

IHI

Sustainability Data Book
2021

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Editorial Policy

The IHI Sustainability Data Book 2021 is a comprehensive annual report to share information such as our sustainability policies, approaches, frameworks, and performance.

The IHI Group's Sustainability website provides the latest information about our sustainability.

Scope of the IHI Sustainability Data Book

IHI Corporation and its consolidated subsidiaries (Note: the report includes some non-consolidated information about IHI Corporation as well as details with a more specific scope)

Reporting Period

FY2020 (April 1, 2020 to March 31, 2021)

Please note that the report includes some information from before fiscal 2019 and forecasts of fiscal 2021 and later.

Publication Date

August 2021

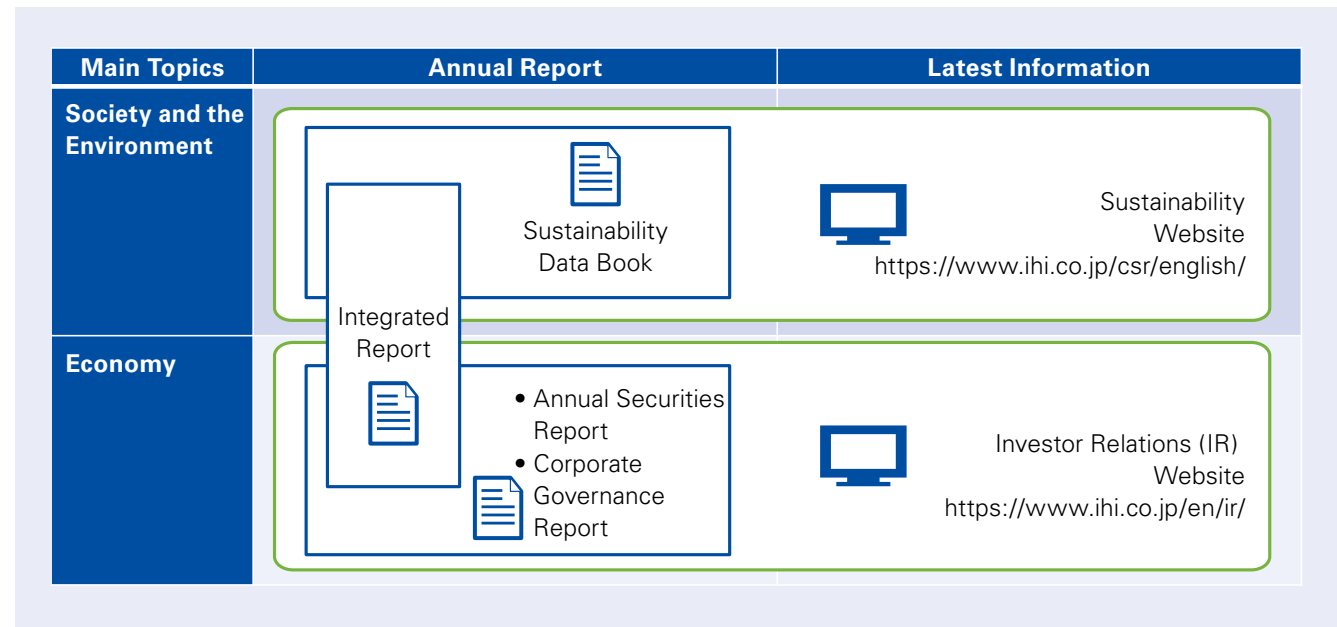
(The previous Sustainability Data Book was published in September 2020. The upcoming Sustainability Data Book is tentatively set for release in 2022)

Reference Guidelines

- Global Reporting Initiative (GRI) Sustainability Reporting Standards
- Sustainability Accounting Standards Board (SASB)
- Environmental Reporting Guidelines 2018, Ministry of the Environment
- Task Force on Climate-related Financial Disclosures (TCFD)

Structure of Information Disclosure Regarding Main Sustainability Topics

In order to respond to the various requests of stakeholders, the IHI Group discloses information through several mediums.



Scope of Data

The scope of data covered in this report is as follows:
 “Principled Corporate Management” and “Materialize an Affluent Society”: Specific scopes are indicated for each data
 “Reduce Environmental Impact”: IHI Corporation and its consolidated subsidiaries (Note: some data have a more specific scope)

Disclaimer

The IHI Sustainability Data Book 2021 not only contains facts about the past and present but also contains business plans, forecasts, management policies and policies in place at the time of publication. The projections are assumptions and decisions made based on information available at that time of publication. These plans, forecasts, and policies are subject to change as the results of future business activities and circumstances fluctuate. The reader should consider these factors upon reviewing the information in this report.

Basic Information

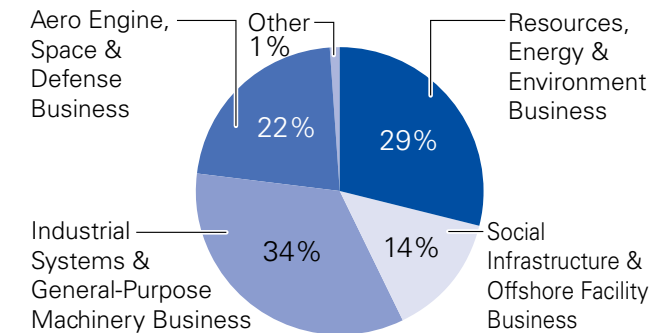
About IHI (As of March 31, 2021)

Company Name	IHI Corporation
Head Office	Toyosu IHI Building, 1-1, Toyosu 3-chome, Koto-ku, Tokyo 135-8710, Japan
President	Hiroshi Ide, President and Chief Executive Officer
Year of Establishment	December 5, 1853
Capital	107.1 billion yen
Revenue (Consolidated)	1,112.9 billion JPY (Fiscal year 2020 ended March 31, 2021)
Employees (Non-consolidated)	7,796
Employees (Consolidated)	29,149
Works	6
Branches in Japan	8
Overseas Representative Offices	14
Group Companies	151 Consolidated Subsidiaries Affiliated Companies in Japan 63 (46 subsidiaries and 17 associated companies) Affiliated Companies Overseas 143 (121 subsidiaries and 22 associated companies)

[web](#) **Business**

[web](#) **Global Expansion**

Overall Business Framework (Fiscal year 2020 ended March 31, 2021)



Main Businesses

- **Resources, Energy & Environment Business**

Power systems (power systems plants for land use and power systems for ships), carbon solutions (boilers, storage facilities, chemical plants and pharmaceutical plants), nuclear power (components for nuclear power plants)

- **Social Infrastructure & Offshore Facility Business**

Bridges/watergates, transport systems, shield systems, concrete construction materials and urban development (real estate sales and rental)

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

Vehicular turbochargers, parking systems, rotating machineries (compressors, separating systems and turbochargers for ships), thermal and surface treatment, transport machineries, logistics/industrial systems (logistics systems and industrial machineries)

- **Aero Engine, Space & Defense Business**

Aero engines, rocket systems/space utilization systems, defense systems

Basic Information

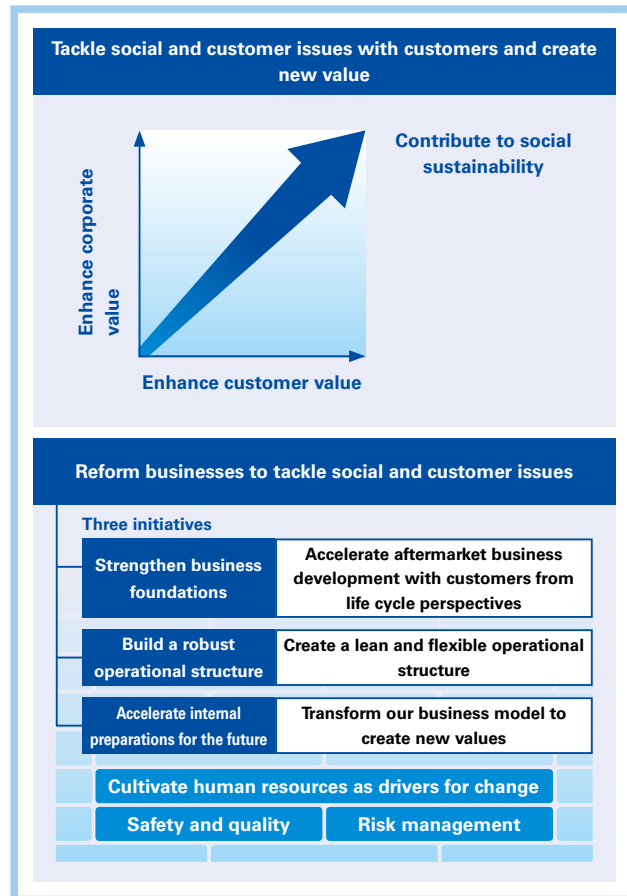
Medium-term Management Plan

The IHI Group launched the "Group Management Policy 2019" in April 2019 as our "Medium-term Management Plan". We further built on this policy by establishing "Project Change" in November 2020 as a new initiative which secures a three-year period from 2020 to 2022 to prepare and implement business reforms adapting to the ever-changing business climate. "Project Change" retains the basic concept of "Group Management

