IHI Integrated Report 2023 Management Philosophy

"Contribute to the development of society through technology" "Human resources are our single most valuable asset"

**Our Sustainability Goal** 

"Create a world where nature and technology work in unity"



**Tomiji Hirano** Founder of IHI's predecessor, Ishikawajima Hirano Shipyard "Use the power of technology to promote industry and advance our country"

Tomiji Hirano dedicated his life to pursuing this aspiration. His spirit lives on in the unwavering and treasured values of the IHI Group Management Philosophy.

#### Contents

Management Philosophy/Our Sustainability Goal	01
Editorial Policy/Contents	02
Key Points of the Integrated Report 2023	03

#### **Officers' Messages Toward Transformation**

Message from the CEO	•	•	•	·	•	•	•	•	•	•	•		•	•	•	•	•		•	•	05
Value Creation Process	•	•	•		•	•					•						•			•	11
Message from the CFO		•	•		•	•	•		•					•			•	•	•	•	17
Message from the CHRO			•	•	•	•												•	•		21
Message from the CTO			•	•	•	•	•		•	•	•	•	•		•		•	•	•	•	23
Message from the CDXO			•															•	•	•	25
Initiatives for Material Issu	ue	s					•			•						•	•	•			27

#### Implementation Strategy to Realize Transformation

Growth Trajectory	29
Transition in Business Portfolio	31
Financial/Non-Financial Highlights	33
Review of Performance	35
"Group Management Policies 2023"	39
Transforming Business and Business Portfolio	
Growth Business	41
Development-focus Business	43
Core Businesses	45
Response to Operating Environment Changes, Corporate Structure Transformation	
Human Talent Strategy	49
DX Strategy	51
Message from the General Manager of Business Development Headquarters	53

#### **Sustainability Management to Support Transformation**

Dialouge: Outside Director × Institutional Investor	57
Changes in ESG Management & Sustainability	62
Sustainability Governance	63
Stakeholder Engagement	65
Corporate Governance	67
Corporate Officers	75
Data	
Financial Summary	79
Non-financial Summary	81
Global Network	86
Corporate Data/Share Information	87

#### **Editorial Policy**

This report is issued as a communication tool to convey particularly important information regarding fundamental initiatives that support the policies, strategies, and businesses of IHI. Please visit the websites below for more detailed information.

[Financial] https://www.ihi.co.jp/en/ir/ [Non-Financial] https://www.ihi.co.jp/en/sustainable/

#### **About IHI Integrated Report 2023**

#### Scope

IHI Corporation and its major Group companies

#### **Reporting Period**

This report covers fi scal 2022, which began on April 1, 2022, and ended on March 31, 2023.

However, information prior to and after this period may also be included.

#### Guidelines

- International Integrated Reporting Framework, IFRS Foundation
- GRI Sustainability Reporting, Global Reporting Initiative

#### **Cautionary Note Regarding Forward-Looking Projections**

This report contains facts, both past and present, about the IHI Group, as well as forward-looking projections based on our current management plans and policies. These forward-looking projections are made with the information available at the time and are based on numerous assumptions, and are subject to changes in the business environment and operations. Actual results may differ materially from the forecasts.

#### Inquiries

Please contact us via the inquiry form on the IHI website.https://www.ihi.co.jp/ihi/contact/form/form\_ihi\_10707.html

#### On the Cover and Chapter Title Pages

This year marks the start of our new medium-term management plan "Group Management Policies 2023." Our intent for major transformation that is dynamic and speedy is expressed with "light rays" and "bright color tones." [Cover]

The cover expresses the concept that Toyosu became a stage for transformation which was not a mere extension of anything from the past. Now as we prepare to achieve major transformation once again, we reminisce and look to the sea in Toyosu for the newly transformed image. [Chapter Title Page]

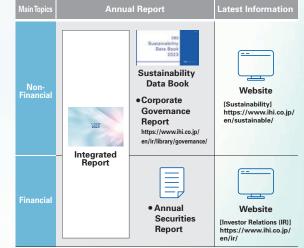




## Guide to Disclosure

#### Framework for Sustainability Information Disclosure

In response to the requests of stakeholders, the IHI Group discloses information through several mediums.



# Key Points of the Integrated Report 2023

The IHI Integrated Report 2023 is structured around "transformation" as the theme. With the medium-term management plan "Group Management Policies 2023," we will undergo a business transformation to achieve strong sustainable growth, and accelerate transformation into a company

that can quickly respond to disruptive environmental changes in order to aim for our sustainability goal.

The report contains information to enable all stakeholders, including shareholders and investors, to understand the feasibility and reliability of such transformation.

## Five Key Points

### Response to main opinions from shareholders and investors

Message from the CEO	The president talks in his own words about management in aiming for our sustainability goal. To transform into a company that can balance sustainable growth for both society and IHI, he talks about his role as the head of management and using his own strengths in management.	<ol> <li>Would like to hear thoughts of the president as to IHI's value creation sto with a long-term perspective.</li> <li>Would like to learn summaries of business areas for FY2022.</li> </ol>	y ≫ P05 ≫ P35
Value Creation Process	The value creation process for the IHI Group is shown in the diagram and details are outlined here. The six types of capital needed to solve major social issues that IHI is working on, business model, and social value as well as value gained by the IHI Group, etc. as a result are organized are displayed as a process.	<ul> <li>Would like to know details regarding the financial strategy in achieving targets financial strategy in achieving targets financial strategy in achieving targets for the "Group Management Policies 2023</li> <li>Would like to know about human resource transformation and the human resource strategy.</li> <li>Would like to learn about the technolog strategy for the IHI Group overall.</li> </ul>	or 》 P17
Officers' Messages	Officers in charge of Financial, Human Resources, Technology, and DX each explain in their own words. They talk about the role of management in implementing the medium-term management plan "Group Management Policies 2023," as well as policies and strategies toward achieving our sustainability goal.	<ol> <li>Would like to know about the DX strategy and initiatives.</li> <li>Would like to get an overview of the "Group Management Policies 2023".</li> </ol>	》 P25, P51 》 P39
Implementation Strategy	Specific strategies for the Growth, Development-focus, and Core Businesses in the "Group Management Policies 2023", along with DX strategy and human resource strategy to support them, are outlined here. For the Development-focus Business, business scale of the ammonia value chain is discussed.	<ul> <li>Would like details regarding exploit an evolution of LCB.</li> <li>Would like to learn in detail about the Growth, Development-focus and Core Businesses.</li> <li>Would like to learn details of the ammonia value chain.</li> </ul>	// <b>F45</b>
Sustainability Management	Governance in promoting ESG management is laid out. The dialogue between Zuhair Khan (UBP Investments) and our Outside Directors contains discussions on current issues facing IHI governance as seen by Outside directors.	<ul> <li>Would like to learn about business sca and strategy for the Development-foct Business.</li> <li>Would like to hear about the roles and ideas of Outside Directors.</li> </ul>	s   P53

# **Officers' Messages Toward Transformation**

Message from the CEO			 	 	05
Value Creation Process		• • • • •	 	 	11
Message from the CFO	• • • • •		 	 	17
Message from the CHRO			 	 	21
Message from the CTO			 	 	23
Message from the CDXO			 	 	25
Initiatives for Material Issues			 	 	27

Establishing the New IHI Group: Breaking Away from Stereotypes, Resolving Social Issues with a Sense of Scale and Urgency

Project Change ended in FY2022, and the medium-term management plan "Group Management Policies 2023," began from FY2023. We will take on challenges for new initiatives that are not a continuation of the past.

President and Chief Executive Officer Hiroshi Ide

# **Resonating to Our Management Philosophy and Corporate Culture**

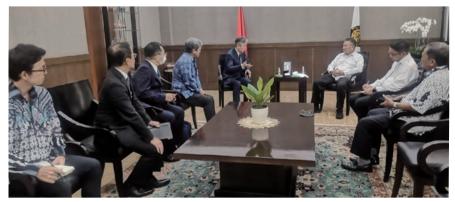
What kind of work would you like to be involved in at IHI Group in the future? When this year's newly hired employees were asked this question, almost all replied that it would be solving social issues. This response was given regardless of workplace assigned or the background of the individuals.

In various discussions that took place up to announcement of the IHI Group's ESG Management in November 2021, most officers and employees were in agreement that ESG management is the essence in resolving social issues. As a result of discussions, it was decided that the IHI Group's ESG Management would be the solving of social issues through business activities and achieving a sustainable society.

In this way, all within the IHI Group's desire to solve social issues. We believe this strong-rooted corporate culture is our strength.

The IHI Group's Management Philosophies are "Contribute to the development of society through technology," and "Human resources are our single most valuable asset." The first management philosophy involves "technology," which is the collective embodiment of technology (skills, talent) held by individuals (employees). Individuals (employees) refer to "human capital (resources)" that are part of the other management philosophy. The IHI Group's technology is not that which exists solely on its own, but all of which is linked to human capital. These two management philosophies are combined into one, enabling human capital possessing technology to maximize their capabilities. Leveraging this strength, we will take on the challenge of solving society's major issues. Social issues such as carbon neutrality are grave problems. Realizing a business that can achieve carbon neutrality is affected by how countries and societies change. Business cannot be successfully carried out unless it integrates policies and visions of countries. It is important now more than ever for all officers and employees, including myself, to hold dialogue with and attend to various stakeholders.

Last year in September, I visited Indonesia where initiatives are currently being proactively carried out to achieve carbon neutrality. I introduced the IHI Group's carbon solutions business, such as ammonia combustion and methanation, to government agencies and exchanged opinions. Thereafter, in October of last year, we conducted ammonia combustion at the Gresik Thermal Power Plant in Indonesia. The IHI Group is taking various other actions in Indonesia as well, such as collaborating on fuel ammonia, utilizing palm waste effectively as a fuel, concluding a Memorandum of Understanding (MoU) for exporting synthetic methane from Japan, and moving up start of business in forestry management. I feel that close dialogue held with stakeholders on a daily basis regarding the management philosophy is leading to such results.



Scene from opinion exchange held at the Ministry of Energy and Mineral Resources

# From Project Change to "Group Management Policies 2023"

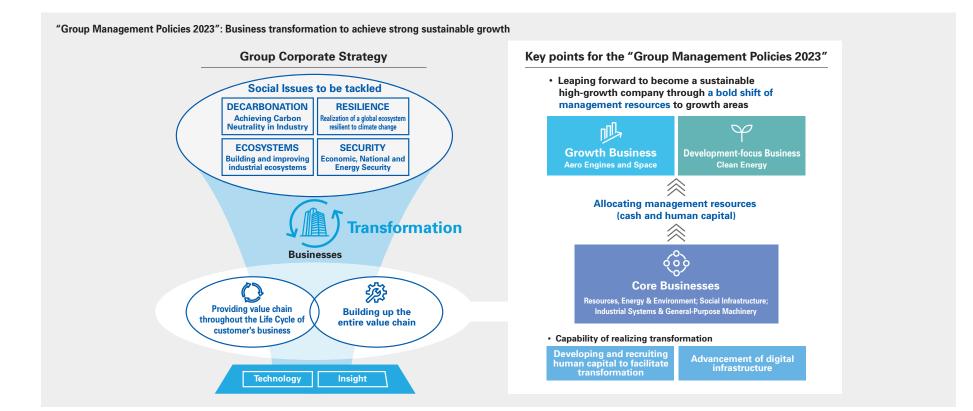
The medium-term management plan Project Change lasted until the year ended March 31, 2023, and from this fiscal year, the "Group Management Policies 2023" is underway. Project Change was positioned as a preparation and transition phase for business transformation in response to operating environment changes. There were four areas of focus for which initiatives were taken, i.e., "Return to growth trajectory," "Business structure to overcome environmental changes," "Financial strategies," and "Create growth businesses." The greatest achievement can be said to be growth in lifecycle businesses by focusing effort into businesses that not only supply products and services, but also provide value throughout life cycles. In FY2022, Lifecycle Business revenue for three businesses

excluding the Aero Engine, Space & Defense business achieved an increase of 35% against a plan of 30% increase compared to FY2019. This was made possible by the dedication of various employees including those in services and on-site. Changes in a sense of value regarding work by the employees helped to enhance value provided to customers, and contributed to the increase in the IHI Group's profit. Meanwhile, issues remain in generating operating cash flow. Operating cash flow in FY2021 was a record high of 114.1 billion yen, but in FY2022 the figure did not reach even half that. To generate operating cash flows that is to become the source of funds for investments in the future, it is necessary to establish a system that will organically tie the businesses together and heighten overall strength of the Group.

Also, corporate divisions need to become a firm foundation to carry out various strategies. Such issues remain, but preparations are underway for business transformation after Project Change. Meanwhile, the social environment is extremely unstable, and that is becoming the norm. Given such circumstances, in formulating the new medium-term management plan "Group Management Policies 2023," the IHI Group reviewed issues and selected four to work on, namely: "Realizing a carbon-neutral society," "Achieving a global ecosystem resilient to climate change," "Building and improving industrial ecosystems," and "Economic, national, energy security." "Building and improving industrial ecosystems" was newly added. Thus far, energy and labor savings for customers were often considered on an individual basis. The perspective of an ecosystem, which is the involvement of the entire system including products, was not included. We have come to believe that this perspective is an important one.

Aiming to resolve the issues faced by customers, industry, and society, the IHI Group will transform businesses with the "Group Management Policies 2023," working from multiple

perspectives to provide value across the life cycle of customer's businesses, create and improve the entire value chain, while leveraging the technology and insight of the IHI Group. To implement this transformation, we will promote the recruiting and developing human capital and the advancement of digital infrastructure. Based on this concept, the businesses of the IHI Group are classified into three businesses: the Growth Business (Aero Engines and Space), the Development-focus Business (Clean Energy including ammonia), and the Core Businesses (Resources, Energy & Environment, Social Infrastructure, Industrial Systems & General-Purpose Machinery). Focusing on Lifecycle Businesses, value chain perspectives, and fluidity, the idea of classifying businesses vertically into four business areas, i.e., Resources, Energy, & Environment; Social Infrastructure; Industrial Systems & General-Purpose Machinery; and Aero Engine, Space, and Defense, has been changed, and a decisive shift is being made to apply management resources from the Core Businesses to business fields that are positioned as the Growth and Development-focus Businesses. For example, to realize the Ammonia Value Chain business that the IHI Group is currently



promoting, appropriate allocation of technology and funding and human capital to the correct locations that go beyond the boundaries of the four business areas is needed. Out of the Growth, Development-focus, and Core businesses, we believe Clean Energy, which is a Development-focus Business, is the one that must be developed the most going forward. However, as there are many uncertain factors in how operations related to the Development-focus Business will develop. Aero Engines and Space is being positioned as the Growth Business so as to drive even more certain growth for the IHI Group. Regarding Aero Engines, long-term initiatives will be taken such as sustainable aviation fuel (SAF) and hydrogen fuel, for lighter weight and electrification which are initiatives for carbon neutrality in aircrafts, in addition to growth in existing aero engines. The aviation business, including the current defense-related business, is being expected to generate profit. In Resources, Energy & Environment, Social Infrastructure, and Industrial Systems & General-Purpose Machinery which are positioned as the Core Businesses, the IHI Group will prioritize strengthening its cash generation through meticulous business structural reforms and generate management resources to be invested in Growth Business and Development-focus Business, in addition to a growth strategy based on exploitation and

evolution of Lifecycle Businesses.

Again, the perspectives of "lifecycle" and "value chain" are vital in all of the businesses. With the energy business in particular, the IHI Group up until now had only been taking on a portion of EPC (engineering, procurement, and construction). By taking on the perspective of value chain, new business opportunities can be discovered. The Ammonia Value Chain business, for example, began with combustion technology to use ammonia as fuel for boilers. By taking the life cycle regarding ammonia as fuel, and considering the overall value chain for fuel from production, storage, transport, to utilization, ideas for business changed significantly. Each of the processes in the value chain contains issues that need to be resolved, and we have come to realize that we possess the technology necessary for such resolution.

Not limited to the Ammonia Value Chain, we will promote transformation into businesses that can achieve strong sustainable growth from the perspectives of providing value chain throughout the life cycle of customer's business and establishing value chains in all businesses.

# Practicing ESG Management and Holding Dialogue with Stakeholders

As we recognized the need for management that faces up to social issues that gives consideration more than ever to the natural environment and to society, and that can gain the trust of stakeholders, that is essentially ESG (Environment, Social, Governance) management, the IHI Group's ESG Management started in November 2021. In the future, it will become important more than ever before to practice ESG management in order to establish the new IHI Group that will balance its own strong sustainable growth with the sustainable growth of society, while responding to a new social environment in which instability becomes the norm.

To further spread ESG management, we must deepen the understanding of ESG across the Company and have all officers and employees need to make it personal. For example, with "Social (S)," we must ensure that everyone can correctly understand respecting the human rights and accepting diversity of all in the workplace, feel personally responsible and take action accordingly. I believe that my role is to encourage these actions.

Four especially material issues in ESG management are "climate change," "human rights," "diversity and inclusion," and "securing and maintaining stakeholder trust," and this holds true in the "Group Management Policies 2023." Resolving social issues lies at the root of the IHI Group ESG Management. Balancing social and corporate sustainability and leading it to medium- to long-term value creation is the essence in ideal IHI Group management. Again, the core of this medium- to long-term value creation is the close dialogue with stakeholders that leads to awareness reform of ESG internally and to material issues. We must broaden the range of stakeholders for dialogue and incorporate the feedback gained into the management policies and business strategies, for a repetitious virtuous cycle. For example, we began dialogue and engagement with non-governmental organizations (NGOs) and non-profit organizations (NPOs) last fiscal year. We, as a company, lend an ear to understand opinions of civil society, object at times, and discuss what we can do together.



In practicing ESG management, the IHI stance is changing to one that targets potential stakeholders with a "come and join us" strategy. Thus far, information on technology being developed was not communicated externally until it could be demonstrated to a certain degree. For example, success with ammonia combustion in small-scaled gas turbines would not have been disclosed to the public in the past. However, since this was a world's first technology that we had been working on for over ten years, we believed it necessary to quickly communicate this fact to our stakeholders even though it was a 2MW small-scaled

gas turbine, We hope to actively communicate and share information not only on results, but also the process leading up to them.

Issues we are facing today are extremely complex, and in looking at the trends of the times, resolution is not possible by one country or one corporate group alone. To contribute more to the creation of an even better sustainable society, we hope to share issues with a wide range of stakeholders, form new partnerships, and run alongside each other toward solving social issues.

# Human capital for Transformation That is Being Expected of IHI

Policy regarding coordinated acquisition of human capital for transformation, a priority issue, was presented as human capital strategy for this fiscal year. In most cases thus far, human capital were kept by business divisions within which they worked. However, in implementing the "Group Management Policies 2023," we felt we should shift from the conventional idea of dividing businesses by business field into four classifications to a concept in which human capital can be allocated flexibly beyond the boundaries of organizations. To promote business transformation, it is necessary to create opportunities for human capital to be flexibly moved to leverage their expertise, instead of limiting their positioning within confines of business divisions. While the overall picture of what constitutes human capital for transformation for the IHI Group may not be complete, it is human capital that take on new challenges that are at the very least not an extension of the past. Some business divisions had human capital with intent and ability to go beyond frameworks to face new challenges in addition to their existing work. To identify such human capital and allocate them flexibly beyond the boundaries of businesses, visualization of human capital and systems are needed. The IHI Group positions "diversity and inclusion" as one of the material issues. I strongly wish for employees to be able to work in an environment where they can feel their own growth. The current management is in thorough discussions as to how employees and their expertise can be leveraged and as to evaluation and treatment that appropriately match their

abilities. Discussions are being held to create a tailor-made system in which purpose can be found in working for the IHI Group and that can attract human capital.



Scene from dialogues between CEO Ide (right) and employees

# **Breaking Away from Stereotypes**

I have continued to promote the importance of breaking away from stereotypes and appealed to employees to create a corporate culture where characteristics and experience of each person can be leveraged, which will be defined as the new IHI Group. However, simply relaying that will not cause significant change within the company. Therefore, as one measure in breaking away from stereotypes, we decided that the honorific "(Family Name)-san" would be used to address everyone. Some employees were apparently uncomfortable at first to use "(Name)-san" instead of official job titles, but its use actually spread much faster within the Company than I had imagined. We also eliminated restrictions regarding attire at the head office starting this April. Now, we have employees who remain in the conventional suit and tie as well as those who come to the office wearing T-shirts and jeans – there are officers who participate in management meetings wearing hoodies. Management leaders of other companies have said "Are you serious? That IHI?" But I feel that being able to choose what you wear and to be yourself has helped us to break away from stereotypes.

Everyone has stereotypes, but they might change if a chain reaction occurs. I was told within the Company at first that using "san" would not uphold discipline. To this I asked in return, "Do you go about your work by using your job title?" As long as artificial hierarchies made from seniority are not first destroyed, I believe new ideas cannot be created at the IHI Group and it will not grow. What to destroy and what to leave intact must be made clear. I believe that is something only I as President can do, and have created a trigger to change the system.

When we changed names from Ishikawajima-Harima Heavy Industries to IHI in 2007, the words "Heavy Industries" were removed from the company name. This can be said to be a major shift. The IHI Group has a corporate culture that is able to accept such shift and change without resistance. There may be a sort of an underlying mentality that is flexible, where if I ask our officers, "So, should we do it?" they would reply, "Good idea!"

Creating a workplace culture that allows free thinking and speaking out is necessary to establish the new IHI Group.

# To Establish the New IHI Group

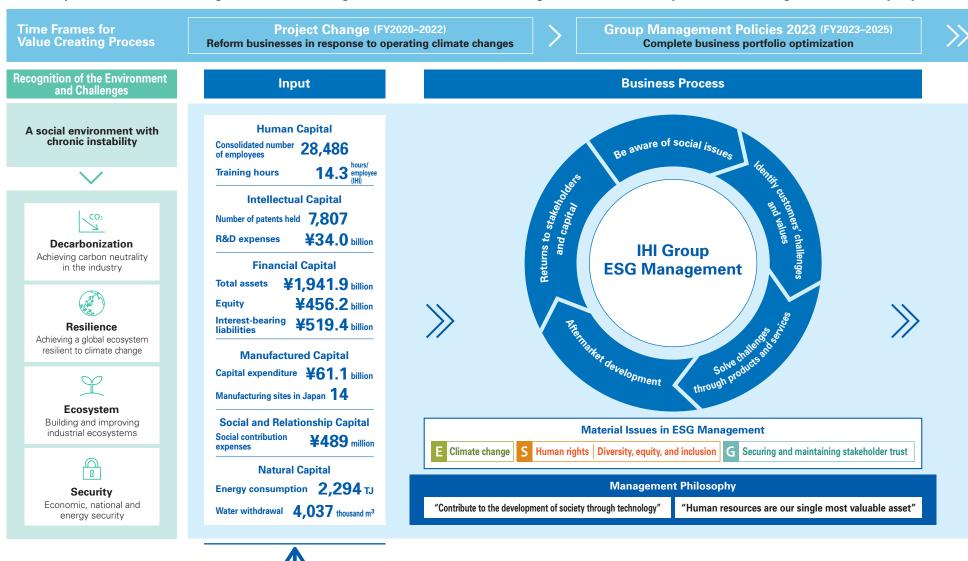
The vision of the IHI Group to "create a world where nature and technology work in unity" is a challenge toward something that was not possible thus far. The IHI Group will be marking its 170th anniversary this year. Over various eras, it has faced many obstacles and problems, challenged them head on, and always worked in earnest to find solutions. On the other hand, in the process, there were times when consideration of the natural environment was insufficient as priority was placed on economic rationality. However, I believe we can learn from the past and apply the core values we have developed so that the IHI Group will play a major role in creating a better society. To realize a world where nature and technology work in unity, I will shift toward implementation through guidance for the top with a sense of scale and urgency.

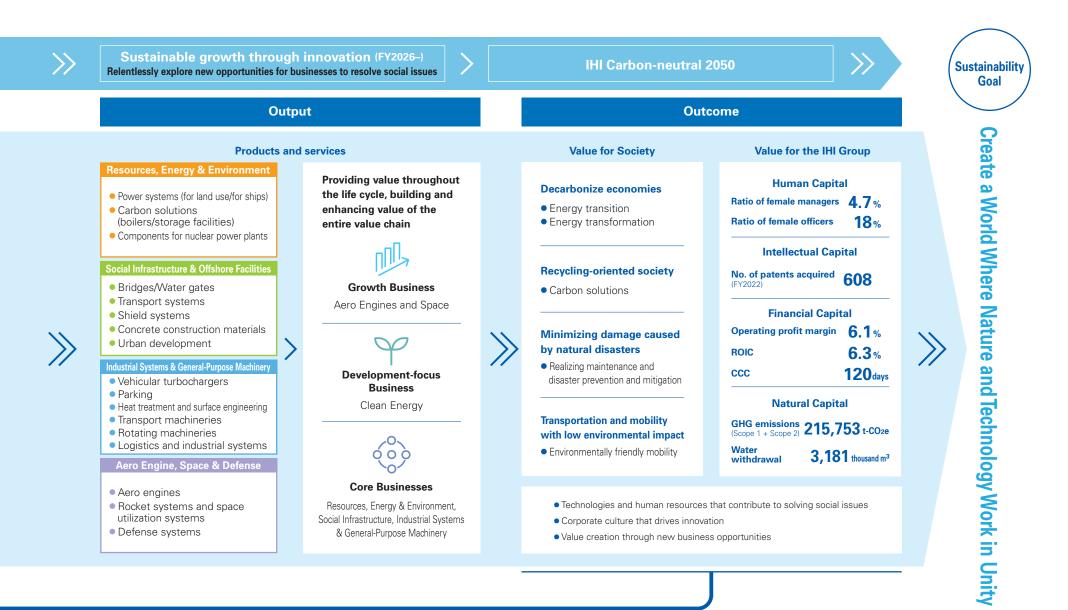
By "guidance for the top," it is to mean all employees of the IHI Group, as it is diverse human capital that play a central role in generating value. In Japan, nationality and gender are often used to exemplify diversity, but characteristics and experience of individuals can also be said to be diversity. It is stereotypes, which everyone has, that resists diversity, and a culture that doesn't allow objection against what one feels is not the way forward. Creating a workplace culture where free thinking beyond the framework of traditional stereotypes and voicing opinions is required in establishing the new IHI Group.

It is here that I will take the lead in promoting transformation to aim for our vision. Achieving transformation and finding business opportunities in solving social issues that lead to mediumto long-term generation of social value and enhancing corporate valbue is the role of management and a responsibility toward our stakeholders.

In formulating its medium-term management plan, "Group Management Policies 2023", the IHI Group recognized the social environment and set itself four challenges.

The Group is committed to solving social issues through its business, and to achieving a sustainable society and sustainable growth as a company.





# Identification Process of Material Issues and Initiatives for Particular Important Issues in ESG Management

The IHI Group has identified material issues to be prioritized to achieve sustainable growth as a company and realize a sustainable society.

Our ESG management considers the following to be material issues for our objectives: implementing global

climate change countermeasures, respecting the human rights of people involved in our business operations, maintaining a diverse and inclusive workforce as a driving force of value creation, and securing stakeholder trust with earnest corporate management.

#### Reference Page

- P27 Initiatives for Material Issues
- P63-64 Sustainability Governance

#### • Identification Process of Material Issues

#### Identify Material Issues According to Our Future Aspiration

Step 1 Extract issues	<ul> <li>Social issues, recognized worldwide, are extracted by utilizing the following:</li> <li>Sustainability data public guidelines (GRI Standards, etc.)</li> <li>SDGs</li> <li>ESG rating standards (FTSE, MSCI, and DJSI)</li> <li>Society 5.0 (Japanese Business Federation, "Keidanren")</li> </ul>									
Step 2 Confirm the conformity	Each social issue extracted in Step 1 is verified regarding its conformity to internal corporate policies and/or other unique company traits such as the following:									
of social issues	<ul> <li>Group Management Policies 2019, Project Change</li> <li>Internal policies including the Basic Code of Conduct for the IHI Group</li> <li>Information regarding the IHI Group's risks</li> </ul>									
Step 3 Identify material issues	Considering Step 1 and Step 2, a total of 16 material issues have been identified.									
$\bigotimes$	Among the 16 material issues, 4 issues of particular importance for ESG management have been identified.									
Step 4 Identify issues of particular importance	Climate change Human rights Diversity, equity, and inclusion Securing and takeholder trust									

	Material Issues	Main Initiatives
Environment E	Climate change	Taking measures against climate change through products and services         • Development and social implementation of technologies to achieve carbon neutrality         • Helping provide economic infrastructure that is resistant to natural disasters <b>Reducing GHG emissions</b> • Using energy efficiently         • Using less carbon energy
	Human rights	<b>Promoting human rights due diligence</b> <ul> <li>Human rights risk assessment, countermeasures, and monitoring</li> <li>CSR procurement monitoring for business partners</li> </ul>
Society S	Diversity, equity, and inclusion	Human resource management and development           • Promoting institutional reform and fostering a corporate culture that evaluates the reform challenges           • Conducting employee awareness surveys to increase engagement           • Developing educational programs that enable diverse human resources to grow and play active roles <b>Diversity, equity, and inclusion</b> • Active participation by diverse human resources (women, employees with disabilities, etc.)           • Secondary jobs outside of the Company, or additional jobs within it
Governance G	Securing and maintaining stakeholder trust	Improving corporate governance         • Evaluate Board of Directors' effectiveness with displayed results         Through compliance         • Compliance Hotline operation         Through risk management         • Review of risk management activity by the Board of Directors         Innovative management         • Concentrating research funds and human resources toward focus areas         Improving information security         • Taking measures to prevent security risks from three angles: rules, tools, and training         Providing timely and appropriate information         • Dialogue with stakeholders through financial result briefings, individual meetings, etc.

# **Risks and Business Opportunities**

The IHI Group treats the appropriate identification of "risks" and "opportunities" arising from changes in the business environment as an issue for the entire group, and is working to identify risks that may be latent in business reformation beyond the boundaries of conventional businesses in the changing environment, to determine and analyze significant risks, and to promote flexible risk management.

# (1) IHI Group's basic policies for risk management and risk management system

The IHI Group recognizes that risk management is one of the top business priorities for the Group, and strives to reinforce its overall capabilities in that regard. The basic objectives of risk management are ensuring business continuity, ensuring the safety of executives, employees and their families, protecting management resources, and maintaining public trust in the Group. The seven action guidelines for risk management are as follows.

#### ① Ensure the continuity of the IHI Group's business operations.

- 2 Improve the public reputation of the IHI Group.
- **③** Protect the IHI Group's managerial resources.
- **4** Avoid jeopardizing stakeholders' interests.

# (5) Achieve recovery from damage as soon as possible.(6) Take responsible action when an issue arises.

#### **⑦** Meet public requirements regarding risks.

The IHI Group established the Risk Management Conference chaired by the CEO. The Conference assesses key general risk management matters, and considers policies, annual plans, corrective measures, and other important matters. The Group formulated "IHI Group Key Risk Management Policies" as for the risks to be treated on a priority basis, and all parent units and Group companies in Japan and abroad independently pursue risk management in keeping with those policies.

#### (2) Risk management activities for FY 2023

In terms of major themes on "IHI Group Key Risk Management Policies" for FY 2023, the IHI Group will focus on the following matters.

# ① Response to risks that hinder to secure a robust business operation foundation

#### • Compliance

The IHI Group aims to improve awareness about compliance, which forms the core of its corporate activities, through group-wide efforts.

#### • Quality assurance

In accordance with the IHI Group Quality Declaration, we are working to strengthen our quality assurance system by raising of employee awareness and creation of employee-friendly workplaces.

#### Economic security

The IHI Group is working to build a system that can respond quickly and accurately to changes, identifying and addressing risks, fostering employee awareness, and thoroughly managing security trade.

#### Information security

In light of the growing threat of cyberattacks, the IHI Group is taking measures to minimize and prevent damage from them.

#### • Upholding human rights

The IHI Group is fostering a corporate culture respectful of human rights and promoting initiatives to respect human rights throughout its business activities. At the same time, we are working to eradicate harassment to build a workplace environment where all employees can play active roles.

#### • Human resource risks

The Group is working on acquiring the human resources required for business activities, preventing human resource outflow, and motivating and reskilling employees for resource shifts.

#### **(2)** Response to risks that hinder to execute business scenario

The IHI Group is prioritizing the management of risks that impair the ability of the four Business Areas to execute their respective strategies in order to respond to them quickly and appropriately, while keenly grasping the drastic changes in the business environment surrounding the IHI Group. In order to systematically check the latent risks in the business plan, the IHI Group are also constantly assessing and confirming the response plans and implementation progress for a wide range of business-related risks and, if needed, executing revision to the response plans including risk assessment.

#### (3) Business risks

The items below are some of the main risks that could potentially adverse impact on the operating results and financial position of the IHI Group.

