed over the years to participate in narrow-body aircraft programs expected to see high growth. For the commercial aircraft business, we are aiming to establish our revenue base for the CRJ program and expand upon the MRO<sup>\*1</sup> business (which is recovering relatively quickly from the impact of COVID-19). In the SpaceJet program, we will consider various business possibilities by utilizing the knowledge and expertise we have obtained thus far while monitoring the business environment.

In the defense business, we will advance into new business fields, such as Command and Control systems and unmanned vehicles, while continuing to conduct stable business operations by offering world-class products. At the same time, we will utilize our technologies cultivated over the years to expand our overseas business and our related businesses, such as MRO&U\*<sup>2</sup>, and education and training. In addition, we will expand our business into advanced security consumer products. In the space business, we are developing the H3 Launch Vehicle, which will realize low-cost, highly reliable launch services, aiming for the first launch in FY2021.

\*1 MRO: Maintenance, Repair and Overhaul \*2 MRO&U: Maintenance, Repair, Overhaul, and Upgrade

#### Develop highly profitable Automate indirect operations through Al/IoT production base • Enhance procurement networks in North America and Asia Aerostructure business • Participate in new program for narrow-body aircraft utilizing Initiatives for new programs composite technology and automated assembly technology Commercial • Capture demand recovered from the impact of COVID-19 in the Strengthening of Aviation North American MRO market of CRJ program through expansion Aircraft OEM MRO business of maintenance hangars business • Utilize obtained knowledge and expertise SpaceJet Program • Consider various business possibilities for commercial aircraft Steadily conduct our next core projects (F-X: Japanese next generation fighter, H3 Launch Vehicle) Existing business Expansion of • Expand business for Command and Control systems and M&S\*<sup>3</sup>, etc. existing domestic • Expand MR0&U, and education and training and peripheral Expand into new related business fields (space [including fields Related business utilization of satellite information], cyberspace, unmanned vehicles, etc.) Integrated • Utilize channels with overseas manufacturers cultivated through Application of MHI products Defense existing businesses for foreign military & Space **Overseas** • Cooperate with the Japanese government in parallel with interequipment company talks business Systems expansion • Launch international development projects with allies (supporting International development the Japanese government) projects • Enter international development projects Establishment of • Utilize core technologies of defense and space civil businesses • Expand civil business particularly in the safety and security using dual-use field (cybersecurity, warning surveillance, wide-area status technologies observation) \*3 M&S: Modeling and Simulation

### **Business Initiatives in the 2021 Medium-Term Business Plan**

MITSUBISHI HEAVY INDUSTRIES GROUP 49



Hisato Kozawa Executive Vice President, CFO

Shoichi Tsumuraya Professor, Graduate School of Business Administration, Hitotsubashi University

We invited Professor Shoichi Tsumuraya of Hitotsubashi University, an expert in financial accounting with specialization in disclosure and corporate governance, to meet with CFO Hisato Kozawa to discuss the new financial and capital strategies included in the 2021 Medium-Term Business Plan.

# **Basic Approach to Financial Strategy and Capital Policy**

Kozawa Professor Tsumuraya, thank you for coming today. Through our conversation today, I hope to give readers of the MHI Report a greater understanding of MHI Group's roadmap to value creation and our financial and capital policies.

Tsumuraya Thank you for inviting me. From my position as an outsider to MHI, I look forward to asking you a variety of questions.

In preparing for our conversation, I looked back over MHI's past financial materials. It is my understanding that your company reached a major turning point in the wake of the 2008 Financial Crisis, after which focus shifted to financial policy stressing cash flow and the balance sheet. How do you rate your progress toward achieving your financial and capital targets so far?

Kozawa As you may know, one of our most important KPIs is what we call the "Triple One Proportion," or "TOP." TOP refers to an ideal 1:1:1 ratio of revenue, total assets, and market value. In terms of the relationship between revenue and total assets, i.e., asset turnover, I would rate our progress in achieving a robust business structure at around 90%. On the other hand, in terms of the ratios of both revenue and total assets to market value, I do not think we have even reached 50% yet. Increasing profitability in particular remains a challenge to raising our market value.

Tsumuraya I appreciate your offering such a clear picture of your view of the issues MHI currently faces. I think the way your company tracks its progress, that is by maintaining focus on medium and long-range targets spanning multiple business plan terms, is very effective.

At the same time, it is important to maintain a balance between short-term goals and medium to long-term goals. What is your thinking concerning timelines? Kozawa At MHI, most of our businesses have long timelines, and I think our share price reflects our shareholders' and investors' expectations regarding our total performance over the medium to long term, rather than our short-term financial results. For this reason, MHI management places importance on optimizing our business portfolio with a long-term perspective and executing long-term strategies. Of course, in order to earn the trust of the capital markets regarding our medium and longterm strategies, I believe it is important that we achieve positive ongoing results in the short term as well. This is because, inevitably, our management will be evaluated based on short-term business performance.

# My Aims as CFO as Outlined in the 2021 Medium-Term Business Plan

Tsumuraya I understand that the new 2021 Medium-Term Business Plan was formulated using a backcasting approach starting from your company's vision for 2030, which is based on the approaches to financial and capital policies that you just explained. What are the main goals of the new Plan and its particular areas of focus?

Kozawa To begin, in recent years our business plans have successively gone unachieved, so the management team is firmly resolved to make sure the new Plan's targets are realized.

The 2021 Medium-Term Business Plan has two themes: developing growth areas, and strengthening profitability. In order to ensure smooth optimization of the business portfolio, we have deemphasized business scale, i.e., the top line, which we had stressed heavily up until now. We have taken this approach for two main reasons, first, because top line targeting can at times hold back business portfolio adjustments, and second, because we intend to pursue a business strategy focused on the balance sheet, rather than on the P/L. In the new Plan, we focus on three financial indicators: business profit margin, interest-bearing debt, and return on equity. Our intent is to address one core issue: improving company-wide profitability. We will also seek to accelerate investments into new areas while maintaining financial discipline and to achieve ROE in excess of capital costs.

Tsumuraya From what you have just said, I sense that your company is placing extreme importance not only on profitability but also on business portfolio management, which is directly connected to total assets and capital efficiency. Although there are some sensitive aspects to this, I think portfolio optimization needs to be executed flexibly and dynamically, too.

Kozawa Yes, optimization of our business portfolio is extremely important, and this is something our management team is discussing seriously on an ongoing basis.

There are two points regarding business portfolio management that I consider most important. The first is for MHI Group to pursue businesses that offer us growth

# A Conversation with the CFO

potential and potential value expansion, and to consider divesting businesses in which other companies are in a better position to achieve growth. Previously, we tended toward an approach centered on generating revenue through expansion; going forward, we will lay stress on who is better positioned to grow a particular business, MHI or another company. For the employees who work in the businesses concerned, it only makes sense that they will be happier and have a more positive outlook if they are in an environment conducive to growing their business.

The second point I always consider is whether or not a business offers MHI the potential to be Number One– or the Only One–in Japan. Of course, we also consider partnerships with international companies, mergers, and acquisitions. But given the current mature state of the Japanese economy, I believe consolidating dispersed resources will also be an important option, including from the perspective of industry reorganization.

Tsumuraya I completely agree. This is something common to all industrial sectors. I think reorganization within Japan is needed to attempt joining the ranks of international conglomerates. In that respect, it is important to consider how to create cash flows from a long-range perspective, taking capital costs into consideration.

Kozawa I agree. There are businesses that currently generate weak profits but which have the potential to grow significantly by becoming part of MHI Group. At the same time, I think there are some businesses within MHI Group that could stagnate in the next several years, but which could be targets for resource investment at other companies. We should consider divesting such businesses as soon as possible. In the medium to long term, waiting to divest such businesses until after their earnings have fallen will only cause negative results for stakeholders on both sides.

Tsumuraya In conjunction with the Company's goal of strengthening profitability, besides business portfolio optimization and growing existing businesses, I believe that reducing SG&A is also important.

	FY2018	FY2020	FY2023
Revenue	¥4.1 trillion	¥3.7 trillion	¥4.0 trillion
Business profit margin	5%	1.5%	7%
ROE	<b>7</b> %	3.1%	12%
Total assets	¥5.1 trillion	¥4.8 trillion	¥4.5 trillion
Interest-bearing debt	<b>¥0.67</b> trillion	¥0.9 trillion	<b>¥0.9</b> trillion
Equity	¥1.7 trillion	¥1.4 trillion	¥1.5 trillion
Debt/Equity ratio	0.4	0.6	0.6
Equity ratio	34%	28%	33%
Dividend per share	¥150	¥75	¥160

### Financial indicators over time

# Plan to Strengthen Profitability

Plan to Streng	then Profitability	Business	Business I	Environment Outlook	Measures
	Measure 1: Minimize SpaceJet Costs +120 billion yen	SpaceJet		ospace recovery or after FY2024	• Minimize SpaceJet Costs
Overcoming COVID-19 impact	Measure 2: Recover from COVID-19 impact +70 billion yen	Commercial Aviation CRJ Aero Engines	<ul> <li>Recovery of narrowbody aircraft will lead to faster recovery of CRJ and aeroen- gine businesses</li> </ul>		<ul> <li>Reduce fixed costs</li> <li>Drive forward manpower saving and automation during COVID period</li> </ul>
		Turbochargers Engines Car Aircon Logistics Equipment HVAC	Recovery to Pre-COVID levels expected by FY2023		<ul> <li>Optimize overseas production bases</li> <li>Prepare for market recovery by improving productivity</li> </ul>
	Measure 3: Grow existing businesses +20 billion yen	Logistics Equipment HVAC	impact • Growing ronment	covery from COVID market in envi- -responsive and ion technologies	<ul> <li>Proactively invest in environ- ment-responsive and automa- tion technologies</li> <li>Strengthen sales network</li> </ul>
Grow existing businesses and	Measure 4: Address challenged businesses, struc-	Steam Power Environmental Plants	<ul> <li>Steep reduction in new-build coal power plants</li> </ul>		<ul> <li>Big shift to services</li> <li>Reduce fixed costs</li> <li>Reorganize and integrate organization and bases</li> </ul>
solve pre-COVID challenges	tural transformation; (including portfolio optimization) +30 billion yen	Metals Machinery Engineering Commercial Ships Machine Tools	<ul> <li>COVID has frozen customer investment, competition is</li> </ul>		<ul> <li>Shift to services to stabilize profits</li> <li>Eradicate losses in EPC* projects</li> <li>Strengthen marine engineering business</li> </ul>
	Measure 5: Reduce SG&A +40 billion yen	HQ Corpor Business Un Group Compa	its &	reduce headcount	ocesses, integrate organization,
Reduce workforce in line with business environment		l workforce due to low equipment, HVAC, cor			netals machinery, turbochargers, und 2,000 jobs)
and embark on significant shift in workforce deployment	Domestic aerospac ■ Undergo	ce, commercial shippi	ng gn workfor		on in steam power, commercial ransfer to organizations outside

EPC: Engineering, Procurement and Construction

# A Conversation with the CFO

Kozawa I see cost structure reform as an ongoing issue, and during the three years of our 2021 Medium-Term Business Plan, we are targeting a 20% reduction in SG&A, which will be achieved through improvements in administrative processes and organizational and headcount adjustments.

I think there is still great room for improvements, especially with in administrative processes in indirect departments and IT systems. We have already promoted function sharing and consolidated purchasing. Now, we are examining how to reduce fixed and operating costs and raise our administrative efficiency by improving our IT systems. We also plan to allocate the human resources secured through these initiatives to growth areas and other business activities.

# Investment Plans and the Company's Position on Dividends

Tsumuraya In reference to the growth areas you spoke of earlier, next I would like to ask you about MHI's investment plans. The Company has cited two growth areas targeted for investment: Energy Transition and New Mobility & Logistics. What investment plans do you have in mind for these areas?

### Capital allocation plan

- Strengthen operating cash flow by improving profitability, continue to monetize through asset management
- Shift investment away from SpaceJet and into priority growth areas (energy transition, new mobility & logistics)



Kozawa We see both of these growth areas as business opportunities that will be realized by 2030. During the three years of the 2021 Medium-Term Business Plan, we plan to invest a total of 180 billion yen into these areas. This is an amount we believe to be indispensable at the current stage.

The Energy Transition is one of our core business areas. There are some aspects of the Energy Transition that are already underway, so in addition to purely strategic investments, we will invest resources in existing projects. Altogether, we are assuming total investments on a scale of around 200 billion yen. MHI Group is in a position to play a central role in the Energy Transition, especially as concerns hydrogen energy infrastructure. Downstream, i.e., in the hydrogen usage area, we will proceed with the design, manufacture, and validation of hydrogen-fired gas turbines for use in power generation, an area already under development. Upstream, i.e., in the hydrogen production area, we will invest in companies outside the Group that have promising technologies in order to build a hydrogen solutions ecosystem which will contribute to the achievement of Carbon Neutrality.

Turning to New Mobility & Logistics, here we will need to enter new areas to MHI Group or create totally new businesses. As a result, it is essential that we pursue mergers, acquisitions, and alliances with third parties. We therefore will need to secure adequate funding swiftly and flexibly and also move forward with technical demonstration with the goal of commercialization.

While actively investing in these areas, in parallel we will continue to maintain and strengthen our financial foundation. Under the financial strategy carried out by the previous CFO, the Company succeeded in reducing its interest-bearing debt despite making large-scale investments in the Commercial Aircraft segment. I believe this set the foundation that has enabled us to steadily procure funds even in the midst of the COVID-19 pandemic. With our 2021 Medium-Term Business Plan also, we will make our financial foundation even stronger by minimizing interest-bearing debt while proceeding with investments in growth areas.



Tsumuraya In the 2021 Medium-Term Business Plan, MHI is targeting historically high dividends in FY2023, the final year of the Plan. The target is roughly double the dividends executed in fiscal 2020. What is this projection based on?

Kozawa While our current dividend payout ratio is 30%, we expect to achieve the shareholder return target you mentioned by meeting our profit goal for FY2023.

That said, we believe that in addition to reaching the target, it is equally important for dividend payouts to be stable, in order to respond to the medium and long-range expectations of our shareholders and investors, as discussed earlier. Accordingly, after we have reached a certain dividend payout level by achieving the 2021 Medi-um-Term Business Plan, we may need to reconsider our dividend policy. For example, instead of a payout ratio that fluctuates according to the previous fiscal year's profit levels, another feasible option might be to keep dividends at a stable level and use DOE – dividends on equity ratio – which takes cost of equity into account, as an index to inform our dividend calculations.

Tsumuraya Critics have pointed out that short-termism and other harmful effects result from relying wholly on payout ratio as an indicator of shareholder returns. Adopting DOE or some other barometer could be one solution to this problem, so I hope you will discuss this matter thoroughly in your company.

### A Conversation with the CFO



Tsumuraya Today, sustainability is becoming an issue of increasingly greater importance from the standpoint of dialogue with the capital markets. An increasing number of companies are publicizing their contributions to achieving SDGs, but my personal impression is that, even now, only a few companies actually incorporate these issues into their business strategies. That said, MHI Group's 2021 Medium-Term Business Plan truly does include plans for solving the world's problems. In your position as CFO, what are your views on sustainability?

Kozawa In the 2021 Medium-Term Business Plan, we laid out our vision to link our growth strategy to addressing humanity's problems, so I believe we have taken a step forward in that respect.

Sustainability as we think of it is rooted in Our Principles\* and the Three Principles of Mitsubishi Group on which they are based. And while this philosophy, which has been in place since the Company's founding, is very dear to our hearts, we must also focus on monitoring changes in the society around us and responding as necessary to the expectations and demands of society at each point in time. In that respect, I believe we need to engage in a dialogue with society and the capital markets and to demonstrate our commitment through new initiatives. Tsumuraya Were those the motives behind the green bonds your company issued in FY2020?

Kozawa Yes, exactly. Some suggest that going forward, rather than relying wholly on corporate bonds, eventually the greater part of financing will derive from green procurement. So we decided to issue green bonds to get an understanding of the market's expectations towards them. I believe pursuing initiatives of this kind on a continual basis is needed to have a true dialogue with the market.

Tsumuraya I agree that when engaging in dialogue with the capital markets, continuity is important. Before we close, I would like to ask you about your hopes for the future in your position as CFO.

Kozawa I would like for the progress of our strategies to be apparent in the three financial indicators I noted earlier–business profit margin, interest-bearing debt, and return on equity–and in the results we achieve from business portfolio optimization. We will continue providing detailed explanations to our shareholders and investors about the initiatives we implement each year, and we will devote ourselves completely to demonstrating results by successfully achieving our 2021 Medium-Term Business Plan targets.

Tsumuraya I'm deeply impressed by your dedication to producing immediate results while firmly maintaining a consistent long-term perspective, and I believe your financial strategy and capital policy are extremely well focused. I think we discussed some very interesting things today.

Kozawa Thank you very much. We greatly appreciate your taking the time to be with us today.

\* See page 10: Philosophy ("Our Principles")

# Sustainability and Dialogue with Stakeholders

## **Green Bond Issuance**

In November 2020, MHI issued its first green bond.\* The proceeds from the issuance were earmarked for renewable/clean energy businesses (wind, geothermal and hydrogen power systems), thereby facilitating the achievement of a decarbonized society. Through these businesses, we will help achieve the UN's seventh Sustainable Development Goal, "ensuring access to affordable, reliable, sustainable and modern energy for all," in addition to providing society with a better-balanced mix of energy infrastructure.

\*Green Bonds are unsecured corporate bonds where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects and which are aligned with the four core components of the Green Bond Principles.

#### Green Bond Framework

Bond name	Mitsubishi Heavy Industries, Ltd. 36th Series Unsecured Corporate Bond (with Inter-bond Pari Passu Clause) (MHI Green Bond)	
Maturity	5 Years	
Issuance amount	¥25 billion	
Interest rate	0.14%	
Date of issue	November 24, 2020	
Redemption date	November 21, 2025	
Use of proceeds	New or existing businesses or projects relating to renewable energy or clean energy (wind, geothermal and hydrogen power systems)	
Acquired rating	AA- (Japan Credit Rating Agency, Ltd.: JCR)	

#### Preparation of Green Bond Framework and Acquisition of Second Party Opinion

In preparation for issuance of its green bond, MHI Group has established the MHI Green Bond Framework in accordance with the Green Bond Guidelines of the International Capital Market Association (ICMA). With respect to evaluation of the green bond's suitability, the Company has received a second party opinion (SPO) from Sustainalytics, a third-party institution, attesting to the bond's conformity with ICMA's "Green Bond Principles 2018" and the "Green Bond Guidelines" (FY2020 edition) issued by the Japanese Ministry of the Environment.

#### Overview of Green Bond Framework

We set eligibility criteria, designate qualified businesses/projects and evaluate and select projects through a three-step process. First, MHI's business divisions select businesses and/or projects to be funded by green bond proceeds. Second, the finance department confirms compliance with the eligibility criteria. Third, the CFO makes the final decision. MHI will annually report on the allocation of proceeds to eligible businesses and/or projects, management of proceeds, and social impact on its corporate website, or in a timely manner whenever any significant change occurs. The first report will be made public within one year from the green bond issuance. • Eligible businesses and/or projects: Renewable energy/clean energy business (wind, geother-

mal, and hydrogen power generation facilities/businesses)

Eligibility Criteria:

Expenditures for, and refinancing of, the Group's renewable energy/clean energy business (such as R&D funds, business development and operation funds, and working capital) that meet the following criteria

- Hydrogen power generation businesses and/or projects for 100% hydrogen combustion
- Geothermal power generation businesses and/or projects that emit less than 100g CO<sub>2</sub>/kWh
- Investments in corporations that are exclusively engaged in the renewable energy/clean energy business or generate at least 90% of their sales from renewable energy/clean energy-related business
- Of the expenditure for the business and/or project, capital investment expense, etc. (CAPEX) was made within 7 years preceding the green bond issuance date

#### Reporting (FY2020 data)

In May 2021, MHI publicly reported the FY2020 data tabulated below. MHI also publishes annual reviews from Sustainalytics on its website.

#### Allocation reporting (As of March 31, 2021)

The entire proceeds from the green bonds' issuance (¥24,893 million) were allocated to renewable energy businesses (partially to refinance an offshore wind power facility). None of the proceeds remain unallocated.

#### Impact reporting

Environmental benefit metrics for the businesses/projects funded with proceeds from the green bonds' issuance are tabulated below.

	FY2016	FY2017	FY2018	FY2019	FY2020
Newly installed power generation capacity (MW)	365	816	864	785	804
Assumed annual power output (MWh) (upper	981,602	3,176,087	5,499,659	7,610,776	9,772,989
row: annual totals, lower row: cumulative totals)	981,602	4,157,689	9,657,348	17,268,124	27,041,113
Expected annual reduction in CO2 emissions (kt)*	490	1,600	2,770	3,840	4,930
(upper row: an- nual totals, lower row: cumulative totals)	490	2,090	4,860	8,700	13,630

\*Calculated using average emission factors and average capacity utilization rates respectively published by the International Finance Corporation and International Renewable Energy Agency.

# Strengthening Our Technological Foundations (CTO Message)



We will lay the groundwork for future growth by reforming MHI Group's technological foundations.

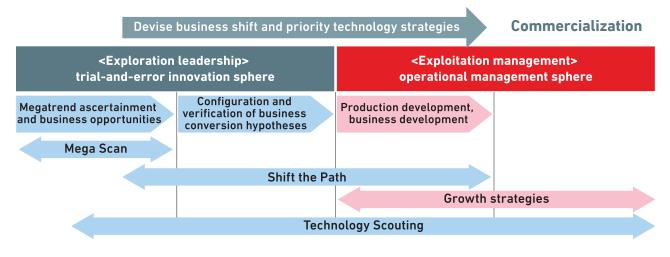
Executive Vice President/CTO Eisaku Ito

# **Exploration and Evolution in Pursuit of Innovation**

MHI Group has been contributing to societal progress since its inception by deploying machinery systems integral to social infrastructure. Recent years have been marked by increasingly complex societal challenges (e.g., SDGs), diversification of people's values and technological innovation, including advances in digitalization, functional materials and biotech. Meanwhile, COVID-19 has changed people's behavior and is driving nebulous, discontinuous changes in needs and values with respect to social infrastructure.