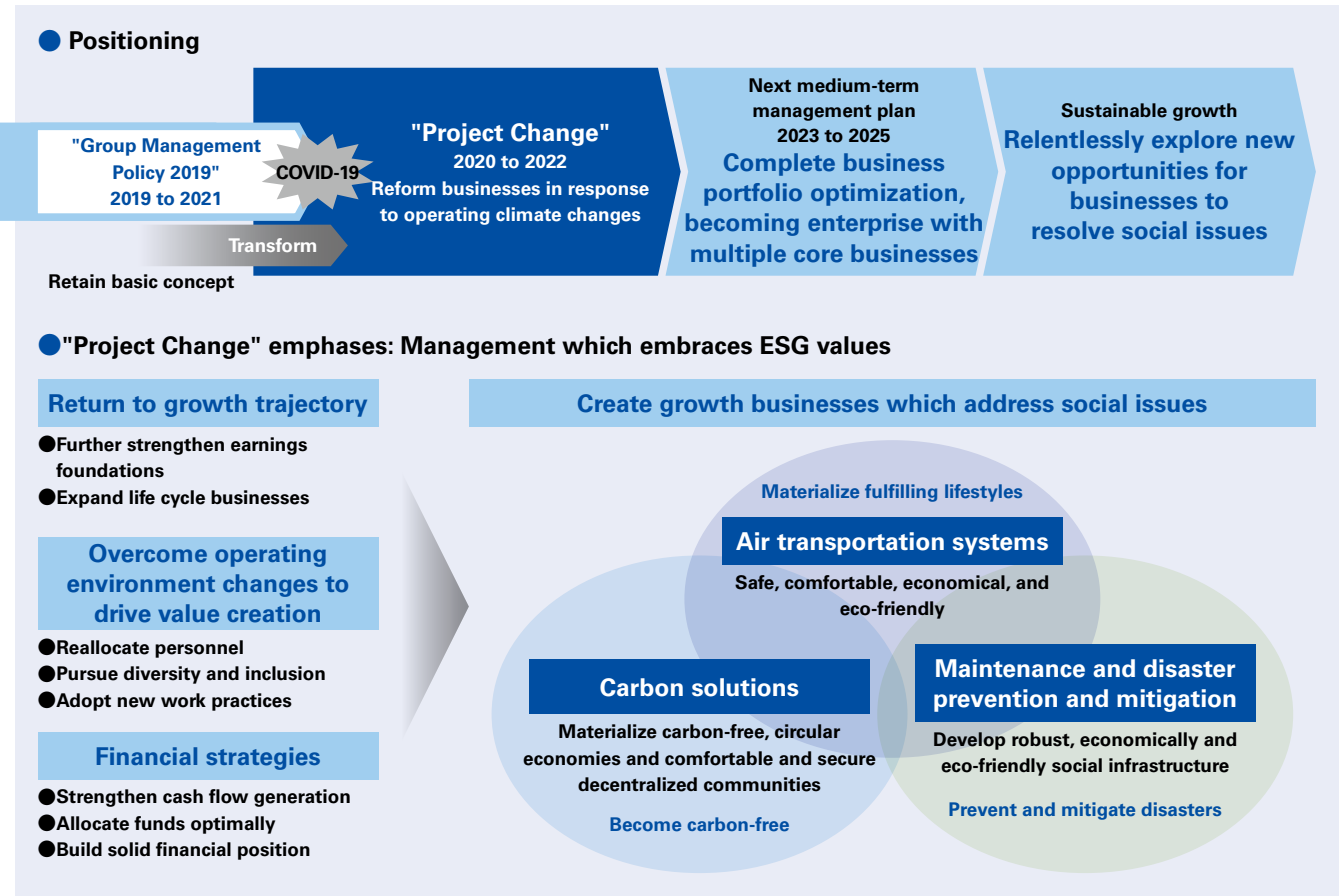
Policy 2019" to actualize a long-term approach.

"Project Change" aims to create growth businesses to return to growth trajectory, along with contributing in resolving social issues by strengthening earnings foundations and expanding life cycle businesses.

Overview of "Group Management Policy 2019"



Overview of "Project Change"



Basic Information

Basic Code of Conduct for the IHI Group

The IHI Group recognizes living up to stakeholder expectations and earning their trust is vital to drive the sustainable growth of both customers and society. The Basic Code of Conduct for the IHI Group defines the practices necessary to embody this belief.

Basic Code of Conduct for the IHI Group

We at the IHI Group are committed to implementing what is necessary to meet the expectations and gain the trust of not only our customers, business partners, shareholders and colleagues, but also the local and international communities, while maintaining an awareness of global issues. By doing so, we aim to enhance our existential value as we move forward into the future and realize our Group's management philosophies of "Contribute to the development of society through technology" and "Human resources are our single most valuable asset."

Fundamental and Universal Principles of the Entire IHI Group

Respect for the rule of law and ethical conduct

We strictly observe laws and ordinances based on a clear understanding of their meaning. We also act sincerely and fairly and in accordance with high ethical standards so that we do not violate social rules or international norms.

Respecting human rights

We fully recognize the importance of, and always strive to respect, human rights during our business activities.

Promotion of mutual understanding

In order to promote mutual understanding with those around us, we strive to disseminate information on our business activities, explain the effects of these activities on the surrounding environment, and engage in an exchange of opinions with our broader communities on a daily basis.

Responsibilities toward People, Society, and the Environment

Responsibilities toward people connected with the IHI Group via our products and services

- 1 We establish relationships of mutual trust with the people

with whom we are involved in the course of our business, help solve social issues in a variety of fields by using our abilities to the utmost, and develop and provide products and services to assure more comfortable lives for people around the world.

- 2 We pay full attention to the safety of the products and services we develop and provide and constantly strive to raise the quality level of our products and services by confirming whether they satisfy customers and users.
- 3 We deal appropriately with other parties in our business transactions and seek profit fairly, while at the same time we strive to establish fair and mutually-productive relationships with our customers and business partners.

Responsibilities toward those with whom we work

We strive to respect mutually the character and individuality of all people with whom we work and maintain a safe, supportive, and comfortable environment in which we can work easily.

Responsibilities toward local and international communities

- 1 With an awareness that each one of us is a member of society, we actively take part in initiatives to solve the problems faced by society.
- 2 No matter the region of the world where we conduct our business, we understand the value of the culture unique to each region and strive to meet the expectations of people living there.
- 3 We take a resolute attitude against organizations and forces that threaten social order and safety.

Responsibilities toward the global environment

Based on our recognition that the global environment provides the foundation for the existence of all societies and cultures, we take care so as not harm that which also will be needed by future generations and strive to protect, and reduce the

burdens on, the global environment, not only in the course of our provision of products and services but also in all other aspects of our business activities.

Roles and Responsibilities of Senior Management

Roles of Senior Management

- 1 Senior Management recognizes that their role is to ensure the realization of this Code of Conduct and takes the initiative to demonstrate leadership in order to put the purposes of this Code of Conduct into practice.
- 2 Senior Management ensures that this Code of Conduct is known to all people with whom they work and constantly strives to establish, maintain, and improve effective internal systems and to enhance our corporate value.