#### **1** Social responsibility

- A. Laws and regulations (compliance)
- B. Quality assurance
- C. Environmental conservation
- D. Human rights
- E. Health and safety

#### **2** Preparation for changes in external environment

- A. Competitive environment and business strategy
- B. Partnerships, M&A, and business integration
- C. Country risk
- D. Economic security
- E. Natural disasters, disease, conflict, terrorism

#### **③ Management Resources & Business Operations**

- A. Securing human resources
- B. Currency movements
- C. Interest rate movements
- D. Fund procurement, credit ratings
- E. Loan guarantees
- F. Taxation
- G. Management of credit exposure
- H. Information security
- I. Research and development
- J. Intellectual property management
- K. Technology license contracts
- L. Project management
- M. Procurement & Logistics
- N. Production, manufacturing

# Six Types of Capital

·	Basic Policy	Capital
Human Capital	The IHI Group established the Group Human Talent Strategy 2023 linked with the "Group Management Policies 2023." In order to achieve business transformation and corporate structural reform, we will implement human talent strategies aiming to balance a good-standing & resilient company and individual growth & happiness.	<ul> <li>Consolidated number of employees 28,486 (Japan 21,266, Overseas 7,220) (Consolidated)</li> <li>Ratio of female managers 4.7%, ratio of female officers*1 18% (IHI)</li> <li>Amount spent for education/training ¥23,512/employee, Training hours 14.3 hours/employee (IHI)</li> </ul>
intellectual (Technological) آب Capital	We will work on technology development to continuously provide new value, aiming to solve issues faced by society and our customers. Aiming to strengthen the competitiveness of Core Businesses, expand Growth Business, and create business in Development-focus Business, we will conduct everything from basic research to practical application in collaboration with a variety of partners.	<ul> <li>R&amp;D expenses ¥34.0 billion (FY2022 result), ¥40.0 billion (FY2023 forecast)</li> <li>Number of patents held: Japan 3,989, Overseas 3,818 (FY2022)</li> <li>Number of patents acquired per year 608 (FY2022 result)</li> </ul>
Financial Capital	We will strengthen our cash flow generation and actively invest in business transformation to achieve sustainable high growth, while balancing the expansion of our financial base and shareholder returns. The basic policy in stockholder returns is stable dividends, and we will aim for a consolidated dividend payout ratio of around 30%.	<ul> <li>• Total assets ¥1,941.9 billion</li> <li>• Equity ¥456.2 billion</li> <li>• Interest-bearing liabilities</li> <li>• Y519.4 billion</li> <li>• Operating profit margin 6.1%</li> <li>• ROIC (after tax) 6.3%</li> <li>• CCC 120 days</li> </ul>
Manufactured Capital	Through our products and services, we aim to solve social issues and realize a safe, secure, and affluent society. We aim to establish manufacturing sites that place the highest priority on the safety and quality of our products and services, minimize environmental impact, and give full consideration to the safety of our employees.	<ul> <li>Capital expenditure ¥61.1 billion (FY2022 result), ¥84.0 billion (FY2023 forecast)</li> <li>Manufacturing sites in Japan 14 (IHI 6, subsidiaries 8)</li> </ul>
Social and Relationship Capital	We established the ESG Management Promotion Committee in FY2021 and are reinforcing our sustainability promotion system. We uphold human rights, customer relationships, supply chain management, corporate citizenship, and others as material issues to engage with the social and relationship capital.	<ul> <li>Overseas bases <b>21</b> (As of April 1, 2023)</li> <li>Social contribution expenses ¥<b>489</b> million (FY2022 result)</li> </ul>
Natural Capital	We established the Environment Committee chaired by the officer in charge of ESG-related matters. The Committee deliberates and determines the measures to address climate change, resource recycling, and environmental protection in plants and offices. The Environmental management system has been established at each primary production plant as we strive to enhance the level of environmental management.	<ul> <li>Energy consumption 2,294 TJ (FY2022 result)</li> <li>Water withdrawal 4,037 thousand m<sup>3</sup> (FY2022 result)</li> <li>GHG emissions (Scope 1 + Scope 2) 215,753 t-CO<sub>2</sub> (FY2022 result)</li> <li>Waste water 3,181 thousand m<sup>3</sup> (FY2022 result)</li> </ul>

\*1 Directors and Audit & Supervisory Board Members

#### Strategies to Achieve "Group Management Policies 2023"

To achieve strong sustainable growth and transformation, we will (1) recruit and retain human capital to facilitate transformation and internalize their knowledge, (2) boldly and constantly shift human capital, and (3) reconsider the evaluation and action standards for human talent strategies, with emphasis on fostering an organizational culture centering on ESG.

We will provide value chain throughout the lifecycle of customer's business and build up the entire value chain from multiple fronts and promote business transformation. We will accelerate technology development by focusing R&D expenses and human resources to achieve the future aspirations of the Growth Business, Development-focus Business, and Core Businesses.

We will aim to achieve an operating profit margin of 7.5% and 100 days in CCC through expansion of LCB (lifecycle business), strengthening earnings foundations and other means. We will leap forward to become a sustainable high-growth company by generating ongoing operating cash flow of 100.0 billion yen or more and investing about half of the total investment budget of 500.0 billion yen in Growth and Development-focus Businesses.

In addition to realizing exploit and evolution of LCB in each business, we will make capital investments to accelerate production and business transformations leveraging digital transformation. At the same time, we will transition to manufacturing facilities that enable us to monitor and control  $CO_2$  emissions to achieve carbon neutrality.

We will promote dialogue with our stakeholders, including customers, employees, supply chain, and local communities, with the aim of achieving strong sustainable growth by solving the issues faced by society and our customers. Through this dialogue, we will endeavor to build a deep relationship of trust and responsiveness to operating environment changes that can withstand the transformation being promoted by the IHI Group.

We will promote environmental conservation and reduction of environmental impact at our plants and offices so that we can sustainably use natural capital, and at the same time, we will expand development and sales of environmentally friendly products. We aim to create business opportunities for low-carbon and decarbonization by strengthening business development aimed at energy conservation and reduction of environmental impact in the life cycle of products and services.

# **Social Values to Be Created**

### Value for Society

# Decarbonize economies Energy transition Energy transformation

#### **Recycling-oriented society**

Carbon solutions

# Minimizing damage caused by natural disasters

 Realizing maintenance and disaster prevention and mitigation

#### Value for the IHI Group

- Technologies and human resources that contribute to solving social issues
- Corporate culture that drives innovation
- New business opportunities

# Having established an earnings foundation for business transformation, we will execute growth investments on an unprecedented scale in order to make a leap forward toward becoming a sustainable high-growth company



# **Evaluation of Project Change**

As a period of preparation and transition toward business portfolio optimization, we undertook the following two initiatives under Project Change, which completed its term in the fiscal year ended March 31, 2023. (i) Transformation of business model from a business centered on products and services to a business that provides value to all stages of the life cycle (lifecycle businesses; LCB), (return to a growth trajectory); (ii) Creation of new businesses such as ammonia value chain, air transportation systems, and maintenance and disaster prevention and mitigation (creation of Growth Business).

During the period of Project Change, the business environment was difficult due to factors such as the spread of COVID-19, conflict between Russia and Ukraine. insufficient supply of semiconductors, and soaring prices of materials and equipment. In particular, we saw a decline in the performance of the civil aero engine business. However, this was offset by increased profits in the three onshore heavy machinery domains, where profitability was enhanced by the improvement of management methods for long-term and large-scale construction that we had been already working on. As a result, the operating cash flow (hereinafter, "operating CF") for fiscal 2021 was 114.1 billion yen, exceeding 100 billion yen for the first time. The operating profit for fiscal 2022 was 81.9 billion yen, a record-high level, and the revenue of the lifecycle business (LCB) increased by 35% compared to fiscal 2019. We evaluate that the company has made steady progress in strengthening its earnings foundations and accelerated its preparations for business transformation.

# Financial and Capital Strategy and Future Initiatives under the "Group Management Policies 2023"

Under the "Group Management Policies 2023" announced in May 2023, we will continue to reform our business model in order to make a breakthrough into a company that can achieve sustainable high growth. The cash generation capabilities strengthened during the period of "Project Change" will support this reform. In the "Group Management Policies 2023," we have set an investment budget of 500 billion yen for three years. The source of funds of this investment is the cash generated through business activities. More than half of the investment budget will be allocated to the Growth and Developmentfocus Business, and the remaining half will be allocated to maintaining the competitiveness of the Core Businesses. In addition to the above, we plan to invest on an unprecedented scale, including approximately 30.0 billion ven for each fiscal year (equal to a total of 90.0 billion yen over three years) as expenses to realize transformation (increased investment in R&D and human resources, and

investment in structural reforms). As a result, the management targets (operating profit margin: 7.5%; ROIC: 8% or higher; CCC: 100 days) are slightly below the targets of "Project Change." However, we have determined that during the period of the "Group Management Policies 2023," we should prioritize investment in growth from a medium- to long-term perspective, rather than pursuing profits from a short-term perspective.

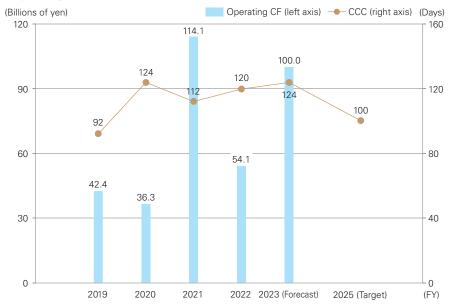
The background to this decision is that the criteria for performance evaluation and investment decisions have come to emphasize not only short-term "economic value" but also "social value." "Social value" is created by resolving social issues through business, however after a certain period of time (20 to 30 years), it must be replaced by economic value which contributes to the enhancement of our corporate value. We believe that the clean energy domain is not only a vital part of the company's business strategy, but it is also an area where IHI Group's dreams are made of. For investments in such businesses, we discuss the possibility of investment return from a long-term perspective, placing emphasis on the business plan and story. This is because we may miss new business opportunities and growth opportunities if we make decisions based only on conventional quantitative indicators. In investment decisions, financial managers including myself often put on the brakes (i.e., be defensive) in consideration of various risks. However, during the period of the new medium-term management plan, I believe that we must also play an accelerating role (i.e., be on the offensive) in encouraging the top management and business areas.

Basically, the investments will be funded by cash generated from business operations, but we are not always cash rich. We will also utilize sustainable finance in order to make flexible investments. As a company that places ESG at the core of its management, we see business operations and sustainable finance as integral parts of one another, and the clarity of the use of funds will enhance the quality of our financing.

#### • Revenue and Operating Profit Margin, ROIC



#### • Operating CF and CCC



#### Transformation of our Core Businesses and improvement of capital efficiency in Growth Business are keys to achieving ROIC 8%

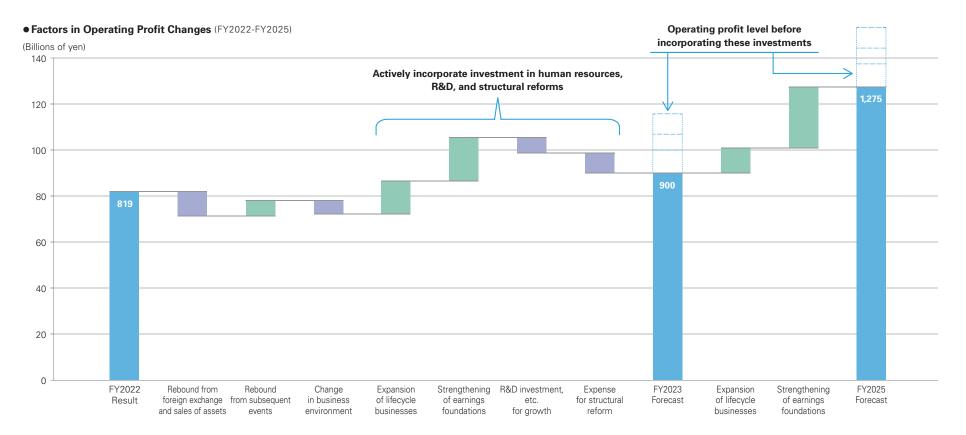
The key to success in achieving the ROIC target of 8% or higher in fiscal 2025 will be the degree to which we can exploit and evolve LCB in our Core Businesses and improve profitability and capital efficiency in our Growth Business.

Since LCB requires little capital investment and is expected to have stable and high profitability, we will promote the expansion of LCB in our Core Businesses. Our Growth Business, such as aero engines and space, are expected to play the role of driving the company's growth. However, it is important to control working capital and increase efficiency since the financial burden of working capital tends to be heavy in this area. By promoting DX for inventory and production management and visualizing the movement of goods, we will build a system to maintain working capital at an appropriate level even during periods of business expansion.

Raising the awareness of each and every employee is necessary to achieve management targets. While it is important to present and implement specific measures, this is not sufficient. Employees' mindsets will not change unless the management continues to emphasize that they are committed to achieving the targets. True reform will not be realized unless we can identify and break through the challenges that stand in the way. Improvements can be made, but reforms are necessary to establish them.

#### Approach to shareholder returns

As we move forward with proactive investments for transformation, we must also be aware of the need to enhance shareholders' equity as a risk buffer, i.e., secure financial soundness. We will also enhance shareholder returns to this end. The basic policy in shareholder returns is stable dividends, and we are aiming for a consolidated dividend payout ratio of around 30%. While share buybacks is an option, during the period of "Group Management Policies 2023," we will prioritize the



#### 19 IHI Integrated Report 2023

allocation of cash generated to growth investments. We believe that if our efforts are appreciated by the capital market, our share price will rise over the medium to long term, leading to returns to our shareholders.

#### Securing and maintaining stakeholder trust

Until now, we have disclosed information of the company mainly focused on past performance, and have not been able to adequately present a medium to long-term growth story. We would like to use the mandatory disclosure of sustainability information beginning with the annual securities report for fiscal 2022 as an opportunity to strengthen our communication of a value creation story that integrates financial and non-financial value. In order to

create "a world where nature and technology work in unity," which is our sustainability goal, we must aim to become a corporate entity that achieves sustainable high growth. We will engage in constructive dialogue with the capital market and our stakeholders to gain their understanding that the major growth investments we will make over the next three years are necessary to achieve this goal.

Such enhanced dialogue not only leads to the realization of the "G" (Governance) in ESG management, and "securing and maintaining stakeholder trust," but is also expected to reduce the capital cost and increase the ROIC spread (ROIC-WACC: Capital cost). We will enhance our corporate value by promoting IR activities that gain a high degree of trust from the stakeholders.



IFRS Standard								
	FY2019	FY2020	FY2021	FY2022	FY2023 (Forecast)			
Orders received	1,280.0 billion yen	1,097.0 billion yen	1,261.2 billion yen	1,366.1 billion yen	1,500.0 billion yen			
Revenue	1,263.1 billion yen	1,112.9 billion yen	1,172.9 billion yen	1,352.9 billion yen	1,450.0 billion yen			
Operating profit	47.8 billion yen	27.9 billion yen	81.4 billion yen	81.9 billion yen	90.0 billion yen			
Profit attributable to owners of parent	8.2 billion yen	13.0 billion yen	66.0 billion yen	44.5 billion yen	50.0 billion yen			
Operating cash flow	42.4 billion yen	36.3 billion yen	114.1 billion yen	54.1 billion yen	100.0 billion yen			
Investment cash flow	-85.5 billion yen	-40.4 billion yen	27.9 billion yen	-52.3 billion yen	-100.0 billion yen			
Free cash flow	-43.0 billion yen	-4.1 billion yen	142.0 billion yen	1.7 billion yen	0 billion yen			
Dividends per share	50 yen (¥30 interim; ¥20 year-end)	0 yen	70 yen (¥30 interim; ¥40 year-end)	90 yen (¥40 interim; ¥50 year-end)	100 yen (¥50 interim; ¥50 year-end)			
ROIC	4.1%	2.2%	6.4%	6.3%	6.4%			
Operating profit margin	3.8%	2.5%	6.9%	6.1%	6.2%			
CCC	92 days	124 days	112 days	120 days	124 days			
D/E ratio	2.00 times	1.85 times	1.24 times	1.14 times	1.13 times			
ROE	2.8%	4.5%	19.3%	11.0%	11.0%			
Ratio of equity attributable to owners of parent	15.0%	16.4%	20.3%	22.2%	23.2%			

#### Main Management Indicators

ROIC: (Operating profit + Interest and dividend income) after tax / (Equity attributable to owners of parent + Interest-bearing liabilities) CCC: Working capital / Revenue × 365 days

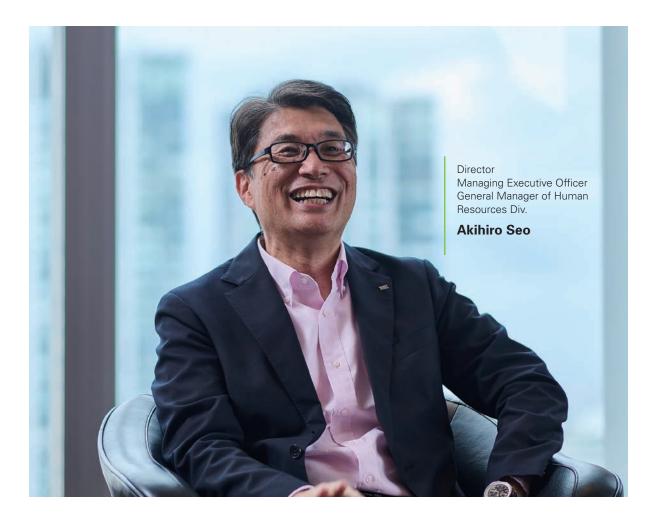
ROE: Profit attributable to owners of parent / Equity attributable to owners of parent

Ratio of equity attributable to owners of parent: Equity attributable to owners of parent / Total liabilities and equity

D/E ratio: Interest-bearing liabilities / Total equity

IHI Integrated Report 2023 20

# The IHI Group's Human Talent Strategy: Creating an Interactive and Creative Culture for All to Realize the Lives They Aspire



# What defines an "Ideal Company"

If you were asked, "What kind of company do you want to work for?", how would you answer?

I have asked this question to the employees prior to the announcement of Group Human Capital Strategy 2023, and received were a variety of answers —

"A company where free and flexible ideas are accepted and proactive employees are respected "

"A company with fluidity, as in a project-based organization, where people are placed according to the situation "

"A company where you can lead a well-balanced life that allows you to enrich your private life and improve the quality of your work."

Listening to these voices, I see a tendency toward diversification in employees' views, in line with the current trends of the times. What is common is that many employees regard companies as a place to enrich their lives. For a company to turn into a place to make that happen, the it must go through a transformation. What's important in creating such a place? Traditional long-term guarantees made by companies, such as stable employment and salary, are no longer a requirement, and all the attributes of employees must be taken into account in a holistic manner. Furthermore, a person's performance varies greatly depending on who they works with and what kind of work they are entrusted with. In other words, it is important to consider multiple layers—look at an employee from as many angles as possible without being bound by his or her attributes is vital to take into account.

## Basis of Human Capital Strategy: Balancing a "Good-standing + Resilient" Company and Individual "Growth + Happiness"

The IHI Group has started a new human talent strategy from this fiscal year. As I mentioned in the beginning, it will be important to diversify the attributes of employees and how companies can expand the range of proactive choices for diverse employees. We strive to contribute to the development of society and to enrich people's lives by solving complex social problems that may arise. To this end, the most important capital is our employees. I believe that companies should serve as a place for the growth and happiness of each and every employee with diverse personalities and abilities, and this is my responsibility. Only when such a relationship between the company and the individual can be established, will flexible ideas be generated that can respond to the fast-moving changes in the world, which will ultimately lead to new partnerships and collaborations with various stakeholders. Balancing a good and strong company and the growth and happiness of individuals-this is the basis of our new human talent strategy.

For more: Human Talent Strategy P55-56

# Autonomous Work Style Integrated With Company Policy

In the interview with the employees, some responded that a company with ideas and objectives that can be shared by all employees is the definition of an ideal company, and I completely agree. Without employees' proper understanding of the management philosophies and company policies, it is impossible to achieve a relationship in which individuals and their company respect and contribute to the growth of each other. A company policy that leaves the true feelings of employees behind is not a sustainable one with which employees can identify. The IHI Group currently holds workshops to communicate the new management policy and the human talent strategy. In May this year, we also the 1<sup>st</sup> STEP Conference geared towards promoting the new employees' understanding of company policies and helping them with guidelines for their own career. Ide (CEO) and I participated in the Conference to deliver the management policy and strategy in our own words and to directly listen to the voices of the employees. The purpose of these opportunities for dialogue is to clarify the meaning of their work and to increase the motivation of each and every employee. Furthermore, we believe that this will lead to an autonomous work style in which employees work proactively and think and act on their own initiative.



1st STEP Conference held in May 2023 for new employees. From left of the screen: Ide (CEO) and Seo (CHRO)

# Values Generated from Human Capital, the Single Most Valuable Asset

I realize that there is definitely a desire to create some kind of value from one's own work. Although employees have different desires, we have a full range of systems in place, such as childcare leave for male employees, to expand the range of work options for their daily lives to fulfill their desires. Furthermore, we focus efforts on creating systems that provide opportunities for new discoveries and fun at work, which spice up one's career. These efforts include the introduction of a system to support concurrent positions inside IHI and a second job system to gain diverse experience and perspectives that are difficult to acquire only through the work of one's own division, and the establishment of IHI Academy to develop human capital who can take charge of management reform through digital transformation (DX).

Working autonomously, with a firm understanding of company policy, is closely related to creating value in one's own work. The variety of opportunities (stimulations) that we can provide to employees who are willing to seize opportunities on their own is also an important element in creating systems.

## **Mission Statement as CHRO**

In a rapidly changing business environment, society and people's values are also diversifying. It is not easy to find an answer telling us what would be sufficient. Nevertheless, in order to seek answers and move forward, the company must draw out and unite the individual strengths of its employees, who are the true driving force behind value creation. My mission is to maximize the potential of each employee and create an interactive and creative culture where that potential can flourish.

# Technology Roadmap toward 2050 to Achieve "Group Management Policies 2023" and Society the IHI Group Seeks



# Significant Results Achieved toward Medium- to Long-Term Carbon Neutrality

"Project Change" has been placing emphasis on carbon solutions, air transportation systems, and maintenance and disaster prevention and mitigation, aiming to create growth businesses by resolving social issues. First, as progress in carbon solutions, we took a major step in social implementation with regard to ammonia utilization and methanation. Specifically, we succeeded in achieving the world's first 100% combustion of liquid ammonia on a gas turbine. Large-scale ammonia combustion (20% of heating value) will also commence from the end of FY2023, one year earlier than originally planned, at JERA Hekinan Thermal Power Station, which will be the world's first case for a large-scale commercial thermal power generation facility. Further, we have started sales of methanation equipment that produces synthetic methane (e-methane) using catalysts to cause a reaction between CO<sub>2</sub> emitted from factories and other sites and hydrogen. Our proprietary catalyst is used which boasts the world's top-class longevity. Methanation enables to use existing city gas infrastructure and is thus considered one of key technologies toward carbon neutrality. For air transportation systems, in addition to developing technology related to electrification, we are working to improve profitability by reforming the production process such as by shortening production lead times. With regard to maintenance and disaster prevention and mitigation, we have commenced consultation services together with Sumitomo Forestry Co., Ltd. to use satellite data in conducting appropriate forest management in tropical peatland, as a step forward in contributing to global climate change initiatives.

### Initiatives for Value Chain Creation to Be More Sustainable and High-Growth along "Group Management Policies 2023"

For the field of aero engines and space which is positioned as a growth business in "Group Management Policies 2023," we will work to improve production efficiency through the use of digital technology, etc. Also, as part of our initiatives for next-generation aircraft, we will continue

to focus on development of new material such as fiber-reinforced plastic (FRP) and ceramics. For the clean energy field which is positioned as a Development-focus business, technological development is ongoing for the field of clean fuel. In fields related to the ammonia value chain, for example, we make efforts in technological development for commercialization, particularly aiming to enter upstream in the value chain. We are also working to develop technology in manufacturing e-methane and sustainable aviation fuel (SAF) as clean fuel from carbon recycling. These fields are expected to provide medium- to long-term social contribution and see increased market scale; thus, such technological development will be prioritized. Toward improvement and evolution of lifecycle businesses (LCB) in each area with regard to Core businesses, we will provide technical support for LCB expansion into not only the upstream and downstream equipment of IHI's products but also their peripheral devices.

### Invest Half of R&D Costs into Focus Areas to Increase Feasibility of "Group Management Policies 2023"

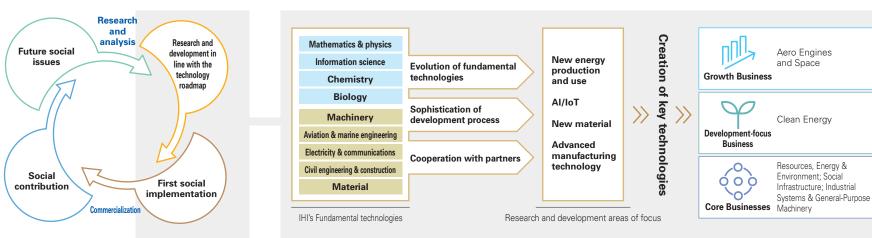
Research and development resources were set to be concentrated into the Growth, Development-focus, and core businesses in "Group Management Policies 2023" to accelerate the speed of research and development. As the Group's R&D headquarters, Technology & Intelligence Integration, has reviewed the budget allocation of research and development costs from FY2022. Traditionally, the budget has been largely allocated to research fields from the bottom up as suggested by researchers, but to enhance feasibility of "Group Management Policies 2023", half of research and development costs is invested into focus areas set from the top down. Out of the remaining research and development costs, 30% is allocated to fundamental technologies of our strengths in cooperation with business areas, and 20% to the research and development toward the future based on researchers' free-flowing thinking. Discussions are being held regarding directionality and timing of development with head office divisions and business areas involved in new businesses, and the IHI Group is working together as one.

# Research and Development in Line with the Medium- to Long-Term Technology Roadmap

Issues surrounding the IHI Group include achieving carbon neutrality in the medium to long term, contributing to a circular economy, and initiatives in biodiversity conservation. Our focus areas, largely related to these issues, will lead to continuous growth for the IHI Group through the resolution of social issues. For these areas, we are creating a technology roadmap toward 2050 and promoting research and development toward commercialization. In creating a roadmap, it is necessary to correctly understand trends such as changes in society and technological innovation, and to incorporate them. To do so, we aim to participate in the relevant field's global ecosystem\* and in the world's leading research and development. For social contribution through resolving social issues, we will promote a good balance between value creation in Core businesses and value creation in Growth and Development-focus businesses from a medium- to long-term perspective.

\*Ecosystem refers to a business environment whereby a good cycle of growth in advanced technology and economic growth is generated in which various participants including companies, research institutions, and universities having a common goal in a given field coexist and thrive through aggregation and coordination, and takes the name from the ecosystem of the natural environment.





# Promote Advancement of Digital Infrastructure Involving a Sense of Urgency and Aim for Sustainable High Growth Through a Large-Scale Shift in Management Resources



## The IHI Group's Three DX Principles Formulated to Spread DX On-Site According to the Characteristics of Each Area

IHI's idea of DX (digital transformation) is the utilization of digital technology to reform work processes for greater efficiency, reducing lead times, etc. as well as to aim for reform of the business model to resolve social issues. It can be defined as DX in the broad sense. Meanwhile, IHI handles various machinery products, which can be classified into three types of mass production items (aviation parts, vehicular turbochargers, etc.), semi-mass production items (industrial machines, etc.), and indents (bridges, plants, etc.). Therefore, we must move DX along with an understanding of the characteristics and issues of the work processes for each.

First, to eliminate at the on-site level, the three obstacles that reject the IHI Group's DX (tendency toward analog based on intuition and experience, the concept of selling goods, and a silo-type organizational structure with high independency of business unit x work process), the Three DX Principles were formulated and reform of the corporate culture began. To do so, each business area and corporate cooperated in appointing approximately 180 mid-level individuals around the age of 40 who have reformative minds even if they do not have digital knowledge as DX Leaders, to aim for business transformation utilizing digital technology at an on-site level.

#### **The Three DX Principles**

- 1. Be aware of social issues and value for customers.
- 2. Be connected with SOTO (outside) / YOKO (horizontally) / TATE (vertically) and have a conversation.
- 3. Thoroughly implement data-driven decision-making and carry through reforms.

## Certain Level of Results Gained Through "Project Change," Mainly LCB Expansion and Work Process Reform

"Project Change" was started as a preparation and transition phase for business transformation in response to

operating environment changes, and work process reform using digital technology began.

First, to expand LCB (lifecycle businesses), several initiatives were taken to shift to the selling of "experiences," such as in proposing solutions to customers. A customer success dashboard has been developed for various logistics and industrial machinery systems, which visualizes operational status and maintenance information of items delivered to customers as well as their feedback, as part of sales reform beyond the SBUs. With the objective of supporting maintenance and management of aging bridges, an application for entering inspection and maintenance information on such bridges (BMSS: Bridge Management Support System) has also been developed as a health record of sorts for bridges, so that necessary repair work can be efficiently carried out. Using digital technology for work process reform, efficiency is improving with elimination of bottlenecks at maintenance bases for the aero engines business, lead times are being shortened for each business in logistics and industrial machinery systems through separation of fixed and variable elements, and downturn prevention and overall optimization are being promoted with direct connections among design, production, and construction processes for the bridges business.

Further, to contribute toward carbon solutions, initiatives are underway to monitor CO<sub>2</sub> emissions of each machinery delivered and build a foundation to produce credit and distribute it.

### Accelerate Advancement of Digital Infrastructure Involving a Sense of Urgency with "Group Management Policies 2023"

"Advancement of digital infrastructure" was set as a priority measure essential for business transformation in the new medium-term management plan. Meanwhile, manufacturing companies in Europe and the United States are accelerating realization of Industrial 4.0 and DX such as with automation connecting all processes with data. The IHI Group will aim to realize the new medium-term management plan and vision through establishment of new business models by implementing and accelerating DX strategy involving a sense of urgency.

Specifically, DX will be promoted among each of the three businesses: Growth business (aero engines and space field), Development-focus business (clean energy field), and Core businesses (exploit and evolution of existing LCB). For the Growth business, we will aim to realize world-class productivity under a new transformation center to undergo DX and factory reform in an integrated fashion to promote reforms in production efficiency and operational structure. In the Development-focus business, we are looking into ways to enhance value of the ammonia value chain overall by using blockchains to authenticate green ammonia produced with green hydrogen. With the Core businesses, for example, we are considering addressing needs for CO<sub>2</sub> reduction as well as for reducing labor and increasing efficiency using data mainly from operational and maintenance support systems for plants, factories, and industrial parks that also cover products of other companies. We are also aiming to establish a system that can efficiently build and maintain bridges, etc. by utilizing

data for local governments. In these ways, we will vigorously promote exploit and evolution of LCB through the use of digital technology.

### Vigorously Promote DX Through Collaboration In and Outside the Company to Develop DX and Digital Human Resources

The objective of IHI Academy is to develop future senior management candidates and specialized technical personnel. Of these, senior management candidates will learn management and digital technology as DX human resources and also acquire the capability to integrate both for commercialization. From among specialized technical personnel, human resources for data analysis, ICT systems, and information security will be developed internally as digital human resources and also be hired externally as necessary. We will also work toward achieving both DX and information security by establishing a zero trust network enabling collaboration safely with customers and business partners while protecting material information.



Scene from a company-wide contest held across the entire IHI Group to train human resources in data analysis

# **Initiatives for Material Issues**

As part of Project Change, formulated in 2020, we are striving to create "a world where nature and technology work in unity" in the near future. By setting this goal, the social issues we need to address along with the values we aim to provide have been clarified. We re-identified and revised our material issues according to the significance of each of the social issues to address with the goals of becoming carbon-free, disaster prevention and mitigation, and materializing fulfilling lifestyles.

Reference Page : Identification Process of Material Issues (P13)

The main initiatives for the 16 material issues thus identified are listed in the table below.