### Deployment of Growth Strategy from MHI FUTURE STREAM

(blue: led by the Shared Technology Framework, red: led by our business divisions)



Against such a backdrop, we continue to carry out MHI FUTURE STREAM activities to gain a big-picture grasp of political, economic, societal and technological changes within MHI Group's business environment from a medium- to long-term perspective and to formulate optimal business strategies based on multiple scenarios. MHI FUTURE STREAM comprises three steps. The first is Mega Scan, where we formulate medium- to long-term change scenarios. The second is Shift the Path, where we hunt for business opportunities based on innovation hypotheses around markets and technology. The third is Technology Scouting, where we seek out highly impactful disruptive technologies and collaborations with external partners. We are exploring new directions in which to shift our businesses to capitalize on promising megatrends.

One idea generated by MHI FUTURE STREAM activities is evolution of machinery systems. We are focusing on electrification and smartification in particular. We intend to also contribute to energy transition as one of our growth strategies. We expect the transition to drive CO<sub>2</sub> reduction through improvement in machinery's efficiency and yield alternatives to the internal combustion engine. On the smartification front, we are developing not only Al technologies, including application of deep learning to image-processing technologies we have long been cultivating, but also technologies that add new value, including machinery capable of collaborating with humans by virtue of autonomous control and advanced swarm control. We believe we can apply such technologies to multiple new businesses in the mobility domain, the focus of another of our growth strategies.

Meanwhile, a cluster of several core technologies has emerged. It includes autonomous vehicles, electrification, thermal management and new materials. By applying these technologies, we can create new value and add value to existing products. We will innovate by distilling internal and external expertise and flexibly combining innovative technologies and business ideas.

Innovations we intend to explore and exploit include not only creation of new businesses and products but also improvements in existing products' performance and increases in competitiveness through cost reductions. We will help realize a safe, secure society by ensuring essential safety and reliability as a manufacturer.

## Exploitation of Basic Technologies and Development of New Functionalities

- Hydrogen/ammonia combustion
- Thermal barrier coatings
- Validation testing (from components/materials to end product)
- Large-scale simulation
- Free molding of composite materials
- Innovative design/ manufacturing (additive manufacturing)
- Mechanical/electrical/thermal/ chemical coupled simulation



Swarm intelli

gence of multiple



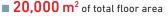
- Autonomous behavior/ swarm intelligence
   Automated health
- diagnostics • Collaborative robots
- Diagnostic imaging
- Encryption controls
- Security
- High-speed image
- data processing

# **New Innovation Initiatives**

As an innovation initiative, we opened Yokohama Hardtech Hub (YHH) in 2020 as a co-creation space to bring startup companies' ideas to fruition. It is our second such site alongside Mitsubishi Innovation Accelerator LLC, established in 2018 to glean new insights from leading-edge technologies and research. Incessant innovation in response to changing societal needs requires exploration through prototyping and testing based on hypotheses formulated knowledgeably and insightfully from a big-picture and/or long-term perspective. We will utilize YHH to actively practice such exploratory innovation. YHH signed up seven startups as tenants in its initial fiscal year. We plan to keep expanding and developing YHH as a space that attracts talent and technologies across diverse disciplines. In December 2020, YHH hosted a co-creation event, the theme of which was "The Reality of Manufacturing and Value of Co-creation in the Space Sector." The event featured discussions with academics and entrepreneurs on the challenges and rewards of manufacturing in the space sector. We will continue to build a community of collaborators through such events.

While gaining more external collaborators through such outreach, we of course have to reform our own thought processes and behavior patterns with respect to innovation. Toward this end, we adopted an R&D model called Pivot Development in 2020 under the banner of developing products faster than startups. An iterative process of formulating and testing hypotheses based on

Spacious prototyping/testing environment



Equipped with power supplies, compressed air, cranes, HVAC, WiFi



researchers' free-flowing ideas is essential to discovering and concretely applying new knowledge. One effective way to iterate efficiently is to deconstruct the problem in question into sub-problems, formulate hypotheses as granularly as possible and condense the process into a short timeframe. This approach enables researchers to pivot on the fly in response to testing outcomes. It is also predicated on acceptance of the possibility of failure. Breaking a problem down into small steps and pivoting whenever warranted increases the success rate relative to tackling a big problem as an all-or-nothing proposition. We fielded over 500 ideas and launched many projects during the Pivot Development program's initial fiscal year. Around 25% of the ideas that completed the iterative process either reached the prototype stage or were incorporated into an SBU's development plan.

One such idea is that unmanned vehicles deployable on land, at sea, in the sky and in space could be developed by applying technologies amassed in the development of automated forklifts and autonomous robots. Another idea is that with MHI Group being a global leader in CO<sub>2</sub> capture, we might be able to turn captured carbon into an environmentally friendly, value-additive product if we were able to convert it into a valuable input for other products instead of storing it underground.

By thus developing new technologies and combining them with existing core technologies, we will bring MHI Group's growth strategies to fruition.

#### Seven occupants (as of April 2021)



Development of coating materials for, e.g., semiconductor production equipment components

## Example: Technological Synergies in Fuel-Switching to Hydrogen

We are developing technology to support energy transition in the aim of realizing a carbon-neutral society by 2050.

MHI Group is pursuing carbon neutrality through various initiatives to shrink existing businesses' carbon footprints, launch new carbon-free businesses, generate power from hydrogen and develop energy storage solutions. In developing decarbonization technologies, we generate synergies by capitalizing on our products' diversity and amassing knowledge and superior technologies and sharing them cross-organizationally. One such synergy involves fuel-switching to hydrogen, a key energy transition tactic.

Non-CO<sub>2</sub>-emitting fuels currently seen as promising include hydrogen and ammonia. MHI Group has a long history of using hydrogen despite its being a difficult-tohandle fuel. Rocket engines burn liquid hydrogen as fuel. Steel mills and petroleum refineries have been using gas turbines fueled by byproduct gases that include hydrogen in varying proportions for over 50 years. We command a dominant share of the global market for such turbines. Gas turbines' power generation efficiency can be increased by raising their combustion temperature. In 2018, we succeeded in developing a hydrogen gas turbine that operates stably at a combustion temperature in excess of 1,600°C while burning fuel with hydrogen content of 30% or more. To do so, we used large-scale combustion simulation technology. Applying this simulation technology to rockets' main engines, we achieved stable hydrogen combustion at temperatures in the vicinity of 3,000°C.

Additionally the validity of ideas generated by combustion simulations is confirmed by verification test under actual equipment pressure condition after laboratory combustion tests. The facilities used to conduct these combustion tests were designed for supersonic ramjet engines. The tests yield synergies in addition to advanced measurement technology. Using an MHI Group demonstration power plant where production gas turbines are tested, we plan to test a hydrogen ecosystem inclusive of hydrogen production facilities. Development is expected to accelerate further.

In sum, the combination of our diverse basic technologies and broad product experience is generating various synergies and driving innovation.



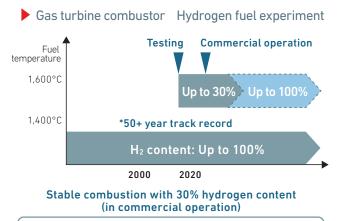
LOX/LH2 engine

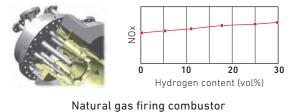


Hydrogen co-firing gas turbine Global market share leader Source: MHI Technical Review Vol. 48 No. 3 (2011), Development of Leading Technology for a Low-BTU Gas-firing Gas-turbine Combined-cycle Plant at a Steelworks

Hydrogen co-firing/100% hydrogen firing gas turbine







# Strengthening Our Technological Foundations (CTO Message)

### **Example: Machinery Systems' DX-Driven Evolution**

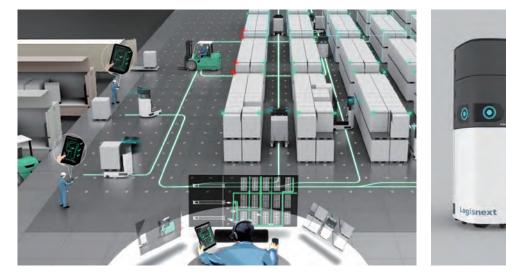
As another example, we are developing technologies in new spheres such as mobility through integration of digital technologies into machinery systems.

MHI Group has long been commercially applying AI technologies, most notably deep learning, to use cases such as automated operation of plant products. By combining digital, communications and control technologies, all of which have advanced dramatically in recent years, we interlink multiple machines to enable them to optimally operate like a single machine. In HVAC (Heating, Ventilation, and Air Conditioning) and logistics as well, both of which we have designated as growth areas, we are smartifying, automating and substantially upgrading product performance.

We have proposed  $\Sigma$  SynX as an automation and smartification solution concept applicable to all MHI Group products. One application of  $\Sigma$  SynX is the SynX-Vehicle, a new concept automated guided forklift (AGF). While based on a conventional forklift, the SynX-Vehicle is more compact. We minimized its footprint to enable warehouses to increase storage space by reducing aisle width. It also features improved stability and a new rotation method to speed up workflow. Additionally, it has a display panel that visually communicates with nearby workers (e.g., by signaling it will yield at an intersection) to increase safety and productivity. This technology was developed using the aforementioned Pivot Development model. The SynX-Vehicle's development was completed in a mere six months by a team of mostly young engineers.

Going forward, we will apply control technologies that efficiently coordinate multiple unmanned vehicles, technologies that detect humans and objects and/or human interface technologies to facilitate communication between humans and machines. Such technologies will enable us to provide logistics solutions that flexibly adapt to the specific workplace in which they are deployed and ensure high productivity and safety through collaboration between humans and machines. In cold-chain logistics as well, we plan to create added value by combining chillers with thermal management technologies.

Technologies that reliably and efficiently operate complex machinery and plants are one of our strengths. While supplying machinery that leverages this strength as a core competency, we are creating new value and successively rolling out innovative components by smartifying and automating machinery. We continue to evolve as a machinery systems maker that delivers innovation to society.



### ΣSynX-powered AGF

#### Sustainable Growth through Resolving Social Issues

# Addressing Societal Challenges

As I mentioned at the outset, societal challenges are becoming increasingly complex while people's values are rapidly diversifying. Many hurdles must be surmounted to realize a carbon-neutral society by 2050. People will still require mobility while goods will need to be transported efficiently. MHI Group possesses the experience, track record and capabilities to provide solutions in response to such diverse needs for environmental remedies and circular-society building in pursuit of a sustainable society.

Recent advances in AI and digital technologies are driving automation, autonomization and operational optimization of machinery. Capitalizing on such trends, we will upgrade transportation safety and convenience, improve logistic efficiency and increase social systems' productivity. We will also leverage big data and leadingedge data analytics technology to provide innovative solutions that protect everyday infrastructure against natural disasters and other threats.

Meanwhile, with all types of devices now being connected to networks, server security risk has become a threat to safety and peace of mind. We will protect customers from invisible threats by combining MHI Group solutions with security technologies developed for defense and other applications.

One of MHI Group's strengths is over 500 broad product lines ranging from defense hardware and plants to air conditioners, including products of differing scale and usership and machinery used on land, at sea, in the sky and in space. Every MHI product embeds a host of top-level technologies. By generating synergies with newly acquired key technologies, we are able to offer solutions that add novel value and contribute to resolving societal problems.

We will build broad networks through MHI FUTURE STREAM activities, sensitively detect changes and formulate foresighted strategies. Toward this end, we have embarked on new initiatives over the past year, including establishing YHH and adopting the Pivot Development model of radical technological innovation. While forging ahead with MHI FUTURE STREAM, we will continue to evolve as a machinery system manufacturer that delivers innovation to society. I am highly confident MHI Group can make great strides toward fulfillment of its growth strategy.

### MHI Group's vision of the safe, secure society it aims to help realize



- People living sustainably in harmony with the environment and technology.
- Resilience that keeps people safe and secure even during emergencies.
- MHI Group will reliably support both.

# Building HR Platform (Message from Senior VP in charge of HR)

While fostering an environment that empowers employees, the source of a company's competitiveness, to work autonomously, we are building out HR platform to enable MHI Group to keep growing.

> Senior Vice President in charge of HR Junichiro Kakihara

MHI Group's business environment is changing ever faster amid the global COVID-19 pandemic. From various perspectives HR is trying to achieve MHI Group's current medium-term business plan (2021 MTBP) to enable the Group to grow sustainably in any environment. With sights set firmly on the future, every HR member is personally thinking and taking action to meet drastically changing societal and customer needs.

# **Development of Talent Pool for Succession**

We are endeavoring to foster next-generation executives from a long-term perspective to fulfill MHI Group's Mission of integrating cutting-edge technology into expertise built up over many years to provide solutions to some of the world's most pressing issues and provide better lives. We select candidates with talent to play leadership roles in MHI Group's management throughout the Group at an early stage in their careers and intensively develop their capabilities. In our training program, we collaborate with business schools around the world to provide offthe-job training aiming to impart management knowledge and skills to candidates while instilling a leadership mentality in them. Additionally, we rotate candidates into and out of key positions in different business units to

further broaden and deepen their operational experience.

Through steady repetition of such a development cycle, we strive to cultivate next-generation executives capable of succeeding in any environment.



MHI Leadership Program session in Australia (Nov. 2019)

#### Sustainable Growth through Resolving Social Issues

Ing the Groundwork for

# **HR Digital Transformation Initiatives**

We have built a global HR database containing personnel records of about 80,000 employees from 139 domestic and overseas consolidated subsidiary companies. We will utilize these data following the data governance policies for our strategic talent and workforce management.

To increase employee engagement, in addition to our employee attitude surveys done at about every 18 months, we will conduct pulse surveys globally which are simpler and done more frequently.

We will continue to reform our HR processes by adopting the latest technologies on an ongoing basis.



Sample screenshots of pulse survey system to be deployed globally

# Work-Style Innovations

To promote the autonomous working style of each employee, MHI Group has long granted employees flexibility to choose their preferred working style to the extent permitted by the content of their jobs. For example, we eliminated core time for employees on flex-time schedules and expanded work-from-home eligibility. In Japan, interest in alternative working style has been growing since a new law of promoting work-style reforms took effect in April 2019. This trend has gained further momentum from restrictions on mobility (commuting) and in-person business interactions in response to the CO-VID-19 pandemic in 2020. Amid such an environment, MHI Group has surveyed employees on their job situations and needs and started to explore post-pandemic workstyle changes. A company's competitiveness stems from its employees. MHI Group will continue to foster an HR culture that enables employees to work autonomously and dynamically, unbridled by time and place constraints.

Expansion of work modalities that support autonomous	Eliminated core time for employees on flex-time schedules	
	Expanded work-from-home eligibility	
working style	Increased annual paid vacation days usable in hourly units	
Post-pandemic preparations	Implemented emergency measures and temporary accommodations to prevent spread of COVID-19	
Post-pandernic preparations	Started exploring post-pandemic working style	

# **Promotion of Career Opportunities for Women**

To foster a culture where women can play more active roles, we have been endeavoring to expand programs that go above and beyond statutory requirements and our own innovative programs, including conventional childcare leave for mothers of young children, time off for fertility treatments, re-employment of women resuming

# Building HR Platform (Message from Senior VP in charge of HR)

interrupted careers and various financial supports. Since 2014, we have been carrying out a variety of initiatives to promote career advancement among female employees under four themes (see table below). Through these initiatives, we achieved our target of tripling the number of women in management roles (section manager and above) from its fiscal-2014 level by 2020. We will continue to create opportunities for women to advance further in their careers and promote flexible working style to help women return to work sooner from childbirth or fulltime parenting.

Theme	Examples
(1) Expansion of number of female employees	<ul> <li>Stepped up recruitment of female college graduates (factory tours, conferences and pamphlets for female engineers in the future)</li> </ul>
(2) Prevention of career interruptions	<ul> <li>Established/upgraded work-life balance supports</li> <li>Hosted support-group gatherings for female employees</li> </ul>
(3) Systematic development of female managers	<ul> <li>Sent employees to external management training programs for women</li> <li>Strengthened follow-up of career-track candidates' development</li> </ul>
(4) Corporate culture	<ul> <li>Conducted mindset reform initiatives (briefings, trainings) for managers</li> <li>Conducted mindset reform initiatives (dissemination of information through, e.g., employee interviews) for all employees</li> </ul>

### Women's Career Advancement Initiatives

Under the Act on Promotion of Women's Participation and Advancement in the Workplace, the Minister of Health, Labour and Welfare awards Eruboshi ("L Star") certifications to companies that meet certain standards of excellence in promoting career opportunities for women. In July 2020, MHI was awarded three stars, the highest Eruboshi rating, by meeting all five evaluation criteria: hiring, employment continuity, working hours, female share of management personnel and diversity of career tracks.



Even amid the pandemic, we continue to support female employees' work-life balance through such means as offering online seminars on childcare and eldercare. For the childcare seminars, we actively encourage male employees with pregnant partners and managers with subordinates who are parents of young children to attend. We do so to promote utilization of work-life balance supports and a communal understanding of work-family balance irrespective of gender. In recent years, the supports are increasingly being used even by male employees.

MHI Group will continue to make strides to promote career opportunities for women as a core component of its diversity management strategy in pursuit of global growth.

#### Online seminars



Seminars explain MHI work-life balance supports and feature work styles of employees who are parents of small children

Schedule on work-from-home day				
6:00	Wake up, get self ready for day, do housework, etc.			
7:30	Wake up children, eat breakfast, get them ready for preschool			
9:00-10:00	Start working			
10:00-12:00	Usually meetings are set around this time (time which is least likely to be interrupted by calls from children's preschool)			
13:00-18:00	Do work tasks (fully utilizing Teams, Lync, WebEX) Finish working after updating manager and colleagues on important matters			
18:30	Pick up children (When my children went to different preschools, dropping them off and picking them up would take 30-40 minutes. It now takes less time.)			
18:30	Prepare dinner from meal kit, eat together as a family			
20:00	Bath children and wash dishes (with husband's help) ⇒ back to work if necessary			
21:30	Read to children and put them to bed (When my children were younger, I would fall asleep while waiting for them to go to sleep. Now I enjoy free time after they fall asleep.)			

#### Sustainable Growth through Resolving Social Issues

ing the Groundwork for

Corporate Governance

# **Employment of Persons with Accessibility Needs**

We employ individuals with accessibility needs throughout Japan and globally. We aim to create workplace environments where even people with challenges can comfortably play active roles. As one component of this program, we are proactively expanding job opportunities for them. In 2021, we newly launched on-site groundskeeping operations in two workplaces in Japan to create new jobs. We will continue to maintain and expand workplace environments where individuals with accessibility needs can work to their hearts' content and give full play to their respective capabilities.



Cleaning crew at work in canteen

# Health and Safety

MHI Group's basic policy for employee health and safety states, "At the MHI Group, safety is the top priority. We will do everything in our power to protect lives." According to this policy, we operate an occupational health and safety management system to create safe, pleasant workplaces. Intragroup health and safety activities are reviewed and monitored by a committee comprising the senior vice president in charge of HR and employee (labor union) representatives, among others.

We aim to eliminate workplace fatalities and major disasters. We designate as high-risk events not only fatalities and major disasters that have already occurred but also potential disasters and accidents that are likely to be fatal or severely destructive. Health and safety supervisors from all domains meet together to discuss causes of disasters and disaster-prevention measures to be implemented across all of the Group's workplaces. In 2021, we commenced Stop Work Authority (SWA) activities to make sure the Group's entire workforce is aware that whenever a safety rule violation is discovered, anyone, whether an employee or not, has the authority to halt the work in question. Through SWA activities, we are endeavoring to foster a culture where every workplace can veritably put safety first.

MHI Group also places priority on employees' physical, mental health and job satisfaction. We are committed to health and productivity management in accord



SWA poster

with our president's Health and Productivity Management Declaration.

In coordination with the MHI Health Insurance Society's Data Health Plan, we have set specific KPI targets in the FY2020-22 MHI Group Action 5 Health and Happiness health-management plan and are conducting Groupwide activities to achieve them. By promoting health and productivity management and optimal approaches to managing health in the context of new normal lifestyles, we aim to develop human resources capable of contributing to a healthy society teeming with vitality. In response to the COVID-19 pandemic, we are endeavoring to prevent intra-workplace infections by providing timely information and implementing anti-pandemic measures.

# Introducing Members of the Board

As of July 1, 2021



Chairman of the Board **Shunichi Miyanaga** (DOB: April 27, 1948)

# Career summary

### Apr. 1972 Joined MHI

- Apr. 2006
   Senior Vice President, Deputy Head of Machinery Headquarters

   May 2006
   Senior Vice President, Deputy Head of Machinery & Steel

   Structures Headquarters
   Structures Headquarters

   Apr. 2008
   Executive Vice President, Head of Machinery & Steel
- Structures Headquarters Jun. 2008 Director (Member of the Board), Executive Vice President,
- Head of Machinery & Steel Structures Headquarters Apr. 2011 Director (Member of the Board), Senior Executive Vice
- President, Head of the Presidential Administration Office Apr. 2013 President and CEO (Member of the Board)
- Apr. 2013 President and CEO (Member of the Board) Apr. 2014 President and CEO (Member of the Board)
- Apr. 2019 Chairman of the Board (present position)

#### Rationale behind appointment

Having been involved in operations of Machinery & Steel Structures, Mr. Miyanaga served as President and CEO from April 2013 to March 2019, and promoted management reforms including the shift to a domain business structure and led the expansion in the scope of MHI's business. From April 2019, he has been serving as Chairman of the Board and conducting MHI's management oversight and invigorating activity at the Board of Directors.



President and CEO\*1 **Seiji Izumisawa** (DOB: September 3, 1957)

#### Career summary

Apr.	1981	Joined	MH

Ap

Ap

or. 2008	Senior General Manager, Technology Management
	Department, Technical Headquarters
or. 2011	Senior General Manager, Technology Management

- Department, Technology & Innovation Headquarters Apr. 2013 Senior Executive Officer, Mitsubishi Motors Corporation
  - r. 2013 Senior Executive Officer, Mitsubishi Motors
- Jun. 2013 Director, Mitsubishi Motors Corporation
- Apr. 2016 Senior Vice President, Senior General Manager, Technology Strategy Office
- Jun. 2017 Director (Member of the Board), Full-time Audit and Supervisory Committee Member

Apr. 2020 President and CEO (Member of the Board) (present position)

#### Rationale behind appointment

Mr. Izumisawa has engaged in research and development, technology management and operations related to strategic technology development, and has made significant contributions to strengthening and developing MHI's technology infrastructure. From June 2017 to June 2018, he filled the role of Director serving as an Audit and Supervisory Committee Member. Since April 2019 he has served as President and CEO (Member of the Board), in which roles he has drawn up and promoted strategy for MHI as a whole, and driven the development of a global structure. He participates in MHI's management decision-making, providing management direction.