Responsibilities of Senior Management

If a violation of this Code of Conduct occurs, Senior Management will strive to take the initiative to solve the problem, discover its cause, and prevent the recurrence of similar violations. They also will promptly disclose accurate information to society, clarify the responsibilities and scope of the authority of the persons involved, and impartially take disciplinary action even upon themselves.

IHI Group Code of Action

In order to comply with this Code of Conduct, we establish "IHI Group Code of Action" as the code prescribing how directors, officers and employees of the IHI Group should make decision and take action in their daily work.

P28 IHI Group Code of Action

Basic Information

Third-party Evaluation

S&P/JPX Carbon Efficient Index

The IHI Group has been selected as a member of the S&P/JPX Carbon Efficient Index, as we provided ample environmental information disclosure and carbon efficiency (carbon emissions per unit of revenue) standards which met their constituent selection and weighting process.



CDP

CDP (formerly the "Carbon Disclosure Project") 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 to encourage further action regarding climate change. The IHI Group responds to this questionnaire on an annual basis. In fiscal 2020, we were evaluated as Management Level score of B-



Kurumin Certification

The Minister of Health, Labour and Welfare recognized the IHI Corporation as a company that supports child raising and granted us the Kurumin certification.



Eruboshi Certification

The Minister of Health, Labour and Welfare certified the IHI Corporation as an "Eruboshi (2nd level)" Company for excellence in efforts to promote the participation and advancement of women in the workplace.



Health & Productivity Companies 2021 (White 500)

The Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi (Japan Health Council) launched the "White 500 Program" to recognize excellence in employee health management from a corporate management standpoint. The White 500 Program recognized eleven IHI Group companies as Health & Productivity Companies in 2021: IHI Corporation, IHI Scube, IHI Plant Services Corporation, IHI Power Systems, IHI Jet Service, NICO Precision, IHI Infrastructure Systems, IHI Aerospace, IHI Finance Support, Chiba Warehouse, and Takashima Giken.



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 who endorse ideas of strengthening national resilience published by the Cabinet Secretariat's National Resilience Promotion Office and who proactively work to ensure their company's business continuity.



PRIDE Index Gold Award 2020

work with Pride (wwP) awarded the IHI Corporation the PRIDE Index 2020 Gold Award, which is its highest honor, for the second consecutive year since 2019. wwP is a private organization in Japan which advocates and supports the establishment of LGBT diversity management practices. The goal of the PRIDE Index is to support and build working environments friendly to LGBT 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. wwP recognized the IHI Corporation for the third consecutive year, praising our human resource policies for LGBT, launch of a "consultation desk" for those needing help, expansion of ally programs, and training conducted to promote greater understanding regarding gender minorities.



Sustainability Management

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IHI Group Material Issues

Approach

Identifying Material Issues

In "Project Change," the IHI Group strives to create "economies in which nature and technology are in harmony" 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. Our material issues have been re-identified and revised according to each of its significance in social issues of "Project Change": Becoming carbon-free, disaster prevention and mitigation, and fulfilling lifestyles.

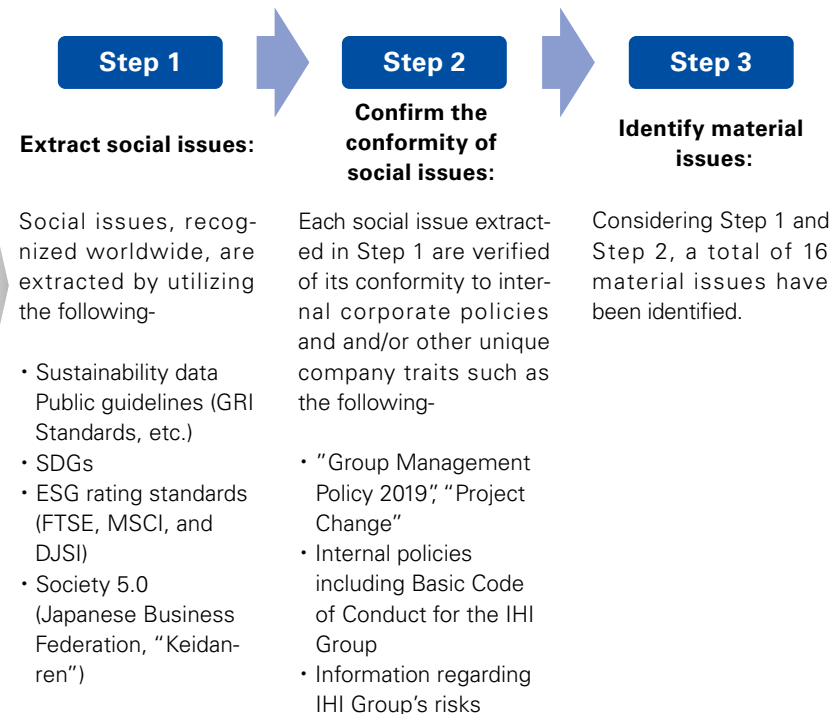
Thus far, our material issues have been categorized as those "founded upon business operations" and those "pursued through business operations"; however, both categories have been mutualized as material issues which shape what the IHI Group envisions to achieve.

P4 Medium-term Management Plan

Identification Process of Material Issues

Material Issues Before Revision	
E	<ul style="list-style-type: none"> Climate change Circular economy Environmental protection
S	<ul style="list-style-type: none"> Customer relationship management Supply chain management Corporate citizenship Diversity and inclusion Labor practice Human rights
G	<ul style="list-style-type: none"> Corporate governance Compliance Information security Timely and proper disclosure Risk management
Business activities	<ul style="list-style-type: none"> Stable supply of energy and resources Building and maintaining social infrastructure Developing a mobility society Strengthening and sophistication of "Monozukuri" (manufacturing and engineering) Utilization of aerospace Securing safe and stable living

Revisions in the Identification Process (Considering Environmental Changes Internally and Externally)



Material Issues After Revision	
E	<ul style="list-style-type: none"> Climate change Circular economy Environmental protection
S	<ul style="list-style-type: none"> Human rights Customer relationships Diversity and inclusion Occupational health and safety Supply chain management Corporate citizenship Work-style and operational process reforms
G	<ul style="list-style-type: none"> Corporate governance Compliance Risk management Information security Timely and proper disclosure Innovation management

IHI Group Material Issues

• Material Issues to Achieve Our Ideal Form

The IHI Group categorizes its material issues into environmental, social and governance issues and reports on various efforts related to each via the IHI Sustainability Data Book 2021.

Environment – Reduce Environmental Impact – [P.70](#)

Climate change	P.77
Circular economy	P.82
Environmental protection	P.85

Social – Materialize an Affluent Society – [P.41](#)

Human rights	P.42
Customer relationships	P.45
Diversity and inclusion	P.50
Occupational health and safety	P.59
Supply chain management	P.65
Corporate citizenship	P.67
Work-style and operational process reforms	

Governance – Corporate Management – [P.19](#)

Corporate governance	P.20
Compliance	P.28
Risk management	P.35
Information security	P.38
Timely and proper disclosure	P.12 , P.45
Innovation management	P.14

Sustainability Management

Approach

In “Group Management Policy 2019,” the IHI Group defined our approach as one which adapts to changes in the social environment from long-term perspectives. “Project Change” incorporates the basic concept of the Group Management Policy to tackle social issues and issues of our customers directly, ultimately realizing our goal.