Reference : IHI Sustainability Data Book 2023

	Material Issues	Approach/Policies	Main Initiatives	SDB* Reference pages
	Climate change	Climate change has a tremendous impact on society and economy, and is a social issue that questions company sustainability. We believe the social issue of climate change is one that we should work to address through mitigation and adaptation.	<ul> <li>Taking measures against climate change through products and services (Mitigation and Adaptation)</li> <li>Reducing GHG emissions</li> </ul>	P92
Ε	Circular economy	We appropriately manage waste and water resources to improve resource efficiency and reduce environmental impact in order to realize a sustainable society.	<ul> <li>Reduce waste emission</li> <li>Appropriate management of water resources (investigating water risks and reducing water withdrawal)</li> </ul>	P99
	Conservation of the global environment	We position environmental law compliance and environmental accident prevention as top priority issues.	Take measures to prevent water pollution (monitoring wastewater quality, wastewater facility maintenance)     Prevent soil contamination (identify areas where hazardous substances are used)    Biodiversity conservation	P102
	Human rights Through fostering a corporate culture that respects human rights and human rights initiatives throughout all of our business activities, we fulfill our responsibility toward respecting human rights for all people.		<ul> <li>Promoting human rights due diligence (Human rights risk assessment and countermeasures)</li> <li>CSR procurement monitoring for business partners</li> </ul>	P49
	Occupational health and safety	We believe ensuring safety and health to be at the foundation of our business activities and one of our most important management concerns.	<ul> <li>Eliminating work-related accidents based on the Five Safety Principles</li> <li>Mental and physical health management</li> </ul>	P55
	Diversity, equity, and inclusion	In order to solve increasingly complex social issues, it is essential that we collaborate and cooperate with various stakeholders, which serve as the foundation for promoting diversity, equity, and inclusion.	<ul> <li>Promoting institutional reform and fostering a corporate culture that evaluates the reform challenges</li> <li>Conducting employee awareness surveys to increase engagement</li> </ul>	P62
S	Work-style and operational process reforms	In the current world, where work values are becoming more diversified, we believe it is important for companies to provide workplaces attractive to workers that respond to a variety of values.	<ul> <li>Introduce methods and systems that create a comfortable workplace</li> <li>Establishing a community that creates new value and innovation</li> </ul>	P77
	Customer relationships	While giving due consideration to safety, it is our basic policy to provide socially useful products and services that customers can trust and feel satisfied using, and that contribute to the overall development of society.	<ul> <li>Ensure product safety through risk assessment during product development</li> <li>Implement customer satisfaction surveys, analysis, and improvement activities</li> </ul>	P78
	Supply chain management	We conduct purchasing activities based on the three pillars of the IHI Group Procurement Policy: fair and equitable trade, mutual prosperity with business partners, and approach to compliance and social responsibility.	<ul> <li>Steady supply chains</li> <li>Formulating the IHI Group Code of Conduct for Business Partners and monitoring CSR procurement</li> </ul>	P80
	Corporate citizenship	We believe it is our corporate responsibility to meet social expectations and are making efforts toward social contribution activities.	<ul> <li>Visiting lectures and SDGs education in order to nurture the next generation of human resources</li> <li>Environmental conservation in areas bordering business sites</li> </ul>	P82
	<b>Corporate governance</b> We are improving management efficiency to better capitalize on our inherent strengths through corporate governance, defined as a system that ensures sustainable growth and maximizes corporate value, ensuring appropriate operation.		<ul> <li>Evaluate Board of Directors' effectiveness with displayed results</li> <li>Backup for improving outside director and auditor effectiveness</li> </ul>	P15
	Compliance	Compliance is the foundation for social business activities, and as such we must comply with laws and corporate regulations, acting in a fair and responsible manner as a business entity.	<ul> <li>Compliance Hotline operation</li> <li>Tax compliance</li> <li>Compliance with competition and anti-bribery laws</li> <li>Security trade control</li> </ul>	P27
	Risk management	Considering risk management to be a material management issue, we conduct risk management based on the Basic Code of Conduct for the IHI Group.	<ul> <li>Review of risk management activity by the Board of Directors</li> <li>Project risk management</li> <li>Formulating a business continuity plan (BCP) with continuous review</li> </ul>	P35
G	Innovation management	Aiming to create a society where nature and technology work in unity, we are undertaking the challenge of developing technology that continuously provides new value.	<ul> <li>Concentrating research funds and human resources toward focus areas</li> <li>Promoting public-private partnerships and industry-academia partnerships</li> <li>Usage and protection of intellectual property in business activity</li> </ul>	P40
	Information security	In order to ensure the confidentiality of customer and business partner information, along with company management and technical information, we strive for proper information management and to maintain and improve information security.	<ul> <li>Taking measures to prevent security risks from three angles: rules, tools, and training</li> <li>Quantitative evaluations on information security measure levels</li> </ul>	P45
	Timely and proper disclosure	On top of corporate disclosure activities, we take into consideration the large impact of customers, business partners, shareholders/investors, governments, local communities, employees, and NPOs/NGOs as key stakeholders, and work to maintain positive dialogue.	<ul> <li>Dialogue with stakeholders through financial result briefings, individual meetings, etc.</li> <li>Information disclosure through report integration and utilization as a tool for dialogue exchange</li> </ul>	P18, P79

\*SDB:IHI Sustainability Data Book 2023

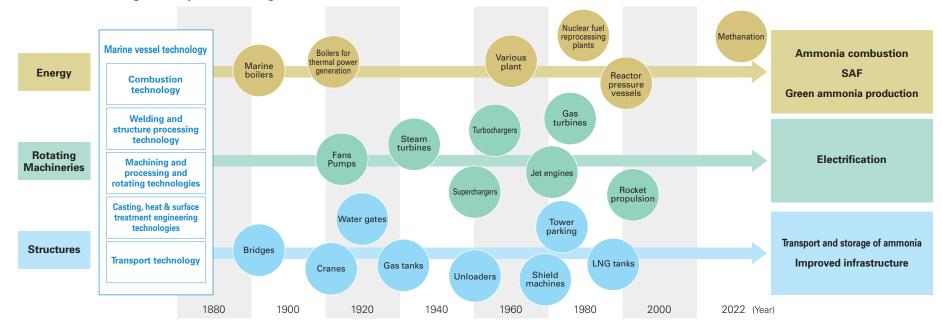
# Implementation Strategy to Realize Transformation

Growth Trajectory	29
Transition in Business Portfolio	31
Financial/Non-Financial Highlights	33
Review of Performance	35
"Group Management Policies 2023"	39
Transforming Business and Business Portfolio	
Growth Business	41
Development-focus Business	43
Core Businesses	45
Response to Operating Environment Changes, Corporate Structure Transformation	
Human Talent Strategy	49
DX Strategy	51
Message from the General Manager of Business Development Headquarters	53

# **Growth Trajectory**

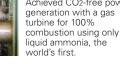
- Technology and product innovations -

IHI Group has been making transformations through bringing into the world countless world's first products that respond to changes of the times, backed by our various kinds of outstanding technological and total engineering capabilities, which we have cultivated through our shipbuilding business. From here on out, aiming to achieve our sustainability goal, we will make a leap forward to be a strong, sustainable growth company by resolving social issues through technology and transformations.



## IHI's Manufacturing Development Lineage





Gas turbines

Achieved CO2-free power



making steady progress on demonstrating a large-scale ammonia combustion.

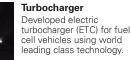


Constructed the Akashi-Kaikyo Bridge, the world's longest suspension bridge and the Second Bosphorus Bridge

Shield machines IHI's world's first, large-diameter shield machine with an automatic segment assembling system made significant contribution in the construction of Tokyo Bay Aqualine.



Commercialized the world's first membrane of LNG underground tank and ventured into development of a large ammonia tank.



Tank



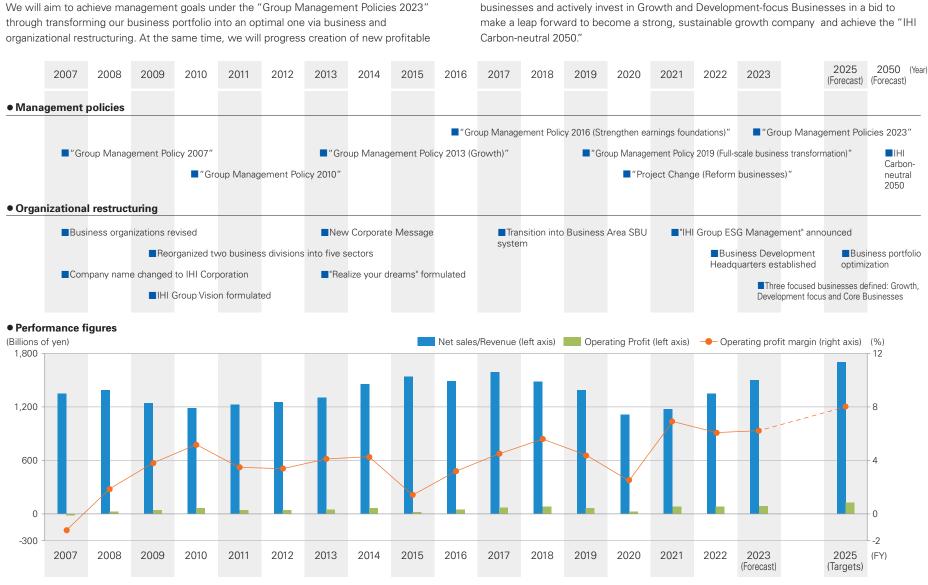
Jet engines Remains as Japan's leading manufacturer of jet engines for Japan Air Self-Defense Force jets and commercial aircraft.



Rocket Manufactures and launches solid-fuel rockets. Also manufactures turbopumps that are crucial for liquid-fuel-rockets.

**Growth Trajectory** 

#### Management policies, organizational restructuring and performance figures

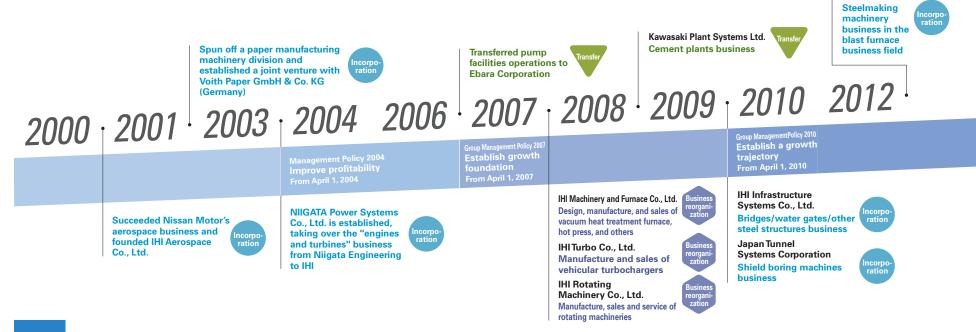


\* IFRS have been applied since FY2020

## **Transition in Business Portfolio**

The IHI Group recognizes that it has reached a point in its history where it is difficult to achieve sustained high growth for the company simply by extending the current growth path.

Since our founding, we have made significant changes to our core businesses in order to achieve our own development while solving the difficult social issues of each era. With this track record and experience, the Group will continue to build an optimal business portfolio with multiple pillars of operations.



### Major Events

#### 2000: Succeeded Nissan Motor's aerospace business

Nissan Motor and Renault agreed on an alliance in March 1999. Under the "Nissan Revival Plan," in order to separate non-core businesses and concentrate management resources on the automobile business, Nissan's aerospace division was separated. The division became under the realm of IHI on July 1, 2000 and was transferred to IHI Aerospace. IHI Aerospace (IA) is now the base of space development for the IHI Group.

#### 2003: Succeeded NIIGATA ENGINEERING's power systems business 2019: Integrated the power systems business into IHI Power Systems

In 2003, Niigata Power Systems was established to take over NIIGATA ENGINEERING's power systems business. NIIGATA ENGINEERING was the first company in Japan to develop and manufacture diesel engines for marine use, and it is the foundation of our current power systems business.In 2019, IHI Group's Power Systems Business was integrated to form IHI Power Systems Co., Ltd.

# 2009: Succeeded bridge and water gate businesses from Kurimoto Ltd. and Matsuo Bridge

Paul Wurth IHI Co., Ltd.

The bridge and water gate business in Japan was facing fierce competition for orders due to a decline in public works projects. IHI took over bridge businesses from Kurimoto Ltd. and Matsuo Bridge, and a water gate business from Kurimoto Ltd., and established the businesses into IHI Infrastructure Systems (IIS). The plants of Kurimoto Ltd. and Matsuo Bridge adjacent to Sakai City, Osaka are currently being utilized. **Transition in Business Portfolio** 



#### 2009: Established Japan Tunnel Systems Corporation 2016: Established JIM TECHNOLOGY Corporation

The shield boring machine industry had a large number of companies compared to the shrinking market size, and each company was restructuring its production system in order to survive. Under these circumstances, IHI and JFE Engineering integrated their businesses in 2009 to establish Japan Tunnel Systems to strengthen the competitiveness of the shield boring machine business of both companies, and in October 2016, the tunnel shield boring machine business of Mitsubishi Heavy Industries was integrated to form the current JIM Technology.

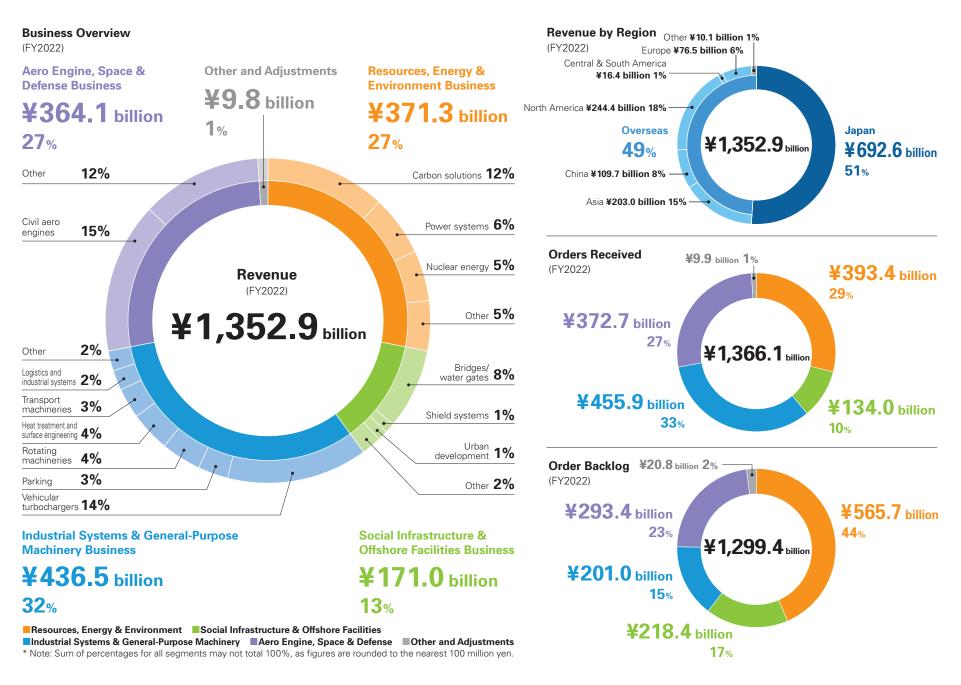
#### 2013: Merged IHIMU and Universal Shipbuilding Corporation (owned by JFE Holdings) to establish Japan Marine United

In 2002, IHI's shipbuilding and offshore business was spun off and integrated with Marine United (merger of the shipbuilding division of IHI and naval ship divisions of Sumitomo Heavy Industries) to establish IHI Marine United (IHIMU). Furthermore, in January 2013, IHIMU merged with Universal Shipbuilding (merger of ship divisions of Hitachi Zosen and NKK) to establish Japan Marine United.

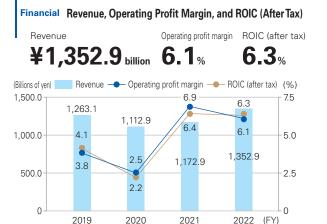
# 2023: Transferred the large marine engine business of IHI Power Systems to MITSUI E&S Holdings

The large marine engine business of IHI Power Systems was transferred to MITSUI E&S Holdings, whose major business is marine engines. Through this transfer, IHI accelerated the reorganization of its power systems business portfolio.

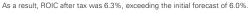
# Financial/Non-financial Highlights

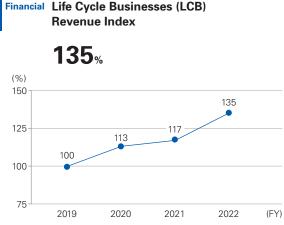


#### Financial/Non-financial Highlights



Fiscal 2022 revenue was 1,352.9 billion yen, an increase of 15.3% year on year. Operating profit increased 0.6% year on year to 81.9 billion yen, and the operating profit margin was 6.1%. Although impacted by the sales of assets held in the previous fiscal year, profit increased due to increased sales of spare parts for civil aero engines, cost reductions for new engines, decrease in program-related burdens associated with improved performance, as well as depreciation in yen.

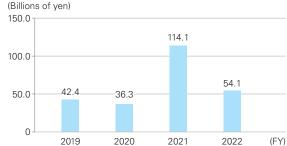




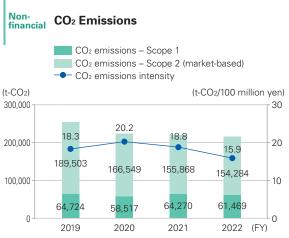
In fiscal 2022, LCB revenue excluding the Aero Engine, Space & Defense Business Area, increased 35% compared to fiscal 2019, the year we started to initiate LCB. The result exceeded the target of 30% increase in "Project Change." Efforts to shift resources, including human resources, DX promotion, and global deployments in LCB achieved results. Moving on, we will aim for further growth through exploit and evolution of LCB upheld in the "Group Management Policies 2023."

### **Financial Operating Cash Flows**





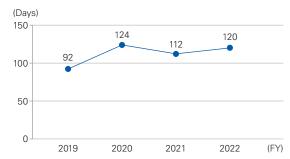
Cash flows from operating activities were in excess of 54.1 billion yen (in excess of 114.1 billion yen in the previous fiscal year), below the target figure of 130.0 billion yen. The primary reasons for the decrease of 60.0 billion yen in cash flows from operating activities compared to the previous fiscal year were: decrease in contract liabilities due to the decrease in advance received, increase in trade receivables due to increase in revenue, increase in inventories and prepayments, and inability to cover the negative factors such as income taxes paid with positive factors such as decrease in gain on sale of property, plant and equipment and investment property.



In April 2023, the IHI Group endorsed the GX League initiative of Japan's Ministry of Economy, Trade and Industry. Aiming to achieve carbon neutral in 2050, the IHI Group aims to reduce CO<sub>2</sub> emissions (Scope 1, 2) from plants, offices, and other business facilities by half in 2030 (compared to fiscal 2019), CO<sub>2</sub> emissions intensity in fiscal 2022 was 15.9 t-CO2/100 million yen, decreasing by 13% compared to the fiscal 2019 result of 18.3 t-CO<sub>2</sub>/100 million ven. We will continue to reduce the amount toward the 2030 target.

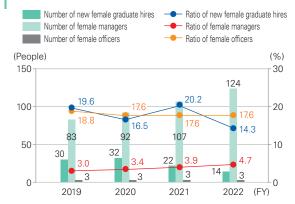
Financial Cash Conversion Cycle (CCC)





The CCC was 120 days, below the initial forecast of 99 days made at the beginning of the fiscal year. We regard that one of the factors for this result is our goal to become a LCB-centered entity mainly in the Resources, Energy & Environment Business Area. Furthermore, in the Aero Engine, Space & Defense Business Area, increase in production became almost certain for the time being thus we entered a period of purchasing ahead. We also regard that a temporary increase in inventories in response to the difficulties in the supply of materials and other items also contributed to this result. In the future, we will endeavor to improve CCC by implementing all measures to improve working capital.

#### Non-**Active Participation of Women** financial



The IHI Group strives to promote diversity and inclusion as part of its management strategy. With the aim of creating innovation and new value for solving social issues, we are promoting efforts such as diversifying candidates for senior management positions. Although the ratio of new female graduate hires decreased to 14.3% in fiscal 2022, it is expected to recover to a 20% level in the new graduate hires for fiscal 2023 as a result of various initiatives taken

# **Review of Performance**

₩ Resources, Energy & Environment Business

We will accelerate the resource shifts to the Development-focus Business, while continuing to transform our business portfolio.



President of Business Area **Kouji Takeda** 

## Strengths of Business Area and Social Values to Be Created

The Resources, Energy & Environment Business boasts an approximately 40% share of the domestic market for ultra-supercritical pressure coal-fired boilers and a 90% share of the domestic market for power systems for ships (Z-PELLER). In addition, JEL (Jurong Engineering Ltd.), a consolidated subsidiary in Singapore, has an unparalleled share in the Southeast Asian and Middle Eastern markets for the installation of gas-fired thermal power plants, including those made by our competitors.

By utilizing our extensive experience and proprietary technologies related to carbon solutions, we provide earth-friendly energy supply facilities and services throughout their life cycle. We must boldly change our business portfolio toward a carbon-neutral society. In the near term, we will focus on securing stable income through the exploit and evolution of LCB and cash generation through business structure reform.

### **FY2022 Business Results**

Orders received increased 5% year on year to 393.4 billion yen due to the acquisition of large projects in Southeast Asia. Revenue increased 8% year on year to 371.3 billion yen, due to the revenue increase in carbon solutions (CS) and nuclear energy businesses. The operating profit was 26.2 billion yen (operating profit margin 7%), a year-on-year increase of 14%, due to progress in construction in the nuclear energy business and improved profitability of the CS business, exceeding the profit level recorded before COVID-19.

## **Review of "Project Change"**

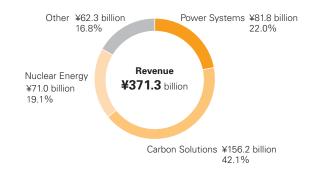
The expansion of LCB, including nuclear energy, was successful and we achieved our internal operating profit targets. We have achieved results in the creation of new Growth Business and Development-focus Business related to carbon solutions, including the utilization of ammonia, sales of CO<sub>2</sub>-derived methanation systems, and the substitution of ammonia fuel in large commercial thermal power generation facilities.

#### **Main Businesses**

Power systems (power system plants for land use/power systems for ships)
 Carbon solutions (biomass/use of ammonia, etc.)
 Nuclear energy (components for nuclear power plants)



#### • Major Product Revenue Composition (FY2022)



#### • Orders Received, Revenue, Operating Profit, Operating Profit Margin



#### **Review of Performance**



**Social Infrastructure Business** 

We will contribute to building a safe and secure society, in addition to creating new value based on our strong existing businesses.



President of Business Area **Takeshi Kawakami** 

# Strengths of Business Area and Social Values to Be Created

The Social Infrastructure Business has a top-class domestic market share in the fields of: Bridges and water gates, Transport systems, Shield systems, and Concrete construction materials In Bridges, we are a Japanese company which excels in highly difficult bridge construction projects. We have a track record of constructing many long-span bridges, including suspension bridges in Turkey and other Asian countries, leveraging our engineering capabilities in all phases from design to construction. In Water gates, we are one of the few companies that are even involved in water management systems of river basins. Through these businesses, we will solve the challenges faced by customers and contribute to the construction and realization of safe and secure social infrastructure from the viewpoint of maintenance, disaster prevention and disaster mitigation. We aim to realize a safe and secure social infrastructure by further strengthening the "only-one" technologies in bridges/water gates, transport systems, shield systems, and concrete construction materials and improving our cash generation capabilities through reforms in design, production and construction (DX, labor-saving) and enhancement of LCB.



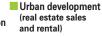
Although orders received declined 26% from the previous fiscal year to 134.0 billion yen due to sluggish orders for large projects on Bridges and Shield systems, revenue increased 2% year on year to 171.0 billion yen supported by orders received up to the previous fiscal year. The operating profit was 17.0 billion yen (operating profit margin 10%), a year-on-year increase of 11%, due to the impact of increased sales and the increased profitability of overseas bridge projects. The profit level exceeded that recorded before COVID-19.

## **Review of "Project Change"**

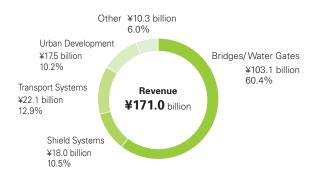
Internal numerical targets were generally achieved. In the bridge and water gate business, we have built a foundation to tackle new construction and maintenance in a comprehensive manner by promoting production reforms that significantly shorten production lead times and integrating businesses among subsidiaries, with an emphasis on LCB. In addition, we are focusing on expanding our business to the preventive maintenance business by introducing BMSS (Bridge Management Support System), which supports efficient maintenance and management operations for bridges, and GBRAIN, a remote maintenance and management tool for water gates. Furthermore, we have launched remotization and wide-area management of water utilization and watershed flood control by promoting DX, as well as the development of carbon neutral concrete that does not use cement.

#### **Main Businesses**

Bridges/water gates Shield systems
 Transport systems Concrete construction
 materials



### • Major Product Revenue Composition (FY2022)



### • Orders Received, Revenue, Operating Profit, Operating Profit Margin



IHI Integrated Report 2023 36

# **Review of Performance**



Industrial Systems & **General-Purpose Machinery Business** 

We are committed to tackling the challenge of reducing environmental impact and pursuing business growth by leveraging global and diverse business capabilities.



President of Business Area Yasuhiro Shigegaki

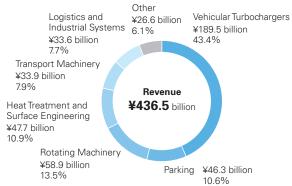
# Strengths of Business Area and Social Values to Be Created

The Industrial Systems & General-Purpose Machinery Business has a product lineup that boasts a high market share both domestically and internationally. We boast a 20% global market share in vehicular turbochargers, a 60% global market share in ultra-low temperature LNG BOG reciprocating compressors, a 50% domestic market share in jib climbing cranes, and a 40% domestic market share in elevator parking systems. We understand that the strength of this business lies in our wide range of customers based on our diverse product lineup and the sales and service network that connects the products with the customers. Leveraging this strength, we will enhance our customers' value creation by realizing decarbonization, automation and labor-saving through IHI's unique and complex solution proposals.

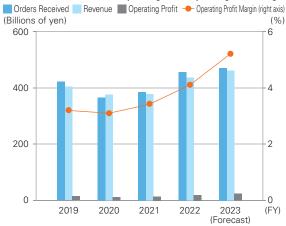
We seek to build an optimal portfolio that leads to solutions to two major challenges: decarbonization and automation/labor-saving. We aim to overcome the barriers of individuals, organizations, and businesses, strengthen our cash generation capabilities, and exploit and evolve LCB.



### Major Product Revenue Composition (FY2022)



### • Orders Received, Revenue, Operating Profit, Operating Profit Margin



### FY2022 Business Results

Orders received increased 19% year on year to 455.9 billion yen. mainly around vehicular turbochargers. Driven by vehicular turbochargers and heat treatment and surface engineering, revenue increased 16% year on year to 436.5 billion yen. The impact of soaring prices of materials was absorbed by price revisions, etc., and the operating profit rose 40% year on year to 18.0 billion yen (operating profit margin 4%), securing the pre-COVID-19 profitability level.

## **Review of "Project Change"**

In addition to the prolonged sluggish demand for vehicular turbochargers amid the downturn in global automobile production, soaring prices for various materials and other factors resulted in a partial shortfall in the internal numerical targets. On the other hand, the shortening preparation period for services and construction, and improving estimating efficiency have been successful, resulting in a 30% reduction in construction lead time. In LCB, we are building a service infrastructure that transcends business units, including the integration of service bases in Nagoya and Sendai, and mutual technology training across business units and incentive programs.

Parking

surface engineering

Transport machinery

### **Main Businesses**

- Vehicular turbochargers
- Rotating machineries(compressors/ Heat treatment and separation systems/ turbochargers for ship engines)
- Logistics and industrial systems (logistics systems/industrial machines)

**Review of Performance** 



We aim to create new growth markets by reforming the production efficiency and business structure of existing businesses.



Business Area **Hideo Morita** 

President of

# Strengths of Business Area and Social Values to Be Created

The IHI Group is a leading company that accounts for 60-70% of jet engine production for aircraft in Japan. The Group has a 50% global market share in long shafts for civil aero engines, and the XF9-1 engine for fighter aircraft delivered to the Acquisition, Technology & Logistics Agency of Japan boasts thrust equivalent to that of the engine on the F-22 fifth-generation fighter aircraft. In addition to the production and development of turbopumps for rocket engines, the IHI Group also provides launch services using solid-fuel rockets. We will provide safe and clean air transportation by promoting lighter weight and decarbonization of aircraft.

We will dynamically pursue productivity efficiency and business structural reforms through the newly established X Center. We will strengthen our initiatives for Growth Business by establishing world-class productivity and achieving profit growth and stable generation of operating cash flow.



# **FY2022 Business Results**

The orders received amounted to 372.7 billion yen, increasing 22% year on year due to recovery in demand for civil aero engines, etc.. Revenue amounted to 364.1 billion yen, increasing 37% year on year due to increased sales of civil aero engines and spare parts, and other factors. Operating profit returned to profitability at 36.1 billion yen (operating profit margin 10%) securing a profitability level recorded before COVID-19. This result was due to the increased revenue in spare parts, and reduction in cost of the PW1100G engine and various expenses.

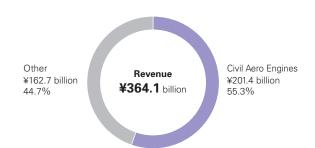
# **Review of "Project Change"**

Based on the strengthening of production and quality control systems and the recovery of demand, we achieved a V-shaped recovery in our business performance and met our internal numerical targets. However, operating cash flow remained an issue due to an increase in working capital accompanying the revenue increase. To achieve the world's top level of production efficiency, we have established the Transformation Center (X Center), which will carry out structural reforms, aiming to maximize profit generation with minimum increase in workforce during the future production increase phase.

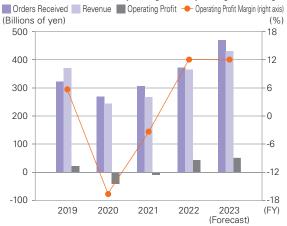
### **Main Businesses**

Aero engines
 Rocket systems and space utilization systems
 Defense systems

### • Major Product Revenue Composition (FY2022)



### • Orders Received, Revenue, Operating Profit, Operating Profit Margin



# IHI has made steady progress in preparing for its business transformation with "Project Change"

In "Project Change," we achieved record-high levels for operating cashflow (FY2021) and operating profit (FY2022) by transforming the business model from product and service businesses to Lifecycle businesses and strengthening the cost structure. Furthermore, we have made steady progress in preparing for its business transformation, notably through full-fledged efforts to initiatives for the fuel ammonia value chain business. Alternatively, further enhancement of corporate strength is necessary to prosper in a society where instability becomes the norm.

# Leaping forward to become a sustainable high-growth company through a bold shift of management resources to growth areas

In the "Group Management Policies 2023" (FY2023-2025), we will redouble efforts to transform our business to achieve strong, sustainable growth. Simultaneously, we will accelerate action to adapt to disruptive environmental change. Our target is to resolve the challenges of customers, industry, and society by leveraging our technologies and insights. For this purpose, we will transform our businesses through multi-pronged efforts to build entire value chains and provide value throughout customer business lifecycles. At the same time, we will restructure our business portfolio by decisively shifting management resources to Growth Business and Development-focus Business.

# Core Businesses We will reinforce the generation of management resources (cash and human resources) which support the IHI Group

In the Core Businesses which includes Resources, Energy & Environment, Social Infrastructure, and Industrial Systems & General-Purpose Machinery, we will augment a growth strategy based on Exploit and Evolution of LCB. We will prioritize cash generation by meticulous reform of business structure and generating management resources that we invest in Growth Business and Development-focus Business.

# Policies and Results of "Project Change"

- Preparation period for business transformation
- Creating a new business main pillar as Aero engines

### Return to growth trajectory

- Transforming the business model from product and service businesses to Lifecycle businesses (LCB)
- Reformation of cost structure

### Growth business creation

• Initiatives for the fuel ammonia value-chain business as a new business model

# Preparations in place for business transformation

**Record-high levels for** 

operating cash flow

(FY2021) and

(FY2022)

operating profit

## **Business Environmental Awareness**

Society where instability becomes the norm Need to further enhance corporate strength

# **Significance of this Management Policy**



Full-scale business transformation to achieve strong sustainable growth



## • Group Corporate Strategy

Aiming to solve the social agenda\* faced by customers, industry, and society. Transforming our business through multi-pronged efforts

To build up the entire value chain and To provide value throughout the Lifecycle of customer's business

by utilizing our technology and insight

- \*(1) Helping to realize carbon neutrality for various industries
  (2) Helping to protect the planet from climate change
- (3) Helping to build and improve industry ecosystems
   (4) Helping to ensure economic, national, and

energy security, etc.

## Growth Business We will achieve world-class production efficiency and create new business

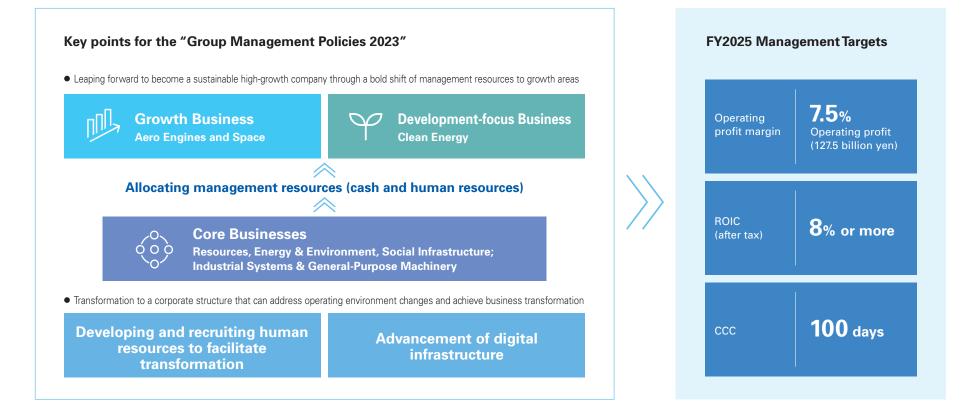
Aero Engines and Space, which are positioned as a Growth Business, will drive the growth of the IHI Group by pursuing business and production transformation, in addition to strengthening and expanding the civil aero engine and defense business. We will also create new business areas from the viewpoint of lifecycle and value chains.

# Development-focus Business We will develop a business that would drive our future growth in parallel with Aero Engines and Space business.

Clean Energy business represented by fuel ammonia and others is defined as Development-focus Business, which would drive our future growth in parallel with Aero Engines and Space business. We will build and enhance the value of our entire Clean Energy value chain. Such efforts will start with gas turbines that utilize world-leading ammonia combustion technology and storage and receiving terminals boasting a top-class share. We are open to invest in fuel manufacturing projects. We will also build a new business model leveraging the IHI Group's high engineering capability.