Director (Member of the Board), Executive Vice President, CFO<sup>\*3</sup>

Hisato Kozawa (DOB: April 2, 1962)

#### Career summary

- Apr. 1986 Joined MHI
- Oct. 2019 Senior Vice President, CoCFO
- Apr. 2020 Senior Vice President, CFO
- Jun. 2020 Director (Member of the Board), Senior Vice President, CFO Apr. 2021 Director (Member of the Board), Executive Vice President, CFO (present positions)

### Rationale behind appointment

Mr. Kozawa has been engaged for many years in the financial and accounting operations of MHI, and has served as general manager of finance and accounting departments at a major subsidiary. He served as CoCFO from October 2019, and has been serving as CFO since April 2020, and promoting financing activities that respond to economic conditions and the business environment. He participates in MHI's management decisionmaking as a person with expertise in the finances of MHI. Sustainable Growth through Resolving Social Issues

Laying the Groundwork for Sustainability Management Corporate Governance



Director (Member of the Board), Executive Vice President, CSO; President & CEO, Energy Systems

## Hitoshi Kaguchi

(DOB: February 15, 1960)

### Career summary

- Apr. 1984 Joined MHI
- Apr. 2015 General Manager, Nuclear Energy Systems Division, Energy & Environment
- Apr. 2017 General Manager, Nuclear Energy Systems Division, Power Systems
- Apr. 2018
   Senior Vice President, Deputy Head of Business Strategy Office

   Apr. 2019
   Senior Vice President, CoCSO, Head of Marketing & Innovation Headquarters
- Apr. 2020 Executive Vice President, CSO
- Apr. 2021 Executive Vice President, CSO; President and CEO, Energy Systems
- Jun. 2021 Director (Member of the Board), Executive Vice President, CSO; President and CEO, Energy Systems (present positions)

### Rationale behind appointment

After working for many years in nuclear power generation systems technological development and operations, Mr. Kaguchi served as CoCSO from April 2019 and has served as CSO since April 2020. In these roles, he formulates and implements companywide strategies under the CEO and is involved in management decisionmaking as the executive in charge of all planning functions related to MHI's management policies.

(Appointed to the Board on June 29, 2021)



Director Naoyuki Shinohara (DOB: February 8, 1953)

#### Career summary

Apr. 1975 Joined Ministry of Finance

Jul. 2006 Director-General of the International Bureau, Ministry of Finance Jul. 2007 Vice Minister of Finance for International Affairs, Ministry of Finance

Jul. 2009Special Advisor to the Minister of FinanceFeb. 2010Special Advisor to the International Monetary Fund (IMF)Mar. 2010Deputy Managing Director, IMF (until February 2015)Jun. 2015Director (Member of the Board), MHI (present position)Jul. 2015Professor, Policy Alternatives Research Institute, The<br/>University of Tokyo (until March 2018)

#### Rationale behind appointment

Mr. Shinohara has a wide range of insights related to financial policy gained as a regulator and a global perspective gained as an international institution executive when he served as Vice Minister of Finance for International Affairs and Deputy Managing Director of the International Monetary Fund (IMF). He contributes to the improvement of the soundness and transparency of MHI's management decision-making through providing insightful views and frank assessments to MHI's management as an outside director.



Director Ken Kobayashi

Chairman of the Board, Mitsubishi Corporation (DOB: February 14, 1949)

#### Career summary

- Jul. 1971 Joined Mitsubishi Corporation Jun. 2007 Member of the Board, Executive Vice President, Mitsubishi Corporation
- Jun. 2008 Executive Vice President, Mitsubishi Corporation
- Apr. 2010 Senior Executive Vice President, Mitsubishi Corporation
- Jun. 2010 Member of the Board, President and CEO, Mitsubishi Corporation
- Apr. 2016 Chairman of the Board, Mitsubishi Corporation (present position)
- Jun. 2016 Director (Member of the Board), MHI (present position)

#### Rationale behind appointment

Mr. Kobayashi has extensive knowledge and experience as a top executive who can perform well in global markets and because of his expertise in various fields, having served as a Member of the Board, President and CEO, and Chairman of the Board of Mitsubishi Corporation. He contributes to the improvement of the soundness and transparency of MHI's management decision-making through providing insightful views and frank assessments to MHI's management as an outside director.

# Introducing Members of the Board



Director

Nobuyuki Hirano Senior Advisor, MUFG Bank, Ltd. (DOB: October 23, 1951)

#### **Career summary**

- Apr. 1974 Joined The Mitsubishi Bank, Limited (now MUFG Bank, Ltd.) Jun. 2005 Member of the Board of Directors, Managing Executive Officer, The Bank of Tokyo-Mitsubishi, Ltd. Member of the Board of Directors, Mitsubishi Tokyo Financial Group, Inc. Oct. 2008 Member of the Board of Directors, Senior Managing
- Executive Officer, The Bank of Tokyo-Mitsubishi UFJ, Ltd. Jun. 2009 Member of the Board of Directors, Deputy President, The
- Bank of Tokyo-Mitsubishi UFJ, Ltd.; Managing Executive Officer, Mitsubishi UFJ Financial Group Inc. (MUFG) Jun. 2010 Member of the Board of Directors, MUFG
- Oct. 2010 Member of the Board of Directors, Deputy President, MUFG
- President & CEO, The Bank of Tokyo-Mitsubishi UFJ, Ltd. Apr. 2012
- Member of the Board of Directors, MUFG Apr. 2013 President & CEO, MUFG
- Jun. 2015 Member of the Board of Directors, President & Group CEO, MUFG
- Apr. 2016 Chairman of the Board of Directors, The Bank of Tokyo-Mitsubishi UFJ, Ltd.
- Member of the Board of Directors, Chairman (Corporate Apr. 2019 Executive), MUFG
- Member of the Board of Directors, MUFG Bank, Ltd. (until April 2020) Jun. 2019 Director (Member of the Board), Audit and Supervisory
- Committee Member, MHI Member of the Board of Directors, MUFG (until June 2021) Apr. 2021
- Senior Advisor, MUFG Bank, Ltd. (present position) Jun. 2021 Director (Member of the Board), MHI (present position)



Director Full-time Audit and Supervisory Committee

Member Koji Okura

### (DOB: October 9, 1957)

- Oct. 2015 Senior Vice President, Vice President of Commercial Aviation & Transportation Systems Jan. 2017 Senior Vice President, Vice President of Commercial Aviation & Transportation Systems
- President and CEO, Mitsubishi Heavy Industries Shipbuilding Co., Ltd. (until December 2017) Senior Vice President, Senior General Manager of Apr. 2017 Shipbuilding & Ocean Development Division, Industry & Infrastructure
- Jan. 2018 Senior Vice President

Career summary

Apr 1980 Joined MHI

President and CEO, Mitsubishi Shipbuilding Co., Ltd. Jun. 2020 Director (Member of the Board), Full-time Audit and Supervisory Committee Member (present positions)

#### Rationale behind appointment

Mr. Hirano has extensive knowledge and experience as an executive at an international financial institution, having served as President of Mitsubishi UFJ Financial Group and President and Chairman of MUFG Bank. He contributes to the improvement of the soundness and transparency of MHI's management decision-making through providing insightful views and frank assessments to MHI's management as an outside director.

#### Rationale behind appointment

Mr. Okura has long experience in finance and accounting divisions at MHI, and has served in various important positions in administrative and business divisions, and has also served as the president of a major subsidiary. Mr. Okura has been Director serving as an Audit and Supervisory Committee Member since June 2020. He participates in MHI's management decision-making from the perspective of Full-time Audit and Supervisory Committee Member and contributes to ensuring effective audits and ensuring soundness and appropriateness and improving transparency of its management decision-making.



Director Full-time Audit and Supervisory Committee Member

Setsuo Tokunaga (DOB: October 20, 1958)

### **Career summary**

Apr. 1984 Joined MHI General Manager, Research & Innovation Center, Apr 2015 Technology & Innovation Headquarters

Apr. 2016 General Manager, Research & Innovation Center

Apr. 2017 Fellow, General Manager, Research & Innovation Center

Jun. 2017 Fellow, Senior General Manager, Technology Strategy Office Senior Fellow, Senior Chief Researcher, Research & Apr. 2019

Innovation Center

Jun. 2021 Director (Member of the Board). Full-time Audit and Supervisory Committee Member (present positions)

#### Rationale behind appointment

Mr. Tokunaga has been contributing to strengthening MHI's technological development organizations, partly through his long tenure at the Research & Innovation Center. Mr. Tokunaga has been Director serving as an Audit and Supervisory Committee Member since June 2021. He participates in MHI's management decision-making from the perspective of Full-time Audit and Supervisory Committee Member and contributes to ensuring effective audits and ensuring soundness and appropriateness and improving transparency of its management decision-making. (Appointed to the Board on June 29, 2021)

Sustainability Management



Director Audit and Supervisory Committee Member

### Hiroo Unoura

Senior Advisor, Nippon Telegraph and Telephone Corporation (NTT) (DOB: January 13, 1949)

### Career summary

- Apr. 1973 Joined Nippon Telegraph and Telephone Public Corporation
- Jun. 2002 Senior Vice President, Member of the Board, NTT
- Executive Vice President, Member of the Board, NTT Jun. 2007
- Jun. 2008 Senior Executive Vice President, Representative Member of the Board, NTT Jun. 2012
- President and Chief Executive Officer, Representative Member of the Board, NTT Jun. 2018 Advisor, NTT
- Jun. 2019 Director (Member of the Board), Audit and Supervisory Committee Member, MHI (present positions)
- Jul. 2021 Senior Advisor, NTT (present position)

#### Rationale behind appointment

Mr. Unoura has extensive knowledge and experience as a top executive active in cutting-edge fields, having served as President and CEO of Nippon Telegraph and Telephone Corporation and worked to strengthen domestic business competitiveness and earning power as well as expand international business. He contributes to the improvement of the soundness and transparency of MHI's management decision-making through providing insightful views and frank assessments to MHI's management as an outside director and Audit and Supervisory Committee member.



Director Audit and Supervisory Committee Member Noriko Morikawa

(DOB: October 18, 1958)

#### Career summary

- Apr. 1981 Joined CHORI CO., LTD.
- Aug. 1988 Joined Daiwa Securities America, Inc.
- Sep. 1991 Joined ARTHUR ANDERSEN & CO.
- Mar. 1995 Joined Motorola Inc.
- Mar. 2005 Director of the Board, Motorola Inc.
- Jun. 2009 Joined Bosch Corporation
- Aug. 2010 Executive Vice President and Director, Bosch Corporation (until December 2018)
- Jun. 2020 Director (Member of the Board), MHI
- Jun. 2021 Director (Member of the Board), Audit and Supervisory Committee Member, MHI (present positions)

#### Rationale behind appointment

Ms. Morikawa has experience in internal audit and accounting operations at foreign companies operating in Japan, in addition to which she possesses extensive knowledge and experience in global companies related to business management and organizational operation, such as overseeing administration departments in the role of manager. She contributes to the improvement of the soundness and transparency of MHI's management decision-making through providing insightful views and frank assessments to MHI's management as an outside director and Audit and Supervisory Committee member.



Director Audit and Supervisory Committee Member

#### Masako li

Professor, School of International and Public Policy, Hitotsubashi University Professor, Graduate School of Economics/ Faculty of Economics, Hitotsubashi University (DOB: February 8, 1963)

#### Career summary

- Jul. 1990 Researcher. The World Bank
- Apr 1995 Associate Professor, Department of Economics, Yokohama National University
- Apr. 2004 Professor, Graduate School of International Corporate Strategy, Hitotsubashi University Business School Apr. 2005 Professor, School of International and Public Policy, Hitotsubashi University (present position)
- Professor, Graduate School of Economics/Faculty of Economics, Hitotsubashi University (present position) Jun. 2021 Director (Member of the Board), Audit and Supervisory
  - Committee Member, MHI (present positions)

#### Rationale behind appointment

Ms. li possesses a high level of expertise cultivated as a researcher and graduate school professor in the field of healthcare economics. She also has a wealth of global experience, having served as a researcher at The World Bank and member of the Japan Broadcasting Corporation's Board of Governors. She contributes to the improvement of the soundness and transparency of MHI's management decision-making through providing insightful views and frank assessments to MHI's management as an outside director and Audit and Supervisory Committee member. (Appointed to the Board on June 29, 2021)

# **Corporate Governance**

# **Basic Approach to Corporate Governance**

As a company responsible for developing the infrastructure that forms the foundation of society, MHI's basic policy is to execute management in consideration of all stakeholders and strive to enhance corporate governance on an ongoing basis in pursuit of sustained growth of MHI Group and improvement of its corporate value in the medium and long terms. In accordance with this basic policy, MHI endeavors to improve its management system, such as by enhancing its management oversight function through the separation of management oversight and execution and the inclusion of outside directors. MHI is building a Japanese-style global management model that places priority on sounder, more transparent management, diversity and harmony. MHI has also established our basic framework for and approach to corporate governance in our "Corporate Governance Guidelines of Mitsubishi Heavy Industries, Ltd.," which is posted on our official website.

https://www.mhi.com/finance/management/ governance/pdf/corporate\_governance.pdf

### Actions Taken to Strengthen Corporate Governance

	Action	Composition of Board of Directors Total directors/outside directors (outside director ratio)	<b>Other</b> (Officer remuneration, engagement)
2012			• Commenced shareholder rela- tions (SR) visits for overseas institutional investors
2014	<ul> <li>Introduced Chief Officer System</li> </ul>	12/3 (25%)	
2015	•Transitioned to company with Audit and Supervisory Committee	14/5 (35.7%)	<ul> <li>Introduced new stock remunera- tion system for officers</li> </ul>
2016	<ul> <li>Established Nomination and Re- muneration Meeting</li> <li>Commenced Board Evaluation</li> <li>Commenced meetings of independent outside directors</li> </ul>	11/5 (45.5%)	
2019	<ul> <li>Turned Nomination and Remunera- tion Meeting into advisory body for the Board of Directors</li> <li>Abolished Advisor System</li> </ul>		
2020		12/6 (50%)	





\*Auditor seats were eliminated when MHI became a company with an Audit and Supervisory Board from FY2015.

## **Corporate Governance Framework**

MHI has adopted the form of a Company with an Audit and Supervisory Committee as its corporate structure under the Companies Act. Our corporate governance structure is as follows.

#### 1 Directors (Board of Directors)

MHI's Board of Directors consists of 12 directors (of whom five are serving as Audit and Supervisory Committee Members), and six directors (of whom three are serving as Audit and Supervisory Committee Members) are outside directors. By obtaining beneficial views and frank assessments from outside directors to MHI's management from a standpoint neutral to operational divisions, MHI is enhancing its management oversight function and ensuring that the oversight function by outside directors is more effective. Accordingly, MHI ensures that the number of outside directors who meet MHI's independence criteria<sup>1</sup> constitutes one-third or more of all members of the Board of Directors. The Board of Directors comprises members with a variety of backgrounds, ensuring a balanced structure with which to supervise people handling business execution (we refer you to "5 Director Skills Matrix" on the following page).

Moreover, in accordance with MHI's Articles of Incorporation and a resolution by the Board of Directors, MHI delegates decisions on execution of important operations to the President (CEO), excluding matters designated by laws and ordinances as matters to be decided exclusively by the Board of Directors, business plans, and the appointment, dismissal, and remuneration of directors, chief officers, and administrative executive officers, as well as other important individual business plans and investments, etc. This approach facilitates timely decision-making and flexible business execution while also enabling the Board of Directors to focus on the oversight of those in charge of business execution.

\*1: Listed in "Corporate Governance Guidelines of Mitsubishi Heavy Industries, Ltd."

#### 2 Audit and Supervisory Committee

To secure the soundness and appropriateness of MHI's management decision-making and improve transparency, MHI's Audit and Supervisory Committee conducts a range of activities as listed in the "Status of Audit and Supervisory Committee Activities" section below. The Audit and Supervisory Committee monitors the execution of duties of directors and prepares Audit Reports. It also has authorizations provided for by laws and ordinances and Articles of Incorporation, including determining the details of agenda items presented to the General Shareholders Meeting related to the appointment, dismissal, or non-reappointment of accounting auditors, and the statement of opinions related to the appointment or dismissal of Directors who are not Audit and Supervisory Committee Members.

#### 3 Chief Officers and Standing Executives in Charge of Operations

MHI has introduced a chief officer system. Specifically, portions of the CEO<sup>\*2</sup> (President )'s responsibilities and authority are delegated a number of chief officers reporting to CEO. These chief officers consist of domain CEOs (the heads of individual business domains) as well as the CSO<sup>\*3</sup>, CFO<sup>\*4</sup>, and CTO\*5. The CEO takes charge of overall business operations, and the domain CEOs take control of executing businesses within their individual domains based on overall Group strategies. The CSO is in charge of the planning of all business strategies and the CFO takes charge of finance, accounting, and management planning. The CTO is in charge of the supervision and execution of overall operations related to technology strategies, research and development of products and new technologies, ICT, value chain, marketing, innovation, and engineering in general. In addition, the CSO, CFO, and CTO have Company-wide authority to give instructions and commands and provide support to business domains. The GC\*6 and standing executive in charge of HR<sup>\*7</sup> assist the CEO with his duties by supervising and executing activities in line with the CEO's mission. The GC takes overall control of management audits, general administration, and legal affairs. The standing executive in charge of HR takes overall responsibility for human resources and labor relations. Within the business execution framework consisting of the CEO (President ) and primarily these chief officers, there is an Executive Committee chaired by President Seiji Izumisawa (and consisting of executive officers, including the President, chief officers, and

## **Corporate Governance**

standing executives in charge of operations). This deliberative body uses a council system to deliberate on vital items pertaining to execution of duties, thereby enabling appropriate management decision-making and execution of duties.

\*2 Chief Executive Officer \*3 Chief Strategy Officer

- \*4 Chief Financial Officer \*5 Chief Technology Officer
- \*6 General Counsel \*7 Human Resources

#### **4 Nomination and Remuneration Meeting**

In January 2016, MHI established the Nomination and Remuneration Meeting. The profile of this institution and its record of meetings are indicated in the table below.

Positioning	Advisory institution <sup>*8</sup> to the Board of Directors
Objectives	Obtain the opinions and advice of out- side directors and further enhancing transparency and fairness prior to de- liberations by the Board of Directors on matters relating to the nomination of candidates for directors, the dismissal of directors, and the appointment and dismissal of other executives and officers, and matters relating to the remuneration of directors (excluding directors who are serving as Audit and Supervisory Com- mittee members).
Participants	Chairman, President and all outside directors
Number of meetings held	Held twice in FY2020

\*8 In April 2019, MHI converted the Nomination and Remuneration Meeting into an advisory body to the Board of Directors and added the Chairman of the Board to its participants

#### **5 Director Skills Matrix**

MHI Group has adopted Our Principles as a fundamental management philosophy and objectives and periodically formulates business plans to steadily progress toward their realization. Under its current plan, the 2021 Medium-Term Business Plan (MTBP), the Group has embraced a Mission of integrating cutting-edge technology into expertise built up over many years to provide solutions to some of the world's most pressing issues and provide better lives. We believe that oversight of MHI's management in pursuit of such a Mission requires knowledge of and experience and expertise in societal and economic issues, risk management, compliance, global corporate management, digital and other technologies, marketing, finance, accounting and HR development. Our Board of Directors must possess a well-balanced mix of such knowledge, experience and expertise.

Individual directors' knowledge, experience and expertise are tabulated below. We believe our Board as a whole is adequately endowed with knowledge, experience and expertise in the aforementioned areas.

		Audit and						d expertise		
	Members of the Board	Super- visory Committee Members	(as of end of Shareholders' Meeting on June 29, 2021)	Socio- Economic Issues	Risk Management/ Compliance	Global Enterprise Management	Technology/ Digitalization	Marketing	Finance Accounting	Human Resource
Shunichi Miyanaga			13	•	•	٠		٠		
Seiji Izumisawa			4	•	•	•	•	•		
Hisato Kozawa			1	•	•				•	
Hitoshi Kaguchi			New	•	•		•	•		
Naoyuki Shinohara	outside		6	•	•				•	
Ken Kobayashi	outside		5	•	•	•		•		
Nobuyuki Hirano	outside		2	•	•	•			•	
Koji Okura		•	1	•	•				•	
Setsuo Tokunaga		•	New	•	•		•			
Hiroo Unoura	outside	•	2	•	•	•		٠		•
Noriko Morikawa	outside	•	1	•	•	•			•	•
Masako li	outside	٠	New	•	•					•

Note: The black dots in the seven rightmost columns do not indicate the entire range of knowledge, experience and expertise that the given director possesses.



# Board of Directors' Main Deliberation Items

The main items deliberated by the Board of Directors in fiscal 2020 are presented in the table below.

#### Main Deliberation Items

Shareholders Meeting	• Resolution on matters for calling An- nual General Meeting of Shareholders				
Items related to financial results	• Financial results • Shareholder return policy				
Items related to Executive and Board Member	• Board Evaluation, remuneration of Directors, and executive appointments (including chief officers)				
Management plan	• Status of progress on 2021 MTBP				
Internal controls	• Status of internal control systems operation				
	• Status of business in individual do- mains and segments				
Resolutions on	<ul> <li>Status of execution of operations by individual chief officers</li> </ul>				
and status of execution of	• Future direction of SpaceJet business				
important operations	• Strengthening of alliance with Vestas				
	• Transfer of machine tool business				
	• Acquisition of naval ship business from Mitsui E&S Shipbuilding				
	• Key-risk identification and management process				
	• Determination of Material Issues of MHI Group				
Other	• Capital markets' perception of MHI's management				
	• Study of the appropriateness of strate- gic shareholding				
	• Results of periodic employee engage- ment surveys				

In addition to the above, the agenda items for the Board of Directors meetings are explained in advance to outside directors for the purpose of free and vigorous discussion and exchange of opinions at the meetings. In addition, as described in the "Board Evaluation Results and Future Initiatives," in fiscal 2020, we addressed issues identified by an evaluation of the Board's effectiveness, including by arranging periodic opportunities for the Board to discuss medium- to long-term growth and business strategies from a big-picture perspective.