Structure

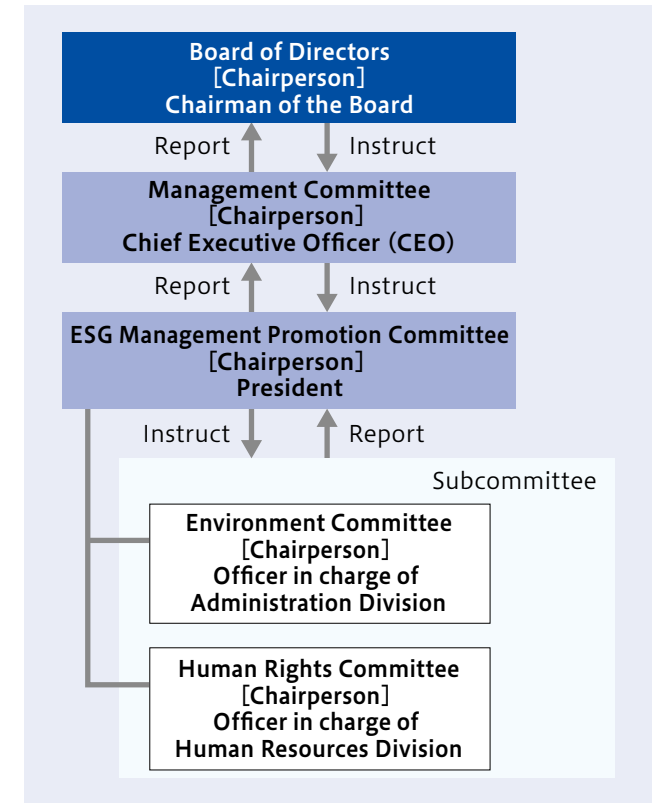
Sustainability Promotion System

- **ESG Management Promotion Committee**

In fiscal 2021, the IHI Group began considering basic ESG management policies and measures, consequently establishing the ESG Management Promotion Committee for the purpose of evaluating and improving the progress of the policy and measures implemented. The ESG Management Promotion Committee replaces our CSR committee as a member body that discuss basic sustainability policies and measures.

We are further building onto our sustainability promotion system which originate from the ESG Management Promotion Committee.

FY2021 Sustainability Promotion System



Sustainability Management









Initiatives

Dialogue with Stakeholders

The IHI Group deems our primary stakeholders with a significant influence over ongoing corporate activities as customers, business partners, shareholders, investors, government agencies, local communities and employees. As such, we value and engage in a broad dialogue with these stakeholders. The Integrated Report and Sustainability Data Book are published as tools for this dialogue.

Topics with stakeholders which are considered particularly vital are reported to the Management Committee and Board of Directors, thus reflected in our corporate strategy.

Results of Dialogue with Stakeholders

Stakeholders	Main Purpose of Dialogue	Example of 2020 Engagement	Frequency	Reference
Customers	<ul style="list-style-type: none"> Contribute to solving social issues and customer challenges Ensure product safety 	• Conduct customer satisfaction surveys	As necessary	 Customer Relationships
		• Television commercials, newspaper advertisements, and IHI websites	As necessary	
		• Provide product safety information	As necessary	
Business partners	<ul style="list-style-type: none"> Engage in fair and impartial business dealings Cultivate mutually beneficial partnerships with our business partners 	• Make requests of business partners based on the IHI Group Procurement Policy	Regularly	 Supply Chain Management
		• Commend outstanding suppliers	Annually	
Shareholders & investors	<ul style="list-style-type: none"> Disclose accurate information in a timely manner Strengthen relationships based on trust Enhance corporate value 	• Convene the General Meeting of Shareholders	Annually	 IR
		• Hold financial results briefings and telephone conferences	Four times per year	
		• Attend one-on-one meetings	As necessary	
Government organizations	<ul style="list-style-type: none"> Form partnerships with government organizations 	• Participate in policy boards	As necessary	 Innovation Management
		• Participate in joint development and projects with government organizations	As necessary	
Local communities	<ul style="list-style-type: none"> Recognize ourselves as a member of society Contribute to solving social issues 	<ul style="list-style-type: none"> Hold community events Hold school visits 	As necessary	 Corporate Citizenship
Employees	<ul style="list-style-type: none"> Recruit and develop human resources as the most vital management asset 	• Conduct employee training	As necessary	 Human Resource Management  Diversity and Inclusion (Human Resource Development)  Compliance
		• Conduct employee-awareness surveys	Annually	
		• Operate a compliance hotline	Regularly	

Sustainability Management

Approach to Communications with Shareholders and Investors

The IHI Group builds stronger relationships based on trust with all shareholders and other investors by recognizing accurate, timely disclosure of corporate information as a core principle of a sound financial instruments market, which is why we actively engage in communication efforts.

Our basic policy is to promote a highly transparent management throughout the entire Group. We always disclose accurate and fair information on vital management and business matters in a timely manner from the perspective of investors in capital markets. The IHI Group also sees honest Group accountability as a basic policy to define its management direction and main businesses.

Timely and Proper Disclosure

The IHI Group enhances the scope of various materials disclosed both online and offline for active and fair informational disclosure.

We are deeply involved in active communication efforts with our domestic and overseas investors to gain greater understanding about IHI Group business activities.

In fiscal 2020, as in-person meetings (hosted annually worldwide) could not be held due to the COVID-19 pandemic, we created opportunities for dialogue through phone and video conferences with our management team and all investors in North America, Europe and Asia.

Results of Shareholder and Investor Engagement in FY2020

Targets	Main Topics	Summary
Analysts and domestic institutional investors	Held financial results briefings through telephone conferences and live streaming	Nearly 100 people attended each of our briefings and telephone conferences this year. We provided a financial results breakdown for the term and an overview of "Project Change".
Overseas institutional investors	Held one-on-one online meetings	These provided us with opportunities to discuss directly with a total of 100 overseas institutional investors.
Individual shareholders	Distributed the IHI Integrated Report 2020 to shareholders who joined our information distribution service.	The "IHI Integrated Report 2020" has been sent to members who applied for this service.

Support of International Initiatives

• Task Force on Climate-related Financial Disclosures (TCFD)

P77 Climate Change

Sustainable Development Goals (SDGs) Initiatives

Approach

The United Nations adopted the Sustainable Development Goals (SDGs) in 2015. The IHI Group perceives contributing to the success of the SDGs as an expectation of society, thus we identify and incorporate each target of the SDGs in Group management as material issues.

Retaining the basic concept of the “Group Management Policy 2019”; “Project Change” aligns the direction of each business area with SDGs targets to contribute to the success of the SDGs through our businesses, in order to ultimately realize a sustainable society.

P.4 Medium-term Management Plan

IHI Group Business Area Direction

Create new values needed for social sustainability



web Contributing to Solving Social Issues

Innovation Management

Technology & Intelligence Integration

Approach

The IHI Group fully leverages its strengths in a wide range of fundamental technologies to drive innovation. This approach not only helps us directly take on the SDGs challenges but also helps achieve a comfortable future society. We aim to quickly commercialize technologies which can become new growth businesses. To achieve this aim, we incorporate open innovation and design thinking as well as accelerate technology development to adapt to an ever-changing society.

Priorities in Technology Development

In addition to expanding conventional life cycle business efforts, the IHI Group prioritizes technology development in the three growth businesses emphasized in Project Change: air transportation systems, carbon solutions, and maintenance, disaster prevention and disaster mitigation. Every one of these initiatives is expected to address social issues caused by climate change. We are furthering development relating to air transportation systems to realize lighter, more efficient engines as well as pioneering electrification technologies including engine embedded electric machines and air-cooling systems.

As for carbon solutions, we strive to develop and implement leading edge technologies which allow carbon to be recycled, enable the use of hydrogen, ammonia, and renewable energy sources, and offer energy management for decentralized local production for local consumption.

We are also advancing the technology development for optimization of power plant operation by remote monitoring with ICT, for maintenance of bridges, watergates and other vital social infrastructure, and for disaster prevention and mitigation technologies against ever increasing natural disasters due to climate change.

Achieving a Carbon-neutral World

Further acceleration in technology development matching needs such as decarbonization targeting CO₂ as the most prevalent greenhouse gas and decentralization (compact decarbonized power supply and hydrogen-based distributed energy system) and commercialization of these technologies are among some of the challenges we face. At the same time, enhancing the efficiency of existing power plants and reducing CO₂ emissions from them are also required to maintain stable energy supply.

• Renewable Energy

The IHI Group develops a wide range of technologies for power generation systems utilizing natural energy from biomass to solar, offshore wind, and ocean currents. Our biomass power generation business has received contracts to refurbish many thermal power plants into plants dedicated to biomass power generation. We are involved in every aspect of the biomass power generation from construction to operation to maintenance in order to support operations optimal for providing carbon-neutral power. We have developed bio-jet fuel produced from microalgae to help reduce CO₂ emissions from aircraft engines. The bio-jet fuel received an international standard certification and was supplied to regular commercial flights in Japan. These results are important steps toward practical use.