# Quick response to environmental changes, transformation to capability of realizing transformation

Our management is centered on ESG-rooted values. For business transformation, we will pursue digital infrastructure advances as well as development and recruitment of innovative human resources.



Transforming Business and Business Portfolio

# **Growth Business**

Aero Engines and Space, which are positioned as a Growth Business, will drive the growth of the IHI Group by pursuing business and production transformation, in addition to strengthening and expanding the civil aero engine and defense business. We will also create new business areas from the viewpoint of lifecycle and value chains.

# Contribute to the environmentally friendly, economically viable carbon neutrality of aircraft by leveraging high-level, differentiated technology

In "Group Management Policies 2023," Aero Engines and Space is positioned as a Growth Business and is expected to drive forward the Group's leap towards a sustainable high-growth company. In the aviation industry, reduction of CO2 emissions to realize environmentally friendly air transportation is an issue. In 2022, the International Civil Aviation Organization (ICAO) adopted the goal of net-zero aircraft CO<sub>2</sub> emissions by 2050. The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) established a Study Group on CO2 Reduction in Aircraft Operation Field and has formulated a schedule for decarbonization of aircraft operations. The improvement target for 2030 is to reduce CO<sub>2</sub> emissions by about 10%. To achieve this goal, 10% of the fuel used by Japanese airlines will be replaced by Sustainable Aviation Fuel (SAF) and the aircraft operation methods will be improved. The three future initiatives listed by MLIT are 1, new technologies (electrification, hydrogen-fueled aircraft, etc.), 2, improvement of aircraft operation methods, and 3, promotion of introduction of SAF. In response, the IHI Group aims to achieve environmentally friendly and economically viable carbon neutrality of aircraft by strengthening its efforts for development and commercialization of SAF-based synthetic fuels in addition to development of proprietary differentiated weight reduction technology and electrification technology and application of hydrogen fuel.

### Short-term targets

Attain the numerical targets under the medium-term plan and strengthen our global competitiveness, while maintaining our track record and value chains as our strengths and reducing CO<sub>2</sub> emissions by raising production efficiency and reforming operation structures

Global airline demand announced by IATA significantly declined in 2020 and 2021 due to the spread of COVID-19. The recovery trend increased particularly overseas after 2022, and the demand returned to 91% of the pre-pandemic level as of April 2023. The demand for aircraft to be delivered in the next 20 years is expected to grow steadily by 3.4% per year on average, which is a lag of few years compared with pre-pandemic forecasts (source: IATA June 2023 outlook).

Along with the increasing amount of work, the IHI Group has established the Transformation Division to raise production efficiency and reform operation structures. The Group aims to achieve the medium-term plan's numerical targets and strengthen global competitiveness by driving forward its transformation into an organization with the world's top-class production efficiency, responding to the upcoming production increase phase with minimum increase in staff, and reducing CO<sub>2</sub> emissions.

The IHI Group will fulfill supply responsibilities in growth markets by raising production efficiency and reforming

operation structures while maintaining the company's strengths—the track records and value chains cultivated in the business of key parts for civil aero engines.

### Medium-term targets

# Drive forward technology development of the next-generation aircraft in the 2030s, with an eye on achieving carbon neutrality of aircraft in 2050.

In the Aero Engines and Space domain, we consider the period from now to around 2035 to be a transitional period. We will strengthen our development of technologies and products with significantly improved environmental performance to reduce GHG emissions, while maintaining economic efficiency by making lightweight and heat-resistant aircraft components through application of carbon fiber reinforced plastics (CFRP) for fan blades and ceramic matrix composites (CMCs) for turbine vanes. The Group will also concentrate efforts to develop new technologies towards realization of a carbon neutral society. The technologies include those for electrification of aircraft and their engine systems, such as engine-embedded electric machines and recovery systems for waste heat from air conditioners inside the aircraft.

From 2035, the IHI Group will aim to develop products based on technologies suitable for hydrogen, SAF, and other substitute fuels. The Group will push ahead with the development of technologies for carbon neutral aircraft while minimizing risks by generating funds for the development of next-generation aircraft for decarbonization through the stable revenues from spare parts for aero engines and other sources. In doing so, it is necessary to set forth international technology standards and commercialize products while sufficiently proving the safety of the new technologies. IHI plans to work on the development of next-generation aircraft by actively getting involved in the formulation of a new roadmap together with regulatory authorities and OEM companies from the drafting phase of technology standards.

# Accelerate initiatives for the reinforcement of the rocket business and for the utilization of space, land, and underwater data

The global space industry market is expanding mainly in the satellite communication domain and the market is expected to exceed 100 trillion yen in 2040, which is about three times its current size. In addition to strengthening the competitiveness of its solid-propellant rocket (Epsilon Launch Vehicle), the IHI Group aims to establish a small- and medium-sized satellite launch service business while promoting the establishment of a rocket lineup that can respond to diverse launch needs. Regarding initiatives for the utilization of space, land, and underwater data, the Group has started a service that, with high accuracy, grasps big data on all sea areas which is undetectable from land stations. This service is all offered real-time by monitoring data transmitted by automatic identification system (AIS) using satellites. IHI has set up a joint venture with Sumitomo Forestry Co., Ltd. to engage in a consulting business to appropriately manage tropical peatlands by combining Sumitomo Forestry's forest management technology and data and IHI Group's weather information monitoring technology. The Group also aims to offer satellites required for space monitoring, etc. in collaboration with Northrop Grumman Corporation, a global leader in the detection and identification of orbital objects. IHI newly established the Space System Business Preparatory Office in the current fiscal year. The IHI Group will accelerate such data utilization and collaborative initiatives with partners to contribute to the realization of an affluent and safe society.



Transforming Business and Business Portfolio

# **Development-focus Business** | Clean Energy

Clean Energy business represented by fuel ammonia and others is defined as Development-focus Business, which would drive our future growth in parallel with Aero Engines and Space business. We will build and enhance the value of our entire Clean Energy value chain. Such efforts will start with gas turbines that utilize world-leading ammonia combustion technology and storage and receiving terminals boasting a top-class share. We are open to invest in fuel manufacturing projects. We will also build a new business model leveraging the IHI Group's high engineering capability.

# Create a new profitable business by solving the various social issues primarily through the development of the Ammonia Value Chain

The IHI Group is working on the development of an Ammonia Value Chain for the realization of a decarbonized society. Ammonia does not emit CO<sub>2</sub> when burned. Focusing on this advantage, the Group has been developing ammonia combustion technology for more than 10 years. The development of ammonia-related technologies has already entered the social implementation phase and the Group aims to make contributions in the electric power and industrial fields by leveraging its proprietary "killer content" technologies. More specifically, various initiatives are underway, such as the ongoing application of ammonia to thermal power plants in collaboration with JERA Co., Inc. and the development of heavy duty gas turbines, combusted exclusively with ammonia in collaboration with General Electric as well as the development of ammonia fueled engines for ships. Moreover, we are also considering participating in the upstream part of the Green Ammonia Value Chain in India, the Middle East, and Oceania. Most of the ammonia currently in circulation is manufactured from fossil fuel and emits CO2 in its manufacturing process. The Group aims to

reduce CO<sub>2</sub> emissions of the overall value chain by supplying green ammonia manufactured from renewable energy.

The IHI Group will also work on new businesses such as methanation, palm ecosystem, and Sustainable Aviation Fuel (SAF) in addition to the development of the Ammonia Value Chain. We aim to create new profitable businesses by solving the diverse social issues faced by various regions and customers.

# Cultivate the entire Ammonia Value Chain including ammonia as a fuel for the business to become comparable to the Aero Engines and Space business between 2040 and 2050

The development of the Ammonia Value Chain which is at the center of our clean energy business, is an effective solution to decarbonize regions with many thermal power plants such as Japan and Southeast Asia. IHI will work on building the entire value chain and increasing its value by supplying equipment such as gas turbines and gas engines utilizing its world-leading ammonia combustion technology. This will all be based on the storages and receiving terminals boasting top-class track records. At the same time, we will also consider investment in the upstream part of Green Ammonia Value Chain thereby expanding our business throughout the whole chain.

In Japan, the Ministry of Economy, Trade and Industry (METI) set the goal of achieving 3 million tons of domestic ammonia usage in 2023 and 30 million tons in 2050 to replace coals and LNG. IHI plans to grow our ammonia operation as a vital business which can bear a certain share of the responsibilities for achieving METI's goal. The Group targets approximately 900 billion yen in the period between 2040 and 2050 as revenue from the entire Ammonia Value Chain business, which includes the upstream value chain. In addition, ammonia is promising also as a carrier of hydrogen, thus the Group will expand our business with an eye also on conversion of ammonia circulated as fertilizer into green ammonia.

# Drawing on its experience in the past, the IHI Group will address the scale of risks, returns, time frame for collection, and risk diversification

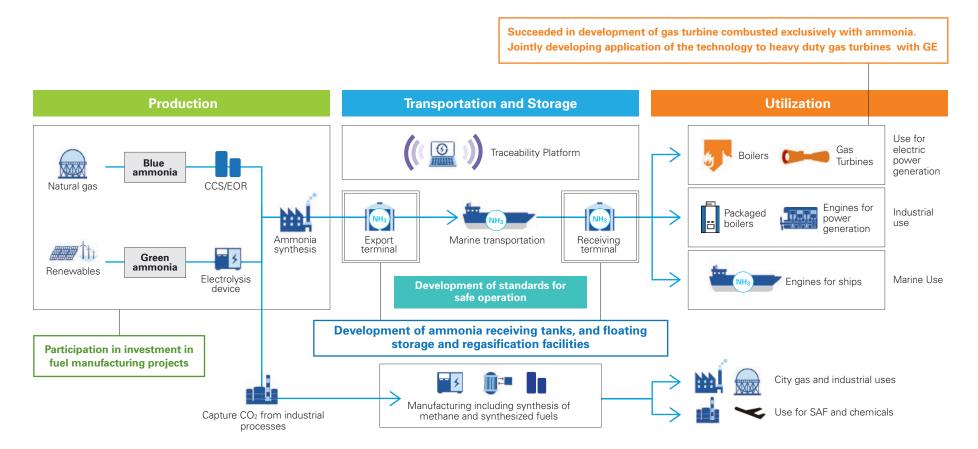
Countries around the world are increasingly taking measures against climate changes and active discussions are going on for realizing a decarbonized society. Under such circumstances, the ammonia combustion technology is expected to create business opportunities in the electric power and industry fields. Nevertheless, investment in the upstream value chain and development of relevant equipment comes with a certain risk. The Group will take risk management measures that leverage its experience. Specifically, our internal experts will discuss each case, identify risks, and study countermeasures. In particular, the Group will implement investment projects after considering the balance between risks and profitability as well as the time frame for recovering investment. The IHI Group is also building the fuel ammonia manufacturing business, a pillar of the ammonia value chain. In parallel, the Group is studying the risks in cases where demand for ammonia as a fuel does not grow as anticipated in the electric power and industry fields or cases where it is unable to capture the anticipated share of the fuel ammonia supply market.

We will strengthen risk diversification by broadly and flexibly developing our business through measures such as supply of green ammonia to the existing market which is centered on ammonia as a fertilizer as well as the utilization of ammonia as a hydrogen carrier.

## Realize a decarbonized society primarily through development of the Ammonia Value Chain

The medium- to long-term target of the Development-focus business is to grow a profitable business in the clean energy field primarily by building the Ammonia Value Chain so that it will be comparable to the Aero Engines and Space business in terms of revenue. Our business strategy is to realize a decarbonized society through the supply of equipment including gas turbines combusted exclusively with ammonia from the perspective of the value chain, in addition to supply of fuel-use green ammonia manufactured from renewable energy, which does not emit CO<sub>2</sub> in the manufacturing process.

Currently, the Ammonia Value Chain business is in the development phase for commercialization and its 2,000 kW-class gas turbine combusted exclusively with ammonia is in the final phase of development. IHI aims to complete this development by 2030 and targets its utilization in the electric power field. Going forward, the IHI Group will establish a solid business for the value chain as a whole in the latter half of the 2020s through moves such as participation in the green ammonia supply business. Further, we will promote development of new businesses such as methanation, palm ecosystem, and SAF, through which we aim to diversify risks and build new business models. In terms of profitability, the Group expects the business to start contributing to earnings from mid-2030s, as it requires development and investment upfront.



Transforming Business and Business Portfolio

# **Core Businesses**

In the Core Businesses which includes Resources, Energy & Environment, Social Infrastructure, and Industrial Systems & General-Purpose Machinery, we will augment a growth strategy based on Exploit and Evolution of LCB. We will prioritize cash generation by meticulous reform of business structure and generating management resources that we invest in Growth Business and Development-focus Business.

## **Maximizing Customer Values Through LCB**

# Achieved the LCB revenue target of 'Project Change'

During the period of former mid-term plan 'Project Change', we defined Life Cycle Business (LCB) as "the provision of comprehensive services throughout the entire life cycle to maximize customer value," and we have been strengthening and expanding LCB.

As for specific examples, in addition to large-scale, highly

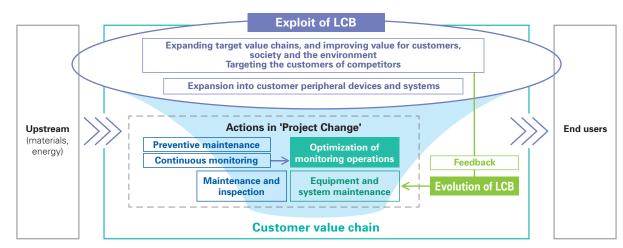
complex repair works (bridges, nuclear energy, power generation, etc.) to ensure safety and extend the life of equipment in customer operations, we also carried out continuous monitoring of the status of facilities and plants of customers using digital technology to support their operations, made facility renovation proposals based on maintenance and diagnostics, and took initiatives to shorten the construction period in all the divisions in the Energy, Social Infrastructure and Industry business areas. As a result, we posted a 35% increase in revenues for LCB in fiscal 2022 compared to fiscal 2019 (against a target of 30%).

# We will aim to exploit and evolution of LCB in "Group Management Policies 2023"

In "Group Management Policies 2023," the IHI Group expanded the scope of the provision of comprehensive services throughout the entire life cycle to the facility and asset value chains owned by the customers and also to equipment supplied by other companies, without limiting to equipment and systems supplied by the Group. We will implement initiatives that maximize customer values such as fuel conversion and visualization of energy consumption to promote carbon neutrality at customers in the power generation and industrial fields, measures that promote labor savings through optimization of operations by analyzing operation data of workers and equipment, and preventive maintenance of infrastructure and maintenance and repair of facilities upstream and downstream of river water systems (Exploit of LCB).

Through these efforts to provide services to maximize customer value, we will produce new technologies and services (Evolution of LCB) and link them to the next growth business by building the entire value chain and enhancing value.

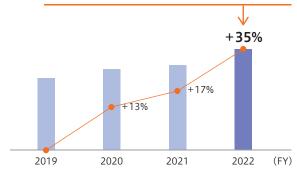
### • Growth strategy centered on exploit and evolution of lifecycle businesses (LCB)



Change in LCB revenue

\*Excluding Aero Engine, Space & Defense business fields

LCB revenue -- LCB growth rate (compared to FY2019) Achieved the target (increase of 30% or more compared to FY2019) of 'Project Change'



### **Resources, Energy & Environment Business**

### Change in business environment: Emergence of new demand for decarbonization

As for the market environment going forward, some existing businesses are expected to shrink such as new installations of boilers for coal-fired power plants as the move towards carbon neutrality gains momentum. On the other hand, new demand is expected to grow for the effective utilization of existing facilities, such as maintaining the operation of high-efficiency power generation facilities and converting them to carbon neutral. Further, as energy demand is expanding around the world, we anticipate increased demand for installation of gas-fired power plants in the Southeast Asian market and renewable energy-related business in North America. In the nuclear energy business, we are expecting strong market expansion in the medium to long term, with the restarting of deactivated nuclear power plants gathering pace and the decontamination and decommissioning of Fukushima Daiichi Nuclear Power Plant in full swing.

### Through business structure reforms, we will transform ourselves into a business entity capable of generating stable profits to a business entity capable of generating stable profits.

Revenue of the main business (excluding LCB) is expected to remain strong, mainly due to the receipt of several large-scale projects in the EPC business in Southeast Asia and the energy management service business in North America. With focus on these large-scale projects, we will strive to keep in check the increase in project costs and secure profitability by having a three-layered management structure of a business area-driven risk management in addition to risk management by each base as well as the Head Office divisions. In the Power Systems business, we will strengthen profitability by steadily implementing business structure reforms through selection and concentration of businesses and a review of the cost structure.

# Promote the business through integrated efforts of the various business areas to secure LCB revenue

In the LCB during the period of "Group Management Policies 2023," the number of projects is expected to decline due to a decrease in periodic inspections and repair work resulting from the suspension of inefficient coal-fired thermal power generation and a lull in nuclear power restart and nuclear fuel cycle-related work. Therefore, both revenue and operating income are expected to shrink with only the efforts taken so far in relation to LCB. In the Carbon Solutions (CS) business, we will aim to secure revenue through acquisition of LCB of boilers manufactured by other companies including overseas projects and through optimization proposals for maintenance based on plant operation data. In the petrochemicals field, we anticipate changes in manufactured items reflecting the customers' business strategies, and will respond to the resulting process changes. In the nuclear power business, we will pursue acquisition of projects with a view on the maximization of nuclear power use in the future.

### Medium- to long-term business strategy: Realize a carbon-neutral society

During the transition period until 2030, we will optimize the operation of facilities by making effective use of existing facilities and operating them in a highly efficient manner. In addition, we will gradually reduce CO2 emissions from thermal power generation by switching to fuels such as biomass and ammonia, and develop infrastructure accordingly. In the nuclear power field, we will assist in the reduction of CO<sub>2</sub> emissions by contributing to the restart of nuclear power plants and their maximum utilization. Further, we will accelerate the establishment of technologies necessary for achieving carbon neutrality by 2050. In the transformation period from 2030 onwards, we will promote carbon neutrality by 1, utilization of ammonia led by exclusively ammonia combusted power generation, 2, CCUS with CO2 capture and conversion technology that does not emit CO<sub>2</sub> outside the system, 3, electrification of ships and 4, promotion of safe and secure nuclear power with small-scale nuclear reactors.

Data



Hekinan Thermal Power Station demonstration project for ammonia co-firing Source: JERA Co., Inc.

Transforming Business and Business Portfolio

### **Social Infrastructure**

# Change in business environment: Current status of the infrastructure business in and outside Japan

The social infrastructure market is witnessing expansion and sophistication of demand for infrastructure system maintenance in Japan such as in measures against intensifying natural disasters following the government's promotion of disaster prevention and mitigation and the National Resilience Plan as well as the shift to preventive maintenance for extending the life of infrastructure. Overseas, while there remains a certain level of demand for construction work that call for high level technology such as construction of long-span bridges including suspension bridges and large-scale repair work in various countries in Europe and the U.S. Meanwhile, vigorous demand for new infrastructure continues in emerging countries, though competition with foreign companies is intensifying due to cost increases caused by the yen's depreciation.

In this business environment, the aging of skilled engineers continues due to the declining birthrate and aging population in Japan, and securing human resources and passing on skills have become major challenges. Further, the shortage of engineers and operators in infrastructure management has led to standardization and streamlining of operations and labor savings through digital transformation, which has become a pressing issue. Consequently, we are also facing a transitional period for business reforms reflecting these issues.

# Aim for stable cash generation by building a strong business structure that can withstand changes in the environment

We will strengthen cash generation ability with "enhancement of order winning capability of existing businesses" and "creation of businesses that solve social issues".

In the various businesses including the Bridges/water gates and shield systems, we will further burnish the technical and management capabilities gained in the existing highly complex works and overseas projects, and strive to increase orders it wins in a total war effort by precisely identifying changing customer needs. We will also ensure further strengthening of the revenue base by expanding into new businesses based on the exploit and evolution of LCB for solving social issues such as "aging of infrastructure," "intensifying natural disasters," and "declining birthrate and aging population."

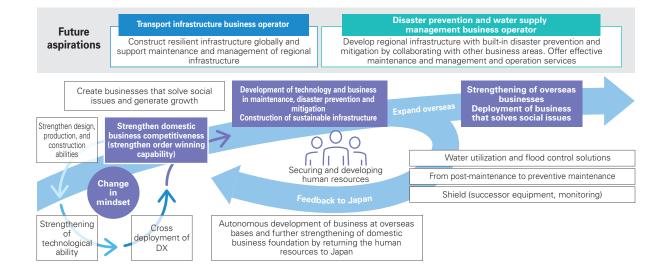
### Drive forward enhancement of the LCB revenue by transitioning from post-maintenance to preventive maintenance and comprehensive maintenance management

In the Social Infrastructure field in Japan, while aging of infrastructure is advancing, there is a shift from post-maintenance to preventive maintenance aimed at extending the life of infrastructure and increasing outsourcing of comprehensive maintenance and management to private players to address the shortage of budget and personnel necessary for maintenance and management.

We also have been reviewing the Social Infrastructure business area to address these issues, and it will engage in the preventive maintenance business such as proposing repair period utilizing accumulated data from diagnosis of bridges and deterioration information. This will be achieved by enabling easy data linkage from the various processes starting from design to maintenance and management through promotion of use of BIM/CIM. Specifically, we will widely deploy our bridge management support system (BMSS) and carry out damage analysis of infrastructure and support the formulation of plans to extend infrastructure lifespan targeting local governments and road management entities.

### Medium- to long-term business strategy: Support development of safe and secure social infrastructure

We aim to support a safe and secure society from the aspects of both transportation infrastructure and disaster prevention/water management. We will acquire more orders by further enhancing the business foundation based on the five existing businesses (Bridges/water gates, Transport systems, Shield systems, Concrete construction materials, and Urban development) and aim to further grow the business. Towards that end, we will transform ourselves into an entity that customers can rely on by building a strong business structure through pursuit of cross deployment of DX and production/construction reforms. Moreover, we will strive to solve social issues by making disaster prevention and mitigation businesses such as wide-area management of water utilization and watershed flood control that address the intensifying natural disasters occurring frequently nowadays, into a new pillar of the business. By raising the added value of the business through these growth strategies, the IHI Group will ensure further strengthening of the business structure.



### Industrial Systems & General-Purpose Machinery

### Change in business environment:

### Growing need for decarbonization, automation, and labor saving

While the impact from the increasing shift of passenger cars to EVs is visible in the vehicular turbocharger market, new demand for turbochargers is being generated such as for making internal combustion engines more efficient, utilization of hydrogen and alternative fuels, and introduction of fuel cell system. The IHI Group also delivers turbochargers for engines used in a wide range of applications including commercial, general, and marine uses in addition to passenger vehicle applications and it expects the business to continue retaining a certain size for the time being. Meanwhile, needs for decarbonization, automation, and labor saving have been growing in the industrial systems market to respond to social issues such as climate change and declining population. We expect the business related to offering of solutions such as energy saving at customer plants as a whole and improvement in production efficiency to expand in addition to sales of equipment.

### Continue to stably generate cash and support the Growth and Development-focus businesses

The vehicle turbochargers business will forcefully promote selling price improvement activities as automobile production normalizes globally and aims to sustainably improve profitability by gradually reducing the impact of soaring prices of materials through VA/VE activities\*, and optimizing fixed costs. In the industrial systems business, the impact of supply shortage and prolonged delivery time of material and equipment including electric components continues to linger. As a countermeasure to this, we will ensure appropriate inventory levels and reliable implementation of construction works based on demand forecast by building a process for timely grasping and reflection of delivery information.

\*VA/VE are short for value analysis and value engineering. These are activities to review product designs and manufacturing methods through analysis of costs, functions, etc. and reduce costs while maintaining quality.

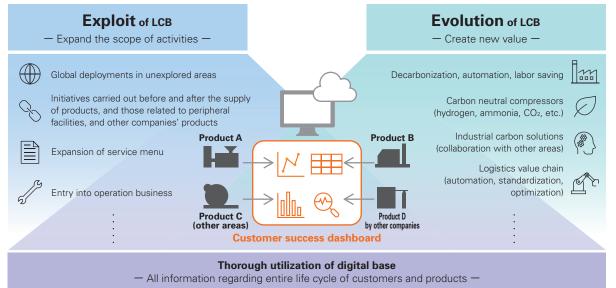
## Deliver a growth story centered on exploit and evolution of LCB and strengthen business structure

In exploit of LCB, we will focus on customer's business activities as a whole and work on issues of decarbonization, automation, and labor saving of primarily the IHI Group's products as well as peripheral equipment, other companies' products, and the plant as a whole. We will also build a brand new profit model such as by entering into operation business by going beyond the framework of existing equipment and system delivery. Further, we will offer meticulous service rooted in the requirements of the customers in each region and also expand the service business overseas along with the global deployment of the product sales business. At the same time, in evolution of LCB, we will offer solutions by going beyond the boundaries of the existing businesses and development of new businesses including electric turbocharger (ETC) for fuel cell systems and creation of values as part of initiatives for realizing decarbonization, automation, and labor saving.

### Medium- to long-term business strategy: Aim to become a highly profitable business entity that solves issues

We list "decarbonization of the manufacturing industry," "labor saving and automation," and "global" as the key words for growth, and will drive forward structural reform to make it into a highly profitable business entity that solves issues by leveraging to the maximum extent the advantages of having multiple industrial equipment businesses. We will also work to share and redistribute resources and to enable flexible utilization of people, goods, and funds within the area and build an optimum structure that can demonstrate collective strengths. We have already been implementing an initiative for sharing information, in which information of the entire life cycle of customers and products is made available on the customer success dashboard (CSD) as a digital base, and it is utilized by all businesses. We will offer new values to customers by looking at their issues from various angles going beyond the framework of individual products.

### Exploit and evolution of LCB



# **Response to Operating Environment Changes, Corporate Structure Transformation**

# **Human Talent Strategy**

We have the Group Human Talent Strategy 2023 in place and are implementing it toward attaining the following two targets under our "Group Management Policies 2023": "Business transformation & business portfolio optimization to achieve strong, sustainable growth" and "Response to operating environmental changes and a corporate structure that enables transformation."

### **Basic Concept of Group Human Talent Strategy 2023**

### Ideal Vision for Future

In order to achieve business transformation and corporate structure reform, it is important to balance a good & strong company and personal growth & happiness. The IHI Group will promote the development of organizations and human capital capable of solving challenges faced by customers, industries and society by combining new leadership with agile self-transformation capability and thus committing to Goal achievement. Furthermore, by prioritizing the respect for humanity through the success and happiness of employees and new partnerships.

### **Material Issues & Priority Measures**

To achieve the sustainability vision for the future, fiscal 2023 will be positioned as a turning point in terms of an evaluation axis, time axis and relationship. 3 material issues are addressed and 11 priority measures are implemented, aiming to induce behavioral transformation in all employees and foster an organizational culture capable of accomplishing reform.

<Shift to Organizational Culture for Successful Transformation> Evaluation axis: Focused on improvement in

continuation of conventional practices  $\rightarrow$  Encourage Challenges for transformation

Time axis: Preference for pursuit of perfectness over time spent  $\rightarrow$  Preference for speed

Relationship: Focused on own workplace or closed in-company network → Build new relationships



Response to Operating Environment Changes, Corporate Structure Transformation

#### • Human Talent Strategy: Material Issues & Priority Measures

FY2023: Beginning of transition pe	eriod		Material issues	Priority measures	Key points
<ul> <li>✓ Evaluation axis: Encourage Challenges for transform</li> <li>✓ Time axis: Preference for speed</li> <li>✓ Relationship: Build new relationships</li> </ul>	ation O Tackle material issues below	Ideal vision below realized		<ol> <li>Coordinated acquisition of human capital for transformation</li> <li>Development &amp; allocation of human capital for transformation (IHI Academy)</li> </ol>	<ul> <li>In areas where the IHI Group's expertise is lacking, acquire systematically, instead of sporadically, human capital for transformation from external sources, ensure their retention and facilitate the internalization of their knowledge.</li> <li>Change employment to system/practice matching labor market</li> <li>Manage human capital for transformation acquired from outside in a manner different from usual practice in terms of job description, reporting line, etc.</li> </ul>
	I. Acquisition & retention of human capital for transformation,	Capability for Agile Self-transformation	II. Bold & constant shift	<ol> <li>3) Establish organizational resource shift process</li> <li>4) Build organizational reskilling mechanism</li> <li>5) Promote self-directive career development</li> </ol>	<ul> <li>Identify talent requirements for areas of high urgency &amp; high importance such as "specific LCB departments of Core businesses," "specific projects," and "head office-related departments," and address them intensively.</li> <li>Establish a resource shift process as soon as possible and operate it as a permanent one</li> <li>Promote self-directive career development and reskilling in an organized manner.</li> </ul>
	internalization of knowledge II. Bold & constant shift in resources III. Evaluation/behavior	Employee Success/ Happiness	in resources		
	standards, reform of organizational culture	New Partnership	III. Reform of Evaluation/	<ul> <li>6) Change desirable means of evaluation &amp; treatment</li> <li>7) Improve human capital management power of "employees</li> </ul>	<ul> <li>Sort out uniform behavior standards/evaluation items such as "encouragement of challenges" and "prompt response to customers," and conduct a fresh institutional review of</li> </ul>
2020-2022 Project Change 2022 ESG management		2032-	behavior standards, organizational culture	in supervisory posts" 8) Improve employee engagement 9) Develop organizational culture based on ESG & well-being 10) Empower diverse human capital (DE&I) 11) Respect for human rights	linkage between evaluation and development/treatment. • Incorporate evaluation standards focused on ESG/well-being into a variety of measures to develop them as organizational culture.

## **Functions & Roles of IHI Academy**

Human Talent Strategy: Ideal Vision & Material Issues

As an initiative to switch over our human capital portfolio, we have set up the IHI Academy as an entity under the CEO's direct control with a view to identifying transformation-leading human capital and thoroughly training them. At the IHI Academy, we will identify and foster 600 people as transformation-leading human capital in the next three years to fiscal 2025, and allow people selected from among them to take on the challenging mission of assuming the presidency in and outside the IHI Group and other tough assignments before their training program ends. Transformation-leading human capital sought by the IHI Group are defined as follows: C-level executives who can generate transformation and high-level professionals who lead business transformation (deepening/evolution of business-transforming LCB, and creation of growth businesses) in terms of technology; these experts include professionals in design, production & product guality in conventional spheres, and AI specialists/data scientists in the digital sphere.

### **Enhancement of the Human Resource Segment**

To accomplish the human talent strategy aligned with the group's management strategy, and to seek closer collaboration between the human capital and business divisions, organizational restructuring of the Human Resources Division was carried out in April 2023, significantly expanding its functions. To facilitate the company-wide implementation and progress confirmation of the human talent strategy, Organizational Development Group was newly established within the Human Resource Division. The move aims to enhance collaboration with the business segment while also taking charge of planning, designing, and executing activities to promote the dissemination of the envisioned direction and material issues of the management and human capital strategies. Additionally, the new group is responsible for energizing the IHI Group's organizational vitality, and mapping out initiatives for improving employee engagement and for establishing related systems.

To drive the digital transformation of the human resource segment within the IHI Group, HRDX Group has been newly established, focusing on the development and operation of a globally integrated HR platform.

The newly established Human Capital Development Group supports the promotion of employee career/capacity development, the planning of initiatives related to reskilling and human capital development, and the execution of human capital development and training undertaken by the business segment. The new group is also in charge of the operation of an IHI alumni network aimed at exchanges between human capital who have departed from IHI and those within the IHI Group. To comprehensively promote diversity, equity and inclusion, DE&I Group has been newly established. This group is responsible for promoting human rights awareness based on the IHI Group Human Rights Policy, developing and implementing human resource-related measures for diversity promotion, and devising and executing initiatives for improving well-being.

# **Response to Operating Environment Changes, Corporate Structure Transformation**

# **DX strategy**

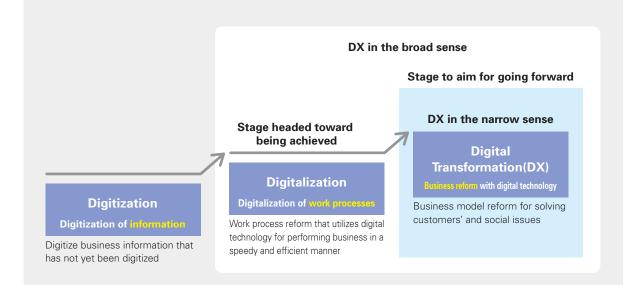
Digital transformation of the IHI Group will be accelerated based on "Group Management Policies 2023" to attain "business transformation to achieve strong sustainable growth" by vigorously promoting "advancement of digital infrastructure that is essential for such transformation" in an effective way.

### DX Strategy for the IHI Group

### **DX Promotion Guidelines**

The IHI Group defines DX in the broad sense and includes digitalization. Digitization will be thoroughly implemented first to realize DX with unprecedented speed and scale. Specifically, we will (1) completely break down and reorganize work processes, (2) visualize the work

processes using data, (3) first determine what needs to be commonized and standardized, and limit customization as much as possible based on the concept of separation of fixed and variable elements to design/redesign the work process. In doing so, we will strive to eliminate manual data processing and standardize work processes. Then we can finally (4) implement systems, and (5) perform verification and corrections based on data.