#### Process and Results of FY2020 Board Evaluation

# Board Evaluation Results and Future Initiatives

Risk Management

MHI has introduced an annual evaluation of the Board of Directors (hereinafter referred to the "Board Evaluation") aiming at ensuring further effectiveness of the Board of Directors by verifying its functional efficiency as an entity and being fully accountable for stakeholders, by conducting holistic analysis and evaluation of the Board. In the process of, and as a result of, our fiscal 2020 Board evaluation, the status of activity concerning the issues recognized in the Board evaluation conducted in the previous year (fiscal 2019), as well as major issues recognized this time, and future responses are as presented in the table below.

	Continuing on from fiscal 2019, the Board of Di- rectors conducted an evaluation process based on the following 4 points: "Composition of the Board of Directors" "Operation of the Board of Directors" "Supervisory function of the Board of Directors" and "Structure to support outside directors."					
Process	<ol> <li>Self-evaluation based on questionnaire survey of all directors including outside directors.</li> </ol>					
	2. Discussions among outside directors only					
	<ol> <li>The results of the Board evaluation have been resolved by the Board of Directors based on the above self-evaluation and discussions.</li> </ol>					
	<ol> <li>The Board evaluation results were approved by the Board of Directors in light of the above self-evaluation and discussions.</li> </ol>					
Results	The overall effectiveness of the Board of Direc- tors in 2020 has been ensured with no major concerns.					

## **Corporate Governance**

#### Initiatives to Address Issues Recognized in the Previous Year (fiscal 2019)

- 1. We arranged opportunities for the Board to periodically discuss MHI Group's medium- to long-term growth and business strategies from a big-picture perspective.
- 2. Regarding capital markets' perception of MHI's management, the Board discussed prospective initiatives in light of feedback from institutional investors. Additionally, the Board discussed determination of Material Issues of MHI Group in light of growing societal interest in ESG and SDGs.
- 3. We catalogued MHI Group's business execution risks, reported to the Board on key risks identified by the Group's risk management process and arranged opportunities for the Board to discuss them.

#### **Issues Recognized This Time and Future Initiatives**

#### 1. Board discussions

We will plan Board meeting agendas on an annual schedule, including discussions of themes such as companywide growth strategy, HR strategy and sustainability. To promote more in-depth discussions, we will strive to optimize meeting-day presentations' content and time allotments for deliberations. We will also add more opportunities to facilitate a better understanding of our businesses by outside directors.

#### 2. Board composition

We will discuss optimal Board composition and our director-candidate selection process.

#### 3. Board and Audit and Supervisory Committee's roles and configurations

We will work on further upgrading our governance after readjusting the Board and Audit and Supervisory Committee's reciprocal roles and configurations and support staffs.

## **Status of Audit and Supervisory Committee Activities**

The Audit and Supervisory Committee comprises five directors, the majority of whom (three) are outside directors. In order to ensure the effectiveness of the activities of the Audit and Supervisory Committee, our company stipulates in its Articles of Incorporation that full-time Audit and Supervisory Committee Members shall be appointed, and in accordance with said provisions, two fulltime Audit and Supervisory Committee Members have been appointed from among the Audit and Supervisory Committee Members. One of these full-time members has extensive work experience in accounting and financial divisions, giving him a considerable amount of insight on financial and accounting affairs.

Auditing by the Audit and Supervisory Committee is conducted in accordance with the auditing standards laid down by the Committee and its audit and supervisory action plan.

Moreover, in order to support the duties of the Audit and Supervisory Committee, the Audit and Supervisory Committee's Office has been set up with its own dedicated staff of six to facilitate the work carried out by the Audit and Supervisory Committee. The Audit and Supervisory Committee primarily monitors the execution of duties of directors, the appropriateness of business reports, etc., adequacy of audits by the accounting auditor, and the effectiveness of internal control systems. The results of this monitoring and verification are provided to the Company's shareholders via audit reports. In fiscal 2020, the Audit and Supervisory Committee took action on designated priorities to lay the groundwork for the 2021 MTBP, including progress on matters deemed to require the Committee's oversight and responses to specific operationally impactful events.

Full-time Audit and Supervisory Committee members attend important meetings such as Executive Committee meetings, business plan meetings, and compliance committee meetings, and endeavor to identify and monitor how management is performing in a timely and appropriate matter, as well as conduct audits to ascertain whether the duties of the directors are being executed in compliance with laws and ordinances and the Articles of Incorporation, and whether the corporate operations are being performed properly through inspection regarding, and confirmation of, legal compliance status, and through the monitoring and verification of the preparedness and implementation of the internal control system, including internal controls over financial reporting and other relevant items.

Additionally, through the monitoring and verification of the directors' execution of duties throughout the fiscal year, the Audit and Supervisory Committee forms its audit opinion on the appropriateness of the Accounting Auditor's auditing methods and results pertaining to whether or not the financial statements in a given fiscal year present fairly the financial position and results of the Company.

Furthermore, the Audit and Supervisory Committee periodically exchanges information and opinions with the Management Audit Department and accounting auditors, and takes other such measures to achieve close coordination. Full-time Audit and Supervisory Committee members attending monthly meetings to exchange information with the Management Audit Department, through which they obtain timely confirmation of the status of the formulation and progress of the Department's auditing programs, and receive reports on the results of those audits. The Audit and Supervisory Committee and the accounting auditor regularly exchange opinions on the accounting auditor's auditing plans and results, and full-time Audit and Supervisory Committee members hold monthly meetings to exchange information with the accounting auditor.

In addition, the Audit and Supervisory Committee commented on the appointment and remuneration of directors who are not members of the Audit and Supervisory Committee at the June 29, 2021, Annual General Meeting of Shareholders. The Committee also assessed the accounting auditor KPMG AZSA LLC on criteria including ensuring a system for the proper execution of duties, independence, appropriateness of audits, and auditing ability and expertise. Having determined that all requirements were satisfied, the Committee resolved to reappoint KPMG AZSA LLC as the accounting auditor.

## **Officers' Remuneration Structure**

1 Remuneration of Directors (Excluding Audit and

Supervisory Committee Members and Outside Directors) The remuneration of directors (excluding Audit and Supervisory Committee Members and outside directors) consists of base remuneration, performance-linked remuneration, and stock remuneration from the viewpoint of reflecting business performance and sharing value with shareholders.

After revising the share remuneration system through a resolution passed at the 94th General Meeting of Shareholders, which was held on June 27, 2019, the standard for the remuneration of the Company's president was set at roughly 30% base remuneration, 40% performance-linked remuneration, and 30% stock remuneration (in the event that profit before income taxes reached ¥200.0 billion; calculated based on the fair value of stock award points granted during fiscal 2018), making for a remuneration structure in which the higher a director's position is, the greater his or her performance-linked remuneration will be. Once pretax profit exceeds ¥200 billion, stock-based remuneration increases as a medium- to long-term incentive while performance-based remuneration's rate of increase progressively tapers off before plateauing once pretax profit exceeds ¥400 billion. Promoting MHI stock ownership by directors better aligns their interests with shareholders'.

The benchmark used to calculate performance-linked and stock-based remuneration is pretax profit. Pretax profit was chosen to reflect the results of business operations inclusive of finance income/costs in performance-linked and stockbased remuneration. (However, there may be partial adjustment in terms of compensation computation based on assessment of the impact of changes in accounting principles).

In fiscal 2020, the Company had a profit before income taxes of ¥49.3 billion, thus missing the target (initial forecast) of a profit of ¥0 billion, which was set at the start of fiscal 2020.

However, in calculating performance-linked remuneration for fiscal 2020, we made partial corrections for the sake of fair remuneration commensurate with earnings for the term, such as by excluding the effect on the relevant earnings performance of write-downs on figures recorded for other fiscal years.

# Methods for Determining Each Type of Remuneration (Remuneration of directors who are not Audit and Supervisory Committee members (excluding outside directors))

Base remuneration: Standard amount based on role + Additional amount based on duties

- The standard amount based on role is determined in accordance with a director's role and the details of his or her duties, etc.
- The additional amount based on duties is determined within a range that shall not exceeded ¥500,000 a month.

# Performance-linked remuneration: Role-based payment coefficient × Profit before income taxes for the given fiscal year ÷ 10,000 × Coefficient of business results

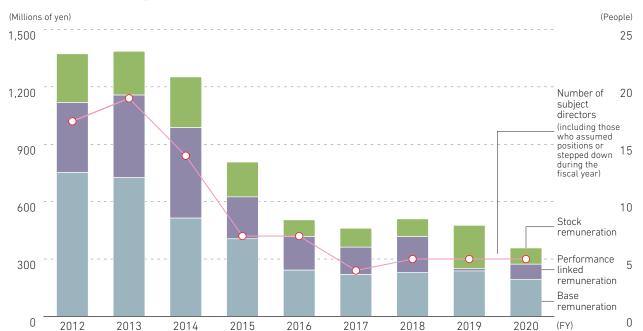
 Performance-linked remuneration is paid when the Company records a profit before income taxes (or after adjustment in the event that partial adjustments are made) and carries out dividend payments.

• The role-based payment coefficient is determined in accordance with a director's role and the details of his or her duties, etc.

• The coefficient of business results evaluates the performance and results of a business of which a director is in charge. It is determined within a range from 1.3 to 0.7.

#### Stock remuneration: Role-based standard points × Coefficient of business results

- As a general rule, directors receive MHI shares and cash in an amount equivalent to MHI shares' liquidation value three years after being granted stock award points.
- Role-based standard points are determined in accordance with a director's role and the details of his or her duties, etc.
- The coefficient of business results is based on profit before income taxes in the previous fiscal year.
- In the event that a director engages in improper conduct, the Company suspends the granting of stock award points and the delivery of shares to said director. There are also cases where the Company asks such a director to submit a payment equivalent to the amount of shares that have been delivered to him or her.



## Remuneration of Directors (Remuneration of directors who are not Audit and Supervisory Committee members (excluding outside directors))

#### 2 Outside Directors

The Company expects that the outside directors offer their objective opinions and guidance, primarily on their vision for the Company over the medium to long term, from an independent standpoint. Accordingly, the outside directors are only paid a base remuneration, which is set at an appropriate amount.

## 3 Directors Who Serve as Audit and Supervisory Committee Members

The amount of remuneration for directors who are serving as Audit and Supervisory Committee Members and the policy for deciding on its calculation method are determined through discussions by those directors.

Directors who serve as Audit and Supervisory Committee members are only paid a base remuneration. The amount for this base remuneration is determined in consideration of each member's roles and responsibilities and based on whether he or she is a full-time or part-time member.

However, the base remuneration for full-time Audit and Supervisory Committee members can be reduced in consideration of the status of the Company's management and other factors.

## **Corporate Governance**

### Remuneration of Directors (Fiscal 2020)

		Monetary re	muneration		Stock rem	nuneration	Total amount	
	Base rem	uneration		nce-linked eration		of remuneration (Millions of		
Position	People	Total amount (Millions of yen)	People	Total amount (Millions of yen)	People	Total amount (Millions of yen)	yen)	
Directors who are not Audit and Supervisory Committee members	8	233	5	79	4	85	399	
(Of which, outside directors)	(3)	(39)	()	()	(—)	()	(39)	
Directors who are Audit and Supervisory Committee members	6	186	_	_	_		186	
(Of which, outside directors)	(3)	(53)	()	(—)	(—)	()	(53)	
Total	14	420	5	79	4	85	585	
(Of which, outside directors)	(6)	(93)	(—)	(—)	(—)	(—)	(93)	

Notes:

1. The recipients include one director who was not an Audit and Supervisory Committee member and one director who was an Audit and Supervisory Committee member who stepped down in fiscal 2020.

2. The maximum permitted monetary remuneration amount for directors who are not serving as Audit and Supervisory Committee members is ¥1,200 million per year (resolution of the 90th Ordinary General Meeting of Shareholders on June 26, 2015).

3. The total amount of stock remuneration is the amount of expenses recognized for the 376,000 stock award points granted in total during fiscal 2020 (equivalent to 37,600 shares of MHI) concerning the Board Incentive Plan Trust, which is a stock remuneration system that delivers or provides shares of MHI and money in the amount equivalent to the liquidation value of MHI shares based on stock award points granted to directors (excluding outside directors and directors who are serving as Audit and Supervisory Committee members) in accordance with, among other factors, the rank of the position of each director and the financial results of MHI. In addition, the maximum permitted amount of stock award points is 1,000,000 points (based on resolution of the 94th Ordinary General Meeting of Shareholders on June 27, 2019) per fiscal year for directors (excluding outside directors and directors who are serving as Audit and Supervisory Committee members).

4. The maximum permitted monetary remuneration amount is ¥300 million per fiscal year for directors who are serving as Audit and Supervisory Committee members (resolution of the 90th Ordinary General Meeting of Shareholders on June 26, 2015).

#### Sustainable Growth through Resolving Social Issues

# Status of Strategic Shareholding

### Shareholding Policy

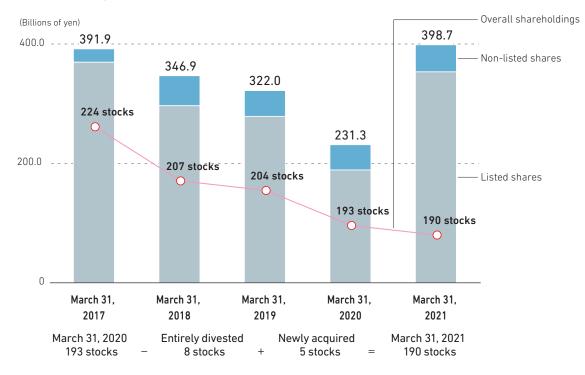
MHI holds shares of other companies only when it recognizes the necessity of holding those for achieving the long-term enhancement of its corporate value. Also, for improving capital efficiency and reducing financial risk arising from share price fluctuations, MHI promotes divesting such shareholdings.

#### Verification Policy for Holding Individual Stocks

The Board of Directors annually reassesses all strategic shareholdings from multiple standpoints, including their compatibility with the Group's business strategies, their actual or prospective role in creating or expanding business opportunities, their returns, and strengthening of the Group's business relationship with their issuer. The economic rationale is confirmed by whether or not the related earnings from each stock, such as dividends and related business profits on transactions, exceed MHI's capital cost (weighted average cost of capital).

# Verification Results at the Board of Directors and MHI's Action

Verification was conducted by the Board of Directors for all listed shares held by MHI at the meeting held in September 2020. As the result of the verification, some stocks were confirmed the decreased importance of the expected purpose. In terms of economic rationale, around 10% of those stocks deliver lower earnings than the cost of capital. Based on the verification result and dialogues with the companies in which we hold shares, MHI sold 11 individual stocks in FY2020 (8 stocks sold entirely, and 3 stocks sold partially).



#### Balance of shareholdings / number of individual stocks

## Message from an Outside Director

I will devote myself fully to carrying out my dual roles, engaging in frank discussions with management and active dialogue with employees, to make MHI a company that will lead the industry, the nation, the region and the world and injects excitement in its employees.

> Outside Director and Audit and Supervisory Committee Member Noriko Morikawa

# Promoting active discussions as outside director and member of the Audit and Supervisory Committee

I was appointed an outside director of MHI in 2020, and became a member of the Audit and Supervisory Committee in June 2021. I accepted the appointment as outside director because I have a strong interest in MHI Group's future. The Company has strengths in the breadth of its business operations and the wealth of its technologies and expertise, attributes ripe with potential to create new values. As MHI takes up new challenges in new fields in the coming years, I hope to apply my experience involved in management of global companies and put forward ideas from a different perspective, to make discussions more diverse.

At the same time, however, I also recognize that to carry out my duties as an outside director, I need to learn a great deal. Since my appointment, I have been deepening my understanding of MHI Group through discussions of the various issues brought up at Board of Directors meetings, preliminary explanations I have received from the divisions concerned, etc. Owing to the COVID-19 pandemic, I haven't been able to visit Company worksites or meet directly with employees. However, I have sought out opportunities to meet individually with the Company's officers, enabling me to exchange opinions on the matters that affect them. When attending Board of Directors meetings, as an outside director I need to ask questions and make suggestions from an objective perspective, referencing the full complement of my knowledge and experience. When I receive preliminary explanations of the topics coming up for discussion, I always ask detailed questions in order to ascertain and comprehend the issues that will be debated. Then, at the Board meetings themselves, I make a point of offering suggestions from a longer-range perspective, aiming for a clear roadmap that will lead to higher corporate value and identifying specific issues that need to be addressed. After serving in my capacity as outside director for my first year, besides deepening my understanding of MHI Group I have also come to feel a need for more vibrant discussions.

Since becoming a member of the Audit and Supervisory Committee, through my duties in auditing and supervision I intend to pursue active dialogue with the Company's workers. Also, applying my experience having worked at an auditing and accounting firm, I will focus on monitoring, including monitoring of internal controls. Based on my findings, I will offer up proposals on how to make MHI's corporate foundation even stronger.

#### Sustainable Growth through Resolving Social Issues

Laying the Groundwork for Sustainability Management

# Transforming MHI to a company that makes greater use of outsider directors' skills and experience

In terms of how the Board of Directors operates, I think the reforms initiated since 2015, when MHI transitioned to a Company with an Audit and Supervisory Committee, have been successful. The Board's efficacy assessments implemented every year have demonstrated a clear process of improvement. In particular, improvements have been achieved in how the Board sets its agenda and how important matters are shared among Board members. With the new 2021 Medium-Term Business Plan too, from the early planning stages multiple opportunities were created to discuss matters with the outside directors, and the outside directors' opinions have been reflected significantly in the finalized Plan. This marks a revolutionary change.

I hope the skills of the outside directors will continue to be significantly applied going forward as well. MHI's Board is highly diverse and includes unique outside directors with abundant experience. I have always felt that companies can break out from the narrow confines of homogeneous thinking by making more active use of outside directors, and I always recommend to officers and employees that they make full use of their outside directors. Going forward, at MHI I hope to increase opportunities for frank exchanges of opinion that will draw fully on our knowledge.

# Pushing for changes in corporate culture, to make MHI an industry, regional, national and global leader

The 2021 Medium-Term Business Plan incorporates business strategies that target solutions to social issues simultaneous with sustained corporate growth, by applying MHI's Groupwide strengths to maximum degree. I am confident that our stake-holders will agree with the directions the new strategies will take, including pursuit of the "Energy Transition." What will be important is how to implement those strategies. In that respect, I hope that in undertaking its 2021 Medium-Term Business Plan the Company will exercise leadership – in the industry, nation-wide, in the region and globally – in bringing diverse parties together to address today's increasingly complex social challenges. I wholeheartedly believe that if MHI Group applies its capabilities, its position, and the sense of mission embraced by its employees, it can play a leadership role from multiple angles.

To do so, a corporate culture must be nurtured that encourages employees to take up new challenges without fear of possible failure. Equally indispensable is the need to promote business that straddles organizational borders between divisions. MHI Group needs to become an organization in which employees who offer up suggestions and take up challenges on their own initiative can grow, free of constraints, and their efforts will be duly appreciated. It must also become an organization that provides opportunities encouraging dialogue between people with differing values and backgrounds, to build mutual respect.

In addition, today methods are expanding for engaging

creatively with external partners: companies from other industries, regional government bodies, business start-ups, etc. MHI Group needs to adopt a proactive and flexible stance that allows for needed course corrections to be made as it moves forward with speed.

Undertaking system changes on a large scale isn't the only way to achieve these transformations. The organization can be transformed even through small-scale measures implemented flexibly and in quick succession on a trial-and-error basis. Simultaneously, human resource strategies must also be strengthened: for example, by offering employees opportunities to plan their career development, by providing human resource development programs and increasing skills through job rotation, by promoting female activation, etc. In my position, I hope to continue offering suggestions, based on the results of employee surveys, that will boost employees' motivation.

I believe that tremendous value can be created if MHI Group transforms itself to a dynamic business viewed by the public as an enterprising company that takes up bold challenges. I would like to see MHI become a company whose new recruits, if asked why they chose MHI, will enthusiastically respond, "Because I want to do exciting work!" I will do all I can to make that day possible, not only through my activities as a director and member of the Audit and Supervisory Committee, but also through frank discussions with officers and employees.

## **Operational Risks and MHI's Response to Them**

- Key risks that could, in the assessment of MHI Group's management, materially affect the Group's financial condition and/or operating performance, including cash flows, are tabulated below (forward-looking statements are based on judgments as of March 31, 2021).
- We have established management processes for identifying, assessing and cataloguing operational risks. To identify relevant risks, we prepare a comprehensive list of risks with input from external experts and winnow it down to specific risks with a concerning possibility of manifesting within roughly ten years. For every risk thus identified, we assess the probability of it manifesting and the magnitude of its impact if it were to manifest, taking into account the effectiveness of existing countermeasures. Through this process, we

compile a list of quantifiable risks with the potential to materially affect our operations. Based on the comprehensive list of risks, we also identify qualitative risks not readily quantifiable.

The countermeasures in the table below are examples of specific measures we have already implemented in response to key risks. They are factored into the key risks' potential impacts on our financial condition and/ or operating performance. In addition to the countermeasures mentioned below, we otherwise strive to avoid and mitigate various risks, including those not listed below, in accordance with their nature. We also endeavor to minimize the impact of risks if they were to manifest.