• Ammonia as Carbon-neutral Fuel

The IHI Group has been developing ammonia combustion technologies, not only as a low-cost, safe hydrogen carrier, but also as a carbon-neutral fuel with no CO₂ emissions during combustion. Although stable ammonia combustion had been considered difficult, we successfully demonstrated ammonia co-firing with coal at a commercial level and ammonia co-firing technology on gas turbines for the first time in the world.

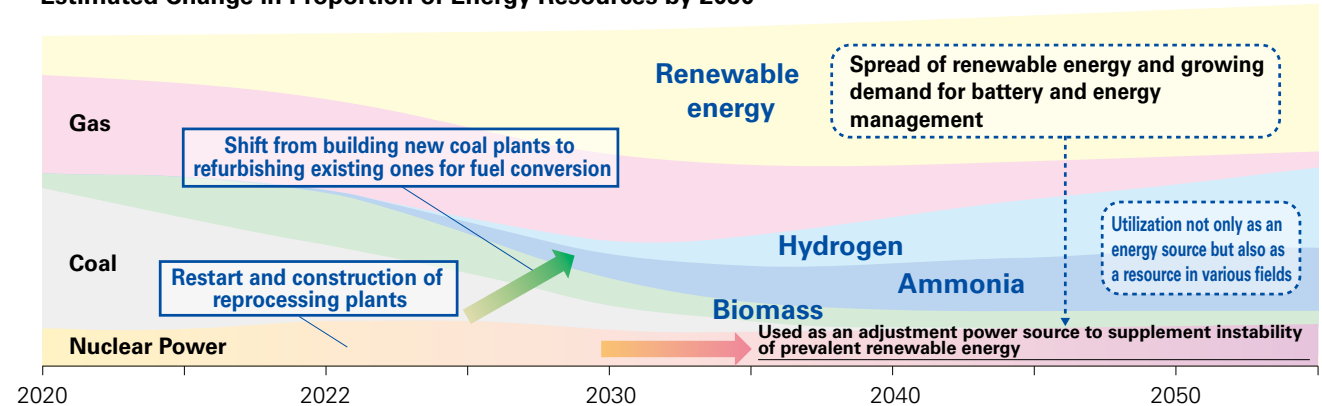
• Carbon Recycling

The IHI Group is also promoting development for pioneering CCU (Carbon Capture and Utilization) technologies which include the capture of CO₂ with the chemical absorption technique or DAC (Direct Air Capture) and the conversion of CO₂ into valuable products, such as methane used as fuel and lower olefin used as a raw material for resin. These technologies offer promising prospects for practical use of not only carbon-neutral products but also carbon-negative products through their combined application with renewable energy.

• Energy Management Systems

The IHI Group is advancing the development of numerical models and algorithms to optimize the configuration and operation of energy systems.

Estimated Change in Proportion of Energy Resources by 2050



Innovation Management

Structure

The IHI Group drives open innovation at the IHI Tsunagu Lab and i-Base (Ignition Base) in Japan as well as the IHI Launch Pad in Silicon Valley and other overseas sites in Singapore and the rest of the world. With the active use of these innovation hubs, we are working to accelerate development of cutting-edge technology aiming at the innovative creation.

The IHI Tsunagu Lab and the i-Base are the hubs for open innovation where we put design thinking into practice toward rapid commercialization. The IHI Launch Pad strives to cultivate new business opportunities for the IHI Group in collaboration with the ecosystem in North America including investors, startup companies. In Singapore, we are promoting pioneering technology development jointly with the Agency for Science, Technology and Research (A*STAR).

Overcoming the social challenges faced in the growth businesses advocated in Project Change would be difficult for the IHI Group to do alone. We are working on the creation of innovation through further extensive collaboration with customers and partners from the very first planning stage with full use of the above-mentioned innovation hubs around the world.



Education/Awareness Building

Projects at i-Base

The IHI Group utilized the i-Base, opened in 2019, aiming at early commercialization of new ideas. Project teams, whose members are assigned from various divisions including sales, design, and development, concentrate on projects there. We also pursue collaborative development projects with customers. One example of the projects is a quality inspection apparatus to replicate veteran skills of master artisans.

In fiscal 2020, we were working on development of products useful in taking measures against COVID-19. Intensive development at i-Base helped us create various new ideas, such as an ozone disinfection storage box.

Proof of Concept (PoC)

The IHI Group concentrates on early commercialization of ideas with the high potential for success through short-term PoC.

Design Thinking and Human Resource Development

The IHI Group incorporates design thinking into its business development with the aim of recognizing problems from a user perspective and inspiring innovation. We have constructed our new style of development by integrating design thinking into our business model. With this style, we are promoting speedy creation of new businesses. We provide training programs on design thinking throughout the IHI Group. Human resource development will help us create new value to meet the needs of our customers and society. This is how we advance the establishment of a system allowing us to continually create innovative ideas.

Main Commendations

Recognition for Technology Development

Commendation	Details
JSME Young Engineers Award (The Japan Society of Mechanical Engineers)	Commendation for success at a wide range of stages from basic research to power generation demonstration testing for the verification of combustion concepts related to ammonia/natural gas co-fired turbines.
Journal Paper Award (Combustion Society of Japan)	Winning paper: A Study of Low NOx Combustion Method for Ammonia/Natural Gas Co-fired Gas Turbine Using Detailed Chemistry
Technology Award (Japan Light Metal Welding Association)	Winning paper: Reduction of Welding Deformation for Fillet Welding of Aluminum Plate

Recognition for Business

Commendation	Details
Minister of Economy, Trade and Industry Prize at the New Energy Awards 2020 sponsored by the New Energy Foundation	Smart community project in Soma City aiming to maximize use of local renewable energy
ASTM international "Award of Appreciation"	Activities to standardize the manufacture of fuel developed using hydrocarbon derived from microalgae as an international standard for alternative jet fuel for aviation
Multiple categories of International Awards from the Japan Society of Civil Engineers	Significant contributions to the development of civil engineering or social capital in the international community

Innovation Management

Initiatives

Technology Development related to Project Change

• Air Transportation Systems

The IHI Group developed the world's first engine embedded electric machines which can be mounted in the aircraft jet engine rear-end to compensate insufficient power associated with the electrification of aircraft and engine systems as a result of More Electric Architecture for Aircraft and Propulsion project. We also successfully achieved the world's first air-cooling system for the aircraft onboard 100kW-class high power electronics, advancing the cooling technologies necessary to expand applications in the power electronics field.

• Carbon Solutions

The IHI Group successfully demonstrated the world's first 70% liquid ammonia co-firing on a 2 MW-class gas turbine leveraging its unique combustion technologies for aircraft engines. We have also launched joint research and development projects for practical application of the world's first ammonia-fueled tugboat to achieve zero emissions from ships.

We participate in projects that aim to realize carbon neutrality in order to practically apply our technologies to society. These projects include a demonstration of supply network for blue ammonia* undertaken with the Saudi Arabian Oil Company and other partners, a feasibility study for the production of hydrogen from solar power generation driven forward jointly with CS Energy in Australia, and a demonstration of the Japan's first water electrolysis energy management system capable of simultaneously managing multiple renewable energy sources, such as solar, wind and waste (biomass) power generation, in Kitakyushu City, Fukuoka Prefecture with the goal of locally producing and supplying next-generation CO₂-free hydrogen.

* Blue ammonia is a carbon-neutral fuel because CO₂ emitted during its production is captured and used for the other processes.

• Maintenance, Disaster Prevention, and Disaster Mitigation

The IHI Group launched an inspection service for power plants using miniature drones in order to detect any area requiring repairs early and shorten the repair period. Improvement in stability and efficiency of operation at power plants contributes to realization of carbon neutrality. Yamba Dam, which we constructed jointly with other companies, started operations in April 2020 as vital infrastructure for readiness against floods caused by torrential rains and for water utilization. The IHI Group has made video contents available on YouTube that include our long history in construction of flood control facilities and our mission as watergate engineers to prevent damage caused by ever-increasing torrential rains. We have also launched services as expansion of our high-density weather observation and information delivery system to provide detailed information for disaster prevention. One is a one-stop weather information site to improve user-friendliness by integrating data originally measured by our products and data from several governmental weather and disaster prevention information. The other is a river monitoring service which varies imaging intervals automatically according to weather changes.