### **DX Strategy by Business**

#### (1) Growth Business: Aero Engines and Space

In the aero engines field, digital infrastructure will be strengthened under the Fit to Standard approach, while at the same time reforms for production efficiency, development processes, and business structure will be promoted along with carbon neutrality. A digital thread will be completed to connect such data comprehensively and realize world-class efficiency so as to achieve "catching up with the world and overtaking it."

#### (2) Development-focus Business: Clean Energy

New business creation will be actively sought from the viewpoint of lifecycle and value chain. For example, in building an ammonia value chain, we will work with other companies from the course of ammonia production (upstream) to combustion and use (downstream) in utilizing digital technology such as blockchains to heighten green ammonia value and expand its application. We will also aim to establish a method for efficient ammonia production utilizing digital technology.

### (3) Core Businesses: Energy, Industrial Systems & General-Purpose Machinery, Social Infrastructure

Toward exploit and evolution of LCB, digital technology will be used to pursue both customer success and work process reform. Specifically, data linkage with customers and partners will allow information regarding status and operation plans for facilities owned by customers including those manufactured by other companies to be gathered, so that we can resolve issues for customers throughout entire lifecycles. In conjunction with this, we will also promote work process reform and enhance speedy development and provision of products and services.

### **DX Strategy in Head Office Functions**

Toward achieving goals in "Group Management Policies 2023," drastic work process reform will be promoted using digital technology for functions of the head office such as finance and human resources, aiming to build a corporate structure that can achieve not only DX but also transformation of businesses. Response to Operating Environment Changes, Corporate Structure Transformation

### (1) Financial DX

We will aim to make operations thoroughly efficient and sophisticated for management that can make decisions quickly based on data. Necessary data to do so will be identified, work processes involved in finance and performance of the IHI Group overall will be restructured, and a system for efficient data collection, accumulation, and utilization will be created. Through consolidation, automation, etc. of resulting standardized work processes, we will aim to reduce management/indirect operations and optimize resources.

### (2) Human Resources DX

To achieve transformation in business and corporate structure, it is necessary to promote the developing and recruiting of innovative human resources, as well as allocate human resources in an agile and appropriate manner. By building a system to visualize and manage human resource information such as skills, qualifications, evaluations, career history, work engagement, etc. in addition to information such as capabilities required for achieving business strategies (talent management system), we will strive to optimize developing and recruiting human resources and allocating them.

# Advancement of Digital Infrastructure Essential for Business Transformation

The following measures will be implemented to achieve (1) digital infrastructure for creating a new business model with global competitiveness, and (2) digital infrastructure for dramatic production and business process reforms, as outlined in "Group Management Policies 2023."

# (1) Developing/strengthening of DX and digital human resources

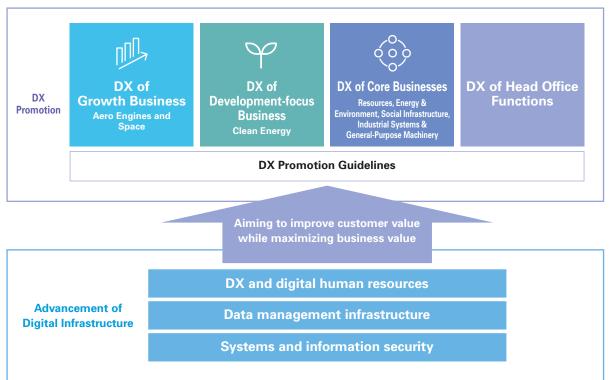
To use digital technology to transform business models and work processes themselves with an understanding of social issues and customer value requires human resources that understand DX and are capable of transformation (DX human resources), as well as human resources that can support such transformation and the DX human resources who promote it using digital technology such as Al/data analysis, information security, and ICT (digital human resources). To develop DX human resources, we will work alongside the management and specialist human resource training program at IHI Academy to provide education according to job specifications for all IHI Group employees. Our policy is also to actively recruit externally.

#### (2) Establishment of data management infrastructure

Data governance will be established after which data management infrastructure will be built bundling data and tools that can be used company-wide beyond SBU and business area boundaries, to strive for further advancement. Internal data generated by finance, human resources, and work processes, external data such as data for customers' facilities made by IHI and other companies, application tools being used at various work sites, etc. will be collected and accumulated and made available for reuse. (3) Systems and information security

SBUs and subunits have thus far individually invested in systems, but going forward systems governance will be established aiming to optimize investment and costs for systems as a group overall. To carry out DX, it will become necessary to link and share data and information with companies outside the IHI Group, customers, and partners, while meticulous information security measures will be needed. To establish both convenience and security, a network infrastructure will be built based on the concept of zero trust.





Message from the General Manager of Business Development Headquarters

# Our Aim: Accelerate Commercialization in the Value Chain for New Energy, Drive Future Growth in Parallel with Aero Engines and Space





Q

Α

# Could you please tell us about the role of the Business Development Headquarters?

The functions of the original Solutions & Business Development Headquarters were strengthened to create the Business Development Headquarters, newly established in April 2022. The mission we have been assigned is to stimulate change and to create new businesses. We identify global social issues that need to be addressed, combine our "killer content" stemming from IHI technologies with regional and business strategies, and develop new growth business from the perspective of market entry. In addition to expanding Lifecycle Businesses, the business model aims to generate business opportunities from the perspective of a value chain for new energy and create new profitable business for the future that will drive future growth in parallel with Aero Engines and Space. We have roughly 350 personnel at present and Bahlke, IHI's first executive officer of foreign nationality, has been appointed deputy general manager. We are in the process of narrowing down global partners in spreading fuel ammonia.

Regional Strategy	Extracting social issues Identifying issues and solutions
	$\times$
Business Strategy	Providing Lifecycle value Value chain perspective
	$\times$
Killer Content	Killer content technology Killer content business

# What kind of social contribution does the IHI Group aim for by establishing the Ammonia Value Chain?

The IHI Group has been combusting ammonia as an alternative fuel to coal for about 10 years, working towards the commercialization of fuel ammonia to achieve carbon neutrality in the boiler business. At the time, it was believed fuel conversion would create demand for combustion burner replacement, which is simply a product-oriented idea. A market-oriented perspective is indispensable for the expansion of ammonia, which does not emit CO<sub>2</sub> during combustion and is easy to handle. Since ammonia has long been widely used throughout the world such as for fertilizer, infrastructure including distribution for it is already established to a certain degree. However, upon realizing the Ammonia Value Chain, other issues still remain such as securing transport and storage technology that can handle large volumes of ammonia.

To solve these issues, The IHI Group's original technologies that we've held ahead of our competitors will be leveraged. Simultaneously, overseas sites will be central in identifying social issues and business opportunities of their region from a local perspective in the process of commercialization.

Taking the lead this way, with initiatives to construct the Ammonia Value Chain as a whole, will enable building a decarbonized, sustainable society.

## Could you talk about priority areas and a timeline with regard to constructing the Ammonia Value Chain?

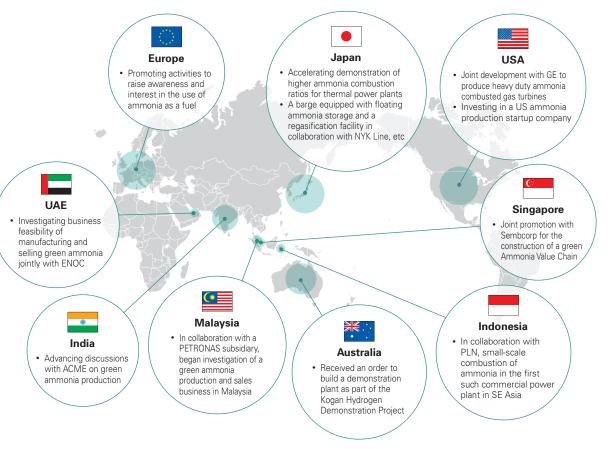
Q

Application of combusting fuel ammonia is currently moving ahead at JERA's Hekinan Thermal Power Station, but it is simply a partial conversion of fuel, or a period of transition. Toward transformation, or a state in which change to a carbon neutral society is achieved, the IHI Group will focus upstream in the Ammonia Value Chain and large-scaled gas turbines that use ammonia as fuel. During the period of the "Group Management Policies 2023", we will actualize investment and finance the upstream value chain, and provide green ammonia on a full-scale basis around 2025-2027. After 2030, I believe it will be necessary to expand the amount of ammonia produced while also enhancing the value of green ammonia. We will aim to enhance green ammonia value by conducting authentication using blockchain technology, for which we are working together with Fujitsu.

Meanwhile, in the field of power generation, we have achieved CO<sub>2</sub>-free power generation with 100% combustion using only liquid ammonia in the IHI 2,000 kW-class gas turbine. This became a world-first

success. Going forward, we will aim to bolster demand for fuel ammonia with sales of small-scaled ammonia gas turbines. We will also work toward commercial use by around 2030 of heavy duty gas turbines that are being jointly developed with General Electric (GE). GE was initially working to develop hydrogen gas turbines, but they came to agree with IHI that ammonia gas turbines are more economical and advantageous technologically, which lead to the start of our joint development.

# • Status of discussions with countries around the world on fuel ammonia production, transportation, and storage network development



# Message from the General Manager of Business Development Headquarters

# Q

А

Q

# Which regions will IHI be focusing on?

We will focus mainly on Southeast Asia and South Asia regions. Those regions have a high affinity with existing businesses that the IHI Group possesses which makes it possible to maintain a competitive advantage. We also plan to establish an actual model of the Ammonia Value Chain in regions such as the Middle East and Australia, in an attempt to create momentum for its spread. Creation of new demand is anticipated for ammonia storage tanks in areas such as Singapore, the Netherlands (specifically Rotterdam), and the East Coast in the U.S., which are prospective sites for ammonia supply bases. European and U.S. markets are being considered as candidates for investment in terms of technology, including investment and financing of startup companies. Europe, in particular, is the policymaker regarding the field of decarbonization. While green ammonia is considered as clean energy, they are aiming to create a decarbonized society mainly with hydrogen. Possibility remains in European regions that demand will be created for ammonia as a hydrogen carrier. We are considering reinforcing European sites for the purpose of deepening awareness of ammonia use.

### Can you talk about market size and earnings contribution of the Ammonia Value Chain?

We believe scale of new business arising through constructing the Ammonia Value Chain will drive future growth in parallel with Aero Engines and Space. Revenue for 2040-2050 is targeted at roughly 900 billion yen. This target includes upstream business for ammonia, heavy duty gas turbines using ammonia as fuel, and equipment such as boilers and engines. Upstream business for ammonia will be launched with the IHI Group establishing an SPC (special purpose company)

and selecting a EPC contractor (engineering, procurement, construction). We will also focus on ammonia for fertilizer and marine vessel fuel. We believe that the scale for Ammonia Value Chain upstream companies will be greater than what is estimated by the Japanese government, which is domestic ammonia demand at 3 million tons in 2030 and 30 million tons in 2050. This is because we believe the number of customers. wanting to utilize fuel ammonia is greater than projected which will cause more demand, and the idea that ammonia will be used not only as fuel ammonia but also be in demand as a hydrogen carrier. Additionally, business scale will expand as commercialization is actively carried out not only in Japan but in markets mainly in Asia.

# What are your thoughts about concerning risks surrounding commercialization and on risk management?

Q

А

Toward achieving carbon neutrality in 2050, the Agency for Natural Resources and Energy is expected to raise the power mix in 2030 to roughly 1% for hydrogen and ammonia, 20-22% for nuclear power (7% in 2021), and 36-38% for renewable energy (20% in 2021), while lowering figures to roughly 20% for natural gas (34% in 2021), 19% for coal (31% in 2021), and 2% for petroleum (7% in 2021). A situation where nuclear power generation becomes reevaluated and its composition ratio increases above what is forecasted would be a business risk for fuel ammonia. To mitigate the risk, we will proceed with business development for widespread use of ammonia including industrial and for fertilizer, marine vessel fuel, etc. In terms of business risks, we recognize that missing growth opportunities arising from solving social issues is the greatest loss of opportunity for the IHI Group. We will look for business

opportunities where we can make a contribution and aim for commercialization accordingly, factoring in a certain amount of failure and risks. Agility in decision-making will be required at times. Thus we will create a new forum for decision-making, discussing risks and returns from the planning stages, incorporating opinions of Finance & Accounting, Corporate Planning, and Technology & Intelligence Integration as well as of third-parties, while exploring investment opportunities in a proactive and bold manner.

Q

А

# Lastly, can you talk about the advantages in the IHI Group focusing on ammonia?

The trend globally is in hydrogen, not ammonia, and is becoming the mainstream alternative fuel going forward. However, hydrogen is difficult to handleas infrastructure does not currently exist for hydrogen, substantial infrastructure facilities and investment will be needed, leaving challenges including the timeline toward achieving a carbon neutral society. The IHI Group will focus on ammonia which is easy to transport, low-cost, and available as a hydrogen carrier, with IHI's technology to suppress NOx (nitrogen oxide) emitted during combustion which is an issue. We will aim to construct the Ammonia Value Chain for building a safe, secure, and economical decarbonized society.



# **Sustainability Management to Support Transformation**

Dialouge: Outside Director × Institutional Investor	57
Changes in ESG Management & Sustainability	62
Sustainability Governance	63
Stakeholder Engagement	65
Corporate Governance	67
Corporate Officers	75

**Dialouge: Outside Director** × **Institutional Investor** 

# **Corporate Governance: Supporting Sustainable High Growth of the IHI Group**

In order to move forward with the medium-term management plan Group Management Policy 2023, the role of outside directors in corporate governance is crucial.

The four outside directors exchanged opinions on the current state of corporate governance in the IHI Group along with other issues, with institutional investor Zuhair Khan as facilitator.

(Date: July 2023; Venue: IHI Club Hall)



# Medium-term management plan 2023 to 2025 "Group Management Policies 2023"

Zuhair Khan (hereinafter, "Khan"): UBP Investments manages stocks with a focus on the governance of Japanese companies, and believes that the key to governance is the Board of Directors. The Outside Directors of IHI consist of members with extensive backgrounds. Today we would like to have a discussion based on your diverse experiences.

First, let me ask you about the "Group Management Policies 2023". In the "Group Management Policies 2023", which has a strong focus on the life cycle and value chain perspective, the businesses of the IHI Group are classified into three businesses: the Growth Business (Aero Engines and Space), the Development-focus Business (Clean Energy including ammonia), and the Core Businesses (Resources, Energy & Environment, Social Infrastructure, Industrial Systems & General-Purpose Machinery). I understand that the business transformation IHI is trying to promote here requires active investment. What kind of internal discussions are conducted regarding the time frame for investment recovery and monetization?

Usui: Although we have not yet fully discussed the time frame for monetization, we must establish a solid business model by 2030 regarding Clean Energy such as ammonia, which is positioned as Development-focus Business. Regarding our ammonia business, the IHI Group aims to play a central role in the entire supply chain, from fuel production, storage & transport to utilization. However, it will take some time to establish such a business model, as it depends heavily on the energy policy of each country. Aero Engines, which we position as Growth Business, is very well situated in the global supply chain and is an area that is expected to continue growing. To propel this growth, we need to further strengthen our business foundation, including production technology, and increase our presence in the market. An aircraft is a complex system assembled with many parts. In addition, increasingly advanced technologies must be incorporated to meet the

accelerating demand for fuel efficiency and to attain strict certifications. For these reasons, it takes time for R&D investment, commercialization of the product, and achieving profit.

In the areas that we have positioned as Core Businesses, we must carry out structural reforms and increase profitability to generate investment funds to be allocated to the Development-focus Business and Growth Business.

Khan: I think it is necessary to sell off assets and non-core businesses in order to secure funds for investment in Development-focus Business and Growth Business, which will eventually become core businesses. Are you having thorough discussions about such issues?

**Matsuda:** By defining the Growth, Development-focus, and Core Businesses and clarifying the business portfolio, we have completed the foundation for discussions on future

investments. Following the previous medium-term management plan, Project Change, the Board of Directors including myself have been able to share a common concept of the business portfolio. Now, we are gradually able to discuss efficient use of capital, including asset sales. I believe that the discussion of business and investment priorities will become a central topic of discussion for the Board of Directors in order to avoid missing out on business opportunities.

**Usui:** There are various businesses in the Core Businesses. While there are technologies within such businesses that are important to the IHI Group, I feel that the businesses are not necessarily competitive. It will be necessary to change the business structure to achieve more synergies by consolidating core human capital, technology, and customer base. We should concentrate our management resources to where we can compete on a global scale, including our subsidiaries. By improving the profitability of the Core Businesses with large revenue and securing investment resources, we can make proactive investments in the Development-focus and Growth Businesses. I believe that the market will understand the need to secure funds and make investments in this way.

Khan: I believe that business transformation through digital transformation (DX) must be accomplished in order to increase the profitability of the Lifecycle Businesses. How do you evaluate DX strategy and securing of DX human capital?

**Usui:** The IHI Group's strength lies in hardware. We should leverage this strength and implement DX solutions for our businesses to increase productivity and competitiveness. We will need to be open to various possibilities, including partnerships with other companies.



Chairperson of Remuneration Advisory Committee Nomination Advisory Committee Member

Yoshiyuki Nakanishi



Nomination Advisory Committee Member

Chieko Matsuda



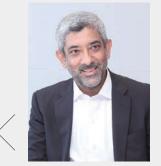
Remuneration Advisory Committee Member Nomination Advisory Committee Member

Minoru Usui



Remuneration Advisory Committee Member Nomination Advisory Committee Member

Toshihiro Uchiyama



UBP Investments Co., Ltd.

Zuhair Khan

Joined UBP Investments in 2019 as head of equity management strategy focused on governance of Japanese companies. Prior to that, he was head of research and strategist for Japanese equities at a U.S. securities firm. His research and analysis products on corporate governance of Japanese companies have been highly evaluated by institutional investors worldwide.

**UBP Investments:** Japan Office of Union Bancaire Privée, an asset management company based in Geneva, Switzerland.

# **Dialouge: Outside Director × Institutional Investor**

**Matsuda:** IHI has excellent human capital and technologies, however there are three issues that need to be improved. First, the company has a weak spot in considering overall optimization. Second, it lacks the ability to form business designs. In other words, the design of individual parts is superb, which is an advantage, but the business as a whole needs to be designed with the market and competition in mind. Third, there is a lack of speed. With the understanding that something must be done to address these issues, we formulated the "Group Management Policies 2023", which focuses on transformation. In order to promote business transformation through DX, it is important to improve the three issues mentioned. We will also promote behavioral change in addition to awareness-raising.



**Khan:** I feel that there is a large room for improving profitability through business transformation. What is the expected profitability impact when business transformation is steadily implemented over the medium to long term?

**Matsuda:** If the transformation can be realized, I expect that profitability can be expanded, for example, to twice the current level. On the other hand, the hurdles that need to be overcome in order to realize this goal are also in sight, so now is the time to press on.

Nakanishi: The Clean Energy area of the Development-focus Business is a promising business. If

The Ammonia Value Chain will be established through bold investment and strong presence as a main player in the market, contributing to an increase in profitability.

**Usui:** Until 2030, we expect that the Growth Business will drive profitability improvement. The Core Businesses are also capable of achieving a stable double-digit profit margin. Furthermore, by investing the cash generated from these businesses in the Development-focus Business, we can greatly accelerate the growth of Clean Energy in and after 2030, which could be a game changer for the IHI Group. As you can see, IHI has the ability to become a high-growth and highly profitable company, and I will closely track its progress.

Uchiyama: Regarding the Development-focus Business, new developments related to Clean Energy are reported daily in the media around the world, making it a very exciting business. We would also like to aim for at least double-digit operating profit margin. One way to accomplish this is to pick a company as a benchmark. With the right benchmark, we will be able to set realistic targets.

## **Board Structure**

Khan: We focus on the number of Board Members when assessing governance. When the number of Board Members is too large, we see cases where governance is inadequate. The Board of Directors of IHI is composed of 17 members, including 12 Directors and 5 Audit & Supervisory Board Members. What are your thoughts on the effectiveness and appropriate size of governance?

Usui: IHI has 12 Directors, which is more than other companies in general. However, the discussions center on the internal Directors with representation, the Outside Directors, the outside Audit & Supervisory Board Members, and the Director in charge of finance, which is not substantially different from Seiko Epson Corporation (hereinafter, "Seiko Epson") where I chair the Board of Directors. I do not see a problem with streamlining the Board of Directors in the future.

Uchiyama: NSK Ltd. (hereinafter, "NSK") reduced the number of Board Members from 12 to 9 and increased the number of Outside Directors to a majority. The reason for reducing the number of internal Directors is to make the Board of Directors a place where everyone can actively participate in discussions. Internal Directors in charge of business execution are reluctant to participate in discussions outside of their own areas of responsibility, and they may have a psychological tendency not to oppose or criticize other matters in order to gain support for their own agenda, so they inevitably speak out less. NSK has been able to maintain the depth and neutrality of discussions by reducing the number of Board Members and having the Representative Director, Outside Directors, and Directors who are the Audit & Supervisory Committee Members take the lead in discussions, and having the Executive Officers who are responsible for business execution provide explanations as necessary. During my term as President and Chief Executive Officer, I myself was anxious about whether or not the proposals would pass, but it is true that I was able to approach the meeting with a sense of urgency.

Khan: In IHI, both the Board of Directors and the Nomination Advisory Committee are chaired by internal Directors. What do you think are the advantages and disadvantages of having Outside Directors in these positions?

**Matsuda:** From the viewpoint of an investor's evaluation, I think there are more advantages in having the Outside Directors in these positions. Investors tend to judge the effectiveness of governance first on the basis of external factors, so I think this has the advantage of making it easier for investors to evaluate the effectiveness of governance. In addition, there is an advantage in having more external views reflected. That said, it does not mean that the functionality of the Board of Directors or various

committees is compromised if they are chaired by internal Directors. Essentially, what is important is that there is mutual trust and sufficient communication between the board's chairman/committee's chairperson and the Outside Directors to ensure effectiveness.

Uchiyama: There is also an option of appointing an internal Director who is not involved in business execution as a chairman of the Board of Directors. In fact, an internal Director who is not involved in business execution is the chairman in NSK. Having an Outside Director serve as chairman has advantages in terms of guaranteeing independence. On the other hand, if the chairman of the Board or the committee does not have sufficient understanding of changes in the market environment or technology trends, discussions may not be fruitful.



Nakanishi: The Chairman who does not have representation and is not involved in business execution chairs the Board of Directors also in DIC Corporation. Investors may value having an Outside Director serve as the chairman. However, the choice of whether the chairman should be from outside or inside the Company is not an easy one to make, considering the operational aspects of the Board meetings.

**Usui:** The business structure of the IHI Group is complex, thus I feel that it is quite difficult for an Outside Director to chair the Board of Directors. Meanwhile, it is also true that

the nomination of a successor to the next President requires the involvement of Outside Directors from the perspective of ensuring objectivity and transparency. Therefore, I believe that it is more persuasive to stakeholders if the Nomination Advisory Committee is chaired by an Outside Director.

Khan: There is an option to have a lead Outside Director to improve communication between internal and Outside Directors.

Usui: I agree that communication among Outside Directors will be easier if a lead Outside Director is appointed. In current Board discussions, there is no opportunity for Outside Directors to exchange views with each other in advance. Since each Director expresses his or her own views at the Board meetings, the reality is that it is difficult to see where the consensus of the Outside Directors lies. Having a lead Outside Director compile the opinions of the Outside Directors would most likely further deepen the discussion at the Board meetings. In Seiko Epson, a forum for discussion has been set up that is limited to Outside Directors. This is worth considering in IHI as well.

Nakanishi: Another company for which I serve as an Outside Director has a lead Outside Director, and depending on the agenda, the opinions of the Directors are aggregated in advance. These opinions are reported to the President as a consensus of the Outside Directors; thus, I feel that issues will be clearer from the perspective of the internal Directors. The Lead Outside Director, on the other hand, will have an added responsibility as a coordinator, thus it is necessary to review the system design, including remuneration.

### **Officer Renumeration**

Khan: In European and U.S. companies, the standard remuneration for Outside Directors is a base remuneration of \$100,000, with an additional \$50,000 for committee

members, and an extra 50,000 dollars for chairmans/chairpersons, depending on his/her workload. About half of the remuneration is in the form of grants of restricted stock, which often makes the remuneration system more in line with the shareholders' viewpoints. I feel that there is room for Japanese companies to incorporate such ideas.

**Usui:** I agree with increasing share remuneration. Seiko Epson has introduced share remuneration as part of the remuneration package for its internal Directors. The introduction of share remuneration has fostered a sense that Directors take the initiative in owning their company's shares, and Outside Directors have also voluntarily acquired a reasonable number of shares through Directors' shareholding associations. I feel that by owning shares, Outside Directors have been able to see things from the shareholder's point of view and have formed the foundation for good discussions.



Khan: The main KPIs for the performance-based portion of IHI's remuneration for officers are consolidated profit, consolidated operating cash flows, consolidated ROIC, and individual performance evaluation based on the mission of each officer. What kind of discussions have been conducted in the Remuneration Advisory Committee in terms of an evaluation axis for incentive remuneration?

# **Dialouge: Outside Director × Institutional Investor**

Nakanishi: In our current management, we emphasize consolidated operating cash flows, which is the evaluation axis for incentive remuneration. However, the targets are set quite high, and despite the fact that the Company achieved a record level of profit in the previous fiscal year, the performance-based bonus is not that high, giving the impression that they are somewhat unbalanced. In addition, we are currently discussing ways to improve the indicators since they do not incorporate year-on-year improvements, growth values, and non-financial perspectives.



**Usui:** Since there were very difficult times in IHI, I assume that the evaluation axis for incentive remuneration was determined with a strong enthusiasm to improve cash flow. However, other issues have arisen now. For example, I think the evaluation should incorporate more perspectives on all external factors such as the business environment and the progress of long-term development and structural reforms that are not immediately linked to operating results. I believe that establishing a mechanism to benefit from rising stock prices from the perspective of ESG management, which is an important policy of the IHI Group, is the direction we should take moving on. Discussions on these issues have already begun at the Board of Directors.

Khan: The majority of remuneration for the management of foreign companies is granted in the form of shares. In IHI,

20% of the total remuneration is share remuneration, but perhaps the ratio and level of share remuneration could be increased.

Nakanishi: I think it would be good to have a dynamic decision on changing the remuneration system based on IHI's unique approach, as we become more aware of our global business activities.

Usui: When a company is decisively implementing structural reforms, its stock price tends to be sluggish because its immediate performance is also difficult. However, in my experience at Seiko Epson, we have tried to grant as many shares of the company's stock as possible through share remuneration and director stock ownership plans in order to share the benefits with shareholders and with the belief that we will definitely improve the company's performance in the future. I believe that the IHI Group can also drastically increase the share remuneration because if we implement structural reforms and the corporate structure becomes stronger, this will be reflected in the stock price. I feel that having one's efforts reflected in future stock prices will increase the officer's incentive toward management and also the officer's sense of fulfillment after leaving the Company. This will also show the management's determination towards the shareholders.

**Uchiyama:** Managers must be aware of stock prices. Therefore, there is no doubt that share remuneration is an important element in the remuneration system for officers.

Matsuda: There is a discussion of the ratio of share remuneration, but before that, the level of remuneration for managers in Japanese companies is too low. If only the ratio of share remuneration is increased at the current level of remuneration amount, it is possible that officers will be short of cash for their immediate needs, which is not entirely a joke! I think the fact that the standard for disclosure of remuneration in securities reports is 100 million yen or more is also problematic, and I would like to see more voices raised from the standpoint of investors regarding the state of executive remuneration in Japanese companies.

Khan: I am all for the increase in performance-based share remuneration, as long as the medium- and long-term metrics are reasonable. In my analysis, there is a positive correlation between the amount of company stock held by internal Directors and the increase in corporate value, and this correlation is particularly evident for companies with multiple internal Directors holding 100 million yen or more of the company's stock. As an investor, I would like to ask internal Directors who are responsible for business execution to hold a certain amount of shares through share remuneration.



Khan: Through today's discussion, I have gained a better understanding of the IHI Group's governance and long-term corporate value. In comparison with foreign companies, I feel that Japanese companies tend to underinvest in investor relations and provide less information than European, U.S., and Asian companies. I look forward to an active communication of the growth story of the IHI Group to investors around the world.

Changes in ESG Management & Sustainability

# **Changes in ESG Management & Sustainability**

The IHI Group has been boldly addressing difficult social issues and solving them with the power of technology for social development. Both to date and going forward, we aim to prioritize ESG as the foundation of our values, striving for the realization of a sustainable society and the sustained growth of our company.

	2003	2007	2010	2013	2015	2016	2018	2019	2020	2021	2022	2023
	150th anniversary of foundation	Company nam IHI Corporation		160th anniversary of foundation	-	-						170th anniversary of foundation
			"Group Ma	inagement l	Policy 2010"				nagement Pol ousiness trans			"Group Management Policies 2023"
Management policies				)			Ċ	) (	Ç			
policies		"Group Ma Policy 2007		"Group Ma Policy 2013			nagement Po earnings fou		"Project Ch (preparatio		on for busine	ss transformation)"
							ct for the IHI suance begin					
General				C		(			(	2		
			• CSR Prom	otion Div. (I	FY2010-FY20	17)		to sustaina tional revai			ıp ESG Man N. Global Co	agement" announced mpact"
Environment								Financial I	k sign "Task F Disclosures" (			• GHG reduction target set for FY2030
E				- Y						ſ		
					• "IHI Grou	ıp Basic Env	ironmental l	olicy″ form	ulated			' unveiled: Our 2050 goal to achieve ughout the entire value chain
Society							ent Policy″ f esource Mar		olicy″ formu		Partners	p Code of Conduct for Business ″ formulated
S				(						up Human R		Group Human Resource
										ormulated	ignts	• "IHI Academy" established
Governance							• Outside d 1/3 of all		иру			
G												
	Board of I	managemen Directors reva executive of		d	basic poli • "IHI Grou • "Basic Ru	cies laid dov p Basic Rules les of Comp	porate gover vn on Risk Man iance for IHI Directors beg	agement" fo Group" form	rmulated ulated			30% by 2030″ and aim to "boost rs to more than 30% by 2030.″

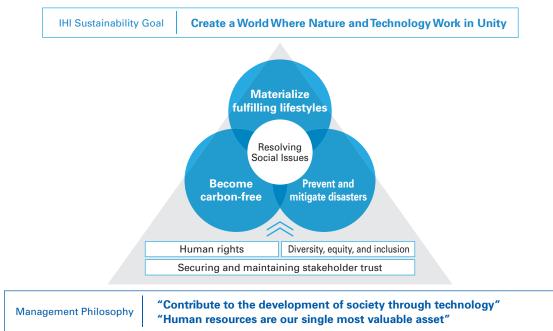
# **Sustainability Governance**

# IHI Group's ESG Management & Sustainability Issues

The IHI Group's management philosophy declares that we contribute to the development of society through technology, and that human resources are our single most valuable asset. Since our establishment in 1853, we have contributed to solving social issues facing era after era. Aiming to realize a sustainable society and achieve sustainable growth as a company, the IHI Group's ESG Management was announced in November 2021, stating we would face head on social issues as they change over time, give consideration to the natural environment and to society more than ever before, and find business opportunities in solving those issues.

A goal of the IHI Group is to create a world where nature and technology work in unity. This means creating a society offering all people, including future generations, prosperous

### • IHI Group ESG Management



### **O** Climate change

and secure lives to realize sustainability in both the global

environment and people's lifestyles. To this end, the IHI

mitigating disasters, and materialize fulfilling lifestyles as

against climate change, which has become a problem on a

Group sets becoming carbon-free, preventing and

social issues that must be addressed. As a measure

global scale, we will work 'to mitigate' by reducing

social issues, and that "securing and maintaining

materialize fulfilling lifestyles.

priority.

greenhouse gas emissions, and 'to adapt' and reduce

damage by preparing for the effects of climate change, to

The IHI Group believes that "respect for human rights" and

"diversity, equity, and inclusion" are important in addressing

stakeholder trust" through ESG management should be a

The IHI Group pledges to achieve carbon neutrality for its entire value chain by 2050. We aim to be carbon neutral in our processes overall by reducing the direct and indirect Scope 1 and 2 GHG emissions from our business activities as well as Scope 3 emissions from the upstream and downstream processes in our value chain. Specifically, our efforts will be in two stages: transition which utilizes existing technologies; and transformation, based on new technologies.

The IHI Group will also aim to realize a safe, secure, and comfortable community by building a system integrating disaster and damage prediction as well as infrastructure to achieve a disaster-resistant, economical infrastructure and eliminate human casualties. Using as a strength our accumulated knowledge related to advanced maintenance centered on bridges, we will expand our business in maintaining infrastructure timely and appropriately by using sensing & monitoring technologies and further developing preventative diagnosis technology. We will work to equip communities with a dual-use infrastructure that is tough during emergencies and comfortable during normal times.

### Respect for human rights

The Basic Code of Conduct for the IHI Group sets forth what we should do to maintain awareness of global issues and meet the expectations of all our stakeholders. The "IHI Group Human Rights Policy" was formulated in December 2020 based on this code. Through awareness-raising activities regarding human rights based on international standards, we will actively fulfill our responsibility in respecting human rights of all by promoting a corporate culture respectful of human rights and initiatives throughout our business activities for respecting human rights. With regard to the supply chain, the IHI Group Procurement Policy stipulates that we undertake CSR procurement fulfilling social responsibility in cooperation with business partners. Through the value chain, we will work to achieve enriched lives for all by preventing and mitigating negative impact from our business activities on stakeholders and rights holders.