Key risks	Potential impacts on financial condition and/ or operating performance	Countermeasures
COVID-19 pandemic	<ul> <li>(Businesses that supply made-to-order products to infrastructure-related companies and government entities and account for some two-thirds of consolidated revenue)</li> <li>Revenue recognition delays due to project delays</li> <li>Travel restrictions, supply chain backups</li> <li>Delays in contract negotiations or order bookings processes</li> <li>(Businesses related to commercial aircraft)</li> <li>Impacts on production or service businesses due to, e.g., airlines' capex cuts</li> </ul>	<ul> <li>Took action to strengthen earnings power</li> <li>Invested in markets with favorable growth prospects, strengthened sales networks, shifted toward service busi- nesses</li> <li>Reduced fixed expenses, including through staffing measures; furloughed employees</li> <li>Adjusted plants' capacity utilization/pro- duction, reduced expenses paid to exter- nal suppliers, revised investment plans, effectively utilized surplus resources, utilized government subsidy programs</li> <li>Established work-from-home environment, augmented tools, modified systems</li> </ul>
Changes in business environment	<ul> <li>Restrictions on, e.g., business dealings or supplier selection due to intensification of U.SChina conflict (e.g., tightening of export controls)</li> <li>Loss of competitiveness due to, e.g., intensification of labor shortages or hollowing out of manufacturing sector in Japan</li> <li>Reduction in demand for products or services, contraction in businesses' scale and/or inability to recoup invested capital due to growing environmental consciousness</li> <li>Reduction in order bookings or slowdown in service businesses in response to, e.g., intensification of competitiveness or opportunities to win orders due to greater-than-expected difficulty complying with environmental regulatory tightening</li> <li>Recognition of impairment losses due to mergers, acquisitions and/or alliances' underperformance of expectations</li> </ul>	<ul> <li>Placed priority on new functions/solutions that incorporate external expertise and are predicated on maintaining or strengthening product competitiveness in terms of, e.g., performance, reliability, price and/or eco-friendliness through R&amp;D or capex</li> <li>Developed products/services by cultivating businesses in new domains or collaborating across existing businesses, spearheaded by Growth Strategy Office established in April 2020</li> <li>Facilitated PMI*<sup>1</sup> through, e.g., better upfront screening and monitoring of M&amp;A deals/alliances</li> <li>*1 Post Merger Integration</li> </ul>

Key risks	Potential impacts on financial condition and/ or operating performance	Countermeasures
Disasters	• Destruction of or damage to production facili- ties, supply chain backups or disruptions, shortages of, e.g., parts or materials required for production, interruption of services, reduction in production capacity utilization, plant shutdowns, loss of backup production capacity or suppliers, and/or losses in excess of insurance coverage due to a disaster in Japan or Thailand, where production capacity is concentrated, or anywhere else operations are located globally	<ul> <li>Maintained adequate insurance coverage, collected information on conditions and safety in every country in which we operate, took precautions based on that information and communicated with relevant government authorities</li> <li>Utilized disaster preparedness/response tools, established/maintained lines of communication, formulated/updated business continuity plans, inspected plants, upgraded facilities' earthquake-resistance, periodically conducted emergency drills</li> </ul>
Product/service- related problems	<ul> <li>Cost overruns, payment of damages to customers, impairment of public reputation and/or loss of societal trust due to, e.g., product performance problems, late deliveries, safety problems, cost increases attributable to, e.g., changes in specifications or process delays; unforeseen problems related to construction or sourcing of, e.g., parts and materials, and/or impacts on production activities or products/services' availability to customers resulting from a supplier's inability to supply specific parts/materials</li> </ul>	<ul> <li>Instituted and enforced various regulations, built and strengthened operational risk management regime</li> <li>Individually screening incoming orders before acceptance, monitoring fulfillment process after acceptance</li> <li>Conducting training for project/department managers, holding product safety seminars on ongoing basis</li> <li>Implemented recurrence prevention measures, including by recapping causes of, and corrective action in response to, major losses incurred on previous projects and incorporating the information into internal training programs</li> <li>For details, please see page 86.</li> </ul>
Intellectual property disputes	<ul> <li>Liability for damages and/or loss of right to use certain technology due to adverse out- come of, e.g., litigation related to intellectual property (IP) infringement</li> <li>Obstruction of business operations due to inabil- ity to in-license technology from third party</li> </ul>	<ul> <li>Avoiding IP disputes by thoroughly researching IP owned by others at the product planning, design and production stages</li> <li>Upgraded IP staff's expertise through education and HR development</li> </ul>
Cybersecurity prob- lems	<ul> <li>Major loss of competitiveness, impairment of public reputation and/or loss of societal trust in connection with information leak due to, e.g., increasingly sophisticated/malicious cyberattacks</li> <li>Disruption of operations due to, e.g., disable- ment of computers or servers</li> <li>Investigations by authorities, claims for dam- ages by, e.g., customers</li> </ul>	<ul> <li>Built cybersecurity regime under direct supervision of CTO*<sup>2</sup></li> <li>Implemented cybersecurity controls (stan- dards, safeguards, self-assessments, inter- nal audits), incident response measures, etc.</li> <li>*2 CTO: Chief Technology Officer</li> </ul>
Legal/regulatory violations	<ul> <li>Administrative sanctions imposed by government authorities, including, correction orders, penal fines, non-penal fines, suspension of operations and/or export bans; claims for damages</li> <li>Disruption of operations, impairment of public reputation and/or loss of societal trust</li> </ul>	<ul> <li>Instituted and enforced MHI Group Global Code of Conduct and various regulations ap- plicable to all Group personnel</li> <li>Regularly holding Compliance Committee meetings, established internal compliance reporting program</li> <li>Disseminating messages from senior man- agement on strict legal/regulatory compli- ance, conducting various internal trainings on ongoing basis, augmenting training cur- ricula, conducting internal audits</li> <li>For details, please see page 88.</li> <li>For details on information leaks, please see page 89.</li> </ul>

## **Business Risk Management**

Throughout its history, MHI Group has achieved sustained growth by taking up diverse new challenges and initiatives in numerous business areas. At the same time, on occasion we have experienced losses on a large scale. In recent years especially, with the globalization of its business activities, the expanding scale of individual projects, and ongoing development of increasingly complex technologies, the scale of attendant risks is becoming larger than ever before.

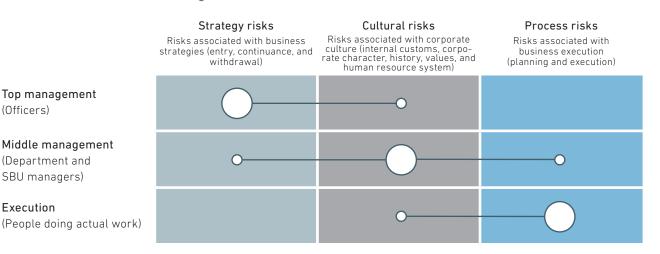
In order for MHI Group to mark sustained growth amid an ever-changing business environment, it is necessary to continue to take up challenges in new fields, new technologies, new regions, and new customers as well as to improve and strengthen operations in its existing business markets. Such challenges will entail business risks, and a company's ability to curb risks wields significant influence on its business results and growth potentials.

To promote challenges of this kind and prepare for the next leap into the future, MHI Group, applying its past experience and lessons learned, aims to create the mechanisms that will ensure the effective execution of business risk management. At the same time, we reinforce advanced, intelligent systems and process monitoring, both of which support top management's strategy decisions. Through these approaches, we will pursue "controlled risk-taking" that will enable us to carry out carefully planned challenges toward expanding our business.

## **Outline of Business Risk Management**

No corporation can avoid taking risks. We believe that risk management is a part of governance and functions only when the elements of systems and processes, corporate culture, and human resources are in place. For our Group to succeed in the global market, we need to take bold and daring risks, but we also need to manage those risks. That is the perfect combination for continually increasing our corporate value. In this sense, it is very important that all business participants, from people engaged in the actual business to management, comprehend and control risks in business, from processes to strategies. For details, please see the chart below (Matrix of Business Risk Management).

#### Matrix of Business Risk Management



## **Business Risk Management Structure**

Through the following measures, MHI Group is pursuing more organized business risk management and clarifying the roles of management, business segments, and corporate departments.

#### 1

#### Observe and practice the Business Risk Management Charter as the Company's foremost set of rules

 $\rightarrow$  Clarify, observe, and practice risk management targets, etc.

With the Business Risk Management Department acting as

the responsible department, MHI Group engages in busi-

ness risk management activities bringing together man-

agement, business segments, and corporate departments.

The chart on the right (Business Risk Management Process) outlines specific activities. In addition to improv-

ing systems and processes to prevent business risks

and reduce the frequency with which such risks manifest

themselves, we also develop human resources in charge

of business risk management and cultivate a culture of re-

sponding to risks through such efforts as providing train-

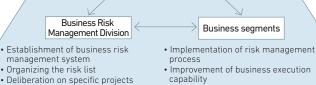
ing with the involvement of the Group's management team.

#### 2

#### Hold meetings of the Business Risk Management Committee

→ Share information on important risks and discuss policy response by toplevel management

**Content of Activities** 



- Deliberation on specific projects
- and capital investments
- Risk Monitoring for specific projects and capital investments
- Global Insurance coverage policy

#### **Business Risk Management Process**

Management Charter

Management officers

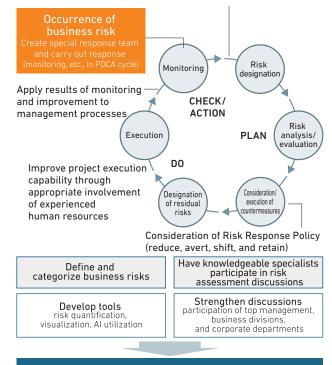
(GC, HR, etc.) Corporate departments

#### Business risk management infrastructure

Establish a participation system for experts Prepare management tools (visualization, knowledge sharing) Educate business department managers, SBU managers

Business segments

Development of highly risk-sensitive human resources



Business risk prevention and reduced frequency of occurrence



Business Risk Management

Committee

# Compliance

MHI Group attaches importance to complying with applicable laws and social norms and is promoting fair and honest business practices. For the promotion of such practices, MHI Group established the Compliance Committee, which is chaired by the General Counsel (executive vice president). The Compliance Committee draws up and implements Groupwide compliance promotion plans and confirms their progress. In addition, the Committee works to strengthen compliance on a continuous basis through such means as sharing compliance-related initiatives and cases within the Group.

In addition, MHI Group has also set up whistleblowing hotlines in Japan and overseas in an effort to swiftly respond to various compliance-related risks, including compliance violations or actions that run the risk of becoming compliance violations.

As a global organization, MHI Group employs thousands of individuals from different backgrounds, nationalities, and cultures. This diversity of talent and perspectives is one of our greatest assets. Having diverse backgrounds, it is important to work together and promote our business under a common corporate culture. To that end, MHI Group has formulated the "MHI Group Global Code of Conduct." Through such efforts as e-learning and the distribution of booklets, we strive to disseminate this code of conduct among MHI Group employees around the world. At the same time, we have formulated the "Compliance Promotion Global Policy," clarifying basic matters and rules for promoting compliance, such as the organizational framework, roles, and administration standards. To increase awareness of compliance among individual employees, we conduct discussion-based training every year that focuses on various compliance-related themes. We also conduct e-learning and training programs for Group employees on antitrust, anti-bribery, and exportrelated laws and regulations. In addition, we are striving to further enhance compliance awareness through the compliance guidebook, which targets employees engaging in technical work on the frontlines of manufacturing.

With an even greater focus on ensuring compliance in overseas, MHI Group appointed Regional Audit & Compliance Officers (RAO) in each of the four regions of the Americas, Europe, Asia Pacific, and China, to promote the Compliance activities for the MHI Group in the relevant region, as well as carry out internal audit functions. Through compliance liaison conferences, compliance monitoring and other activities, which are organized mainly by the RAO, in each country and region, we are making efforts to reinforce compliance promotion at overseas Group companies.

## Number of participants in compliance training (e-learning Approximately 90,300 (FY2020)

				FY/cases
Number of whistleblowing cases, by type	2017	2018	2019	2020
Labor and the work environment	49	81	69	83
Overall discipline and breaches of manners	17	13	13	12
Transaction-related laws	11	15	12	5
Consultations and opinions	0	1	2	3
Other	36	32	44	36
Total	113	142	140	139
(number of corrections and improvements)	(59)	(59)	(66)	(96)

(as of April 1, 2021)



## Compliance Promotion System

# Efforts toward Cybersecurity

Sustainability Management

Resolving Social Issues

Providing a large number of critical infrastructures to society, MHI Group has established a cybersecurity policy and strategy to protect business information (including intellectual property, technical information, sales information, personal information, etc.) and maintain secure operation. Recognizing cybersecurity as a critical risk, MHI regularly monitors it as part of the materiality initiatives of MHI Group. Our President and CEO supervises the cybersecurity strategy and our CTO reports in a timely manner to the Executive Committee and Board of Directors.

Based on the policy and strategy, a cybersecurity program has been implemented under the control of the CTO to minimize the risks of cyber incidents. Cybersecurity governance (establishing standards and rules, implementation of measures, self-assessments, and internal audits), incident response, education and training, are maintained and performed under this program. At the same time, MHI Group is contributing to the global standards.

### **Cybersecurity Governance**

MHI Group has defined its internal cybersecurity standard according to the NIST-CSF<sup>\*1</sup> providing a defensein-depth mechanism as well as threat detection and prevention. To maintain and improve our cybersecurity, MHI keeps abreast of the latest cybersecurity intelligence through such measures as vulnerability testing and collection/analysis of threat information. Meanwhile, MHI seeks to raise security awareness by sharing information and educational content via an intranet portal. Additionally, MHI assesses compliance with MHI Group's cybersecurity standard through periodic self-assessments and internal audits. For our industrial control system products, MHI has built a framework that controls cybersecurity risk. MHI will upgrade cybersecurity capabilities and capacity of our products on a regular basis. By driving development of next-generation cybersecurity solutions, MHI will help to build a safe, secure society in which people maintain comfortable and convenient lives. \*1 National Institute of Standards and Technology Cybersecurity Framework

#### **Response to Cybersecurity-Related Incidents**

In the event of a cybersecurity incident, a Computer Security Incident Response Team (CSIRT) immediately reacts to the incidents, handles analysis and examination of the incidents, recovers systems, and carries out further preventive measures. The incidents are reported to the authorities and stakeholders as needed, including concerned government agencies. Serious incidents are internally reported to directors and other concerned personnel, and measures are taken in accordance with our crisis management system.

### **Cybersecurity Education**

MHI Group regularly provides cybersecurity education and training to all employees as warranted by their respective roles in the aim of maintaining and improving their cybersecurity literacy. MHI aims to also cultivate engineers capable of both safety- and security-minded product development.

# Contributing to the Establishment of a Global Cybersecurity Framework

Through participation in the Study Group for Industrial Cybersecurity<sup>\*2</sup>, the Charter of Trust<sup>\*3</sup>, promotion of the Declaration of Cyber Security Management<sup>\*4</sup>, and other cybersecurity initiatives, MHI Group is contributing to the establishment of a global cybersecurity framework.

<sup>\*2</sup> An initiative by the Ministry of Economy, Trade and Industry to examine industrial cybersecurity measures. MHI joined this initiative in December 2017.

<sup>\*3</sup> An initiative by private corporations to build trust in cybersecurity. MHI participated in this initiative in April 2019.

<sup>\*4</sup> Announced by the Keidanren (Japan Business Federation) in March 2020.

# **Financial and Non-Financial Highlights**

INPUT		> OUTPUT
As of March 31, 2020	(Year-on-year change)	
Total assets	Research and development expenses	Orders received
¥4,985.6 billion	¥125.7 billion 🕥 14.4%	¥3,336.3 billion 🕥 20.0%
Total equity	Capital investment	Revenue
¥1,290.0 billion	¥125.5 billion V 22.3%	<b>¥3,699.9</b> billion ♥ 8.4% DOWN
Interest-bearing debt	Energy input <sup>1</sup>	Profit from business activities
¥ 598.2 billion	12,449 <sub>TJ</sub> V 15.1%	¥54.0 billion
Number of employees	Number of overseas employees	
81,631 people	29,425 <sub>people</sub> V 3.5%	
Number of patents held		

MHI Group has adopted the International Financial Reporting Standards (IFRS) from fiscal 2018. Actual financial numbers for FY2017 are also shown here in accordance with IFRS.

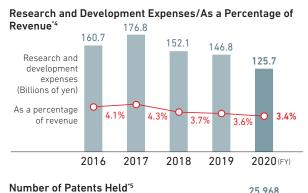
#### Number of Employees/Ratio of Overseas Employees

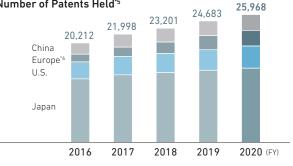


#### Revenue/Overseas Sales Ratio<sup>4</sup>

24,683





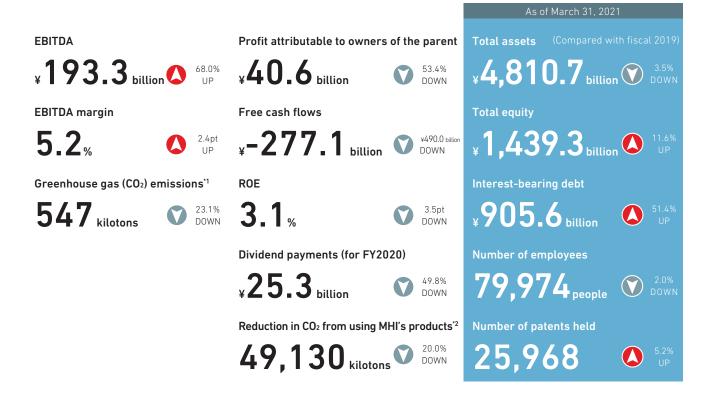


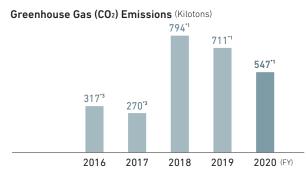
\*1 Data are for MHI on a non-consolidated basis and 156 Group companies.
\*2 Base lines were determined (base year/comparison target) in accordance with the characteristics of each product. Using these base lines, the amount and the end of the second secon

\*4 In regard to revenue, the figures up until fiscal 2016 are net sales (JGAAP). \*5 Data are for MHI and major consolidated subsidiaries.

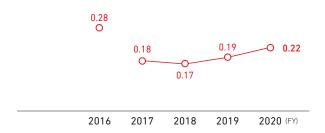
\*6 Data are for European regional patents.
\*7 Data are for MHI on a non-consolidated basis. However, 23 Group companies are included from FY2017 onward.

## OUTCOME

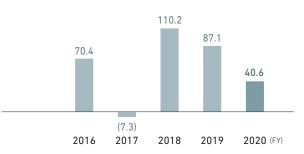




Industrial Accident Frequency Rate<sup>77</sup>



Profit Attributable to Owners of the Parent (Billions of yen)

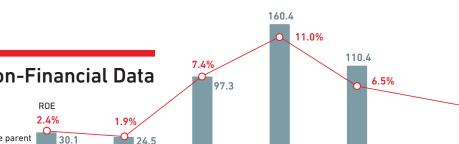


Cash Dividends per Share/Dividend Payout Ratio



MITSUBISHI HEAVY INDUSTRIES GROUP 91





**Eleven-Year Financial and Non-Financial Data** 

Mitsubishi Heavy Industries, Ltd. and Consolidated Subsidiaries Years ended March 31

> Profit attributable to owners of the parent (Billions of ven)

30.1

	2011/3	2012/3	2013/3	2014/3	2015/3	
(Years ended March 31 or as of March 31) Billions of yen	2010 Medium-Te Business Plan	rm	2012 Medium-T Business Plan	erm		
Orders received	¥ 2,995.4	¥ 3,188.8	¥ 3,032.2	¥ 3,420.0	¥ 4,699.1	
Revenue	2,903.7	2,820.9	2,817.8	3,349.5	3,992.1	
Profit from business activities	101.2	111.9	163.5	206.1	296.1	
Profit before income taxes	39.4	69.8	155.4	214.4	232.6	
Profit attributable to owners of the parent	30.1	24.5	97.3	160.4	110.4	
Research and development expenses	¥ 123.2	¥ 121.4	¥ 120.0	¥ 138.5	¥ 145.5	
Capital investment	126.6	120.7	118.8	148.6	156.1	
Depreciation	134.4	126.2	119.4	134.9	157.0	
Total assets	¥ 3,989.0	¥ 3,963.9	¥ 3,935.1	¥ 4,886.0	¥ 5,520.3	
Total equity	1,312.6	1,306.3	1,430.2	1,774.2	2,120.0	
Interest-bearing debt	1,325.6	1,157.1	1,031.2	957.4	975.5	
Cash flows from operating activities	¥ 337.8	¥ 200.3	¥ 288.3	¥ 296.2	¥ 212.8	
Cash flows from investing activities	(137.2)	(47.0)	(76.7)	(151.5)	(174.1)	
Free cash flows	200.5	153.3	211.6	144.6	38.6	
Cash flows from financing activities	(169.7)	(183.6)	(154.2)	(136.6)	(45.8)	
Per share information of common stock' <sup>2</sup> Yen						
Profit attributable to owners of the parent–basic	¥ 89.74	¥ 73.15	¥ 290.09	¥ 478.13	¥ 329.04	
Total equity	3,761.68	3,740.84	4,109.00	4,599.86	5,306.47	
Cash dividends	40.00	60.00	80.00	80.00	110.00	
Ratios						
Overseas sales ratio	49.0%	41.9%	44.8%	49.3%	53.4%	
Ratio of profit from business activities	3.5%	4.0%	5.8%	6.2%	7.4%	
Return on equity <sup>*3</sup>	2.4%	1.9%	7.4%	11.0%	6.5%	
Return on assets <sup>*4</sup>	0.7%	0.6%	2.5%	3.6%	2.1%	
Current ratio	167.9%	153.9%	155.0%	139.2%	146.2%	
D/E ratio <sup>*5</sup>	101%	89%	72%	54%	46%	
Equity ratio <sup>*6</sup>	31.6%	31.7%	35.0%	31.6%	32.3%	
Dividend payout ratio <sup>*7</sup>	44.6%	82.0%	27.6%	16.7%	33.4%	

MHI Group has adopted the International Financial Reporting Standards (IFRS) from fiscal 2018. Actual financial numbers for fiscal 2017 are also shown here in accordance with IFRS. The IFRS categories under Japanese GAAP are as follows: revenue corresponds to net sales; profit from business activities corresponds to operating income; profit (loss) attributable to owners of the parent corresponds to net income (loss) attributable to owners of the parent; total equity corresponds to total net assets; earnings (losses) per share correspond to profit (loss) per share; and ratio of equity attributable to owners of the parent corresponds to shareholders' equity ratio. "Profit from business activities" on the consolidated statement of profit or loss is presented as a measure that enables continuous comparison and assessment of the Group's business performance. "Profit from business activities" is calculated by subtracting "cost of sales," "selling, general and administrative expenses," and "other expenses" from "revenue" and adding "share of profit (loss) of investments accounted for using the equity method" and "other income" to the resulting amount. "Other income" and "other expenses" consist of dividend income, gains or losses on sales of fixed assets, impairment losses on fixed assets, and others. \*1 U.S. dollar amounts in this report are translated from yen, for convenience only, at the rate of ¥110.71 = U.S.\$1, the exchange rate prevail-

ing at March 31, 2021. \*2 The Company conducted a 1-for-10 reverse stock split on common shares on October 1, 2017. The interim dividend for fiscal 2017 and data for fiscal 2016 and earlier is calculated as if the reverse stock split had been conducted at the beginning of the respective fiscal years

data for fiscal 2016 and earlier is calculated as if the reverse stock split had been conducted at the beginning of the respective fiscal years. Calculations of per-share data are based on these assumptions.
\*3 Return on equity = profit attributable to owners of the parent / (total equity-share subscription rights-non-controlling interests)
\*4 Return on assets = profit attributable to owners of the parent / total assets
\*5 D/E ratio = interest-bearing debt / total equity
\*6 Equity ratio = (total equity-share subscription rights-non-controlling interests) / total assets
\*7 Dividend payout ratio = dividends / profit attributable to owners of the parent
\*8 People in positions of section manager or higher as of April 1 of each year. In principle, data are for MHI on a non-consolidated basis. However, data for FY2017 (CY2018) onward include 23 Group companies.
\*10 Base ines were determined (base year/comparison target) in accordance with the characteristics of each product. Using these base lines, the amount of CO: reduced through product use was calculated in accordance with such factors as the number of products in operation and the number of units sold in the relevant fiscal year.
\*11 Data are for MHI on a non-consolidated basis (production plants and offices).