Main Public-Private Sector Initiatives

• Material Technologies

As a member of the Innovative Structural Materials Association (ISMA), the IHI Group is advancing the development of technology for joining steel sheet and CFRP (Carbon Fiber Reinforced Plastics) through the participation in project commissioned by the New Energy and Industrial Technology Development Organization (NEDO). These efforts contribute to the weight reduction of air transportation systems and the technological development of electric systems.

• Utilization of Hydrogen

The IHI Group participated in Advancement of Hydrogen

Technologies and Utilization Project in fiscal 2019, which has led to successful laboratory testing of technology to produce hydrogen from captured CO₂ without any CO₂ emissions in fiscal 2020. In the future, we aim to lower the price per unit to produce hydrogen by optimizing this system and commercialize this technology.

Initiatives with Startup Companies

• North America

IHI Corporation and IHI Logistics & Machinery Corporation partnered with Boston-based startup Neurala, Inc. to develop the world's first system to autonomously scan the best-by date on cardboard crates of food delivered to and from distribution warehouses while traveling on conveyor belts. Built-in deep-learning AI character recognition technology not only saves labor but also helps ensure food safety and reduce food loss. We are also exploring North American startups which have promising decarbonization technologies and considering partnerships with them.

• Asia

The IHI Group promotes research activities of startups in Southeast Asia while participating in the Startup Challenge organized by the Advanced Remanufacturing and Technology Centre (ARTC), a subordinate organization of A*STAR, with which we collaborate on leading-edge manufacturing technologies as previously mentioned.

• Europe

The IHI Group launched a base to promote open innovation at its group companies in Europe with the goal of cultivating new businesses. The establishment of the base accelerates our research into European startups primarily in the fields of AI and IoT.

Innovation Management

Industry-University Initiatives

• Japan

The IHI Group conducted five leading-edge joint research projects at the Research Center for Artificial Intelligence, Yokohama National University, which was established to accelerate the development of AI technologies including deep learning and optimization. The subjects of the projects include appearance inspections of manufactured components and skill classifications for welding work. As a part of comprehensive partnership with the university, we are advancing the development of products utilizing AI technologies as well as more sophisticated manufacturing. To promote ever-evolving development, we are also expanding the collaboration to foster specialists in AI technologies throughout the IHI Group.

• North America

The IHI Group investigates new technologies for carbon solutions in addition to joint research subjects and quickly gathers diverse information on energy and environmental policy trends in North America by capitalizing on its relationships with the MIT Energy Initiative and MIT CEEPR as well as its network of venture capitalists and startup companies.

• Asia

The IHI Group has cultivated numerous partnerships with universities in China, including Tsinghua University. The research center we jointly opened in Tsinghua University has been the symbol of our close alliance lasting over 20 years. The center has commercialized some projects in the Chinese market. In Singapore, we conduct joint development with A*STAR across a wide range of fields, including our unique catalyst technology to produce valuable products such as methane and olefin from CO₂, next generation transportation and advanced manufacturing technologies.

• United Kingdom

The IHI Group established the IHI Additive Manufacturing Lab in the United Kingdom as a site to advance the development of additive manufacturing technology. We have joined the IfM Engage's Strategic Technology and Innovation Management Consortium (STIM) promoting the use of road mapping to design technology and business strategies.

Technology Development Related to COVID-19

The IHI Group has increased the production of ozone-generating air purifiers and other products to prevent the spread of COVID-19 while developing and selling a low-noise, large capacity model. We also developed and began sales of anti-bacterial spray by taking advantage of ozone generation technology with a long-proven track record of delivering hygiene control devices to medical institutions and our unique fine bubble technology (generation of nano-sized bubbles).

The IHI Group is promoting the development of technologies for infection control from the following three perspectives with the use of our unique technologies cultivated thus far and the open innovation.

• Disinfection of Everyday Items Around Us

The IHI Group developed an ozone disinfection storage box to reduce the tediousness of disinfection for everyday items and shared items around us. This innovative storage helps control the spread of the virus at nursery schools, kindergartens, and many other public facilities because users can easily disinfect items even with complex shapes by simply putting them into the storage.

• Prevention of Droplet Spread

The IHI Group is currently developing an aerosol collector to capture aerosol droplets spread from coughing or speaking. The development of this collector takes advantage of open innovation with overseas universities. Compared to standard air purifiers, this collector is less

noisy and more customizable in design. These advantages allow it to be used in various places and occasions including conference rooms and event halls with the aim of prevention of droplet spread.

• Hygiene Control Through Ventilation

There is a growing demand for simple negative-pressure tents capable of easily setting up isolated environments indoors. The IHI Group developed a simple negative-pressure isolation tent that is easy to be assembled because of its lightness in weight and to be used in combination with an air purifier. This product received the Monozukuri Prize at the 2020 Nikkan Kogyo Best 10 New Products Awards. This product satisfies a part of the United States CDC guidelines for negative-pressure isolation tents. This tent is expected to play a major role with struggling medical care facilities without or lacking negative-pressure quarantine rooms.

We have also developed simulation technologies to quickly visualize the ventilation conditions of facilities planning to introduce air purifiers and other ventilation equipment. To solve the problems demonstrated through the visualization, we offer our products for infection control including Ozone Air Clear. By expanding our product lineup for preventing a hospital infection and for improving public health, we will further contribute to a society.

Innovation Management

Intellectual Property

Policies

The IHI Group promotes intellectual property activities as both management policy and technological strategy. Business environment surrounding us differs from division to division and from company to company. Consequently, there are individual needs for intellectual property activities. Intellectual Property Department of IHI Corporation drafts a Basic Policy on IHI Group Intellectual Property every year. Individual divisions and affiliated companies refer to this policy when establishing their own intellectual property policies tailored to their unique business, technology and development environment.

The Basic Policy on IHI Group Intellectual Property in fiscal 2020 regarded the following as among the most important measures: strengthening of our business foundations, construction of a solid operational framework, acceleration of preparation for the future, agile response to rapid changes in the business environment and cultivation of human resources as leaders of innovative changes.

Education/Awareness Building

Intellectual Property Education

The IHI Group uses e-Learning to provide first- to fifth-year employees with training on intellectual property. We also have training programs on patent audits and rights acquisition policies for engineers in each business division and affiliated company and on copyright for all employees.

In fiscal 2020, we also held a lecture on intellectual property for the entire group by inviting guest speakers to share their expertise, with the aim of improving our understanding and awareness about intellectual property.

Intellectual Property e-Learning participants

(Unit: People; Scope: IHI)

Item	2017	2018	2019	2020
STEP 1 (First-year employees)	290	168	167	187
STEP 2 (Second-year employees)	351	271	154	166
STEP 3 (Third-year employees)	291	314	246	154
STEP 4 (Fourth-year employees)	284	270	281	235
STEP 5 (Fifth-year employees)	217	269	249	271

Results

Regional comparison in number of our patents

(Unit: Patents; Scope: IHI)

Item	2017	2018	2019	2020	
Domestic patents	3,915	4,120	4,150	3,868	
Overseas patents	Total	2,598	3,047	3,502	3,808
	United States	539	591	724	747
	Europe	792	1,037	1,240	1,750
	China	437	499	561	582
	Korea	174	193	199	120
	BRICs (Excluding China)	116	137	142	125
	Others	540	590	636	484

Initiatives

Protecting Intellectual Property

The IHI Group makes a strict distinction between rights acquisition through patent filings and the confidentiality of knowledge through concealing when protecting intellectual property. We file necessary patent applications worldwide based on global business expansion. We carefully select countries to file patent applications through the forecasts in business and technology development.

We also respect third-party intellectual property rights. We research the patent filings of other companies as well as patent acquisition trends to reduce any business risks.

Corporate Management



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Corporate Governance

Corporate Governance

Approach

IHI defines corporate governance as a system that assures sustainable growth and maximization of corporate value by enhancing management efficiency so that IHI can leverage its innate capabilities to the fullest extent possible. To achieve this, IHI targets efficient and appropriate internal decision-making by clearly separating management monitoring and supervisory functions from functions related to their execution of duties. Furthermore, by establishing the relevant internal rules and building a system to administer them, IHI ensures appropriate operations across the entire Group. IHI promotes constant improvement of its corporate governance, aiming to earn the trust and support of its shareholders and other stakeholders over the long term.