### ○ Diversity and inclusion

To achieve a sustainable society, it is necessary to accept diversity and accurately understand and respond to changes in the environment.

The IHI Group considers 'diversity, equity, and inclusion' that respects and accepts diversity of human resources to be an important sense of value, and will enhance the workplace to ensure that human resources with diverse backgrounds, experience, and views have the means to fully leverage their skills. We offer programs for each employee to nurture broader experiences and open minds along with a wide range of opportunities.

In order for diverse human resources to play an active role, it is necessary for each and every employee to understand the management philosophy of contributing to the development of society and the goal of realizing a society in harmony with nature, and to be aware of the company's mission. The IHI Group believes that it is essential for the company and its employees to be aligned as an organization and as individuals, and to maintain a relationship that contributes to each other's growth.

### ○ Securing and maintaining stakeholder trust

To solve social issues through business and enhance corporate value, the IHI Group believes it is important to create a foundation that enables inherent strengths of the Group to be maximized and to actively hold dialogue with all stakeholders.

### **Sustainability Promotion System**

To achieve a sustainable society, the IHI Group believes it is necessary to conduct management that clearly indicates sense of value regarding contribution to and responsibility for the environment and society, and governance in realizing them. The ESG Management Promotion Committee has been set up as a forum to identify as material issues matters that are important in such ESG management, and discuss and make decisions on initiative policies, promotion systems, and action plans. The ESG Management Promotion Committee is chaired by the CEO and meets twice a year in principle.

Group-wide committees are set up for issues involving the entire group such as the environment, human rights, and compliance, enabling a structure that allows specific measures by divisions to reflect policy deliberations and decisions of committees.

Among discussions of such conferences and committees, matters involving decision-making crucial for management are deliberated by the Management Committee which is the decision-making body for management execution, and is submitted to the Board of Directors.

### O Activities of the ESG Management Promotion Committee

## Main themes discussed in fiscal 2022

- **1.** ESG management achievements and issues in fiscal 2022
- **2.** E: Activities regarding climate change
- **3.** S: Activities regarding human rights and diversity and inclusion
- **4.** G: Activities regarding securing and maintaining stakeholder trust

## **Main Initiatives for Fiscal 2023**

IHI Group's ESG Management will be carried out in fiscal 2023 from both top-down and bottom-up approaches so that it can be disseminated throughout the Group. Specifically, communicating the progress of ESG Management to Group employees in an easy-to-understand manner will be a measure put in place to allow individuals to feel it relate to themselves and act accordingly, while executives can monitor progress of ESG Management from a comprehensive perspective.

### • Sustainability Promotion System



# Stakeholder Engagement

### **Dialogue with Stakeholders**

The IHI Group deems customers, business partners, employees, shareholders, investors, government agencies, local communities, and NPOs/NGOs with a significant influence over ongoing corporate activities as its primary stakeholders. Based on that idea, we value and engage in broad dialogue with these stakeholders. As tools for this dialogue, the Integrated

Report as well as the Sustainability Data Book are published, and pages on our official website related to ESG are enhanced to communicate the IHI Group's views on ESG management in detail. Content of dialogue with stakeholders that are considered particularly vital are reported to the Management Committee and Board of Directors, and are thus reflected in its corporate strategy.

Stakeholders	Main Purpose of Dialogue	Example of Dialogues in fiscal 2022	Frequency	Relevant page in SDB*	
		• Carry out day-to-day business operations	Timely		
Customers	<ul> <li>Contribute to solving social issues and customer challenges</li> <li>Ensure product safety</li> </ul>	Conduct customer satisfaction surveys	Timely	P78	
		<ul> <li>Provide product safety information</li> </ul>	As needed		
Business partners	• Engage in fair and equitable trade	• Disseminate the "IHI Group Code of Conduct for Suppliers"	Timely	- P80	
business partiers	<ul> <li>Cultivate mutually beneficial partnerships with our business partners</li> </ul>	CSR procurement monitoring	Timely	F 60	
		• Convene the General Meeting of Shareholders	Annually	_	
	<ul> <li>Disclose appropriate information in a timely manner</li> <li>Strengthen relationships based on trust</li> </ul>	<ul> <li>Hold financial results briefings and telephone conferences</li> </ul>	Quarterly	https://www.ihi.co.jp/ir/	
Shareholders & investors	Enhance corporate value	Conduct individual meetings	As needed		
		• Offer service to provide information	As needed		
Government organizations	<ul> <li>Form partnerships with government organizations</li> </ul>	Participate in policy boards	Timely	- P40	
Government organizations		• Participate in joint development and projects with government organizations	Timely	F40	
Local communities	<ul> <li>Recognize ourselves as a member of society</li> <li>Contribute to solving social issues</li> </ul>	<ul><li>Host events for local communities</li><li>Hold school visits</li></ul>	Timely	P82	
Employeee	<ul> <li>Develop and secure human resources, our most</li> </ul>	<ul> <li>Conduct employee-awareness surveys</li> </ul>	Annually	P27, P62	
Employees	important management resource	Operate a compliance hotline     Regular		F21, F02	
NPO/NGO	$\bullet$ Examine in depth social issues that could lead to business opportunities	• Engage in dialogue with senior management	Timely	P12	

# Track Record of Dialogue with Stakeholders

\*SDB: IHI Sustainability Data Book 2023

# Track record of dialogue with UN agency, NPO (fiscal 2022)

	UN agency (February 2023, remote connection)	NPO (March 2023, remote connection)
Dialogue theme	Climate Change Adaptation and Just Transition	Mineral Supply Chain and Just Transition
Dialogue party	Mr. Yusuke Taishi, United Nations Development Programme	Mr. Shigeru Tanaka, Pacific Asia Resource Center
IHI participants	Officer in Charge of ESG, President of Social Infrastructure & Offshore Facilities Business Area	Officer in Charge of ESG, General Manager of Procurement Strategy Planning
Overview	How to prevent and mitigate disaster through business in countries and regions vulnerable to disasters	Human rights issues at mining sites where nickel will be increasingly in demand in the future

Stakeholder Engagement

# **Third-party Evaluation**

The IHI Group's sustainability initiatives have been evaluated by various organizations in Japan and overseas.

S&P/JPX Carbon Efficient Index	The IHI Group has been selected as a constituent brand of the S&P/JPX Carbon Efficient Index. The index selects brands satisfying environmental information disclosure and carbon efficiency (carbon emissions per unit of revenue) standards according to their constituent selection and weighting process.	S&P/JPX Carbon Efficient Index	Kurumin Certification	The Minister of Health, Labour and Welfare recognized IHI Corporation as a company that supports child raising and granted us the Kurumin certification in 2007, 2011, 2015, and 2020. Kurumin certification is a program the certifies companies that formulate an action plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children and achieves the set goals as well as set conditions.	2020年程度 2020年程度 # # # # # # # # # # # # #
FTSE Blossom Japan Sector Relative Index	IHI Corporation has been selected a constituent brand of the FTSE Blossom Japan Sector Relative Index, a stock market index for ESG investment. The index is designed by FTSE Russell, a global index provider, to measure the performance of Japanese		Eruboshi Certification	The Minister of Health, Labour and Welfare certified IHI Corporation as an Eruboshi Company (2nd level) in 2017. Eruboshi certification is a program that certifies companies that excel in promoting advancement of women and fulfill set standards based on Act on the Promotion of Women's Active Engagement in Professional Life.	Hand Ball TUN
	companies that demonstrate strong Environmental, Social and Governance (ESG) practices. The index is constructed so that sector weights align with the Japanese equity market.	FTSE Blossom Japan Sector Relative Index	Health & Productivity Companies 2023 (White 500)	Nineteen companies* of the IHI Group have been selected as Health & Productivity Companies 2023 (White 500). The Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi (Japan Health Council) co-launched the White 500 program to recognize companies that consider employee health management from a corporate management standpoint	
EcoVadis Silver Medal	The IHI Group received a Silver Medal for sustainability in an assessment program by EcoVadis of France. EcoVadis uses a cloud-based platform to provide assessment data on companies' sustainability efforts. The sustainability assessment is a comprehensive rating across the four areas of the environment, labor and human rights, ethics, and sustainable procurement. The Silver Medal means that the IHI Group is ranked in the top 25% of the	SILVIR 2022 ecovacis Survey		and strategically implement activities to maintain and promote health. *IHI Corporation, IHI Scube, IHI Plant Services Corporation, IHI Power Systems, NICO Precision, IHI Infrastructure Systems, IHI AEROSPACE, IHI Finance Support Corporation, Takashima Giken, Japan Marine United Corporation, IHI CASTINGS, IHI Rotating Machinery Engineering, IHI Logistics & Machinery, IHI Turbo, IHI Construction Service, IHI Business Support Corporation, IHI Agri-Tech Corporation, Paul Wurth IHI, Central Conveyor Company	2023 健康経営優良法人 Health and productivity ホワイト500
CDP	companies assessed by EcoVadis. The IHI Group responds to CDP's questionnaire related to climate change on an annual basis. In fiscal 2022, we were evaluated as Management Level score of B. CDP is a non-profit charity established by responsible investors worldwide. The CDP sends an annual questionnaire to companies and local governments and releases the results in an effort to encourage more action on climate change.	HCDP DISCLOSER 2022	Awarded Gold in PRIDE Index 2022	IHI Corporation has been awarded the highest honor of the Gold Award in the PRIDE Index 2022, the fifth consecutive year it has received the honor. IHI Corporation's human resource policies for LGBTQ+, launch of a consultation desk, expansion of an ally program, and training to promote greater understanding about gender minorities were recognized and led to receiving the award. The goal of the PRIDE Index is to help build working environments friendly to LGBTQ+ and other gender minorities. This index evaluates company initiatives via categories for the code of conduct, gender minority communities, enlightenment programs, personnel policies and programs, social contributions, and public relation practices.	work with Pride
Digital Transformation Stock Selection 2023	IHI Corporation has been selected in the Digital Transformation Stock (DX Stock) Selection 2023. DX Stock is constructed by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange to select outstanding companies from among TSE-listed companies that have established internal systems for promoting digital transformation, which is an approach that contributes to enhancing corporate value, and that have achieved outstanding digital utilization.	DX銘柄2023 Digital transformation	Resilience Certification	The IHI Group renewed the Resilience Certification acquired in 2016 with the aim of improving its business continuity as a company that supports social infrastructure. Resilience Certification is a certification system of the Association for Resilience Japan based on the guidelines for the certification of organizations contributing to national resilience. This certification certifies business operators that endorse the ideas of strengthening national resilience published by the Cabinet Secretariat's National Resilience Promotion Office and proactively work to ensure their business continuity.	レジリエンス既証 事業展開きたい社会策批 部に会相単考定0000013

### Approach

The IHI Group defines corporate governance as a system that assures sustainable growth and maximization of corporate value by enhancing management efficiency so that the Group can leverage its innate capabilities to the fullest extent possible. To achieve this, the IHI Group targets efficient and appropriate internal decision-making by clearly separating management oversight and monitoring function from the business execution function. Furthermore, by establishing the relevant internal rules and building a system to administer them, the IHI Group ensures appropriate operations across the entire Group.

### **IHI Basic Policy on Corporate Governance**

- Respect shareholders' rights and ensure equal treatment
- Strive to cooperate appropriately with shareholders and other stakeholders
- Fulfill our responsibility to be accountable to stakeholders and ensure transparency by appropriately and proactively disclosing information relating to the Company
- Clarify the roles and responsibilities of the Board of Directors, the Audit & Supervisory Board Members, and the Audit & Supervisory Board to enable them to adequately fulfill their management oversight and monitoring functions
- Conduct constructive dialogue with shareholders who have investment policies according with the medium- to long-term interests of shareholders

### **Corporate Governance Structure**

The Company has selected a corporate governance structure that has a function of fully auditing and supervising the overall management while securing the efficiency in management. The Company has an Audit & Supervisory Board, which comprises 5 Audit & Supervisory Board Members (of which 3 are independent and from outside) who audit the duties executed by directors.

The Board of Directors, which consists of 12 Directors (of which 4 are independent and from outside), makes decisions related to all important matters concerning the management

of the Company and the Group, in addition to supervising Directors in their business execution. For independent Outside Directors, the Company appoints officers who have ample experience as a corporate manager with a broad insight and those who have a high degree of specialist knowledge and multifaceted experience. The independent Outside Directors participate in the decision-making of the Board of Directors and provide advice and recommendations to the Company's management from a standpoint independent of the management team that executes business operations. The Board of Directors is chaired by the Representative Director and Chairman of the Board.

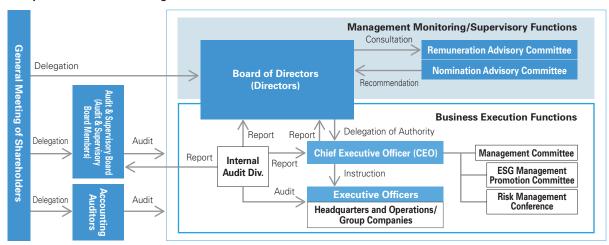
### © Establishment of Remuneration Advisory Committee and Nomination Advisory Committee

The Company established the Remuneration Advisory Committee and the Nomination Advisory Committee. The Remuneration Advisory Committee ensures the suitability and objectivity of officer remuneration. This six-person committee is made up of three independent Outside Directors, one independent Outside Audit & Supervisory Board Member, the Director in charge of human resources, and the Director in charge of finance and accounting, with an Outside Director acting as chairperson. The five-person Nomination Advisory Committee is made up of the Representative Director and President and four independent Outside Directors, with the Representative Director and President acting as chairperson for the purpose of supervising and advising the appropriate appointment of officers by the Representative Directors.

### **O Business Execution Structure**

The Company has an Executive Officer system to strengthen the decision-making and supervisory functions of the Board of Directors, as well as to improve the efficiency of business operations. Executive Officers are appointed by a resolution of the Board of Directors (7 of 24 executive officers serve concurrently as Directors). The Chief Executive Officer (CEO) manages the duties of the Executive Officers, giving directions and supervision. The Management Committee is established as a body to support the decision-makings and business executions of CEO, and is comprised of those appointed by the CEO. Also, the following are established as a body chaired by the CEO: the ESG Management Promotion Committee, which considers basic policies and specific measures for ESG management and manages and improves their progress, and the Risk Management Conference, which oversees overall IHI Group risk management and discusses and approves important risk management matters.

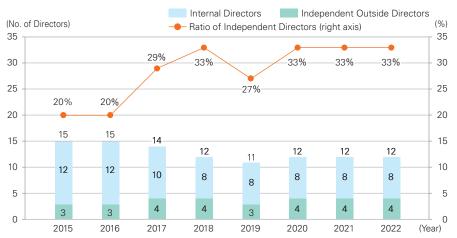
#### Corporate Governance Management Structure



### **Progress in Strengthening Corporate Governance**

- FY2003 Reformed Board of Directors and introduced Executive Officer system Increased Outside Audit & Supervisory Board Members from 2 to 3
- FY2007 Established Remuneration Advisory Committee
- **FY2008** Increased Outside Directors from 1 to 2
  - Reduced the term of office of Directors from 2 years to 1 year
- FY2013 Registered all Outside Directors and Outside Audit & Supervisory Board Members as independent directors with the Tokyo Stock Exchange
- **FY2015** Revised basic approach to corporate governance and established basic policies Increased Outside Directors from 2 to 3
  - Established Nomination Advisory Committee
  - Composed the majority of Remuneration Advisory Committee with outside officers Resolved responses to the Corporate Governance Code at the Board of Directors Began evaluation of Board of Directors (held every year thereafter)
- **FY2016** Reduced total number of Directors from 15 to 13
- FY2017 Increased Outside Directors from 3 to 4 Introduced performance-based bonuses and performance-based share remuneration based on new indices
- **FY2018** Total number of Directors to be 12 with a third constituted by Outside Directors
- FY2021 Established ESG Management Promotion Committee

### Transition of Ratio of Independent Outside Directors in the Board of Directors



Roles an	d Composition o	of Organizations		n Chairperson		
Organization	Board of Directors	Audit & Supervisory Board	Nomination Advisory Committee	Remuneration Advisory Committee		
Composition	$ \begin{array}{c} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet &$	$ \begin{array}{c} \bullet & \bullet \\ \bullet & \bullet \\ \bullet & \bullet \\ \bullet \\$	Internal + Outside	$\frac{0}{10} + \frac{0}{10} $		
Ratio of outside officers	33%	60%	80%	67%		
	Chaired by Representative Director, Chairman of the Board	Chaired by Internal Audit & Supervisory Board Member	Chaired by Representative Director, President	Chaired by Outside Director		
No. of meetings held in 2022	18	13	5	4		

### Policies Relating to Appointment of Officers

The Company's Board of Directors sets the basic policy of appointing the most appropriate Officers according to the ideal attributes for Officers and the independence standards for Outside Directors and Outside Audit & Supervisory Board Members, with the aim of ensuring sustainable growth and increased corporate value for the IHI Group over the medium to long term.

### [Ideal Attributes for Officers]

The Company appoints Officers who are healthy in mind and body and have all the following attributes:

- •Deep understanding of, and sympathy with, the IHI Group's management philosophy and vision
- •The ability to contribute to sustainable growth and medium- to long-term increase in corporate value at the IHI Group by addressing societal issues in accordance with the IHI Group's vision
- •Outstanding foresight, penetrating discernment, and ability to make appropriate decisions with regard to the management of the IHI Group
- •Good character with a strong sense of ethics
- •Ample experience as a corporate manager, or a high degree of specialist knowledge, combined with a broad, global perspective and insight

List of Officers 14 males/3 females (ratio of female officers: 17.65%)

				FY2022 Atte		Month/Year of Appointment as	No. of IHI		Major Expertise			and Experienc	e (Skills)			Appointments to Advisory Committees	
	Name	Titl	le	at Board Directors (/ Supervisory	Audit &	Director (Audit & Supervisory Board Member)	Shares	Corporate Management	Technology Research and Development	Global Business	Sales Market		Human Resources management / development	Finance and Accounting	Legal Compliance Risk Management	Remuneration Advisory Committee	Nomination Advisory Committee
	Tsugio Mitsu	ka Representativ and Chairman		18/1	18	June 2014	17,100	0	0						0		
	Hiroshi Ide	Representative Di President, Chief E		18/1	18	June 2020	3,700	0		0	0						Chairperson
	Masataka Ikeya	ma Representativ Senior Execut		14/1	14	June 2022	4,800	0	0						0		
	Tsuyoshi Tsuch	da Representativ Senior Execut		-		June 2023	2,700	0				0			0		
	Hideo Morita	Director, Managing Exe	cutive Officer	18/1	18	June 2021	3,200		0								
	Akihiro Seo	Director, Managing Exe	cutive Officer	14/1	14	June 2022	800						0		0	Committee Member	
	Jun Kobayash	Director, Managing Exe	cutive Officer	_		June 2023	600			0	0						
	Yasuaki Fukum	Director, Executive Offi	cer	-		June 2023	600							0		Committee Member	
Inde	Yoshiyuki Nakar	ishi Director		18/1	18	June 2020	600	0		0	0					Chairperson	Committee Member
epende	Chieko Matsu	da Director		17/1	18	June 2020	1,500						0	0	0		Committee Member
Independent Outside	Minoru Usui	Director		18/1	18	June 2021	2,100	0	0	0						Committee Member	Committee Member
side	Toshihiro Uchiya	ma Director		14/1	14	June 2022	300	0		0	0					Committee Member	Committee Member
	Takashi Niimu	ra Standing Audit Supervisory Bo		18/18 (1	13/13)	June 2020	3,200				0				0		
	Seiji Maruyan	Standing Audit Supervisory Bo		18/18 (1	13/13)	June 2021	2,200							0			
Indepe	Aiko Sekine	Audit & Supe Board Memb		18/18 (1	13/13)	June 2020	0							0			
Independent Outside	Yumiko Wase	la Audit & Supe Board Memb		17/18 (1	13/13)	June 2021	0								0		
Dutside	Kazuhiro Mut	Audit & Supe Board Memb		_		June 2023	0			0	0	0				Committee Member	
Sk	ills Co	porate Management	Technology/ Research and D	evelopment	Global B	usiness	Sales/Marketing		ICT/DX			ersonnel Affairs/Hum esource Developmen		and Accounti		I/Compliance Management	
Con Base	npetencies ma ed on Expertise to Experience en	mulate and implement nagement strategies chieve sustainable ancement of porate value	Promote tec developmen R&D that co to resolving	t and l ntribute social	business s	trategies that to resolving es from a	Formulate and imple sales and marketing that contribute to res social issues from th	strategies solving ie	Formulate and in business models utilizing ICT and risk managemen	and work style DX, and promot	es in te IT n te	ormulate and nplement human esource strategies o maximize mployee potential	financial s	and implement trategies to ustainable grov ate value	efficie	lish transparent, ent governance a gement system:	and risk

employee potential

corporate value

issues

global perspective

customers' perspective

# Reason for Appointment and Expected Roles as Outside Officers

Outside Director	Yoshiyuki Nakanishi	Following experiences in sales of products and services of DIC Corporation and involvement in operations of its key business, he has gained abundant experience, accomplishments, and extensive insight into overall corporate management at the helm of the company, where he implemented various measures to respond to changes in the business environment. He has been appointed as an Outside Director, aiming to have him reflect these experience and insight in the management of the Company and carry out management oversight and monitoring functions from an independent perspective.						
	Chieko Matsuda	She has extensive experience and insight gained through financial and capital market operations and management consulting operations and an extremely high level of expertise in corporate and financial strategies as a researcher. In addition, she has broad insight as an outside officer of several companies. She has been appointed as an Outside Director, aiming to have her reflect these experience and insight in the management of the Company and carry out management oversight and monitoring functions from an independent perspective.						
	Minoru Usui	After being in charge of technology development in Seiko Epson Corporation, he has gained abundant experience, accomplishments, and extensive insight into overall corporate management at the helm of the company, where he implemented various measures to resp to changes in the business environment. He has been appointed as an Outside Director, air to have him reflect these into the management of the Company and carry out management oversight and monitoring functions from an independent perspective.						
	Toshihiro Uchiyama	After working on sales of products and services in NSK Ltd., and implementing production reforms in its overseas affiliated company, he has gained abundant experience and extensive insight into overall corporate management at the helm of the company, where he implemented various measures to respond to changes in the business environment. He has been appointed as an Outside Director, aiming to have him reflect these in the management of the Company and carry out management oversight and monitoring functions from an independent perspective.						
Outside Audi	Aiko Sekine	She has accumulated abundant experience and insight as Partner of PricewaterhouseCoopers Aarata, Japan, and Chairman and President of Japanese Institute of CPAs. She has been appointed as an Outside Audit & Supervisory Board Member, aiming to have her reflect these in management auditing from an independent perspective.						
Outside Audit & Supervisory Board Member	Yumiko Waseda	She has abundant experience and insight as an attorney at law, with an extremely high level of expertise in intellectual property law, as well as extensive experience as an outside audit & supervisory board member. She has been appointed as an Outside Audit & Supervisory Board Member, aiming to have her reflect these experience and insight in management auditing from an independent perspective.						
	Kazuhiro Muto	As a senior executive of a Japanese subsidiary of IBM Japan, Ltd., he has extensive experie and broad insight into corporate management in general, including overseas business and t promotion of various measures in response to changes in the business environment. He ha been appointed as an Outside Audit & Supervisory Board Member, aiming to have her refle these experience and insight in management auditing from an independent perspective.						

Ex	Executive Officers 22 males/2 females (ratio of female officers: 8.33%)									
	Position	Name	Main Responsibilities							
0	Chief Executive Officer	Hiroshi Ide								
0	Senior Executive Officer	Masataka Ikeyama	In charge of Group Economic Security In charge of Group Quality Assurance/Design Process General Manager of Monozukuri System Strategy							
0	Senior Executive Officer	Tsuyoshi Tsuchida	In charge of Group Procurement, Group DX In charge of Business Relating to Corporate Planning Division							
	Managing Executive Officer	Takeshi Kawakami	President of Social Infrastructure Business Area							
	Managing Executive Officer	Yoshinori Komiya	General Manager of Intelligent Information Management Headquarters							
	Managing Executive Officer	Yasuhiro Shigegaki	President of Industrial Systems & General-Purpose Machinery Business Area							
0	Managing Executive Officer	Hideo Morita	President of Aero Engine, Space & Defense Business Area							
	Managing Executive Officer	Kouji Takeda	President of Resources, Energy & Environment Business Area							
0	Managing Executive Officer	Akihiro Seo	In charge of Group Human Resources/Administration, Group Safety and Health, Group ESG General Manager of Human Resources Division							
	Managing Executive Officer	Nobuhiko Kubota	In Charge of Group Engineering General Manager of Technology & Intelligence Integration							
	Managing Executive Officer	Noriko Morioka	General Manager of Corporate Strategy Headquarters							
0	Managing Executive Officer	Jun Kobayashi	General Manager of Business Development Headquarters							
	Executive Officers	Kiyoshi Nihei	In Charge of Group Operations General Manager of Marketing & Sales Headquarters							
	Executive Officers	Kazuhiro Onitsuka	Vice President of Industrial Systems & General-Purpose Machinery Business Area							
	Executive Officers	Yukihisa Ozawa	Vice President of Resources, Energy & Environment Business Area							
	Executive Officers	Go Maeda	General Manager of Project Risk Management Div.							
	Executive Officers	Shotaro Tabata	Vice President of Industrial Systems & General-Purpose Machinery Business Area							
	Executive Officers	Yoshikazu Hamada	In charge of Business Relating to Shareholder Meeting/Board of Directors In charge of Group Legal Affairs, Group Compliance General Manager of Legal Division							
0	Executive Officers	Yasuaki Fukumoto	In Charge of Group Finance & Accounting General Manager of Finance & Accounting Div.							
	Executive Officers	Chie Fukuoka	Deputy General Manager of Technology & Intelligence Integration							
	Executive Officers	Atsushi Sato	Vice President of Aero Engine, Space & Defense Business Area							
	Executive Officers	Takao Tanaka	Vice President of Resources, Energy and Environment Business Area							
	Executive Officers	Kazuya Ueda	Vice President of Social Infrastructure Business Area President of IHI Infrastructure Systems Co., Ltd.							
	Executive Officers	Bernd Bahlke	Deputy General Manager of Business Development Headquarters							

(Note) Directors are marked with  $\bigcirc$ .

## Activities of the Voluntary Committees © Nomination Advisory Committee

IHI established the Nomination Advisory Committee as a voluntary advisory body to the Board of Directors. Five meetings were held in FY2022 in which matters such as plans on the appointment of officers, succession plans to nurture human resources were discussed.

IHI places particular emphasis on the selection process for CEO candidates and their nurturing plans, as they are essential for the sustainable growth and medium- to long-term enhancement of corporate value. In FY2022, the Committee deepened its discussion on the human resource requirements for a CEO.

	Position	Name		Attendance at the Committee
D	epresentative irector and resident	Hiroshi Ide	Chairperson	100% (5/5)
0	utside Director	Yoshiyuki Nakanishi	Committee Member	100% (5/5)
0	utside Director	Chieko Matsuda	Committee Member	100% (5/5)
0	utside Director	Minoru Usui	Committee Member	100% (5/5)
0	utside Director	Toshihiro Uchiyama	Committee Member	100% (5/5)

### **O** Remuneration Advisory Committee

IHI established the Remuneration Advisory Committee as a voluntary advisory body to the Board of Directors. Four meetings were held in FY2022, and the policy and details of the remuneration received by Directors and Executive Officers were discussed.

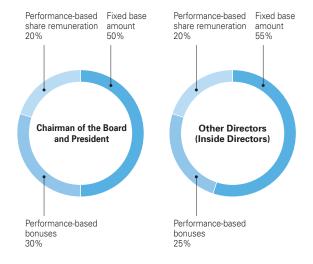
The revision of the policy for determining officer remuneration was resolved by the Board of Directors in May 2023. The content of the policy was referred for consultation to the Remuneration Advisory Committee, which accordingly deliberated on and reported findings thereof on a preliminary basis, prior to the resolution by the Board of Directors.

Position	Name		Attendance at the Committee
Outside Director	Yoshiyuki Nakanishi	Chairperson	100% (4/4)
Representative Director	Takeshi Yamada	Committee Member	100% (4/4)
Director	Akihiro Seo	Committee Member	100% (4/4)
Outside Director	Minoru Usui	Committee Member	100% (4/4)
Outside Director	Toshihiro Uchiyama	Committee Member	100% (4/4)
Audit and Supervisory Bord Member	Toshio Iwamoto	Committee Member	100% (4/4)

# Basic Policy on Determination of Remuneration for Directors

- Remuneration for Directors shall be aimed at fully encouraging Directors of the Company to perform their duties in line with the management philosophy, Group vision, and Group management policy, and strongly motivating them toward the achievement of specific management goals to bring sustainable growth of the Company and the IHI Group, and to improve the medium- and long-term corporate value.
- Remuneration shall be structured with the appropriate allocation of a fixed basic salary, and an annual incentive (performance-based bonuses), which is linked to the operating performance of each fiscal year, and a medium- and long-term incentive (performance-based share remuneration), which is linked to medium- and long-term operating performance and corporate value aimed at broadly sharing a sense of value with stakeholders, and thereby shall contribute to performing with a sound entrepreneurial spirit.
- Under the management philosophy, "Human resources are our single most valuable asset," appropriate treatment shall be provided to Officers of the Company with consideration of the management environment of the Company, and social roles and accountabilities the Company undertakes.

### ○ Composition of Remuneration



**Corporate Governance** 

#### Evaluation Indicators for FY2022 Annual Incentive (Performance-Based Bonus)

• Representative Directors

Performance evaluation indicators	Weight	Fluctuation range of performance evaluation payment rates	Targets	Results	Performance evaluation payout rates
Profit attributable to owners of parent	50%	0-200%	Upper: 58.1 billion yen Target: 37.1 billion yen Lower: 16.1 billion yen	25.6 billion yen	33.7%
Consolidated operating cash flows	50%	0-200%	Upper: 180.0 billion yen Target: 130.0 billion yen Lower: 80.0 billion yen	44.4 billion yen	0%

#### • Internal Directors (excluding Representative Directors)

Performance evaluation indic		Weight	Fluctuation range of performance evaluation payment rates	Targets	Results	Performance evaluation payout rates
Profit attributat owners of pare		40%	0-200%	Upper: 58.1 billion yen Target: 37.1 billion yen Lower: 16.1 billion yen	25.6 billion yen	0%
Consolidated operating cash	flows	40%	0-200%	Upper: 180.0 billion yen Target: 130.0 billion yen Lower: 80.0 billion yen	44.4 billion yen	0%
Individual perforn evaluation	nance	20%	0-150%	Set individual and eva the President and de the board of directors	cided at	Maximum: 15% Minimum: 7.5%

# Medium- and long-term incentive (performance-based share remuneration) which sets FY2022 as the final fiscal year of performance evaluation

The performance evaluation period will be three future fiscal years, and performance targets for the final fiscal year of the performance evaluation period will be set in the fiscal year in which the performance evaluation begins. Performance evaluation indicator is consolidated ROIC, which is a performance indicator emphasized in the Group's management policy (medium-term management plan).

Performance evaluation indicators	Fluctuation range of performance evaluation payment rates	Targets	Results	Performance evaluation payout rates
Consolidated ROIC	0-150%	Maximum: 15% Target: 12% Minimum: 5%	6.3%	25%

## **Remuneration for Outside Directors and Audit & Supervisory Board Members**

Remuneration for Outside Directors shall consist only of basic remuneration in light of their duties. Remuneration for Audit & Supervisory Board Members shall consist only of basic remuneration, as remuneration for responsibilities for auding the execution of business throughout the IHI Group. The basic remuneration of Outside Directors and that of Audit & Supervisory Board Members are set at the appropriate level taking into account the role and responsibilities of each officer. Moreover, the company shall perform verification by regularly surveying objective market data on remuneration researched by an external specialized institution.

## Total Remuneration for FY2022

#### • Total remuneration of officers and number of recipients

(Million yen)

			Tot	al remuneration by t	ype		
	r Category	Total remuneration		Performance-based remuneration, etc.			
(Numbers	of recipients)		Basic remuneration	Performance-based share remuneration	Performance-based bonuses		
Directors	Internal Directors (10)	613	362	141	110		
(15)	Outside Directors (5)	55	55	_	_		
Audit & Supervisory	Internal Audit & Supervisory Board Members (2)	72	72				
Members (5)			41		_		
Tot	tal (20)	782	531	141	110		

\*The total amount of performance-based share remuneration is the amount of the provision for share acquisition costs related to the granted points recorded in the fiscal year under review, which is different from the actual total payment amount.

#### • Remuneration, etc. of officers whose total remuneration is 100 million yen or more

		Total	Total remur	neration by type	(Million yen)
Name	Type of officer	remuneration (Million yen)	Basic remuneration	Performance-based share remuneration	Performance-based bonuses
Tsugio Mitsuoka	Director	115	66	27	22
Hiroshi Ide	Director	125	72	29	24

\*The total amount of performance-based share remuneration and performance-based bonuses is the amount of the provision recorded in the fiscal year under review, which is different from the actual total payment amount.

## **Corporate Governance**

#### Initiatives to Enhance the Effectiveness of the Board of Directors

The Company has evaluated the effectiveness of the Board of Directors annually since FY2015 to further its effectiveness.