\*11 Data are for MHI on a non-consolidated basis (production plants and offices). \*12 Data are for MHI on a non-consolidated basis. \*13 Data are for MHI on a non-consolidated basis and 163 Group companies.

\*14 Data are for MHI on a non-consolidated basis and 157 Group companies \*15 Data are for MHI on a non-consolidated basis and 156 Group companies

Non-financial indexes

Number of employees

Number of overseas employees

Number of female managers\*8

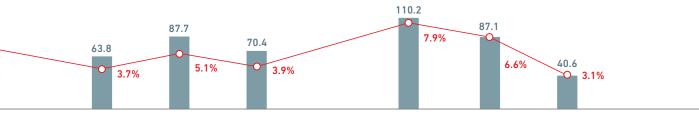
Industrial accident frequency rate\*9 Reduction in CO<sub>2</sub> from using MHI's products\*10 (Kilotons)

Energy input<sup>\*11</sup> (TJ)

Greenhouse gas (CO<sub>2</sub>) emissions\*12 (Kilotons)

Social contribution expenses (Billions of yen)

 $\leftarrow \text{JGAAP}$ 



IFRS→

		←JGAAP	IFRS→				
2016/3	2017/3	2018/3	2018/3	2019/3	2020/3	2021/3	2021/3
2015 Medium- Business Plan			$\rangle$	2018 Medium-T Business Plan	erm	2021 Medium-Term Business Plan	Millions of U.S. dollars•1
¥ 4,485.5	¥ 4,275.6	¥ 3,875.7	¥ 3,868.7	¥ 3,853.4	¥ 4,168.6	¥ 3,336.3	\$30,135
4,046.8	3,914.0	4,110.8	4,085.6	4,078.3	4,041.3	3,699.9	33,419
309.5	150.5	126.5	58.1	200.5	(29.5)	54.0	487
132.6	169.7	128.0	39.2	195.0	(32.6)	49.3	445
 63.8	87.7	70.4	(7.3)	110.2	87.1	40.6	366
¥ 150.6	¥ 160.7	¥ 176.8	¥ 176.8	¥ 152.1	¥ 146.8	¥ 125.7	\$ 1,135
175.5	204.4	158.4	158.4	147.3	161.5	125.5	1,133
 158.7	172.7	176.1	176.1	135.6	144.6	139.2	1,257
¥ 5,500.7	¥ 5,481.9	¥ 5,487.6	¥ 5,248.7	¥ 5,240.3	¥ 4,985.6	¥ 4,810.7	\$43,457
1,999.7	2,104.1	2,164.4	1,693.8	1,728.6	1,290.0	1,439.3	13,000
 1,052.1	925.5	813.1	813.1	665.1	598.2	905.6	8,179
¥ 270.0	¥ 95.9	¥ 345.1	¥ 405.7	¥ 420.3	¥ 452.5	¥ (94.9)	\$ (857)
(262.4)	8.7	(137.1)	(238.1)	(161.8)	(239.5)	(182.2)	(1,645)
7.5	104.6	207.9	167.5	258.4	212.9	(277.1)	(2,503)
 (23.1)	(162.0)	(152.1)	(112.3)	(271.0)	(204.4)	221.7	2,002
							U.S. dollars
¥ 190.17	¥ 261.24	¥ 209.82	¥ (21.79)	¥ 328.39	¥ 259.39	¥ 120.92	\$ 1.092
5,003.00	5,299.14	5,431.02	4,153.46	4,204.71	3,627.73	4,064.73	36.715
 120.00	120.00	120.00	120.00	130.00	150.00	75.00	0.677
55.4%	53.5%	54.2%	55.1%	54.0%	52.0%	47.4%	
7.6%	3.8%	3.1%	1.4%	4.6%	(0.7)%	1.5%	
3.7%	5.1%	3.9%	(0.5)%	7.9%	6.6%	3.1%	
1.2%	1.6%	1.3%	(0.1)%	2.1%	1.7%	0.8%	
135.7%	139.4%	141.0%	122.2%	121.6%	101.1%	104.7%	
53%	44%	38%	48%	38%	46%	63.0%	
30.5%	32.5%	33.3%	26.6%	26.9%	24.4%	28.4%	
 63.1%	45.9%	57.2%		39.6%	57.8%	62.0%	
83,932	82,728	80,652	80,652	80,744	81,631	79,974	
28,941	28,751	27,954	27,954	28,875	30,501	29,425	
102	126	149	149	171	204	258	
0.11	0.28	0.18	0.18	0.17	0.19	0.22	
46,067	62,592	49,791	49,791	65,331	61,438	49,130	
7,398	5,976	5,179	5,179	14,723 <sup>*13</sup>	14,671*14	12,449 15	
406	317	270	270	794*13	711*14	<b>547</b> <sup>-15</sup>	
 2.1	2.5	1.7	1.7	1.6	1.3	1.2	

# **Consolidated Financial Statements [IFRS]**

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Mitsubishi Heavy Industries, Ltd. and Consolidated Subsidiaries As of April 1, 2019 / March 31, 2020 / March 31, 2021

		Millions of yen		
SSETS	As of April 1, 2019	As of March 31, 2020	As of March 31, 2021	As of March 31, 2021
Current assets:				
Cash and cash equivalents	¥ 283,235	¥ 281,626	¥ 245,421	\$ 2,216,791
Trade and other receivables	717,414	611,976	655,181	5,917,992
Other financial assets	25,180	28,539	30,677	277,093
Contract assets	625,749	576,061	578,936	5,229,301
Inventories	739,820	726,228	713,498	6,444,747
Indemnification asset for South African projects	546,098	407,800	-	-
Other current assets	222,390	206,261	230,955	2,086,125
Total current assets	3,159,890	2,838,493	2,454,670	22,172,071

#### Non-current assets:

Property, plant and equipment	777,228	792,920	779,696	7,042,688
Goodwill	121,117	124,500	124,500	1,124,559
Intangible assets	113,131	78,908	74,722	674,934
Right-of-use assets	90,335	96,201	93,321	842,931
Investments accounted for using the equity method	209,929	177,569	182,897	1,652,036
Investments in securities and other financial assets	447,888	391,538	560,213	5,060,184
Deferred tax assets	133,511	382,729	378,338	3,417,378
Other non-current assets	187,320	102,827	162,365	1,466,579
Total non-current assets	2,080,463	2,147,196	2,356,056	21,281,329

Total assets	¥5,240,353	¥4,985,690	¥4,810,727	\$43,453,409

		Thousands of U.S. dollars		
IABILITIES AND EQUITY	As of April 1, 2019	As of March 31, 2020	As of March 31, 2021	As of March 31, 2021
Liabilities				
Current liabilities:				
Bonds, borrowings and other financial liabilities	¥ 459,548	¥ 769,099	¥ 445,147	\$ 4,020,838
Trade and other payables	862,174	824,030	763,731	6,898,482
Income taxes payable	27,024	28,994	12,237	110,532
Contract liabilities	875,294	835,465	731,814	6,610,188
Provisions	215,475	199,496	207,876	1,877,662
Other current liabilities	157,273	151,657	184,453	1,666,091
Total current liabilities	2,596,790	2,808,742	2,345,260	21,183,813
Non-current liabilities:				
Bonds, borrowings and other financial liabilities	637,204	601,770	790,862	7,143,546
Deferred tax liabilities	4,012	7,318	6,597	59,588
Retirement benefit liabilities	154,105	145,890	124,432	1,123,945
Provisions	47,583	58,173	50,485	456,011
Other non-current liabilities	71,964	73,718	53,699	485,042
Total non-current liabilities	914,870	886,871	1,026,076	9,268,141
Total liabilities	3,511,660	3,695,614	3,371,337	30,451,964
Equity				
Share capital	265,608	265,608	265,608	2,399,132
Capital surplus	185,302	49,667	47,265	426,926
Treasury shares	(5,572)	(5,374)	(4,452)	(40,213)
Retained earnings	869,238	886,307	952,528	8,603,811
Other components of equity	96,987	22,133	105,393	951,973
Equity attributable to owners of the parent	1,411,564	1,218,343	1,366,342	12,341,631
Non-controlling interests	317,128	71,732	73,047	659,804
Total equity	1,728,693	1,290,076	1,439,390	13,001,445
otal liabilities and equity	¥5,240,353	¥4,985,690	¥4,810,727	\$43,453,409

# **CONSOLIDATED STATEMENT OF PROFIT OR LOSS**

Mitsubishi Heavy Industries, Ltd. and Consolidated Subsidiaries For the fiscal years ended March 31, 2020 and 2021

	Millions of	yen .	Thousands of U.S. dollars
	2020	2021	2021
Revenue	¥4,041,376	¥3,699,946	\$33,420,160
Cost of sales	3,331,339	3,116,464	28,149,796
Gross profit	710,036	583,482	5,270,364
Selling, general and administrative expenses	583,874	531,383	4,799,774
Share of profit of investments accounted for using the equity method	12,898	15,158	136,916
Other income*	67,751	167,698	1,514,750
Other expenses	236,350	180,873	1,633,754
Profit (loss) from business activities	(29,538)	54,081	488,492
Finance income	11,616	11,677	105,473
Finance costs	14,738	16,404	148,170
Profit (loss) before income taxes	(32,660)	49,355	445,804
Income taxes	(139,945)	6,153	55,577
Profit	107,284	43,202	390,226
Profit attributable to:			
Owners of parent	87,123	40,639	367,076
Non-controlling interests	¥ 20,161	¥ 2,562	\$ 23,141

	Y	Yen	
Earnings per share attributable to owners of parent	2020	2021	2021
Basic earnings per share	¥ 259.39	¥ 120.92	\$ 1.092
Diluted earnings per share	259.06	120.83	1.091

\* Other income includes dividend income. The amount of dividends in fiscal years ended March 31, 2020 and 2021 were 12,096 million yen and 10,644 million yen (\$96,323 thousand) respectively.

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Mitsubishi Heavy Industries, Ltd. and Consolidated Subsidiaries For the fiscal years ended March 31, 2020 and 2021

Mill	iona of von	Thousands of	
Millions of yen		Thousands of U.S. dollars	
2020	2021	2021	
¥ 107,28	<b>¥ 43,202</b>	\$ 390,226	
(50,87	(3) <b>37,943</b>	342,724	
(23,20	1) <b>56,097</b>	506,702	
(2	(163)	(1,472)	
(74,09	<b>93,878</b>	847,963	
(1,71	3) (271)	(2,447)	
(63	(9) <b>874</b>	7,894	
(25,10	6) <b>37,962</b>	342,895	
94	1 <b>5,970</b>	53,924	
(26,51	7) <b>44,535</b>	402,267	
(100,61	6) <b>138,413</b>	1,250,230	
¥ 6,66	¥181,616	\$1,640,466	
¥ (8,20	1) <b>¥173,635</b>	\$1,568,376	
14,86	<b>7,980</b>	72,080	
	¥ 107,28 (50,87 (23,20) (2 (74,09) (1,71) (63 (25,10) 94 (26,51) (100,61) ¥ 6,66 ¥ (8,20)	¥ 107,284       ¥ 43,202         (50,873)       37,943         (23,201)       56,097         (24)       (163)         (74,098)       93,878         (1,713)       (271)         (639)       874         (25,106)       37,962         941       5,970         (26,517)       44,535         (100,616)       138,413         ¥ 6,668       ¥181,616         ¥ (8,201)       ¥173,635	

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Mitsubishi Heavy Industries, Ltd. and Consolidated Subsidiaries For the fiscal years ended March 31, 2020 and 2021

	 Millions of yen							
		Equity	attributable to	o owners of pa	arent			
	Share capital	Capital surplus	Treasury shares	Retained earnings	Other components of equity	Total	Non- controlling interests	Total equity
Balance as of April 1, 2019	¥265,608	¥185,302	¥ (5,572)	¥869,238	¥ 96,987	¥1,411,564	¥317,128	¥ 1,728,693
Profit				87,123		87,123	20,161	107,284
Other comprehensive loss					(95,324)	(95,324)	(5,291)	(100,616)
Comprehensive income (loss)				87,123	(95,324)	(8,201)	14,869	6,668
Transfer to retained earnings				(22,287)	22,287	_		_
Purchase of treasury shares			(14)			(14)		(14)
Disposal of treasury shares		57	467			524		524
Dividends				(47,016)		(47,016)	(5,866)	(52,883)
Put options held by non-controlling shareholders		11,214				11,214	8,912	20,127
Transactions with non-controlling interests		(146,568)			(1,816)	(148,385)	(259,449)	(407,835)
Other		(337)	(253)	(750)		(1,341)	(3,862)	(5,204)
Total transactions with owners	_	(135,634)	198	(47,766)	(1,816)	(185,019)	(260,265)	(445,285)
Balance as of March 31, 2020	¥265,608	¥49,667	¥ (5,374)	¥886,307	¥ 22,133	¥1,218,343	¥ 71,732	¥ 1,290,076
Profit				40,639		40,639	2,562	43,202
Other comprehensive income					132,995	132,995	5,418	138,413
Comprehensive income	—	_	_	40,639	132,995	173,635	7,980	181,616
Transfer to retained earnings				49,668	(49,668)	—		_
Purchase of treasury shares			(5)			(5)		(5)
Disposal of treasury shares		83	364			447		447
Dividends				(25,188)		(25,188)	(5,073)	(30,261)
Transactions with non-controlling interests		(1,611)			(67)	(1,678)	(1,380)	(3,058)
Other		(874)	563	1,100		789	(212)	576
Total transactions with owners		(2,402)	921	(24,087)	(67)	(25,636)	(6,665)	(32,302)
Balance as of March 31, 2021	¥265,608	¥ 47,265	¥(4,452)	¥952,528	¥105,393	¥1,366,342	¥ 73,047	¥1,439,390

				Theurender	of U.S. dollars			
		Equity	attributable	to owners of p	arent		Non-	
	Share capital	Capital surplus	Treasury shares	Retained earnings	Other components of equity	Total	controlling interests	Total equity
Balance as of March 31, 2020	\$2,399,132	\$448,622	\$(48,541)	\$8,005,663	\$199,918	\$11,004,814	\$647,927	\$11,652,750
Profit				367,076		367,076	23,141	390,226
Other comprehensive income					1,201,291	1,201,291	48,938	1,250,230
Comprehensive income	_	_	_	367,076	1,201,291	1,568,376	72,080	1,640,466
Transfer to retained earnings				448,631	(448,631)	_		_
Purchase of treasury shares			(45)			(45)		(45)
Disposal of treasury shares		749	3,287			4,037		4,037
Dividends				(227,513)		(227,513)	(45,822)	(273,335)
Transactions with non-controlling interests		(14,551)			(605)	(15,156)	(12,464)	(27,621)
Other		(7,894)	5,085	9,935		7,126	(1,914)	5,202
Total transactions with owners	_	(21,696)	8,319	(217,568)	(605)	(231,559)	(60,202)	(291,771)
Balance as of March 31, 2021	\$2,399,132	\$426,926	\$(40,213)	\$8,603,811	\$951,973	\$12,341,631	\$659,804	\$13,001,445

# CONSOLIDATED STATEMENT OF CASH FLOWS

Mitsubishi Heavy Industries, Ltd. and Consolidated Subsidiaries For the fiscal years ended March 31, 2020 and 2021