IHI will work to enhance its corporate governance in line with the following basic policies.

Basic Policy on Corporate Governance

- (1) Respect shareholders' rights and ensure equal treatment
- (2) Strive to cooperate appropriately with shareholders and other stakeholders
- (3) Fulfill our responsibility to be accountable to stakeholders and ensure transparency by appropriately and proactively disclosing information relating to the Company
- (4) 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 monitoring and supervisory functions
- (5) Conduct constructive dialogue with shareholders who have investment policies according with the medium- to long-term interests of shareholders

Corporate Governance

Structure

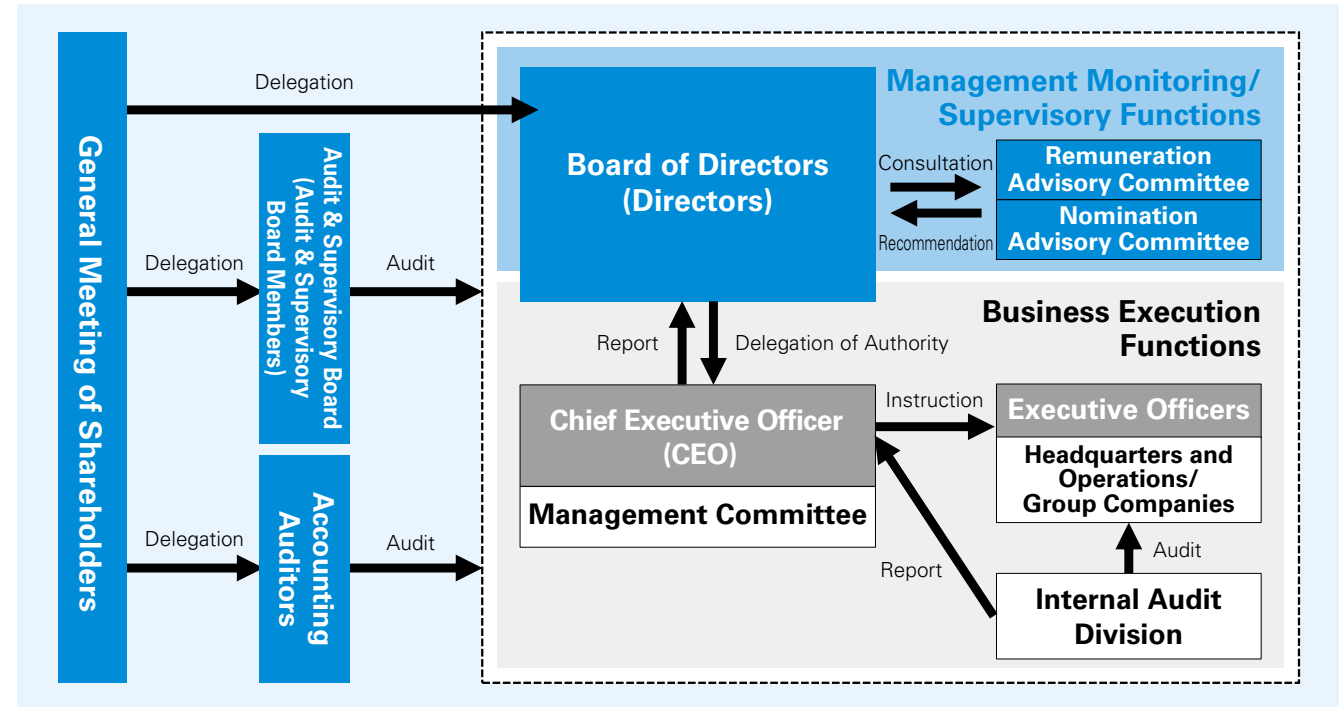
IHI has an Audit & Supervisory Board, which comprises 5 Audit & Supervisory Board Members (3 from outside) who audit the duties executed by directors.

The Board of Directors, which consists of 12 Directors (4 from outside), makes decisions related to all important matters concerning the management of IHI and the Group, in addition to supervising Directors in their business execution. The Outside Directors, who are elected from among individuals with extensive experience and broad insight gained at the helms of management, or with a high degree of specialist knowledge and diverse experience, participate in the Board of Directors' decision-making process, offer advice and make recommendations independently of managers who have been delegated the authority to handle day-to-day operations.

Executive Officer System

IHI 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. The Chief Executive Officer manages the duties of the Executive Officers, giving directions and supervision. The Executive Officers follow the Chief Executive Officer's directions to execute their assigned duties. The CEO also appoints members to the Management Committee to assist in decision-making and business execution.

Corporate Governance Management Structure



Remuneration Advisory Committee

IHI established the Remuneration Advisory Committee and the Nomination Advisory Committee as the optional committees.

The Remuneration Advisory Committee determines the suitability and objectivity of the remuneration brought up by the Board of Directors. This six-person committee is made up of three Outside Directors, one 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 Committee convened ten times with one absentee (once) in fiscal 2020.

Nomination Advisory Committee

The Nomination Advisory Committee ensures proper implementation of officer appointments. This five-person committee is made up of the President and four Outside Directors with the President acting as chairperson. The Committee convened three times with one absentee (once) in fiscal 2020.

Corporate Governance

Appointment of Officers

Policies and Procedures

The Board of Directors has defined ideal officer attributes for the Board of Directors. We have also drafted Independence Criteria for Outside Officers in accordance with the Tokyo Stock Exchange independent officer requirements to ensure the independence of Outside Directors and Auditors.

IHI'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. IHI strengthens the independence, objectivity, and accountability of the Board of Directors through a process that goes beyond the legal requirements for corporate Officer appointments. We have established a Nomination Advisory Committee as a voluntary advisory body comprised of the President and all independent Outside Officers to make sure Outside Directors actively oversee and advise on appointment procedures.

Should members of senior management or Executive Officers meet the dismissal criteria for Officers, a determination of such dismissal shall be resolved promptly by the Board of Directors.

Ideal Officer Attributes

IHI 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

Independence Standards for Outside Officers

In addition to the requirements for independent Directors/Audit & Supervisory Board Members stipulated by the Tokyo Stock Exchange, IHI uses the standards below to determine independence.

1. Major shareholders

The Director should not be a major shareholder with 10% or more of the voting rights in IHI or serve as a Director, Audit & Supervisory Board Member, Executive Officer at a Company with committees, Executive Officer or employee, of a corporation that is a major shareholder.

2. Major clients, suppliers, etc.

The Director should not currently serve as a Director, Audit & Supervisory Board Member, Executive Officer at a Company with committees, Executive Officer or employee, of any of IHI's major clients, suppliers, etc. detailed below, nor should he/she have served as an Executive Director, Executive Officer at a Company with committees, or Executive Officer, of such major clients, suppliers, etc. in the past.

- Major clients of the IHI Group (with transactions

valued at 2% or more of IHI's consolidated net sales in the most recent fiscal year)

- Major suppliers to the IHI Group (with transactions valued at 2% or more of the supplier's consolidated net sales in the most recent fiscal year)
 - Major lenders to IHI (as listed in the business report for the most recent fiscal year)
3. Providers of specialist services (attorneys at law, certified public accountants, or consultants, etc.)
The Director should not be an attorney at law, certified public accountant, or consultant, etc. who receives ¥10 million or more of monetary consideration or other property from IHI annually besides compensation as an officer.
 4. Accounting auditor
The Director should not be a representative partner or partner of IHI's accounting auditor.
 5. Mutual exchange of Officers, etc. with IHI
The Director should not be assigned to a corporation with which IHI has a relationship of mutually exchanging Directors or Audit & Supervisory Board Members.
 6. Close relatives
The Director should not be the spouse or first- to second-degree relative of a Director, Audit & Supervisory Board Member, Executive Officer or equivalent executive-level employee of the IHI Group. In addition, the Director should not be the spouse or first- to second-degree relative of any person* referred to in 1 through 4 above.