#### © Effectiveness Evaluation Process of the Board of Directors

#### **Questionnaire for all Directors and Audit & Supervisory Board Members**

Composition and operation of the Board of Directors
 Risk management
 Culture of the Board of Directors, etc.

Aggregate and analyze questionnaire results

Interview all relevant Directors

## $\ensuremath{\bigcirc}$ Management of the Board of Directors in FY2022

In the effectiveness evaluation of the previous fiscal year, the need for further enhancement of discussion and monitoring of medium- and long-term strategies and risk management, and further improvement of the operation of the Board of Directors were recognized as issues of particularly high priority. The Board of Directors took the following actions in FY2022 in response.

- Deliberation on the progress of measures based on IHI Group ESG Management and Project Change and the formulation of the new medium-term management plan "Group Management Policies 2023"
- Start providing regular feedback to the Board of Directors about matters pointed out in Board of Directors meetings
- Enhance opportunities to foster communication between Officers outside of Board of Directors meetings

#### ◎ FY2022 Effectiveness Evaluation and Newly Identified Issues

In the effectiveness evaluation conducted in FY2022, we assessed ourselves that the effectiveness of the Company's Board of Directors continues to be ensured. In addition, in order to further enhance the effectiveness of the Board of Directors, the following items were identified as issues for improvement.

Evaluation results	Initiatives taken in response to the evaluation results
• Effectiveness is ensured	Management of the Board of Directors in FY2023 • The most important theme to be debated
< Identified issues >	throughout the year is the transformation of
<ul> <li>More comprehensive deliberation and</li> </ul>	our business portfolio set forth in "Group
reporting of specific management	Management Policies 2023"
strategies and important monitoring items	<ul> <li>Planned debate of other important</li> </ul>
<ul> <li>From the standpoint of succession</li> </ul>	Company-wide measures
planning, expanding points of	<ul> <li>Expanding dialogue between Outside Officers</li> </ul>
communication between Outside	and Executive Officers
Directors who are members of the	<ul> <li>Review of standards for discussion by the Board</li> </ul>
Nomination Advisory Committee and	of Directors to enhance matters to be reported
Executive Officers	<ul> <li>Provide information to Outside Officers and</li> </ul>
<ul> <li>Provide information to Outside Officers and</li> </ul>	further improve communication with Outside
further improve communication between	Officers (office visits, meetings to exchange
Officers as a basis for deepening deliberations	opinions, etc.)

Compose as self-evaluation by the Board of Directors

#### Identify points for improvement

#### Function and Role of Audit & Supervisory Board

The Company has an Audit & Supervisory Board, which comprises 5 Audit & Supervisory Board Members (3 from outside) who audit the duties executed by directors. And Audit & Supervisory Board Division" (4 full-time staffers) assists the audit & supervisory board members in the execution of their duties.

## FY2022 Operation of Audit & Supervisory Board

Classification	Name	Attendance at the Audit & Supervisory Board
Standing Audit & Supervisory Board Member	Takashi Niimura	13 of 13 (100%)
Standing Audit & Supervisory Board Member	Seiji Maruyama	13 of 13 (100%)
Outside Audit & Supervisory Board Member	Toshio Iwamoto	13 of 13 (100%)
Outside Audit & Supervisory Board Member	Aiko Sekine	13 of 13 (100%)
Outside Audit & Supervisory Board Member	Yumiko Waseda	13 of 13 (100%)

## FY2022 Key Audit Items

- 1) The establishment and operational status of the internal control system and the status of compliance with important laws and ordinances,
- 2) The status of risk management
- 3) The promotion of structural reforms and execution status of business strategies
- 4) The status of business of the affiliated companies selected based on management issues and risk perception
- 5) The eradication of occupational accidents and the status of initiatives aimed at promoting reform of working practices and diversity
- 6) The status of initiatives aimed at reforming the corporate culture

## Activities of the Audit & Supervisory Board Members

The standing audit & supervisory board members perform everyday auditing activities, summaries of which are reported on an 'as needed' basis by the standing audit & supervisory board members to outside audit & supervisory board members at meetings of the Audit & Supervisory Board, so that information related to the status of audits is shared by all members of the Audit & Supervisory Board.

- Attend meetings of the Board of Directors and other important meetings and committee meetings in order to understand the process leading to decision-making by the directors and the status of the directors' performance of their duties, and express their opinions as necessary.
- 2) Exchange opinions with representative directors, heads of Business Areas, and heads of head office divisions at meetings of the Board of Corporate Auditors in order to deepen mutual understanding between the corporate auditors and directors and their efforts in corporate governance.

- 3) Hold regular meetings with the head office divisions and Business Areas, and conduct on-site inspections of business sites and domestic and overseas affiliated companies in order to grasp the status of the Group's priority measures and the establishment and operation of the internal control system.
- 4) Receive reports from the Internal Audit Division on the status of internal audits and internal control evaluations, and exchange opinions on the status of the Group's internal control system and its advancement.
- 5) Hold regular meetings with the Project Risk Management Division, which monitors the profit management of important orders, and the Legal Division, which is in charge of the compliance hotline, to exchange views on issues such as recognition of specific risk areas.
- 6) Audit of business report and supplementary schedules, and audit of consolidated financial statements and nonconsolidated financial statements and their supplementary schedules. Also confirm whether there are any competing transactions, conflicts of interest, or gratuitous provision of benefits by the directors.
- 7) Receive reports from the accounting auditor on the audit plan and the status of the accounting audit at each quarterly settlement of accounts, and monitor and verify the appropriateness of the accounting auditor's audit.

## **Status of Internal Auditing**

The Internal Audit Div. conducts internal audits of the Company and the Group companies. The Internal Audit Div. is independent in terms of internal organization, and its 30 staff members (as of March 31, 2023) do not hold concurrent positions in other departments or organizations. The Internal Audit Division strives to develop, maintain and improve internal controls across the entire Group by providing confirmation and advice regarding self-inspection performed by head office divisions on the basis of expert opinion, audits and monitoring performed by regional headquarters with respect to Group companies within each of their regions, and internal audits performed by Group companies themselves. The General Manager of the Internal Audit Division reports to the Chief Executive Officer (CEO) regarding all audit results as well as details on guidance and confirmation with respect to each of the aforementioned divisions and companies. Upon having compiled such reports, the General Manager of the Internal Audit Division regularly reports to the Management Committee, Board of Directors, and Audit & Supervisory Board. With respect to the internal controls over financial reporting, in accordance with internal control reporting systems under the Financial Instruments and Exchange Act, the Internal Audit Division compiles Group-wide internal control evaluations as an independent division, and ultimately reports to the Management Committee, Board of Directors, and Audit & Supervisory Board in the form of an internal control evaluation report.

Activities of the Internal Audit Division are disclosed to relevant internal divisions in monthly reports, and necessary information is shared with audit & supervisory board members and the accounting auditor at periodic information exchange sessions. Moreover, the Internal Audit Division performs self-assessments of its activities in accordance with the requirements in international standards stipulated by The Institute of Internal Auditors (IIA). It then compiles such assessments in annual activity reports and furnishes such reports to the Management Committee, Board of Directors, and Audit & Supervisory Board.

## **Corporate Officers**

#### Director



Tsugio Mitsuoka

Date of birth: October 13, 1954

#### Apr. 1980 Joined IHI

- Apr. 2010 Executive Officer; Vice President of Aero-Engine & Space Operations, IHI Apr. 2013 Managing Executive Officer; President of Aero-Engine & Space
- Operations, IHI
- Jun. 2014 Director; Managing Executive Officer; President of Aero-Engine & Space Operations, IHI
- Apr. 2016 Representative Director and President; Chief Operating Officer, IHI
- Apr. 2017 Representative Director and President; Chief Executive Officer, IHI

Tsuyoshi Tsuchida

Date of birth: January 5, 1961

Vice President of Industrial Systems & General-Purpose

- Apr. 2020 Representative Director and Chairman of the Board and President; Chief Executive Officer, IHI
- Jun. 2020 Representative Director and Chairman of the Board; Chief Executive Officer, IHI
- Apr. 2021 Representative Director and Chairman of the Board, IHI (incumbent)

<Significant Concurrent Positions>

Representative Director, Japanese Aero Engines Corporation Outside Director, UBE Corporation



#### Hiroshi Ide Date of birth: February 16, 1961

#### Apr. 1983 Joined IHI

- Apr. 2013 Managing Director, Jurong Engineering Limited
- Apr. 2017 Executive Officer;

Vice President of Resources, Energy and Environment Business Area, IHI

- Apr. 2019 Managing Executive Officer; President of Besources, Energy & Er
- President of Resources, Energy & Environment Business Area, IHI Apr. 2020 Chief Operating Officer
  - and President of Resources, Energy & Environment Business Area, IHI
- Jun. 2020 Representative Director and President; Chief Operating Officer, IHI Apr. 2021 Representative Director and President; Chief Executive Officer and General Manacer of Corporate Strategy Headquarters. IHI
- Apr. 2023 Representative Director and President; Chief Executive Officer, IHI (incumbent)



## Hideo Morita

Date of birth: October 20, 1961

- Apr. 1986 Joined IHI
- Apr. 2017
   Division Director of Civil Aero-Engine Division, Aero Engine, Space & Defense Business Area, IHI
- Apr. 2018 Executive Officer; Vice President of Aero Engine, Space & Defense Business Area, IH
- Apr. 2021 Managing Executive Officer;
- President of Aero Engine, Space & Defense Business Area, IHI Jun. 2021 Director; Managing Executive Officer;
- President of Aero Engine, Space & Defense Business Area, IHI (incumbent)



#### Masataka Ikeyama

- Date of birth: January 4, 1960
- Apr. 1984 Joined IHI
- Apr. 2013 Division Director of Defense Systems Division, Aero-Engine & Space Operations, IHI
- Apr. 2016 Executive Officer; Vice President of Aero-Engine & Space Operations, IHI
- Apr. 2017 Executive Officer
- Vice President of Aero Engine, Space & Defense Business Area, IHI Jun. 2019 Representative Director and President and CEO, MEISEI ELECTRIC CO., LTD.
- Aug. 2021 Managing Executive Officer; General Manager of MEISEI PMI Office, IHI
- Apr. 2022 Senior Executive Officer and General Manager of MEISEI PMI Office, IHI
- Jun. 2022 Representative Director; Senior Executive Officer and General Manager
- of MEISEI PMI Office, IHI
- Apr. 2023 Representative Director; Senior Executive Officer, IHI Jul. 2023 Representative Director; Senior Executive Officer and General Manager
  - II. 2023 Representative Director; Senior Executive Officer and General Manage of Monozukuri System Strategy Planning, IHI (incumbent)



#### Akihiro Seo

Date of birth: October 21, 1963

- Apr. 1987 Joined IHI
- Dec. 2007 President, ALPHA Automotive Technologies LLC
- Apr. 2013 Manager of Planning & Control Department, Global Marketing Headquarters, IHI
- Apr. 2017 Manager of Corporate Business Development Division, IHI
- Apr. 2018 General Manager of Corporate Planning Division, IHI
- Apr. 2021
   Executive Officer; General Manager of Corporate Planning Division, IHI

   Apr. 2022
   Managing Executive Officer; General Manager of Human Resources
- Division, IHI Jun. 2022 Director, Managing Executive Officer; General Manager of Human Resources Division, IHI (incumbent)

- Planning Division, IHI Apr. 2023 Senior Executive Officer, IHI
- Jun. 2023 Representative Director; Senior Executive Officer, IHI (incumbent)

Apr. 2010 Vice President of Logistics Systems Operations, IHI

Apr. 2020 Vice President of Industrial Systems & General-Purpose

Apr. 2022 Managing Executive Officer; General Manager of Corporate

Jun. 2015 President, IHI Logistics & Machinery Corporation

Machinery Business Area, IHI

Machinery Business Area, IHI

Apr. 1984 Joined IHI

Apr. 2021 Executive Officer;

**Corporate Officers** 



## Jun Kobayashi

Date of birth: May 23, 1964

#### Apr. 1988 Joined IHI

- Apr. 2013 General Manager of Sales Department, Solution & Engineering Headquarters, IHI
- Sep. 2018 Assistant General Manager of Corporate Business Development & Solution Headquarters, and General Manager of Rome Office, Global Marketing & Sales Headquarters, IHI
- Apr. 2019 General Manager of Global Business Development Group, Strategy Development Department, Social Infrastructure & Offshore Facilities Business Area, and Assistant General Manager of Corporate Business Development & Solution Headquarters, and General Manager of Rome Office, Global Marketing & Sales Headquarters, IHI
- Apr. 2020 Vice President of Social Infrastructure & Offshore Facilities Business Area, and General Manager of Rome Office, Global Marketing & Sales Headquarters, IHI
- Apr. 2021 Executive Officer; General Manager of Solution & Business Development Headquarters. IHI
- Apr. 2023 Managing Executive Officer; General Manager of Business Development Headquarters, IHI
- Jun. 2023 Director; Managing Executive Officer; General Manager of Business Development Headquarters, IHI (incumbent)



#### Chieko Matsuda

Date of birth: November 18, 1964

- Apr. 1987 Joined The Long-Term Credit Bank of Japan, Limited
- Oct. 1998 Joined Moody's Japan K.K.
- Sep. 2001 Partner, Corporate Directions, Inc.
- May 2006 Representative Director, Matrix, Inc.
- Oct. 2006 Vice President (Partner), Booz & Company, Inc.
- Apr. 2011 Professor, Faculty of Economics and Business Administration, Tokyo Metropolitan University (incumbent) Professor, Graduate School of Management, Tokyo Metropolitan University (incumbent)
- Jun. 2020 Director, IHI (incumbent)

#### <Significant Concurrent Positions>

Professor, Faculty of Economics and Business Administration, Tokyo Metropolitan University Professor, Graduate School of Management, Tokyo Metropolitan University Non-Executive Director of the Board; Kirin Holdings Company, Limited Outside Director, Asahi Kasei Corporation Outside Members of the Board, Toyota Tsusho Corporation



## Yasuaki Fukumoto

Date of birth: September 8, 1966

#### Apr. 1990 Joined IHI

- Apr. 2014 General Manager of Accounting Group, Finance & Accounting Division, IHI
- Jun. 2018 Manager of Group Strategy Group, Corporate Planning Division, IHI
- Apr. 2020 General Manager of Accounting Group, Finance & Accounting Division, IHI
- Apr. 2021 General Manager of Finance & Accounting Division, IHI
- Apr. 2022 Executive Officer; General Manager of Finance & Accounting Division, IHI
- Jun. 2023 Director; Executive Officer; General Manager of Finance & Accounting Division, IHI (incumbent)



#### Yoshiyuki Nakanishi

Date of birth: November 3, 1954

- Apr. 1978 Joined Dainippon Ink and Chemicals, Incorporated (now DIC Corporation)
- Apr. 2010 Executive Officer; In Charge of Corporate Strategy Division and Kawamura Memorial Museum of Art, DIC Corporation
- Jun. 2011 Director; Executive Officer; In Charge of Corporate Strategy Division and Kawamura Memorial DIC Museum of Art, DIC Corporation
- Apr. 2012 Representative Director; President and CEO, DIC Corporation
- Jan. 2018 Chairman of the Board, DIC Corporation
- Jun. 2020 Director, IHI (incumbent)
- Jan. 2021 Director, DIC Corporation
- Mar. 2021 Executive Advisor, DIC Corporation

<Significant Concurrent Positions> Outside Director, The Japan Steel Works, Ltd. Outside Director, SHIMADZU CORPORATION



#### Minoru Usui

Date of birth: April 22, 1955

- Nov. 1979 Joined Shinshu Seiki Co., Ltd. (now Seiko Epson Corporation)
- Jun. 2002 Director; Deputy Chief Operating Officer, Imaging & Information Products Operations Division, Seiko Epson Corporation
- Nov. 2004 Director; Deputy General Administrative Manager, Corporate Research & Development Division; and Deputy Chief Operating Officer, Imaging & Information Products Operations Division, Seiko Epson Corporation
- Nov. 2005 Director; General Administrative Manager, Production Engineering & Development Division, Seiko Epson Corporation
- Jul. 2007 Director; General Administrative Manager, Corporate Research & Development Division, and General Administrative Manager, Production Engineering & Development Division, Seiko Epson Corporation
- Oct. 2007 Managing Director; General Administrative Manager, Corporate Research & Development Division, and General Administrative Manager, Production Engineering & Development Division, Seiko Epson Corporation
- Jun. 2008
   President and Representative Director; Chief Executive Officer, Seiko Epson Corporation

   Apr. 2020
   Chairman and Director; Seiko Epson Corporation (incumbent)

Jun. 2021 Director, IHI (incumbent)

<Significant Concurrent Positions> Chairman and Director, Seiko Epson Corporation (Note) He is not a business executive at Seiko Epson Corporation.

Outside Director, Sumitomo Pharma Co., Ltd.



#### **Toshihiro Uchiyama**

Date of birth: November 28, 1958

Apr. 1981 Joined NSK Ltd.

- Jun. 2008 Vice President; Deputy Head of Corporate Planning Division HQ, NSK Ltd.
- Jun. 2009 Vice President; Head of Corporate Planning Division HQ, NSK Ltd.
- Jun. 2010 Senior Vice President; Head of Corporate Planning Division HQ, NSK Ltd.
- Jun. 2012 Director; Senior Vice President; Head of Corporate Planning Division HQ, NSK Ltd.
- Jun. 2013 Director; Representative, Executive Vice President; Head of Corporate Strategy Division HQ, NSK Ltd.
- Jun. 2015 Director; Representative, President, NSK Ltd.
- Jun. 2017 Director; Representative, President and Chief Executive Officer, NSK Ltd.
- Apr. 2021 Chairman of the Board of Directors,NSK Ltd. Jun. 2022 Director, IHI (incumbent)
- Jun. 2023 Advisor, NSK Ltd. (incumbent)

<Significant Concurrent Positions> Advisor, NSK Ltd. (incumbent) Outside Director, Sapporo Holdings Limited

## **Corporate Officers**

## Audit & Supervisory Board Members



Takashi Niimura Date of birth: August 6, 1960



- Apr. 2010 General Manager of Administration Department, Global Marketing Headquarters, IHI
- Apr. 2012 General Manager of Corporate Sales & Marketing Department, Global Marketing Headquarters, IHI
- Apr. 2013 General Manager of Chubu Branch, Sales Headquarters, IHI
- Apr. 2016 Executive Officer; Deputy General Manager of Sales Headquarters and General Manager of Corporate Sales & Marketing Department, IHI
- Apr. 2017 Executive Officer; Vice President of Industrial Systems & General-Purpose Machinery Business Area and Deputy General Manager of Sales Headquarters, IHI
- Apr. 2018 Executive Officer; Vice President of Industrial Systems & General-Purpose Machinery Business Area and Deputy General Manager of Global Marketing & Sales Headquarters, IHI
- Apr. 2019 Executive Officer; General Manager of Global Marketing & Sales Headquarters, IHI
- Apr. 2020 General Advisor, IHI
- Jun. 2020 Standing Audit & Supervisory Board Member, IHI (incumbent)



- Apr. 1985 Joined IHI
- Dec. 2008 General Manager of Internal Control Assessment Division, IHI
- Apr. 2010 General Manager of Corporate Audit Division, IHI
- Apr. 2012 General Manager of Administration Department, Rotating Machinery Operations, IHI
- Apr. 2014 General Manager of Tax Accounting & Overseas Project Group, Finance & Accounting Division, IHI
- Apr. 2018 Deputy General Manager of Finance & Accounting Division. IHI
- Apr. 2019 General Manager of Finance & Accounting Division, IHI
- Apr. 2021 Fellow of Finance & Accounting Division, IHI
- Jun. 2021 Standing Audit & Supervisory Board Member, IHI (incumbent)



Aiko Sekine

- Date of birth: May 13, 1958
- Apr. 1981
   Joined Citibank, N.A., Tokyo Branch

   Oct. 1985
   Joined Aoyama Audit Corporation

   Mar. 1989
   Registered as Certified Public Accountant

   Sep. 2006
   Partner, PricewaterhouseCoopers Aarata, LCC
- Jul. 2007 Executive Board Member, Japanese Institute of CPAs (JICPA)
- Jan. 2008 Board Member, International Ethics Standards Board for
- Accountants (IESBA), International Federation of Accountants Jul. 2010 Deputy President, JICPA
- Jul. 2016 Chairman and President, JICPA
- Jan. 2019 Member of the Nominating Committee, Internal Federation of Accountants
- Jul. 2019 Advisor, JICPA (incumbent)
- Jun. 2020 Audit & Supervisory Board Member, IHI (incumbent)

<Significant Concurrent Positions> Certified Public Accountant Advisor, JICPA Professor, Faculty of Commerce, Waseda University Outside Director, ORIX Corporation Outside Audit & Supervisory Board Member, Sumitomo Riko Company Limited



Yumiko Waseda

Date of birth: January 29, 1960

- Apr. 1985 Registered as Attorney at Law; Joined Max Law Offices (now Mori Hamada & Matsumoto)
- Apr. 2004 Vice President, Daini Tokyo Bar Association
- Apr. 2005 Executive Director Governor, Japan Federation of Bar Associations
- Apr. 2013 Partner, Tokyo Roppongi Law & Patent Offices (incumbent)
   Apr. 2016 President, Daini Tokyo Bar Association; Vice President, Japan Federation of Bar Associations
- Aug. 2020 Executive Director, Japan Law Foundation (incumbent)
- Jun. 2021 Audit & Supervisory Board Member, IHI (incumbent)

<Significant Concurrent Positions> Attorney at Law

- Outside Audit & Supervisory Board Member, Chugai Pharmaceutical Co., Ltd. Outside Director, SCSK Corporation
- Executive Director, Japan Law Foundation



## Kazuhiro Muto

- Date of birth: February 14, 1963
- Apr. 1985 Joined IBM Japan, Ltd.
- Jan. 2009 Executive Officer; President of Finance Division ii, IBM Japan, Ltd. Jan. 2014 Managing Executive Officer; President of Finance
- Division ii, IBM Japan, Ltd.
- Aug. 2014 Managing Executive Officer; President of System Product Division, IBM Japan, Ltd.
- Feb. 2015 Managing Executive Officer; President of IBM Systems Hardware Business Division, IBM Japan, Ltd.
- Jul. 2016 Senior Managing Executive Officer; President of IBM Systems Hardware Business Division, IBM Japan, Ltd.
- Sep. 2018 Senior Managing Executive Officer; President of Panasonic Enterprise Division, IBM Japan, Ltd.
- Jan. 2023 Advisor, IBM Japan, Ltd. (incumbent) Jun. 2023 Audit & Supervisory Board Member, IHI (incumbent)
- Juli. 2023 Addit & Supervisory Board Member, I'll

<Significant Concurrent Positions> Advisor, IBM Japan, Ltd.

# Data

Financial Summary	••••••	79
Non-financial Summary	····· {	81
Global Network	····· {	86
Corporate Data/Share Information	{	87

## **Financial Summary**

IHI Corporation and consolidated subsidiaries / For respective fiscal years ended March 31

#### The Company adopted the International Financial Reporting Standards (IFRS) in fiscal 2020.

FY		2012	2013	2014	2015	2016	2017	2018	201	9	2020	2021	2022
Standard		Japanese GAAP	Japanese GAAP	Japanese GAAP	Japanese GAAP	Japanese GAAP	Japanese GAAP	Japanese GAAP	Japanese GAAP	IFRS	IFRS	IFRS	IFRS
Key financial highlights												(Bi	llions of yen
Orders received		1,225.6	1,458.9	1,664.3	1,605.3	1,389.8	1,505.0	1,399.2	1,373.9	1,280.0	1,097.0	1,261.2	1,366.1
Net sales/Revenue		1,256.0	1,304.0	1,455.8	1,539.3	1,486.3	1,590.3	1,483.4	1,386.5	1,263.1	1,112.9	1,172.9	1,352.9
Operating profit		42.1	53.2	63.2	22.0	47.3	72.2	82.4	60.7	47.8	27.9	81.4	81.9
Share of profit (loss) of entities accounted for using equity met investments accounted for using equity method	thod/Share of profit (loss) of	4.3	5.3	(1.7)	1.1	(3.5)	(33.0)	4.1	(12.9)	(12.3)	(1.9)	1.1	(8.3)
Total non-operating income		(5.9)	0	(6.7)	(12.3)	(25.3)	(50.8)	(16.7)	(28.5)	_	—	_	_
Ordinary profit/Profit before tax		36.2	53.2	56.5	9.7	22.0	21.4	65.7	32.2	29.1	27.6	87.6	64.8
Profit attributable to owners of parent		33.3	33.1	9.0	1.5	5.2	8.2	39.8	12.8	8.2	13.0	66.0	44.5
R&D expenses		30.2	33.5	37.0	41.6	35.5	38.6	36.5	38.1	40.0	26.8	29.8	34.0
Capital expenditure		55.0	54.5	63.9	50.8	52.7	59.2	67.3	80.6	89.9	48.3	43.3	61.1
Depreciation		41.7	40.4	43.2	46.7	46.6	44.8	42.9	53.8	66.3	69.8	67.5	62.9
Interest-bearing liabilities		353.8	357.8	410.6	374.5	371.9	322.2	355.0	488.1	612.7	605.9	505.5	519.4
Net assets/Total equity		299.2	362.5	359.5	333.3	337.6	350.2	381.6	353.7	306.0	327.7	407.0	456.2
Employees (People)		26,618	27,562	28,533	29,494	29,659	29,706	29,286	28,964	29,328	29,149	28,801	28,486
Per share data													(Ye
		228.14	225.13	58.84	9.90	33.98	53.71	258.53	84.21	53.93	88.13	439.77	294.4
Basic earnings per share <sup>*1</sup>		ZZO, 14	220.13	00.04	9.90	33.90	55.71	200.00	04.21	55.95	00.13	439.77	294.4
0 1	rant par abara*2			2 240 21	2 061 62	2 060 22	2 102 22	2 262 12	2 105 06	1 005 12	2 025 10	2 526 22	2 950 4
Book value per share/Equity attributable to owners of par	rent per share*2	1,970.775	2,236.81	2,240.31	2,061.63	2,060.33	2,103.22	2,263.12	2,195.96	1,885.13	2,025.18	2,526.33	
0 1	rent per share*2			2,240.31 60.00	2,061.63 30.00	2,060.33 0.00	2,103.22 60.00	2,263.12 70.00	2,195.96 50.00	1,885.13 50.00	2,025.18 0.00	2,526.33 70.00	
Book value per share/Equity attributable to owners of par	rent per share*2	1,970.775	2,236.81		-								
Book value per share/Equity attributable to owners of par	rent per share*2	1,970.775	2,236.81									70.00	90.0
Book value per share/Equity attributable to owners of par Annual dividends per share	rent per share*2 Orders received	1,970.775	2,236.81									70.00	90.0
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information		1,970.775 0.00	2,236.81	60.00	30.00	0.00	60.00	70.00	50.00	50.00	0.00	70.00 (Bi	90.0 Ilions of yer 393.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information	Orders received	1,970.775 0.00 	2,236.81 60.00 494.6	60.00	30.00	0.00	60.00	285.5	50.00	50.00 316.9	0.00	70.00 (Bi 373.8	90.0 llions of yer 393. 565.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information	Orders received Order backlog	1,970.775 0.00 290.1 340.1	2,236.81 60.00 494.6 535.2	60.00 582.7 760.4	30.00 532.7 843.4	0.00 352.8 752.3	60.00 378.0 648.5	70.00 285.5 523.1	50.00 316.9 521.2	50.00 316.9 517.0	0.00 274.7 482.3	70.00 (Bi 373.8 527.5	90.0 llions of yer 393. 565. 371.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information	Orders received Order backlog Revenue	1,970.775 0.00 290.1 340.1 321.5	2,236.81 60.00 494.6 535.2 344.0	60.00 582.7 760.4 415.3	30.00 532.7 843.4 452.4	0.00 352.8 752.3 427.3	60.00 378.0 648.5 490.4	70.00 285.5 523.1 377.0	50.00 316.9 521.2 327.7	50.00 316.9 517.0 324.8	0.00 274.7 482.3 317.6	70.00 (Bi 373.8 527.5 344.4	90.0 llions of yer 393. 565. 371. 26.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information Resources, Energy & Environment	Orders received Order backlog Revenue Operating profit	1,970.775 0.00 290.1 340.1 321.5 16.2	2,236.81 60.00 494.6 535.2 344.0 11.6	60.00 582.7 760.4 415.3 24.0	30.00 532.7 843.4 452.4 (2.2)	0.00 352.8 752.3 427.3 (10.6)	60.00 378.0 648.5 490.4 (14.8)	70.00 285.5 523.1 377.0 3.3	50.00 316.9 521.2 327.7 3.7	50.00 316.9 517.0 324.8 3.9	0.00 274.7 482.3 317.6 19.1	70.00 (Bi 373.8 527.5 344.4 22.9	90.0 llions of year 393. 565. 371. 26. 134.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information Resources, Energy & Environment	Orders received Order backlog Revenue Operating profit Orders received	1,970.775 0.00 290.1 340.1 321.5 16.2 970	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5	60.00 582.7 760.4 415.3 24.0 178.7	30.00 532.7 843.4 452.4 (2.2) 128.5	0.00 352.8 752.3 427.3 (10.6) 150.1	60.00 378.0 648.5 490.4 (14.8) 163.9	70.00 285.5 523.1 377.0 3.3 124.4	50.00 316.9 521.2 327.7 3.7 196.9	50.00 316.9 517.0 324.8 3.9 196.9	0.00 274.7 482.3 317.6 19.1 166.1	70.00 (Bi 373.8 527.5 344.4 22.9 181.0	90.0 llions of yea 393. 565. 371. 26. 134. 218.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information Resources, Energy & Environment	Orders received Order backlog Revenue Operating profit Orders received Order backlog	1,970.775 0.00 290.1 340.1 321.5 16.2 9700 185.2	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5 235.2	60.00 582.7 760.4 415.3 24.0 178.7 231.9	30.00 532.7 843.4 452.4 (2.2) 128.5 194.3	0.00 352.8 752.3 427.3 (10.6) 150.1 196.1	60.00 378.0 648.5 490.4 (14.8) 163.9 206.1	70.00 285.5 523.1 377.0 3.3 124.4 191.6	50.00 316.9 521.2 327.7 3.7 196.9 229.6	50.00 316.9 517.0 324.8 3.9 196.9 229.3	0.00 274.7 482.3 317.6 19.1 166.1 226.4	(Bi 373.8 527.5 344.4 22.9 181.0 250.0	90.0 llions of yer 393. 565. 371. 26. 134. 218. 171.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information Resources, Energy & Environment	Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue	1,970.775 0.00 290.1 340.1 321.5 16.2 97.0 185.2 117.8	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5 235.2 150.3	60.00 582.7 760.4 415.3 24.0 178.7 231.9 188.6	30.00 532.7 843.4 452.4 (2.2) 128.5 194.3 168.1	0.00 352.8 752.3 427.3 (10.6) 150.1 196.1 157.7	60.00 378.0 648.5 490.4 (14.8) 163.9 206.1 154.5	70.00 285.5 523.1 3770 3.3 124.4 191.6 143.1	50.00 316.9 521.2 327.7 3.7 196.9 229.6 152.8	50.00 316.9 517.0 324.8 3.9 196.9 229.3 148.7	0.00 274.7 482.3 317.6 19.1 166.1 226.4 157.9	(Bi 373.8 527.5 344.4 22.9 181.0 250.0 167.3	90.0 Ilions of year 393. 565. 371. 26. 134. 218. 171. 17.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information Resources, Energy & Environment Social Infrastructure & Offshore Facilities	Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue Operating profit	1,970.775 0.00 290.1 340.1 321.5 16.2 970 185.2 117.8 1.5	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5 235.2 150.3 2.3	60.00 582.7 760.4 415.3 24.0 178.7 231.9 188.6 (3.2)	30.00 532.7 843.4 452.4 (2.2) 128.5 194.3 168.1 (48.9)	0.00 352.8 752.3 427.3 (10.6) 150.1 196.1 157.7 (12.0)	60.00 378.0 648.5 490.4 (14.8) 163.9 206.1 154.5 13.9	70.00 285.5 523.1 3770 3.3 124.4 191.6 143.1 14.2	50.00 316.9 521.2 327.7 3.7 196.9 229.6 152.8 13.4	50.00 316.9 517.0 324.8 3.9 196.9 229.3 148.7 13.0	0.00 274.7 482.3 317.6 19.1 166.1 226.4 157.9 17.1	70.00 (Bi 373.8 527.5 344.4 22.9 181.0 250.0 167.3 15.3	90.0 Ilions of yer 393. 565. 371. 26. 134. 218. 171. 17. 455.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information Resources, Energy & Environment Social Infrastructure & Offshore Facilities	Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue Operating profit Orders received	1,970.775 0.00 290.1 340.1 321.5 16.2 970 185.2 117.8 1.5 343.6	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5 235.2 150.3 2.3 370.6	60.00 582.7 760.4 415.3 24.0 178.7 231.9 188.6 (3.2) 415.0	30.00 532.7 843.4 452.4 (2.2) 128.5 194.3 168.1 (48.9) 421.8	0.00 352.8 752.3 4273 (10.6) 150.1 196.1 157.7 (12.0) 420.5	60.00 378.0 648.5 490.4 (14.8) 163.9 206.1 154.5 13.9 474.0	70.00 285.5 523.1 3770 3.3 124.4 191.6 143.1 14.2 458.9	50.00 316.9 521.2 3277 3.7 196.9 229.6 152.8 13.4 420.1	50.00 316.9 517.0 324.8 3.9 196.9 229.3 148.7 13.0 420.1	0.00 274.7 482.3 317.6 19.1 166.1 226.4 157.9 17.1 365.2	(Bi 373.8 527.5 344.4 22.9 181.0 250.0 167.3 15.3 384.5	90.0 Ilions of yee 393. 565. 371. 26. 134. 218. 171. 17. 455. 201.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information Resources, Energy & Environment Social Infrastructure & Offshore Facilities	Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue Operating profit Orders received Order backlog	1,970.775 0.00 290.1 340.1 321.5 16.2 970 185.2 117.8 1.5 343.6 162.3	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5 235.2 150.3 2.3 370.6 108.7	60.00 582.7 760.4 415.3 24.0 178.7 231.9 188.6 (3.2) 415.0 121.0	30.00 532.7 843.4 452.4 (2.2) 128.5 194.3 168.1 (48.9) 421.8 138.0	0.00 352.8 752.3 427.3 (10.6) 150.1 196.1 157.7 (12.0) 420.5 148.4	60.00 378.0 648.5 490.4 (14.8) 163.9 206.1 154.5 13.9 474.0 161.0	70.00 285.5 523.1 3770 3.3 124.4 191.6 143.1 14.2 458.9 180.3	50.00 316.9 521.2 327.7 3.7 196.9 229.6 152.8 13.4 420.1 190.8	50.00 316.9 517.0 324.8 3.9 196.9 229.3 148.7 13.0 420.1 189.8	0.00 274.7 482.3 317.6 19.1 166.1 226.4 157.9 17.1 365.2 175.3	(Bi 373.8 527.5 344.4 22.9 181.0 250.0 167.3 15.3 384.5 180.7	90.0 Ilions of yer 393. 565. 371. 26. 134. 218. 171. 17. 455. 201. 436.
Book value per share/Equity attributable to owners of par Annual dividends per share Business area information Resources, Energy & Environment Social Infrastructure & Offshore Facilities	Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue	1,970.775 0.00 290.1 340.1 321.5 16.2 97.0 185.2 117.8 1.5 343.6 162.3 382.5	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5 235.2 150.3 2.3 370.6 108.7 397.8	60.00 582.7 760.4 415.3 24.0 178.7 231.9 188.6 (3.2) 415.0 121.0 411.7	30.00 532.7 843.4 452.4 (2.2) 128.5 194.3 168.1 (48.9) 421.8 138.0 404.7	0.00 352.8 752.3 427.3 (10.6) 150.1 196.1 157.7 (12.0) 420.5 148.4 411.6	60.00 378.0 648.5 490.4 (14.8) 163.9 206.1 154.5 13.9 474.0 161.0 459.0	70.00 285.5 523.1 3770 3.3 124.4 191.6 143.1 14.2 458.9 180.3 441.0	50.00 316.9 521.2 327.7 3.7 196.9 229.6 152.8 13.4 420.1 190.8 406.4	50.00 316.9 517.0 324.8 3.9 196.9 229.3 148.7 13.0 420.1 189.8 404.5	0.00 274.7 482.3 317.6 19.1 166.1 226.4 157.9 17.1 365.2 175.3 374.2	(Bi 373.8 527.5 344.4 22.9 181.0 250.0 167.3 15.3 384.5 180.7 376.9	90.0 Ilions of yer 393. 565. 371. 26. 134. 218. 171. 17. 455. 201. 436. 18.
Book value per share/Equity attributable to owners of par Annual dividends per share  Business area information Resources, Energy & Environment  Social Infrastructure & Offshore Facilities Industrial Systems & General-Purpose Machinery	Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue Operating profit	1,970.775 0.00 290.1 340.1 321.5 16.2 970 185.2 117.8 1.5 343.6 162.3 382.5 13.6	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5 235.2 150.3 2.3 370.6 108.7 397.8 15.1	60.00 582.7 760.4 415.3 24.0 178.7 231.9 188.6 (3.2) 415.0 121.0 411.7 10.2	30.00 532.7 843.4 452.4 (2.2) 128.5 194.3 168.1 (48.9) 421.8 138.0 404.7 12.6	0.00 352.8 752.3 427.3 (10.6) 150.1 196.1 157.7 (12.0) 420.5 148.4 411.6 17.5	60.00 378.0 648.5 490.4 (14.8) 163.9 206.1 154.5 13.9 474.0 161.0 459.0 18.9	70.00 285.5 523.1 3770 3.3 124.4 191.6 143.1 14.2 458.9 180.3 441.0 23.1	50.00 316.9 521.2 327.7 3.7 196.9 229.6 152.8 13.4 420.1 190.8 406.4 11.4	50.00 316.9 517.0 324.8 3.9 196.9 229.3 148.7 13.0 420.1 189.8 404.5 12.9	0.00 274.7 482.3 317.6 19.1 166.1 226.4 157.9 17.1 365.2 175.3 374.2 11.4	(Bi 373.8 527.5 344.4 22.9 181.0 250.0 167.3 15.3 384.5 180.7 376.9 12.8	90.0 Illions of yer 393. 565. 371. 26. 134. 218. 171. 17. 455. 201. 436. 18. 372.
Book value per share/Equity attributable to owners of par Annual dividends per share  Business area information Resources, Energy & Environment  Social Infrastructure & Offshore Facilities Industrial Systems & General-Purpose Machinery	Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue Operating profit Orders received Order backlog Revenue Operating profit Orders received	1,970.775 0.00 290.1 340.1 321.5 16.2 970 185.2 117.8 1.5 343.6 162.3 382.5 13.6 344.8	2,236.81 60.00 494.6 535.2 344.0 11.6 175.5 235.2 150.3 2.3 370.6 108.7 397.8 15.1 406.9	60.00 582.7 760.4 415.3 24.0 178.7 231.9 188.6 (3.2) 415.0 121.0 411.7 10.2 468.0	30.00 532.7 843.4 452.4 (2.2) 128.5 194.3 168.1 (48.9) 421.8 138.0 404.7 12.6 515.6	0.00 352.8 752.3 427.3 (10.6) 150.1 196.1 157.7 (12.0) 420.5 148.4 411.6 17.5 451.5	60.00 378.0 648.5 490.4 (14.8) 163.9 206.1 154.5 13.9 474.0 161.0 459.0 18.9 463.8	70.00 285.5 523.1 377.0 3.3 124.4 191.6 143.1 14.2 458.9 180.3 441.0 23.1 494.3	50.00 316.9 521.2 327.7 3.7 196.9 229.6 152.8 13.4 420.1 190.8 406.4 11.4 420.1	50.00 316.9 517.0 324.8 3.9 196.9 229.3 148.7 13.0 420.1 189.8 404.5 12.9 321.5	0.00 274.7 482.3 317.6 19.1 166.1 226.4 157.9 17.1 365.2 175.3 374.2 11.4 268.9	(Bi 373.8 527.5 344.4 22.9 181.0 250.0 167.3 15.3 384.5 180.7 376.9 12.8 304.7	2,850.4 90.0 1000 000 1000 000 1000 1000 000 1000 1000 000 10000 10000 1000 1000 1000 1000 1000 1000 10000 1000000