2020         2021         2021           Cash flows from operating activities:         Y (32,660)         Y 49,355         S 445,804           Penetricition, amontration and impairment loss         22,324         (36,69)         (36,69)           Share of oprice investments accounted for using the equity method         (12,878)         (15,159)         (15,69)           Gain on sele of bhores of subsidiaries and affiliates         (778)         (45,570)         (41,1615)           Laiss and the poperty, plant and equipment, and intangible assets         (778)         (45,570)         (41,1615)           Lonss and introbas in structure derivables         (5,082)         (27,739)         (26,6731)         (26,0282)           Decrease in provisions         (12,259)         (11,011)         (99,458)         (12,6731)         (26,0282)           Decrease in contract liabilities         (12,6173)         (46,6731)         (42,0282)         Decrease in contract independent asset         (12,6173)         (12,6473)         (12,64731)         (12,6493)         Decrease in contract asset         (12,6173)         (12,6473)         (12,6482)         Decrease in contract asset         (12,64731)         (12,6494)         (12,6494)         Decrease in contract asset         (12,6473)         (12,6494)         (12,6494)         Decrease in contract asset         (12,6473) <th>_</th> <th colspan="2">Millions of yen</th> <th colspan="2">Thousands of</th>	_	Millions of yen		Thousands of	
Cash flows from operating activities         ¥ 49.355         \$ 445.804           Portif (tass) before income tax         323,967         238.286         2,152.091           Prance income and costs         323,967         238.286         2,152.091           Gain on said of property plant and equipment, and intangible assets         (83.041)         (750.076)           Gain on said of property plant and equipment, and intangible assets         (97.8)         (45.570)         (41.161)           Decrease incoraceal in trade receivables         65.082         (27.739)         (250.855)           Decrease incoraceal in trade receivables         64.072         (42.433)         (45.870)           Decrease in contract labilities         (12.69         (11.011)         (97.458)           Decrease in contract labilities         (12.69         (16.677)         (150.636)           Decrease in contract labilities         (12.60         3.697)         (150.636)           Increase filter access and theread the properts and the set of south African projects         3.717         -         -           Obtros         3.715         5.094         46.012         (60.42.83)           Increase plant dimemification asset of South African projects         3.717         -         -         -           Obtros         3.715	_	2020	2021	U.S. dollars 2021	
Proof (loss) before income tax         ¥ (22,660)         ¥ 49,355         \$ 4,45,804           Depreciation, amortization and impairment loss         233,246         (23,246)         (238,258)         (21,529)         (48,496)           Share of profit of investments accounted for using the equity method         (12,898)         (15,158)         (136,716)           Gain on sale of property, plant and equipment, and intrangible assets         (978)         (45,570)         (411,615)           Loss and tispasid of property, plant and equipment, and intrangible assets         (27,759)         (25,055)         (26,033)         (21,222)         516,6633           Decrease in increase line rade values         (27,759)         (68,731)         (62,022)         516,6633           Decrease in contract tabelits         (12,4759)         (68,731)         (62,023)         (12,62,93)           Decrease in provisions         (11,101)         (9,677)         (150,634)         (12,677)         (150,634)           Decrease in provisions         (11,711)         (9,677)         (150,634)         (12,773)         (12,62,923)           Decrease in provisions         (12,775)         5,994         (46,017)         (150,636)           Interest received         7,715         5,994         (46,017)         (150,636)         (16,6277) <td< td=""><td>Cash flows from operating activities:</td><td>2020</td><td>2021</td><td>2021</td></td<>	Cash flows from operating activities:	2020	2021	2021	
Depreciation, amortization and impairment loss         323,967         238,258         2,152,091           Finance income and costs         2,324         (5,369)         (68,496)           Gain on sale of property, plant and equipment, and intangible assets         (978)         (65,570)         (411,415)           Loss on disposal of property, plant and equipment, and         7,842         6,5700         (42,033)           Decrease (increase) in trade receivables         6,5082         (27,739)         (62,032)           Decrease (increase) in trade receivables         6,6192         (27,739)         (62,032)           Decrease (increase) in trade receivables         (27,659)         (16,124,703)         (1,126,923)           Decrease in contract isabilities         (12,259)         (11,111)         (99,458)           Decrease in indemification asset of South African projects         131,777         -         -           Subtrat         504,051         (16,477)         (16,632)         (10,422)           Interest received         14,903         14,968         135,200         (10,442)         (9,543)         (16,422)         (11,22,923)         (16,422)         (14,6212)         (13,20,473)         (46,422)         (14,621)         (14,220)         (14,423)         (49,468)         (35,200)         Interest re		¥ (32.660)	¥ 49.355	\$ 445.804	
Share of profit of investments accounted for using the equity method         (12,898)         (13,691)           Gain on sale of property, plant and equipment, and intangible assets         (978)         (65,570)         (411,615)           Loss on disposed of property, plant and equipment, and intangible assets         (978)         (62,739)         (22,035)           Decrease lincrease in inder receivables         65,082         (27,739)         (22,055)           Increase in inder receivables         (62,042)         (12,640)         (12,640)           Decrease in contract tassits         (42,473)         (62,0420)         (62,0420)           Decrease in contract tassits         (12,126,931)         (11,126,932)         (12,126,931)         (12,04020)           Decrease in contract tassits         (12,126,931)         (11,126,932)         (12,126,931)         (12,04020)           Decrease in indemification asset of South African projects         (13,177)         -         -         -           Subtrat         56,4,051         (16,4,771)         (15,036)         (11,426,932)         (10,424)         (12,4203)         (14,642,83,200)           Interest received         7,218         5,407         48,839         (14,6212)         (13,20,675)         (14,64,212)         (13,20,675)         (14,64,212)         (13,20,675) <td< td=""><td>Depreciation, amortization and impairment loss</td><td></td><td></td><td></td></td<>	Depreciation, amortization and impairment loss				
Gein on sale of shares of subsidiaries and affiliates         —         (83, 041)         (750,075)           Gein on sale of property, plant and equipment, and         7,842         6,912         62,433           Increase in contract assets         66,447         4,308         38,912           Increase in contract assets         66,447         4,308         38,912           Increase in contract assets         66,447         4,308         38,912           Decrease in inventories and advanced payments         39,162         57,222         156,863           Decrease in provisions         (12,559)         (11,011)         (99,458)           Decrease in indemnification asset of South African projets         131,777         —         —           Others         8,715         50,94         46,012           Subtotal         504,051         (16,647)         (150,630)           Increase provisions         (12,233)         (12,93,494         (35,200)           Increase provisions         (13,20,475)         (16,421)         (132,047)           Subtotal         (10,444)         (9,543)         (66,423)           Increase provisions         (13,924)         (142,279)         (146,212)         (1320,475)           Purchases of property, plant and equipment and intan		2,324	(5,369)	(48,496)	
Gain on sale of property, plant and equipment, and         7,842         6,912         62,433           Decrase (increase) in trade receivables         65,082         (27,79)         (250,555)           Increase in contract assets         46,447         4,308         38,912           Increase in contract assets         (24,73)         (62,73)         (62,623)           Decrase (increase) in trade receivables         (27,859)         (68,731)         (62,023)           Decrease (in contract tabilities         (12,559)         (11,011)         (99,458)           Decrease (in contract tabilities         (12,559)         (11,011)         (99,458)           Decrease (in contract tabilities         (12,6,373)         (62,0,220)         (126,373)           Decrease (in contract tabilities         (12,6)         3,496         (31,577)		(12,898)			
Loss on disposal of property, plant and equipment, and interruption intradice assets.         7,842         6,912         62,433           Decrease (increase) in tradic receivables         65,082         (27,739)         (250,555)           Increase in inventories and advanced payments         39,162         57,222         156,863           Decrease in inventories and advanced payments         (34,185)         (12,4703)         (126,9820)           Decrease in provisions         (12,559)         (11,011)         (99,458)           Decrease in provisions         (12,559)         (11,011)         (99,458)           Increase (accrease) in retirement benefit liabilities         (12,6)         3,496         (31,577)           Decrease in indemnification asset of South African projects         8,715         5,094         46,012           Subtrati         506,051         (16,647)         (150,636)         (16,520)           Interest raceived         7,213         (46,012)         (1320,675)           Interest ap aid         (10,444)         (9,543)         (86,198)           Increase in provide by operating activities         425,554         (94,946)         (85,7620)           Cash flows from investing activities         425,554         (94,946)         (85,7620)           Proceeds from sales of property, plan		-			
interruption         1.642         0.712         0.26,33           Decrease (increase) in trade receivables         65,082         (27,739)         (250,555)           Increase in contract assets         46,447         4,308         38,712           Increase in contract tassets         (24,4703)         (62,020)         (26,031)           Decrease (in contract tassets)         (27,159)         (68,731)         (62,020)           Decrease (in contract tassets)         (112,6,393)         (12,6,393)         (12,6,393)           Decrease (in contract tassets)         (110,111)         (99,468)         (116,647)         (150,436)           Increase (decrease) in cettrement benefit itabilities         (12,6,373)         -		(978)	(45,570)	(411,615)	
Decrease (increase) in trade receivables         65.022         (27,39)         (250,55)           Increase in contract assets         66.447         4.308         38,912           Increase in contract assets         39,162         57,222         516,863           Decrease in contract inabilities         (12,559)         (11,011)         (19,94,568)           Decrease in contract inabilities         (12,559)         (11,011)         (19,94,568)           Decrease in provisions         (12,559)         (16,6477)         (16,637)           Decrease in indemnification asset of South African projects         81,177         -         -           Othors         8,715         50,94         46,012         (16,637)           Subtotal         10,444         (9,543)         (86,198)         106,463           Interest received         11,24,441         (9,543)         (86,198)           Increase so in provided by operating activities         425,554         (94,940)         (86,762)           Purchases of property, plant and equipment and intangible assets         (246,271)         (1320,675)           Purchases of property, plant and equipment and intangible assets         (246,273)         -           Purchases of property, plant and equipment and intangible assets         (246,271)         (142,079)		7,842	6,912	62,433	
Increase in contract assets         46,447         4,308         38,912           Increase in trade payables         (27,859)         (68,731)         (620,820)           Decrease in trade payables         (27,859)         (11,011)         (99,458)           Decrease in trade payables         (12,659)         (11,011)         (99,458)           Decrease in provisions         (12,60)         3,496         31,577           Decrease in indemnification asset of South African projects         131,777         -         46,072           Others         8,715         5,094         46,017         (150,636)           Interest received         7,218         5,407         48,835,200           Income taxes paid         (10,444)         (9,543)         (86,198)           Income taxes paid         (10,444)         (9,543)         (85,7628)           Purchases of property, plant and equipment and intangible assets         (24,627)         (146,212)         (13,20,475)           Proceeds from sales of property, plant and equipment and intangible assets         (24,629)         (142,679)         (142,679)           Including investimets         23,981         12,521         113,097         Insord           Proceeds from sales of property, plant and equipment and intangible assets         (24,629)		45.082	(27 720)	(250 555)	
Increase in inventions and advanced payments         39         162         57         222         516.663           Decrease in tract liabilities         (27.859)         (68.731)         (20.820)           Decrease in contract liabilities         (12.659)         (11.011)         (97.458)           Decrease in indemnification asset of South African projects         131,777         -         -         -           Others         8,715         5.004         46.012         Subtotal         106.677)         (150.638)           Interest received         7,218         5.407         44.839         04.839         04.44.012           Subtotal         104.404         (95.433)         86.1989         106.4233         86.1989           Interest received         1,4,903         14.4,903         44.6.122         (1320.675)           Parchases of property operating activities         452.564         (94.946)         (857.628)           Cash flows from investing activities         21.33         43.956         397.037           Parchases of property operating activities         22.862         (142.479)         (1320.675)           Parchases of property operating activities         23.981         12.521         113.097           Probeeds from sales and redempton of investments					
Decrease in trade payables         (27, 85.9)         (68, 731)         (620, 820)           Decrease in contract liabilities         (12, 65.9)         (11, 011)         (97, 45.8)           Decrease in provisions         (12, 65.9)         (11, 011)         (97, 45.8)           Decrease in indemnification asset of South African projects         131, 777         -         -           Others         8, 715         5.096         (46, 012)           Subtotal         5.04, 051         (16, 677)         (150, 63.6)           Interest received         7, 21.8         5.407         48, 635, 200           Income taxes paid         (10, 44.4)         (9, 54.3)         (86, 178.0)           Income taxes paid         (10, 44.4)         (9, 54.3)         (86, 178.0)           Purchases of property, plant and equipment and intangible assets         (24, 62.91)         (11, 320, 475)           Purchases of investing activities         (23, 73.3)         -         -           Purchases of investing activities         (28, 73.3)         -         -           Purchases of investing activities         (28, 73.3)         -         -           Purchases of investing activities         (28, 73.3)         -         -           Proceeds from sale of aubsidiaries         1, 65.2					
Decrease in contract liabilities         (124,703)         (124,703)         (124,6393)           Decrease in provisions         (125,59)         (11011)         (194,639)           Decrease in indemnification asset of South African projects         131,777					
Decrease in provisions         (12,559)         (11,011)         (99,458)           Increase (decrease) in retirement benefit liabilities         (12,61)         3,496         31,577           Decrease in indemnification asset of South African projects         131,777         -         -         -           Others         8,715         5,094         46,012         -         -           Subtotal         504,051         (14,6,677)         (150,634)         (86,198)           Income taxes paid         (10,444)         (9,543)         (86,198)           Income taxes paid         (63,164)         (89,102)         (804,823)           Net cash provided by operating activities         452,564         (94,948)         (857,628)           Cash flows from investing activities         452,564         (94,948)         (857,628)           Cash flows from investing activities         13,924         (14,6,212)         (1,320,675)           Proceeds from sales of property, plant and equipment and intangible assets         (24,6,291)         (14,6,212)         (1,320,675)           Parents for acquisition of subsidiaries         (28,73)         -         -         -           Proceeds from sales and redemption of investments         (28,73)         -         -         -           <					
Increase (decrease) in retirement benefit liabilities         (126)         3.496         31,577           Others         11,777         -         -           Others         8,715         5,094         46,012           Subtatal         504,051         (16,677)         (156,636)           Interest received         7,218         5,007         48,832           Dividends received         10,444         (9,553)         (86,178)           Interest paid         (10,444)         (9,553)         (86,178)           Interest paid         (10,444)         (9,553)         (86,178)           Purchases of property, plant and equipment and intangible assets         (24,6,291)         (146,212)         (1,320,675)           Proceeds from sales of property, plant and equipment and and angipments accounted         (13,924)         (15,796)         (142,679)           Purchases of investments (including investments accounted for using equity method)         (13,924)         (15,796)         (142,679)           Proceeds from sales of subsidiaries         1,452         775         7,000           Payments for acquisition of busiseises         -         (71,082)         (642,025)           Net cash provided by Lused in investing activities         (23,956)         (18,2249)         (1,644,183)					
Decrease in indemnification asset of South African projects         131,777         -         -         -           Others         504,051         (16,677)         (150,634)           Interset received         7,218         5,407         46,839           Interset received         14,903         14,968         135,200           Interset paid         (10,444)         (9,543)         (86,178)           Income taxes paid         (63,164)         (89,102)         (804,823)           Net cash provided by operating activities         452,564         (94,948)         (857,628)           Cash flows from sales of property, plant and equipment and intangible assets         (246,291)         (146,212)         (1,320,675)           Purchases of investments (including investments accounted         (13,924)         (15,796)         (142,679)           for using equity method)         23,981         12,521         113,097           Payments for acquistion of twistments         (20,733)         -         -           Proceeds from sale of subsidiaries         (237,32)         -         -           Payments for acquistion of businesses         1,652         775         7,000           Payments for acquistion of businesses         (7,015)         1,138         10,279	Increase (decrease) in retirement benefit liabilities				
Subtolal         504.051         (16,677)         (150,636)           Interest received         7,218         5,407         48.839           Dividends received         14,903         14,968         135,200           Interest paid         (10,444)         (9,543)         (86,198)           Income taxes paid         (63,164)         (89,102)         (804,823)           Net cash provided by operating activities         452,554         (94,948)         (857,628)           Cash flows from investing activities         11,33         43,956         397,037           Proceeds from sales of property, plant and equipment and         31,133         43,956         397,037           Proceeds from sales and redemption of investments         23,981         12,521         113,097           Proceeds from sale accounted for using equity method)         (28,733)         —         —         —           Proceeds from sale accounted for using equity method)         (28,733)         —         —         —           Proceeds from sale accounted for using equity method)         (28,733)         —         —         —           Proceeds from sale accounted for using equity method)         (28,733)         —         —         —           Collection of long-term loans         237         22	Decrease in indemnification asset of South African projects	131,777	<u> </u>	_	
Interest received         7,218         5,407         48,839           Dividends received         14,903         14,968         135,200           Interest paid         (10,444)         (9,543)         (86,198)           Income taxes paid         (63,164)         (89,102)         (804,823)           Net cash prowided by operating activities         452,564         (94,948)         (857,628)           Purchases of property, plant and equipment and intangible assets         (246,291)         (146,212)         (1,320,675)           Purchases of property plant and equipment and intangible assets         (246,291)         (15,796)         (142,679)           Purchases of property plant and equipments         23,981         12,521         113,097           Proceeds from sales and redemption of investments         23,981         12,521         113,097           Payments for acquisition of subsidiaries         -         -         -           Proceeds from sale of subsidiaries         2017         708         6,335           Net cash provided by (used inl investing activities         239,566)         (182,249)         (1,646,183)           Cellection of long-term loans         (207)         708         6,335           Disbursement of long-term loans         (237,566)         (182,249)         (1,	Others	8,715	5,094	46,012	
Dividends received         14,903         14,968         135,200           Incore taxes paid         (10,444)         (9,543)         (86,198)           Incore taxes paid         (63,164)         (89,102)         (804,823)           Net cash provided by operating activities         452,564         (94,948)         (857,628)           Purchases of property, plant and equipment and intangible assets         (246,291)         (146,212)         (1,320,675)           Purchases of investments (including investments accounted         (13,924)         (15,796)         (142,679)           Purchases of investments accounted for using equity method)         23,981         12,521         113,097           Parenest from sales of subsidiaries         -         -         -         -           Proceeds from sale of subsidiaries         1,652         775         7,000           Payments for acquisition of businesses         -         (71,082)         (642,055)           Disbursement of long-term loans         (807)         (8,482)         (76,614)           Cash flows from financing activities         (7,015)         1,138         10,279           Net cash provided by (used in) investing activities         (239,566)         (182,249)         (16,644,055)           Disbursement of long-term boars         237	Subtotal	504,051	(16,677)	(150,636)	
Interest paid         (10,444)         (9,543)         (66,198)           Income taxes paid         (63,164)         (89,102)         (804,823)           Net cash provided by operating activities         452,564         (94,948)         (857,628)           Purchases of property, plant and equipment and intangible assets         (146,212)         (1,320,675)           Proceeds from sales of property plant and equipment and intangible assets         (13,924)         (15,796)         (142,679)           Purchases of investments (including investments accounted (13,924)         (15,796)         (142,679)         Proceeds from sales and redemption of investments         (28,733)         —         —         —           Payments for acquisition of businesses         (28,733)         —         —         —         —           Proceeds from sale of subsidiaries         (28,733)         —         —         —         —         —           Payments for acquisition of businesses         (201         708         6,3375         Disbursement of long-term loans         (201         708         6,342         (76,614)         Colection of long-term loans         (237         222         2,005         Others         (16,464,183)         12,550         (19,800)         96,778         874,157         Proceeds from insune of bonds         —					
Income faxes paid         (63,164)         (69,102)         (804,823)           Net cash provided by operating activities         452,564         (94,948)         (857,628)           Cash flows from investing activities         (1,320,675)         (1,320,675)         (1,320,675)           Purchases of property, plant and equipment and intangible assets         (246,291)         (146,212)         (1,320,675)           Purchases of investments (including investments accounted for using equity method)         (13,924)         (15,796)         (142,679)           Proceeds from sales and redemption of investments         (23,981)         12,521         113,097           (including investments accounted for using equity method)         (28,733)         —         —           Proceeds from sale of subsidiaries         (26,733)         —         —         —           Proceeds from sale of subsidiaries         (28,733)         —         —         —         —           Proceeds from sale of subsidiaries         (28,733)         —         —         —         —         (71,082)         (642,055)           Net decrease in short-term loans         (28,73)         —         —         —         (71,082)         (642,055)           Net decrease in short-term loans         (23,7         222         2,005 <td< td=""><td></td><td></td><td></td><td></td></td<>					
Net cash provided by operating activities         452,564         (94,948)         (857,628)           Cash flows from investing activities:         (146,212)         (1,320,675)           Purchases of property, plant and equipment and intangible assets         (246,291)         (146,212)         (1,320,675)           Purchases of investments (including investments accounted for using equity method)         (13,924)         (15,796)         (142,679)           Proceeds from sales and redemption of investments         23,981         12,521         113,097           Including investments accounted for using equity method)         (28,733)         -         -           Proceeds from sale of subsidiaries         (28,733)         -         -         (71,082)         (642,055)           Net acrease in short-term loans         (201)         708         6,395         Disbursement of long-term loans         (201)					
Cash flows from investing activities:         (146,212)         (1320,675)           Purchases of property, plant and equipment and antangible assets         (246,291)         (146,212)         (1320,675)           Purchases of investments (including investments accounted for using equity method)         (13,924)         (15,796)         (142,679)           Proceeds from sales of redemption of investments         (28,733)         -         -         -           Parometer for acquisition of subsidiaries         (28,733)         -         -         -           Proceeds from sale and redemption of investments         (28,733)         -         -         -           Proceeds from sales of subsidiaries         (28,733)         -         -         -         -           Proceeds from sale of subsidiaries         (21,775)         (7,000)         -         -         -           Proceeds from sale of subsidiaries         (237)         -         -         -         -           Disbursement of long-term loans         (807)         (8,482)         (76,614)         -         -           Celetion of long-term loans         (239,566)         (182,249)         (1,646,183)         -         -           Cash flows from financing activities         (239,566)         (182,249)         (1,646,183)					
Purchases of property, plant and equipment and intangible assets         (246,291)         (146,212)         (1,320,675)           Proceeds from sales of property, plant and equipment and intangible assets         31,133         43,956         397,037           Purchases of investments (including investments accounted for using equity method)         (13,924)         (15,796)         (142,679)           Proceeds from sales and redemption of investments         (28,733)         —         —         —           Proceeds from sale of subsidiaries         (28,733)         —         —         —         —           Proceeds from sale of subsidiaries         (28,733)         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         …         7100         (642,055)         Net decrease in short-term loans receivable         201         708         6,395         Disbursement of long-term loans         (2005)         (146,6183)         (22,2005)         (146,6183)         Cash flows from financing activities         (239,566)         (182,249)         (1,646,183)         Cash flows from financing activities         (239,566)         (58,146)         (525,210)         Proceeds from insuance of bonds         —         —		452,564	(94,948)	(857,628)	
Proceeds from sales of property, plant and equipment and intangible assets         31,133         43,956         397,037           Purchases of investments (including investments accounted for using equity method)         (13,924)         (15,796)         (142,679)           Proceeds from sales and redemption of investments         23,981         12,521         113,097           Including investments accounted for using equity method)         (28,733)         -         -           Payments for acquisition of busidiaries         (28,733)         -         -           Proceeds from sale of subsidiaries         (28,733)         -         -           Payments for acquisition of businesses         -         (71,082)         (642,055)           Net decrease in short-term loans         (807)         (8,482)         (76,614)           Collection of long-term loans         (237,566)         (182,249)         (1,646,183)           Cash flows from financing activities:         -         -         65,000         191,914,227           Net cash provided by (used in) investing activities         (45,506)         (58,146)         (52,52,10)           Cash flows from financing activities:         -         -         65,000         587,117           Proceeds from insuance of bonds         -         -         65,000         587,11	•	(2/(6/201)	(1/6 212)	(1 320 475)	
intangible assets       31,133       43,736       37,037         Purchases of investments (including investments accounted for using equity method)       (13,924)       (15,796)       (142,679)         Proceeds from sales and redemption of investments       (28,733)       -       -       -         Proceeds from sale of subsidiaries       (28,733)       -       -       -         Proceeds from sale of subsidiaries       (28,733)       -       -       -       -         Proceeds from sale of subsidiaries       (28,733)       -       -       -       -       -       -       000       642,055)       000       642,055)       000       642,055)       000       642,055)       000       64,395       000       000       64,395       000       000       000,642,055)       000       000       000,700       000,642,055)       000       000       000,700       000,642,055)       000       000,700,710       000,710       000,710 <t< td=""><td></td><td></td><td></td><td></td></t<>					
for using equity method)       (13,724)       (13,724)       (13,724)       (142,677)         Proceeds from sales and redemption of investments (including investments accounted for using equity method)       23,981       12,521       113,097         Payments for acquisition of subsidiaries       (28,733)       -       -       -         Proceeds from sale of subsidiaries       1,652       775       7,000         Payments for acquisition of businesses       -       (71,082)       (642,055)         Net decrease in short-term loans receivable       201       708       6,395         Disbursement of long-term loans       237       222       2,005         Others       (7,015)       1,138       10,279         Net cash provided by (used in) investing activities       (239,566)       (182,249)       (1,646,183)         Cash flows from financing activities:       (45,506)       (58,146)       (525,210)         Net increase (decrease) in short-term borrowings       (45,500)       (58,146)       (525,210)         Proceeds from issuance of bonds       -       65,000       587,119         Payment for redemption of interests in subsidiaries from       (13,098)       (22,549)       (203,666)         Dividends paid to on-controlling interests       19       -       -		31,133	43,956	397,037	
Including equity freeholdProceeds from sales and redemption of investments(including investments accounted for using equity method)Payments for acquisition of subsidiaries(including investments accounted for using equity method)Payments for acquisition of subsidiaries(including investments accounted for using equity method)Payments for acquisition of subsidiaries(including investments accounted for using equity method)Payments for acquisition of businesses-(including investment of long-term loans(including investment of long-term loans(including activities(including activities(includ		(13 924)	(15 796)	(142 679)	
(including investments accounted for using equity method)       23,761       12,021       113,077         Payments for acquisition of subsidiaries       (28,733)       -       -         Proceeds from sale of subsidiaries       1,652       775       7,000         Payments for acquisition of businesses       -       (71,082)       (642,055)         Net decrease in short-term loans receivable       201       708       6,395         Disbursement of long-term loans       (807)       (8,482)       (76,614)         Collection of long-term loans       (239,566)       (182,249)       (1,646,183)         Cash flows from financing activities:       (239,566)       (182,249)       (1,646,183)         Cash flows from financing activities:       (45,506)       (58,146)       (525,210)         Proceeds from long-term borrowings       (45,506)       (58,146)       (525,210)         Proceeds from issuance of bonds       -       65,000       587,119         Payments for acquisition of interests in subsidiaries from       (13,908)       (22,549)       (203,676)         Proceeds from issuance of bonds       (58,37)       (5,144)       (46,463)         Proceeds from issuance of bonds       (58,37)       (5,144)       (46,464)         Proceeds from issuance of bonds	for using equity method) Deceeds from colors and redemption of investments		(10), , , 0)	(142)0777	
Payments for acquisition of subsidiaries         (28,733)         —         —         —           Proceeds from sale of subsidiaries         1,652         775         7,000           Payments for acquisition of businesses         —         (71,082)         (642,055)           Net decrease in short-term loans receivable         201         708         6,395           Disbursement of long-term loans         (807)         (8,482)         (76,614)           Collection of long-term loans         237         222         2,005           Others         (7,015)         1,138         10,279           Net cash provided by (used in) investing activities         (239,566)         (182,249)         (1,646,183)           Cash flows from financing activities:         (19,800)         96,778         874,157           Proceeds from long-term borrowings         (45,506)         (58,146)         (525,210)           Proceeds from issuance of bonds         —         65,000         587,119           Payments for acquisition of interests in subsidiaries from         (13,908)         (22,549)         (203,676)           Proceeds from issuance of stock to non-controlling interests         19         —         —         —           Payments for acquisition of interests in subsidiaries from         (13,908)	(including investments accounted for using equity method)	23,981	12,521	113,097	
Proceeds from sale of subsidiaries         1,652         775         7,000           Payments for acquisition of businesses         -         (71,082)         (642,055)           Net decrease in short-term loans receivable         201         708         (6,395)           Disbursement of long-term loans         (807)         (8,482)         (76,614)           Collection of long-term loans         (237)         222         2,005           Others         (7,015)         1,138         10,279           Net cash provided by (used in) investing activities         (239,556)         (182,249)         (1,646,183)           Cash flows from financing activities:         (19,800)         96,778         874,157           Proceeds from long-term borrowings         (45,506)         (58,146)         (525,210)           Proceeds from long-term borrowings         (45,500)         (10,000)         (90,326)           Proceeds from issuance of bonds         -         65,000         587,119           Payments for acquisition of interests in subsidiaries from non-controlling interests         19         -           non-controlling interests         13,908         (22,549)         (203,676)           Dividends paid to owners of the parent         (46,933)         (25,667)         (231,839)		(28,733)		_	
Net decrease in short-term loans receivable         201         708         6,395           Disbursement of long-term loans         (807)         (8,482)         (76,614)           Collection of long-term loans         237         222         2,005           Others         (7,015)         1,138         10,279           Net cash provided by (used in) investing activities         (239,566)         (182,249)         (1,646,183)           Cash flows from financing activities:         (19,800)         96,778         874,157           Proceeds from long-term borrowings         (45,506)         (58,146)         (525,210)           Proceeds from issuance of bonds         -         65,000         587,119           Payment for redemption of bonds         (13,908)         (22,549)         (203,676)           Proceeds from issuance of stock to non-controlling interests         19         -         -           Payment for redemption of bonds         (65,000)         (13,908)         (22,549)         (203,676)           Dividends paid to owners of the parent         (46,933)         (25,667)         (231,839)           Dividends paid to ono-controlling interests         (13,208)         (22,647)         (204,742)           Repayment of labilities under factoring agreements         (145,264         13			775	7,000	
Disbursement of long-term loans         (807)         (8,482)         (76,614)           Collection of long-term loans         237         222         2,005           Others         (7,015)         1,138         10,279           Net cash provided by (used in) investing activities         (239,566)         (182,249)         (1,646,183)           Cash flows from financing activities:         (19,800)         96,778         874,157           Proceeds from long-term borrowings         (45,506)         (58,146)         (525,210)           Proceeds from issuance of bonds         -         65,000         587,119           Payment for redemption of bonds         (65,000)         (10,000)         (90,326)           Proceeds from issuance of stock to non-controlling interests         19         -         -           Payment for redemption of bonds         (65,000)         (10,000)         (90,326)           Proceeds from issuance of stock to non-controlling interests         19         -         -           Payment for acquisition of interests in subsidiaries from non-controlling interests         (13,908)         (22,549)         (203,676)           Dividends paid to owners of the parent         (46,933)         (25,667)         (231,839)         (24,642)         (22,543)         (23,782)	Payments for acquisition of businesses	· _	(71,082)	(642,055)	
Collection of long-term loans         237 (7,015)         222 (1,138)         2,005 (0,279)           Net cash provided by (used in) investing activities         (239,566)         (182,249)         (1,646,183)           Cash flows from financing activities:         (19,800)         96,778         874,157           Proceeds from long-term borrowings         (19,800)         96,778         874,157           Proceeds from long-term borrowings         (45,506)         (58,146)         (525,210)           Proceeds from issuance of bonds         -         65,000         (10,000)         (90,326)           Proceeds from issuance of stock to non-controlling interests         19         -         -         -           Payment for redemption of interests in subsidiaries from non-controlling interests         (13,908)         (22,549)         (203,676)           Dividends paid to owners of the parent         (46,933)         (25,667)         (231,839)           Dividends paid to non-controlling interests         (145,264)         139,315         1,258,377           Repayment of labilities         (23,256)         (22,667)         (204,742)           Dividends paid to non-controlling interests         (145,264)         (139,315)         1,258,377           Repayment of labilities         (23,256)         (22,667)         (204,742) </td <td></td> <td>201</td> <td>708</td> <td>6,395</td>		201	708	6,395	
Others         (7,015)         1,138         10,279           Net cash provided by (used in) investing activities         (239,566)         (182,249)         (1,646,183)           Cash flows from financing activities:         (1,646,183)         (1,646,183)         (1,646,183)           Net increase (decrease) in short-term borrowings         (19,800)         96,778         874,157           Proceeds from long-term borrowings         (45,506)         (58,146)         (525,210)           Proceeds from issuance of bonds         -         65,000         587,119           Payment for redemption of bonds         (65,000)         (10,000)         (90,326)           Proceeds from issuance of stock to non-controlling interests         19         -         -           Payments for acquisition of interests in subsidiaries from (13,908)         (22,549)         (203,676)         non-controlling interests         19           Dividends paid to owners of the parent         (46,933)         (25,667)         (231,839)         1024,642)         13,9315         1,258,377           Repayments of lease liabilities         (192,502)         (145,045)         (1,310,134)         Repayments of lease liabilities         (23,256)         (22,673)         (23,782)           Dividends paid to owners of the parent         (23,256)         (22,633)				(76,614)	
Net cash provided by (used in) investing activities         (239,566)         (182,249)         (1,646,183)           Cash flows from financing activities:         Net increase (decrease) in short-term borrowings         (19,800)         96,778         874,157           Proceeds from long-term borrowings         (65,341         212,500         1,919,429           Repayment of long-term borrowings         (45,506)         (58,146)         (525,210)           Proceeds from issuance of bonds         -         65,000         587,119           Payment for redemption of bonds         (65,000)         (10,000)         (90,326)           Proceeds from issuance of stock to non-controlling interests         19         -         -           Payments for acquisition of interests in subsidiaries from non-controlling interests         (13,908)         (22,549)         (203,676)           Dividends paid to owners of the parent         (46,933)         (25,667)         (231,839)           Dividends paid to non-controlling interests         (192,502)         (145,045)         (1,310,134)           Repayment of liabilities under factoring agreements         (192,502)         (145,045)         (1,310,134)           Repayment of liabilities         (23,256)         (22,667)         (204,742)           Others         (2,332)         (2,633)         (					
Cash flows from financing activities:(19,800)96,778874,157Net increase (decrease) in short-term borrowings65,341212,5001,919,429Repayment of long-term borrowings(45,506)(58,146)(525,210)Proceeds from issuance of bonds-65,000587,119Payment for redemption of bonds(65,000)(10,000)(90,326)Proceeds from issuance of stock to non-controlling interests19Payments for acquisition of interests in subsidiaries from non-controlling interests(13,908)(22,549)(203,676)Dividends paid to owners of the parent(46,933)(25,667)(231,839)Dividends paid to non-controlling interests(192,502)(145,045)(1,310,134)Repayment of liabilities under factoring agreements(192,502)(145,045)(1,310,134)Repayment of lease liabilities(23,256)(22,667)(204,742)Others(2,332)(2,633)(23,782)Net cash provided by (used in) financing activities(10,153)19,255173,922Net cash and cash equivalents(10,153)19,255173,922Cash and cash equivalents(1,608)(36,205)(327,025)Cash and cash equivalents at the beginning of the year283,235281,6262,543,817					
Net increase (decrease) in short-term borrowings         (19,800)         96,778         874,157           Proceeds from long-term borrowings         65,341         212,500         1,919,429           Repayment of long-term borrowings         (45,506)         (58,146)         (525,210)           Proceeds from issuance of bonds         -         65,000         587,119           Payment for redemption of bonds         (65,000)         (10,000)         (90,326)           Proceeds from issuance of stock to non-controlling interests         19         -         -           Payments for acquisition of interests in subsidiaries from non-controlling interests         19         -         -           Dividends paid to owners of the parent         (46,9733)         (25,667)         (231,839)           Dividends paid to ono-controlling interests         (5,837)         (5,144)         (46,463)           Proceeds from factoring agreements         145,264         139,315         1,258,377           Repayment of liabilities under factoring agreements         (192,502)         (145,045)         (1,310,134)           Repayments of lease liabilities         (23,256)         (22,667)         (204,742)           Others         (2,332)         (2,633)         (23,782)           Net cash provided by (used in) financing activities <td></td> <td>(239,566)</td> <td>(182,249)</td> <td>(1,646,183)</td>		(239,566)	(182,249)	(1,646,183)	
Proceeds from long-term borrowings       65,341       212,500       1,919,429         Repayment of long-term borrowings       (45,506)       (58,146)       (525,210)         Proceeds from issuance of bonds       -       65,000       587,119         Payment for redemption of bonds       (65,000)       (10,000)       (90,326)         Proceeds from issuance of stock to non-controlling interests       19       -       -         Payments for acquisition of interests in subsidiaries from non-controlling interests       (13,908)       (22,549)       (203,676)         Dividends paid to owners of the parent       (46,933)       (25,667)       (231,839)         Dividends paid to non-controlling interests       (5,837)       (5,144)       (46,463)         Proceeds from factoring agreements       145,264       139,315       1,258,377         Repayment of liabilities under factoring agreements       (192,502)       (145,045)       (1,310,134)         Repayments of lease liabilities       (23,256)       (22,667)       (204,742)         Others       (2,332)       (2,633)       (23,782)         Net cash provided by (used in) financing activities       (10,153)       19,255       173,922         Leftect of exchange rate changes on cash and cash equivalents       (1,608)       (36,205)       (327		(10.000)	0/ 770	07/157	
Repayment of long-term borrowings       (45,506)       (58,146)       (525,210)         Proceeds from issuance of bonds       -       65,000       587,119         Payment for redemption of bonds       (65,000)       (10,000)       (90,326)         Proceeds from issuance of stock to non-controlling interests       19       -       -         Payments for acquisition of interests in subsidiaries from non-controlling interests       (13,908)       (22,549)       (203,676)         Dividends paid to owners of the parent       (46,933)       (25,667)       (231,839)         Dividends paid to non-controlling interests       (5,837)       (5,144)       (46,463)         Proceeds from factoring agreements       (145,264       139,315       1,258,377         Repayment of liabilities under factoring agreements       (192,502)       (145,045)       (1,310,134)         Repayments of lease liabilities       (23,256)       (22,667)       (204,742)         Others       (2,332)       (2,633)       (23,782)         Net cash provided by (used in) financing activities       (10,153)       19,255       173,922         Net decrease in cash and cash equivalents       (1,608)       (36,205)       (327,025)         Cash and cash equivalents at the beginning of the year       283,235       281,626       2,					
Proceeds from issuance of bonds—65,000587,119Payment for redemption of bonds(65,000)(10,000)(90,326)Proceeds from issuance of stock to non-controlling interests19——Payments for acquisition of interests in subsidiaries from non-controlling interests(13,908)(22,549)(203,676)Dividends paid to owners of the parent(46,933)(25,667)(231,839)Dividends paid to non-controlling interests(5,837)(5,144)(46,463)Proceeds from factoring agreements(145,264139,3151,258,377Repayment of liabilities under factoring agreements(192,502)(145,045)(1,310,134)Repayments of lease liabilities(23,256)(22,667)(204,742)Others(23,226)(24,622)221,7372,002,863Effect of exchange rate changes on cash and cash equivalents(10,153)19,255173,922Net decrease in cash and cash equivalents(1,608)(36,205)(327,025)Cash and cash equivalents at the beginning of the year283,235281,6262,543,817					
Payment for redemption of bonds(65,000)(10,000)(90,326)Proceeds from issuance of stock to non-controlling interests19Payments for acquisition of interests in subsidiaries from non-controlling interests(13,908)(22,549)(203,676)Dividends paid to owners of the parent(46,933)(25,667)(231,839)Dividends paid to non-controlling interests(5,837)(5,144)(46,463)Proceeds from factoring agreements145,264139,3151,258,377Repayment of liabilities under factoring agreements(192,502)(145,045)(1,310,134)Repayments of lease liabilities(23,256)(22,667)(204,742)Others(23,226)(22,633)(23,782)Net cash provided by (used in) financing activities(10,153)19,255173,922Net decrease in cash and cash equivalents(1,608)(36,205)(327,025)Cash and cash equivalents at the beginning of the year283,235281,6262,543,817		(43,300)			
Proceeds from issuance of stock to non-controlling interests19—Payments for acquisition of interests in subsidiaries from non-controlling interests(13,908)(22,549)(203,676)Dividends paid to owners of the parent(46,933)(25,667)(231,839)Dividends paid to non-controlling interests(5,837)(5,144)(46,463)Proceeds from factoring agreements145,264139,3151,258,377Repayment of liabilities under factoring agreements(192,502)(145,045)(1,310,14)Repayments of lease liabilities(23,256)(22,667)(204,742)Others(23,256)(22,633)(23,782)Net cash provided by (used in) financing activities(10,153)19,255173,922Net decrease in cash and cash equivalents(1,608)(36,205)(327,025)Cash and cash equivalents at the beginning of the year283,235281,6262,543,817		(65,000)			
Payments for acquisition of interests in subsidiaries from non-controlling interests(13,908)(22,549)(203,676)Dividends paid to owners of the parent(46,933)(25,667)(231,839)Dividends paid to non-controlling interests(5,837)(5,144)(46,463)Proceeds from factoring agreements145,264139,3151,258,377Repayment of liabilities under factoring agreements(192,502)(145,045)(1,310,134)Repayments of lease liabilities(23,256)(22,667)(204,742)Others(2,332)(2,633)(23,782)Net cash provided by (used in) financing activities(10,153)19,255173,922Net decrease in cash and cash equivalents(1,608)(36,205)(327,025)Cash and cash equivalents at the beginning of the year283,235281,6262,543,817			(10,000)	(70,020)	
Dividends paid to owners of the parent       (46,933)       (25,667)       (231,839)         Dividends paid to owners of the parent       (5,837)       (5,144)       (46,463)         Proceeds from factoring agreements       145,264       139,315       1,258,377         Repayment of liabilities under factoring agreements       (192,502)       (145,045)       (1,310,134)         Repayments of lease liabilities       (23,256)       (22,667)       (204,742)         Others       (2,322)       (2,633)       (23,782)         Net cash provided by (used in) financing activities       (10,153)       19,255       173,922         Net decrease in cash and cash equivalents       (1,608)       (36,205)       (327,025)         Cash and cash equivalents at the beginning of the year       283,235       281,626       2,543,817	5		(22 5 ( 0 )	(202 (7/)	
Dividends paid to non-controlling interests       (5,837)       (5,144)       (46,463)         Proceeds from factoring agreements       145,264       139,315       1,258,377         Repayment of liabilities under factoring agreements       (192,502)       (145,045)       (1,310,134)         Repayments of lease liabilities       (23,256)       (22,667)       (204,742)         Others       (2,332)       (2,633)       (23,782)         Net cash provided by (used in) financing activities       (10,153)       19,255       173,922         Net decrease in cash and cash equivalents       (1,608)       (36,205)       (327,025)         Cash and cash equivalents at the beginning of the year       283,235       281,626       2,543,817					
Proceeds from factoring agreements       145,264       139,315       1,258,377         Repayment of liabilities under factoring agreements       (192,502)       (145,045)       (1,310,134)         Repayments of lease liabilities       (23,256)       (22,667)       (204,742)         Others       (2,332)       (2,633)       (23,782)         Net cash provided by (used in) financing activities       (204,452)       221,737       2,002,863         Effect of exchange rate changes on cash and cash equivalents       (10,153)       19,255       173,922         Net decrease in cash and cash equivalents       (1,608)       (36,205)       (327,025)         Cash and cash equivalents at the beginning of the year       283,235       281,626       2,543,817					
Repayment of liabilities under factoring agreements       (192,502)       (145,045)       (1,310,134)         Repayments of lease liabilities       (23,256)       (22,667)       (204,742)         Others       (2,332)       (2,633)       (23,782)         Net cash provided by (used in) financing activities       (204,452)       221,737       2,002,863         Effect of exchange rate changes on cash and cash equivalents       (10,153)       19,255       173,922         Net decrease in cash and cash equivalents       (1,608)       (36,205)       (327,025)         Cash and cash equivalents at the beginning of the year       283,235       281,626       2,543,817	1 5				
Repayments of lease liabilities       (23,256)       (22,667)       (204,742)         Others       (2,332)       (2,633)       (23,782)         Net cash provided by (used in) financing activities       (204,452)       221,737       2,002,863         Effect of exchange rate changes on cash and cash equivalents       (10,153)       19,255       173,922         Net decrease in cash and cash equivalents       (1,608)       (36,205)       (327,025)         Cash and cash equivalents at the beginning of the year       283,235       281,626       2,543,817	0 0				
Others         (2,332)         (2,633)         (23,782)           Net cash provided by (used in) financing activities         (204,452)         221,737         2,002,863           Effect of exchange rate changes on cash and cash equivalents         (10,153)         19,255         173,922           Net decrease in cash and cash equivalents         (1,608)         (36,205)         (327,025)           Cash and cash equivalents at the beginning of the year         283,235         281,626         2,543,817					
Net cash provided by (used in) financing activities(204,452)221,7372,002,863Effect of exchange rate changes on cash and cash equivalents(10,153)19,255173,922Net decrease in cash and cash equivalents(1,608)(36,205)(327,025)Cash and cash equivalents at the beginning of the year283,235281,6262,543,817					
Effect of exchange rate changes on cash and cash equivalents(10,153)19,255173,922Net decrease in cash and cash equivalents(1,608)(36,205)(327,025)Cash and cash equivalents at the beginning of the year283,235281,6262,543,817					
Net decrease in cash and cash equivalents(1,608)(36,205)(327,025)Cash and cash equivalents at the beginning of the year283,235281,6262,543,817					
Cash and cash equivalents at the beginning of the year 283,235 281,626 2,543,817					
		(1,000)	(00,200)	(027,020)	
	Cash and cash equivalents at the beginning of the year	283,235	281,626		
	Cash and cash equivalents at the end of the year	¥ 281,626	¥ 245,421	\$ 2,216,791	

# **Corporate Data**

As of March 31, 2021

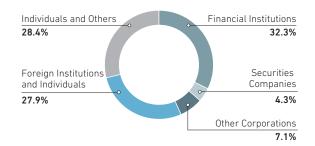
Head Office:	2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo, 100-8332, Japan Phone:+81-3-6275-6200
Established:	January 11, 1950
Paid-in Capital:	¥265.6 billion
Total Number of	600,000,000
Issuable Shares:	
Total Number of	337,364,781
Shares Issued:	
Number of	245,450
Shareholders:	
Number of	79,974 (Consolidated)
Employees:	14,553 (Non-consolidated)

Stock Listings:	Tokyo, Nagoya, Fukuoka, and Sapporo Stock Exchanges
Ticker Code:	7011
Manager of	Mitsubishi UFJ Trust and Banking
the Register of	Corporation
Shareholders:	4-5, Marunouchi 1-chome, Chiyoda-
	ku, Tokyo 100-8212, Japan
Independent Auditors:	KPMG AZSA LLC
	1-2 Tsukudo-cho, Shinjuku-ku, Tokyo 162-8551, Japan

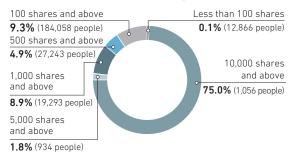
#### Major Shareholders

	Number of shares owned by major shareholders	Shareholder composition (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	27,667,800	8.2
Custody Bank of Japan, Ltd. (Trust Account)	17,672,100	5.2
Meiji Yasuda Life Insurance Company	8,002,274	2.3
The Nomura Trust and Banking Co., Ltd. (Retirement Benefit Trust Account for The Bank of Mitsubishi UFJ, Ltd.)	6,526,300	1.9
Custody Bank of Japan, Ltd. (Trust Account 7)	6,137,200	1.8
Mitsubishi Heavy Industries Employee Shareholding Association	5,566,176	1.6
State Street Bank West Client - Treaty 505234	5,134,705	1.5
Custody Bank of Japan, Ltd. (Trust Account 5)	4,817,600	1.4
JPMorgan Securities Japan Co., Ltd	4,496,980	1.3
Custody Bank of Japan, Ltd. (Trust Account 6)	4,270,500	1.2

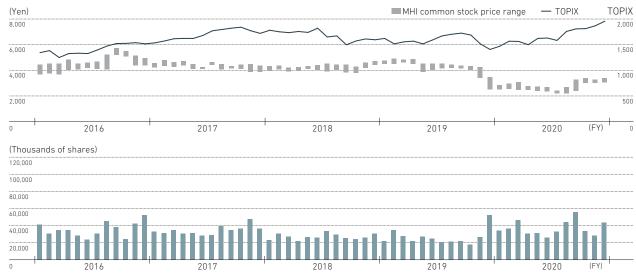
#### Classified by Type of Shareholder



#### Classified by Number of Holdings



## Stock Price Range and Trading Volume (Tokyo Stock Exchange)



# Status of IR Activities

#### Briefings for Individual Investors

We hold small meetings for individual investors. In these meetings, we provide a corporate overview and explain our business strategies, shareholder returns, and other topics.

#### Briefings for Analysts and Institutional Investors

The CFO briefs analysts and institutional investors on our financial results on a quarterly basis. At the fiscal 2020 earnings briefing, the president explained our 2021 Medium-Term Business Plan (MTBP) and provided an MTBP progress update. In addition, we hold thematic business strategy briefings as needed to better disseminate information.

#### Meetings with Overseas Investors

We hold meetings with institutional investors in North America, Europe, and Asia to explain our operating performance and management strategies, and solicits their opinions on our management. We also participate in conferences for overseas investors throughout the year.

#### Status of Inclusion in ESG Indexes (As of September 2021)

MHI Group promotes sustainability-oriented management and focuses on various activities and information disclosure. Through these efforts, we have been selected for the fourth year in a row for inclusion in the Asia Pacific Index of the Dow Jones Sustainability Index, which is a global ESG investment index (as of September 2021).

We have also been selected by premier ESG investment indices the MSCI Japan ESG Select Leaders Index, the MSCI Japan Empowering Women Index (WIN), the FTSE Blossom Japan Index, and the S&P/JPX Carbon Efficient Index, and we have been selected for the third year in a row for inclusion in all of the ESG investment indices used by Japan's Government Pension Investment Fund (GPIF), which is the largest pension fund in the world. We have also been continuously selected for inclusion in SOMPO Asset Management's SOMPO Sustainability Index since 2012.





2021 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

2021 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX

The inclusion of Mitsubishi Heavy Industries, Ltd. in any MSCI index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship. endorsement or promotion of Mitsubishi Heavy Industries, Ltd. by MSCI or any of its affiliates The MSCI indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates

#### Publication of our MHI Report 2021

MHI Report 2021 focuses on how MHI Group will achieve sustained growth in an increasingly diverse society marked by changing values and a growing ESG consciousness. Most of its content is devoted to our initiatives under 2021 MTBP, which we formulated by backcasting from our vision of MHI Group in 2030.

We hope that this report will contribute to the better understanding of MHI Group among shareholders and investors, as well as a tool for dialogue and engagement.

We look forward to hearing your frank opinions.

September 2021 Investor Relations & Shareholder Relations Department MITSUBISHI HEAVY INDUSTRIES, LTD.