Financial Summary

FY	2012	2013	2014	2015	2016	2017	2018	201		2020	2021	2022
Standard	Japanese GAAP	IFRS	IFRS	IFRS	IFR							
Financial indices												(
Percentage of overseas sales/revenue	38.7	47.4	52.1	51.8	50.9	50.8	48.1	47.8	43.6	37.2	42.2	4
Operating profit margin	3.4	4.1	4.3	1.4	3.2	4.5	5.6	4.4	3.8	2.5	6.9	
ROIC (return on invested capital)*3	4.5	5.3	5.8	2.3	5.0	7.7	8.7	5.7	4.1	2.2	6.4	
ROA (return on assets)*4	2.5	2.3	0.6	0.1	0.3	0.5	2.4	0.8	0.4	0.7	3.5	
ROE (return on equity)*5	12.4	10.5	2.6	0.5	1.6	2.6	11.8	3.8	2.8	4.5	19.3	
Debt-to-equity ratio (times) <sup>*6</sup>	1.18	0.99	1.14	1.12	1.10	0.92	0.93	1.38	2.00	1.85	1.24	
Equity to total assets	21.1	23.1	20.5	18.6	18.8	19.9	21.0	18.7	15.0	16.4	20.3	:
CCC (days)					87	83	97	120	92	124	112	
alance sheet information											(Bi	illions of
Current assets	814.7	901.2	1,053.7	1,100.5	1,073.8	993.4	987.8	1,076.0	957.6	946.6	1,023.9	1,0
Non-current assets	549.4	595.1	637.1	614.5	618.9	640.0	676.6	664.7	911.3	886.2	855.6	8
Total assets	1,364.2	1,496.3	1,690.8	1,715.0	1,692.8	1,633.4	1,664.5	1,740.7	1,869.0	1,832.8	1,879.6	1,9
Current liabilities	665.4	726.2	795.9	882.7	876.2	811.6	823.1	909.0	916.5	764.7	773.6	8
Provision for construction warranties, Provision for loss on construction contracts	40.4	43.8	65.3	97.5	85.2	80.9	69.1	62.6	31.9	26.4	22.3	
Non-current liabilities	399.5	407.5	535.3	498.9	478.9	471.6	459.7	478.0	646.4	740.3	698.9	6
Total liabilities	1,064.9	1,133.8	1,331.2	1,381.6	1,355.2	1,283.2	1,282.8	1,387.0	1,562.9	1,505.1	1,472.6	1,4
Shareholders' equity/Total equity attributable to owners of parent	282.7	332.2	313.5	305.8	309.9	313.2	343.4	329.2	280.1	300.7	382.1	4
Total net assets/Total equity	299.2	362.5	359.5	333.3	337,6	350.2	381.6	353.7	306.0	327.7	407.0	4
Total liabilities and net assets/Total liabilities and equity	1,364.2	1,496.3	1,690.8	1,715.0	1,692.8	1,633.4	1,664.5	1,740.7	1,869.0	1,832.8	1,879.6	1,9
ash flow statement information											(Bi	illions of
Cash flows from operating activities	74.3	39.2	63.5	95.3	65.3	99.0	46.4	14.5	42.4	36.3	114.1	
Cash flows from investing activities	(61.0)	(62.2)	(74.6)	(35.5)	(28.9)	(47.9)	(79.2)	(75.8)	(85.5)	(40.4)	27.9	(5
Cash flows from financing activities	(3.1)	11.3	33.4	(47.5)	(21.9)	(57.3)	16.4	115.2	96.8	(23.7)	(121.4)	(2
Change in interest-bearing liabilities	8.6	4.0	52.8	(36.1)	(2.6)	(49.7)	32.8	133.0	(119.0)	(6.7)	(100.3)	
Free cash flow*7	13.3	(23.0)	(11.0)	59.8	36.4	51.0	(32.8)	(61.3)	(43.0)	(4.1)	142.0	

\*1 Japanese GAAP/IFRS: Profit attributable to owners of parent / Average number of shares outstanding during the period

\*2 Japanese GAAP: Net assets /Total number of shares outstanding IFRS: Equity /Total number of shares outstanding

\*3 Japanese GAAP/IFRS: (Operating profit + Interest and dividend income) after tax / (Equity attributable to owners of parent + Interest-bearing liabilities)

\*4 Japanese GAAP/IFRS: Profit attributable to owners of parent / (Average of total assets at end of previous fiscal year and end of current fiscal year)

\*5 Japanese GAAP/IFRS: Profit attributable to owners of parent / (Average of equity attributable to owners of parent at end of previous fiscal year and end of current fiscal year)

\*6 Japanese GAAP: Net interest-bearing liabilities / Net assets IFRS: Interest-bearing liabilities / Equity

\*7 Cash flows from operating activities + Cash flows from investing activities

## Non-financial Summary

					Results				
Material Issues	Vaterial Issues Theme		Index	Scope of Data	FY2019	FY2020	FY2021	FY2022	
Governance – Principled	Corporate Management –			L I					
Corporate governance	Corporate governance	Average attendance of Outside Directors	Board of Directors meetings (%)	IHI	98	97	100	99	
		Average attendance of Outside Audit &	Board of Directors meetings (%)	IHI	100	100	98	98	
		Supervisory Board Members	Audit & Supervisory Board meetings (%)	IHI	100	100	100	100	
Compliance	Legal compliance	Number of law violations	Competition laws	IHI and consolidated subsidiaries	0	0	0	0	
-		Anticorruption laws	IHI and consolidated subsidiaries	0	0	0	0		
		Laws/regulations relating to PR activities	IHI and consolidated subsidiaries	0	0	0	0		
		Expenditure to organizations	Political organizations (millions of yen)	IHI	10	10	10	10	
			Economic organizations (millions of yen)	IHI	56	57	52	55	
			Other major industry organizations (millions of yen)	IHI	120	122	119	122	
		Number of Compliance Hotline repor	rts	IHI and affiliated companies	239	202	263	286	
		Number of compliance	Officer Training	IHI and subsidiary companies in Japan	_	—	—		
		training participants	Line Manager Training	IHI and subsidiary companies in Japan	72	—	—		
			Quality & Compliance Training (Japan)	IHI and subsidiary companies in Japan	27,866	24,085	26,243	25,870	
			Quality & Compliance Training (overseas)	Subsidiary companies overseas	1,774	3,261	4,938	5,334	
			e-learning*1 (Japan)	IHI and subsidiary companies in Japan	18,164	20,169	21,659	21,635	
			e-learning (overseas)	Subsidiary companies overseas	1,214	—	—		
Innovation management	Intellectual property	Regional comparison in number of	Patents in Japan	IHI	4,150	3,867	3,866	3,989	
	protection	our patents	Patents overseas	IHI	3,502	3,808	3,936	3,818	
Information security	Information security measures	Information security measures level	evaluation (out of five) (score)	IHI and consolidated subsidiaries	3.2	3.4	3.7	3.7	

\*1 Conducted as Quality & Compliance Training since fiscal 2020.

## Non-financial

Su	m	ma	ary	
----	---	----	-----	--

				Results				
Material Issues	Theme		Index	Scope of Data	FY2019	FY2020	FY2021	FY2022
Society – Materialize an	Affluent Society –	1		-				
Improving occupational health and safety standards	Occupational health	Participation rate of medical cheo	sk-ups (%)	IHI and 35 affiliated companies	_	_	97	96
	and safety	Participation rate of medical cheo	sk-ups (%)	IHI and 35 affiliated companies	71	72	71	72
		Participation rate of stress check	s (%)	IHI and 35 affiliated companies	94	95	95	97
		High stress rate (%)		IHI and 35 affiliated companies	—	—	9	9
		Absenteeism (Ratio of employee	s who take three or more months of leave) (%)	IHI and 35 affiliated companies	1.0	0.8	0.7	1.3
		Presenteeism (Ratio of employee	es with restricted hours) (%)	IHI and 35 affiliated companies	1.6	2.1	1.8	1.7
		Smoking rate (%)		IHI and 35 affiliated companies	27	27	28	25
		Rate of occupational diseases*2		IHI and 31 affiliated companies	0.165	0.15	0.118	0.098
		Total injuries frequency rate*3		IHI and 31 affiliated companies	1.49	0.87	1.23	1.37
		Lost time injuries frequency rate	*4	IHI and 31 affiliated companies	0.40	0.28	0.38	0.39
		Occupational accidents <sup>*5</sup>		IHI and 31 affiliated companies	71(0)	38(0)	52(1)	56(0)
			Employees	IHI and 31 affiliated companies	42(0)	18(0)	31(1)	25(0)
			Temporary employees	IHI and 31 affiliated companies	4(0)	1(0)	3(0)	4(0)
			Partners	IHI and 31 affiliated companies	25(0)	19(0)	18(0)	27(0)
Diversity, equity, and	Number of employees	Consolidated number of employe	ees	IHI and consolidated subsidiaries	28,964	29,149	28,801	28,486
nclusion		Number of employees (IHI)		IHI	7,741	7,796	7,779	7,768
			Male	IHI	6,730	6,766	6,727	6,695
			Female	IHI	1,011	1,030	1,052	1,073
			Ratio of female employees (%)	IHI	13.1	13.2	13.5	13.8
	Average years of	All employees		IHI	15.8	15.1	16.3	16.7
	service		Male	IHI	16.0	15.3	16.5	16.9
			Female	IHI	14.5	14.2	15.5	15.8
	Turnover rate	Total turnover rate (%)		IHI	3.5	2.9	3.1	2.7
		Rate of retirement due to persor	nal reasons (%)	IHI	2.0	1.1	1.6	1.5
		Turnover rate within 3 years of jo	ining the company (%)	IHI	6.8	4.3	3.4	5.5

\*2 People suffering from occupational diseases per million working hours.

\*3 Fatalities or injuries caused by occupational accidents per million working hours.

\*4 Fatalities or injuries caused by occupational accidents per million working hours (excluding injuries with no time lost).

\*5 Fatalities caused by occupational accidents. Figure inside parentheses indicates fatal incidents.

## Non-financial Summary

	_				Results			
Material Issues	Theme	Ind	ex	Scope of Data	FY2019	FY2020	FY2021	FY2022
Diversity, equity, and	Employment	Number of new graduate recruitments		IHI, University graduates	153	194	109	98
nclusion		Male		IHI, University graduates	123	162	87	84
		Female		IHI, University graduates	30	32	22	14
		Female recruit	tment rate (%)	IHI, University graduates	19.6	16.5	20.2	14.3
		Number of mid-career hires		IHI	77	55	85	91
		Number of employees from abroad		IHI	81	82	74	66
		Recruitment ratio of people with disabilitie	s (%)	IHI	2.39	2.35	2.39	2.55
		Re-employment rate of employees at retire	ement age (%)	IHI	81	81	78	100
		Number of officers <sup>*6</sup>		IHI	16	17	17	17
		Number of ma	ale officers	IHI	13	14	14	14
		Number of fer	nale officers	IHI	3	3	3	3
		Ratio of femal	e officers (%)	IHI	19	18	18	18
		Number of managers*7		IHI	2,767	2,732	2,776	2,643
		Number of ma	ale managers	IHI	2,684	2,640	2,669	2,519
		Number of fer	nale managers	IHI	83	92	107	124
		Number o	of female general managers	IHI	23	23	31	38
		Number o	of female section managers	IHI	60	69	76	86
		Ratio of female managers (%)*7		IHI	3.0	3.4	3.9	4.7
		Ratio of femal	e general managers (%)	IHI	0.8	0.8	1.1	1.4
		Ratio of femal	e section managers (%)	IHI	2.2	2.5	2.7	3.3
		Local managers at overseas sites*7		China, Singapore, and United States	23	22	25	26
		Number of managers that joined IHI mid-c	areer*7	IHI	220	234	230	253

\*6 As of July 1 each year, members of the Board of Directors and Audit & Supervisory Board. \*7 As of April 1 each year.

## Non-financial

Summary

		Index		Results				
Material Issues	Theme		Scope of Data	FY2019	FY2020	FY2021	FY2022	
Diversity, equity, and	Work-life balance	Employees with reduced work ho	urs	IHI	161	139	158	140
inclusion		Employees who have taken childe	are leave	IHI	779	768	935	1,010
		Employees who have taken parer	tal leave	IHI	131	137	128	198
			Male	IHI	21	31	60	78
			Female	IHI	110	106	68	120
		Percentage of employees who re	turn to work after parental leave (%)	IHI	99.2	100	100	99.6
		Employees who have taken nursi	ng care leave	IHI	7	2	6	3
		Average annual paid vacation days	s taken	IHI	19.40	18.73	17.37	18.65
		Monthly average overtime (hours)		IHI	21.10	13.00	18.90	21.60
	Human resources development	Stratified training*8	Participants	IHI and affiliated companies in Japan	3,276	1,882	672	795
			Training hours	IHI and affiliated companies in Japan	106,208	34,672	24,028	25,960
		Selective training courses*8	Participants	IHI and affiliated companies in Japan	3,343	1,948	17,430	37,057
			Training hours	IHI and affiliated companies in Japan	25,073	16,358	49,648	88,822
		Average annual training hours per	employee	IHI and affiliated companies in Japan	19.8	13.3	12.1	14.3
		Training expense per employee (y	en)	IHI and affiliated companies in Japan	—	_	_	23,512
		Employees certified as master art	isans	IHI	41	39	41	41
	Labor-management partnership	Employee union membership rate (%)		IHI and affiliated companies in Japan	58	58	59	60
	Engagement	Engagement Number of labor complaints received		IHI	0	0	0	0
		Ratio of answered employee-awa	reness surveys (%)	IHI and affiliated companies	91.4	88.0	88.0	84.0
Corporate citizenship	Social contribution activities	Social contribution expenses (mill	ions of yen)	IHI and consolidated subsidiaries	519	215	260	489

\*8 Group training programs changed to an online format and were conducted from the latter half of fiscal 2020 due to the COVID-19 pandemic, and the number of participants declined compared to the previous fiscal years. In fiscal 2021, the number of participants and length of training hours in each training have changed compared to other years due to revision of the Group's human resource development program.

## Non-financial Summary

Material Issues	-	Index			Results			
Material Issues	Theme			Scope of Data	FY2019	FY2020	FY2021	FY2022
Environment – Reduce E	nvironmental Impact –							
Climate change	GHG	GHG emissions (Scope 1 + Sco	pe 2) (t-CO <sub>2</sub> e) <sup>*9</sup>	IHI and consolidated subsidiaries	254,227	225,066	220,138	215,753
			Scope 1 (t-CO <sub>2</sub> e)	IHI and consolidated subsidiaries	64,724	58,517	64,270	61,469
			Scope 2 (market-based) (t-CO <sub>2</sub> )	IHI and consolidated subsidiaries	189,503	166,549	155,868	154,284
		GHG emissions intensity (t-CO2	2e/100 million yen)* <sup>10</sup>	IHI and consolidated subsidiaries	18.3	20.2	18.8	15.9
	Energy	Energy consumption (TJ)*9,11		IHI and consolidated subsidiaries	2,468	2,283	2,348	2,294
			Fuel consumption (TJ)	IHI and consolidated subsidiaries	1,044	974	1,084	1,019
			Electricity consumption (TJ)	IHI and consolidated subsidiaries	1,398	1,276	1,229	1,230
			Heat consumption (TJ)	IHI and consolidated subsidiaries	_	7	5	C
			Steam consumption (TJ)	IHI and consolidated subsidiaries	0	0	0	C
			Renewable energy used (TJ)	IHI and consolidated subsidiaries	26	26	31	45
		Energy consumption intensity (TJ/10 billion yen)*10		IHI and consolidated subsidiaries	17.8	20.5	20.0	17.
	External evaluation	Evaluation of CDP climate change	ge	IHI and consolidated subsidiaries	В	В-	В -	В
					(Management)	(Management)	(Management)	(Manageme
Circular economy	Waste	Waste generated (tons)		IHI and consolidated subsidiaries	27,564	20,912	23,633	23,044
		Toxic waste generated (tons)		IHI and consolidated subsidiaries	164	182	255	150
		Amount recycled (tons)*12		IHI and consolidated subsidiaries	61,799	15,067	16,164	17,86
	Water	Water withdrawal (1,000 m <sup>3</sup> )*9,	12	IHI and consolidated subsidiaries	4,251	4,008	4,195	4,037
			Public water (1,000 m³)	IHI and consolidated subsidiaries	750	651	664	670
			Industrial water (1,000 m³)	IHI and consolidated subsidiaries	868	799	792	737
			Groundwater (1,000 m³)	IHI and consolidated subsidiaries	1,948	1,731	1,691	1,451
			Rainwater, rivers, lakes, etc. (1,000 m³)	IHI and consolidated subsidiaries	685	827	1,047	1,180
		Waste water (1,000 m <sup>3</sup> )		IHI and consolidated subsidiaries	_	3,373	3,265	3,181
Conservation of the global		Significant environmental accide	ents	IHI and consolidated subsidiaries	0	0	0	(
nvironment	environmental laws and regulations	Major violation of environmenta	I laws/regulations	IHI and consolidated subsidiaries	0	0	0	
		Number of cases IHI paid fines,	penalties, etc.	IHI and consolidated subsidiaries	0	0	0	
	Costs to reduce the IHI	Investments (millions of yen)		IHI	652	334	357	56
	environmental impact	Expenditures (millions of yen)		IHI	78	23	92	15 <sup>.</sup>

\*9 The total value for each item is rounded off and may not match the figures in the breakdown.

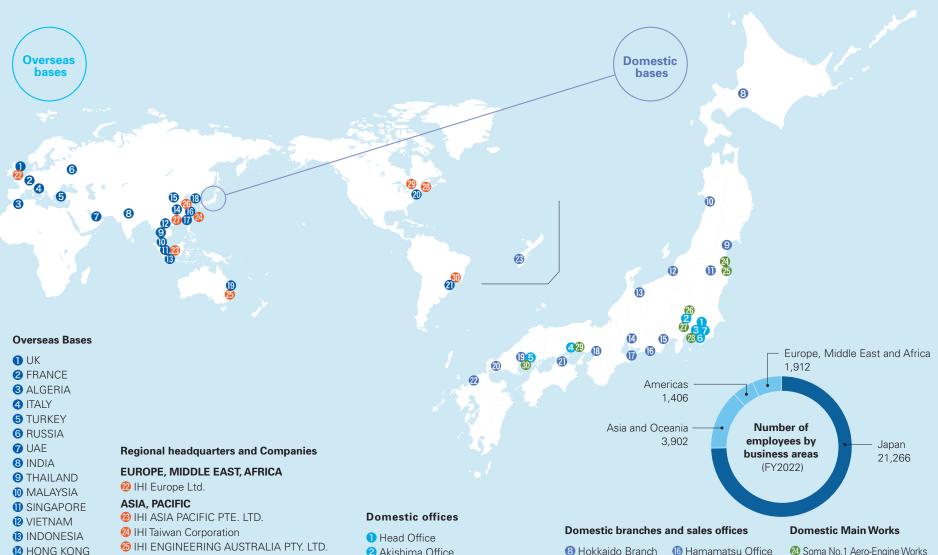
\*10 Net sales revenue as the denominator.

\*11 The method for calculating energy consumption changed in fiscal 2019.

\*12 Waste reclaimed as valuable resources.

\*13 Changed from amount of water consumption to amount of water withdrawal since fiscal 2019.

## **Global Network**



#### **CHINA**

**1BEIJING** 

TAIWAN

**1B** KOREA

**2** BRAZIL

🕘 USA

(6) SHANGHAI

() AUSTRALIA

🐵 IHI (Shanghai) Management Co., Ltd. 2 IHI (HK) Ltd.

#### AMARICAS

🔞 IHI Americas Inc. 🙆 IHI (CANADA) LTD. 🐠 IHI do Brasil Representações Ltda.

- 2 Akishima Office
- 3 Yokohama Engineering Center 4 Headquarters Representatives' Office,
- Aioi District
- **5** Headquarters Representatives' Office, Kure District
- 6 Technology & Intelligence Integration
- **7** Corporate Research & Development
- 8 Hokkaido Branch 9 Tohoku Branch Akita Office 1) Fukushima Office (9) Chugoku Branch 12 Niigata Office (B) Hokuriku Branch Chubu Branch (b) Shizuoka Office

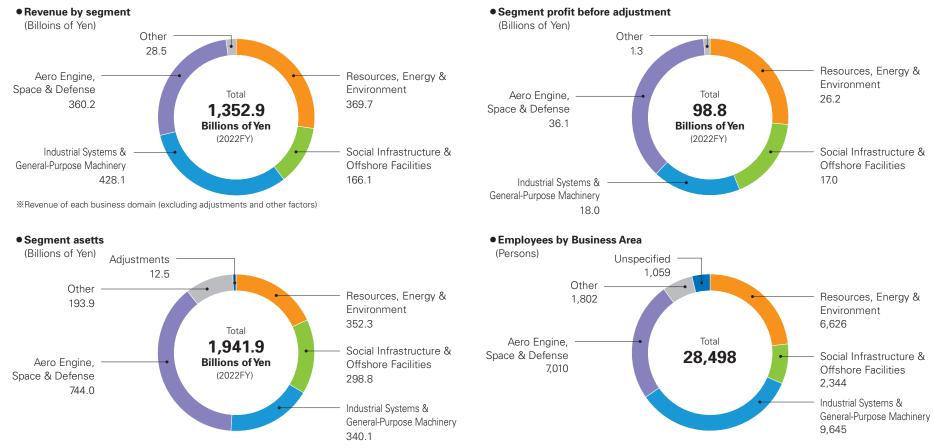
🚯 Hamamatsu Office Toyota Office (B) Kansai Branch 2 Yamaguchi Office Shikoku Branch 2 Kyushu Branch Okinawa Office

- Osma No.1 Aero-Engine Works 3 Soma No.2 Aero-Engine Works 🐼 Tsurugashima Aero-Engine Works Ø Mizuho Aero-Engine Works Yokohama Works
- 🙆 Aioi Works
- 🚯 Kure Aero-Engine &
- Turbo Machinery Works

## **Corporate Data/Share Information**

Company Name	IHI Corporation
Head Office	Toyosu IHI Building, 1-1, Toyosu 3-chome, Koto-ku, Tokyo 135-8710, Japan Tel: +81-3-6204-7800
President	Hiroshi Ide
Founded	December 5, 1853
Incorporated	January 17, 1889

Capital	¥107.1 billion
Number of Employees	28,486 (consolidated), 7,768 (non-consolidated)
Works	7
Branches and Sales Offices	16
Overseas Base	21 (as of April 1, 2023)
Group Companies	<ul><li>145 consolidated subsidiaries</li><li>61 affiliated companies in Japan (43 subsidiaries and 18 associated companies)</li><li>138 affiliated companies overseas (116 subsidiaries and 22 associated companies)</li></ul>



Note: The number of employees is the number of officially employed individuals, including those seconded to the IHI Group from other companies and excluding Group employees seconded to other companies. Temporary workers are not included.

Corporate Da	ata/
Share Inform	ation

Securities Code	7013	
Stock Exchange Listings (Market Segment)	Tokyo (Prime)	
Share Unit	100	
Total Number of Authorized Shares	300,000,000	
Outstanding Shares	151,880,647 (not including 2,799,307	treasury shares)
Shareholders	97,089	
Fiscal Year	April 1 to March 31 of following year	
General Shareholders' Meeting	June of each year	
Record Date for Year-end Dividend	March 31 of each year	
Record Date for Interim Dividend	September 30 of each year	
Shareholder Registry Administrator/Special Account Managing Institution	1-4-1 Marunouchi, Chiyoda-ku, Tokyo 100-8233, Japan Sumitomo Mitsui Trust Bank, Limited	2-8-4 Izumi, Suginami-ku, Tokyo 168-0063, Japan Sumitomo Mitsui Trust Bank, Limited

#### Stock Price Performance Comparison(TSR: Total Shareholder Return)

Investment	One year	Three years	Five years	Ten years
period	March 2022 to March 31, 2023	March 2020 to March 31, 2023	March 2018 to March 31, 2023	March 2013 to March 31, 2023
IHI	15.5	175.7	8.9	33.2
TOPIX	5.8	53.3	31.8	142.0
Machinery index	8.6	67.1	29.3	152.6

Note: The above table shows the cumulative return if invested one, five, or 10 years ago based on the total return index as of March 31, 2023.



#### •IHI Stock Performance and Average Daily Trading Volume

#### **Major Shareholders**

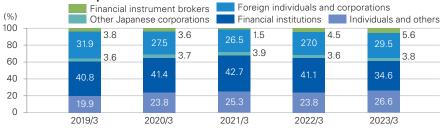
Name	Number of shares held (thousand shares)	Shareholding ratio (%)
The Master Trust Bank of Japan (Holder in Trust)	21,952	14.45
Custody Bank of Japan, Ltd. (Holder in Trust)	12,339	8.12
Custody Bank of Japan, Ltd. as trustee for Mizuho Bank Retireme Trust Account re-entrusted by Mizuho Trust and Banking Co., Ltd.	ent Benefit 3,218	2.11
STATES STREET BANK AND TRUST COMPANY 505001	3,124	2.05
IHI Suppliers Stock Ownership Association	2,774	1.82
The Dai-ichi Life Insurance Company, Limited	2,703	1.77
IHI Employee Stock Ownership Association	2,600	1.71
Sumitomo Life Insurance Company	2,284	1.50
JPMorgan Securities Japan Co., Ltd.	1,845	1.21
Mitsubishi UFJ Morgan Stanley Securities Co.,Ltd.	1,696	1.11

#### Note

(%)

Shareholding ratios are calculated excluding treasury shares (2,799,307 shares).
 Treasury shares held by IHI is excluded from major shareholders listed above.

#### • Shareholder Composition



Data regarding share price and average daily trading volume prior to the consolidation of common stock is calculated on the basis of the consolidation having been implemented.



# **IHI** Corporation

Corporate Communication Division Toyosu IHI Building, 1-1,Toyosu 3-chome, Koto-ku, Tokyo 135-8710, Japan TEL: +81-3-6204-7800 FAX: +81-3-6204-8612 Company Website: https://www.ihi.co.jp/en/