* If a major shareholder or a major client, supplier, etc. is a corporation, this applies only to Directors, Audit & Supervisory Board Members, Executive Officers at Companies with committees, Executive Officers, or equivalent executive-level employees of the corporation in question. In addition to the above, IHI also considers age, concurrent positions, period in office, and related matters when nominating candidates as Outside Directors.

Corporate Governance

Members of the Board of Directors (as of July 1, 2021)

Name Position at the Company	Reasons for nomination	Attendance at Board of Directors meetings in 2020	Term in office	Company shareholding	Appointments to advisory committees	
					Remuneration Advisory Committee	Nomination Advisory Committee
Tsugio Mitsuoka Chairman of the Board	Tsugio Mitsuoka has led the IHI Group's management as the President of the company since April 2016, by actively carrying out the selection and concentration of business operations and the transformation of business model in response to the changing business environment, as well as bolstering the risk management and ensuring compliance. Since April 2020, he has been working to strengthen corporate governance as Chairman of the Board of the Company. In the belief that his abundant experience and insight as corporate manager will be indispensable in the management of the IHI Group, the Company has appointed him as a Director.	18 of 18 (100%)	7 year	14,800 shares	—	—
Hiroshi Ide President	Hiroshi Ide has accumulated a great deal of knowledge mainly in the overseas marketing division for the energy and plant businesses. After serving as Managing Director of an overseas subsidiary, he has formulated business strategies with a long-term perspective as President of Resources, Energy and Environment Business Area for the materialization of a carbon-free recycling society. Since becoming Chief Operating Officer in April 2020, and subsequently President in June 2020, he has led the management of the Group. In the belief that these abundant business experience, accomplishments, and insight will be indispensable in the management of the IHI Group, the Company has appointed him as a Director.	13 of 13 (100%)	1 year	2,500 shares	—	Chairperson
Takeshi Yamada Executive Vice President	Takeshi Yamada has accumulated a great deal of knowledge mainly in the finance & accounting field and corporate planning division, and since April 2017 as General Manager of the Finance & Accounting Division, he has been deeply engaged in the Group's financial strategies. After being appointed Executive Vice President in April 2019, he has been focusing on strengthening communication with stakeholders while promoting improvements in the Group's financial structure. In the belief that these abundant experience and high level of insight into the Group's overall business management will be indispensable in the management of the IHI Group, the Company has appointed him as a Director.	18 of 18 (100%)	4 year	2,500 shares	Committee Member	—
Tomoharu Shikina Executive Vice President	Tomoharu Shikina accumulated a great deal of knowledge in the aero-engine technology development field and subsequently, as President of the Aero-Engine Space & Defense Business Area, he led the business operated globally and achieved its growth. In April 2020, he was appointed as Executive Vice President and Senior Executive Officer, and worked on promotion of CSR procurement within the IHI Group and security export control. Since April 2021, he has been working on the appropriate placement of human resources across the Group engaged while also fostering a corporate culture that respects human rights. In the belief that these abundant experience, accomplishments, and insight will be indispensable in the management of the IHI Group, the Company has appointed him as a Director.	18 of 18 (100%)	5 year	6,500 shares	Committee Member	—
Kazuki Awai Board Director	Kazuki Awai has accumulated a great deal of knowledge, mainly in personnel and labor relations, and in the corporate planning division. Since July 2011, he has served as General Manager of Administration Division, working on strengthening of relationship with stakeholders and enhancement of the effectiveness of governance. Since June 2017, he has also been working on strengthening of the Group compliance. In the belief that these experience, accomplishments, and insight will contribute to strengthen governance of the IHI Group, the Company has appointed him as a Director.	—	*	4,400 shares	—	—
Takeshi Kawakami Board Director	Takeshi Kawakami has accumulated a great deal of knowledge in the bridge design, manufacturing and construction divisions. He subsequently served as the manager responsible for many projects, including overseas projects at a subsidiary operating bridge/water gate business, which the Company established through the acquisition of a leading Japanese company, and then as that company's President. Since April 2019, as President of Social Infrastructure & Offshore Facilities Business Area, he has led that business area in a globally competitive environment. In the belief that his abundant experience, accomplishments, and insight will contribute to the growth of the IHI Group, the Company has appointed him as a Director.	13 of 13 (100%)	1 year	1,900 shares	—	—

Name Position at the Company	Reasons for nomination	Attendance at Board of Directors meetings in 2020	Term in office	Company shareholding	Appointments to advisory committees	
					Remuneration Advisory Committee	Nomination Advisory Committee
Yasuhiro Shigegaki Board Director	Yasuhiro Shigegaki has accumulated a great deal of experience and knowledge mainly in the research and development division. In addition to having served as Chairman of an overseas subsidiary that the Company acquired, he has actively pursued global expansion to achieve growth as the manager responsible for the business. As the President of Industrial Systems & General-Purpose Machinery Business Area since April 2020, he has been leading the business in a globally competitive environment. In the belief that his abundant experience, accomplishments, and insight will contribute to the growth of the IHI Group, the Company has appointed him as a Director.	13 of 13 (100%)	1 year	2,200 shares	—	—
Hideo Morita Board Director	Hideo Morita has accumulated a great deal of knowledge as manager responsible for the development of space equipment, production, design, and engineering departments of the Aero-Engine & Space Operations. Since April 2018, he had led the Civil Aero-Engine Division, and subsequently as the President of Aero Engine, Space & Defense Business Area since April 2021, he has been leading the operations under environmental changes. In the belief that his abundant experience, accomplishments, and insight will contribute to the growth of the IHI Group, the Company has appointed him as a Director.	—	—	2,800 shares	—	—
Kazuhiko Ishimura Outside Director	Kazuhiko Ishimura has gained abundant experience, accomplishments, and extensive insight into overall corporate management at the helm of a comprehensive materials manufacturer, where he was at first in charge of manufacturing and technology development. Aiming to have him reflect these qualities in the management of the Company and carry out management oversight and monitoring functions from an independent perspective, the Company has appointed him again as an Outside Director.	17 of 18 (94%)	4 year	1,900 shares	Chairperson	Committee Member
Yoshiyuki Nakanishi Outside Director	Yoshiyuki Nakanishi, following experiences in sales of products and services of a global chemical manufacturer and involvement in operations of its key business, has gained abundant experience, accomplishments, and extensive insight into overall corporate management at the helm of the manufacturer, where he implemented various measures to respond to changes in the business environment. Aiming to have him reflect these qualities in the management of the Company and carry out management oversight and monitoring functions from an independent perspective, the Company has appointed him again as an Outside Director.	12 of 13 (92%)	1 year	0 shares	Committee Member	Committee Member
Chieko Matsuda Outside Director	Chieko Matsuda 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. Aiming to have her reflect these qualities in the management of the Company and carry out management oversight and monitoring functions from an independent perspective, the Company has appointed her again as an Outside Director.	13 of 13 (100%)	1 year	0 shares	—	Committee Member
Minoru Usui Outside Director	Minoru Usui, after being in charge of technology development in an electronic equipment manufacturer that operates business globally, has gained abundant experience, accomplishments, and extensive insight at the helm of the manufacturer, where he implemented various measures to respond to changes in the business environment. Aiming to have him reflect these qualities in the management of the Company and carry out management oversight and monitoring functions from an independent perspective, the Company has appointed him as an Outside Director.	—	—	0 shares	Committee Member	Committee Member

*Elected as Director of the Company at the 200th Ordinary General Meeting of Shareholders held on June 23, 2017, and resigned as Director of the Company at the conclusion of the 201st Ordinary General Meeting of Shareholders held on June 22, 2018, due to the expiration of his term.

Corporate Governance

Average Attendance of Outside Directors

(Unit: %)

Category	2017	2018	2019	2020
Board of Directors Meetings	95.3	98.6	98.1	96.8

Number of Concurrent Positions of Outside Directors

Name Position at the Company	Number of Important Concurrent Positions
Kazuhiko Ishimura Outside Director	3
Yoshiyuki Nakanishi Outside Director	2
Chieko Matsuda Outside Director	2
Minoru Usui Outside Director	2

Ratio of Outside Directors

(Unit: %)

Category	2017	2018	2019	2020	2021
Ratio of Outside Directors	29.0	33.0	27.0	33.0	33.0

Members of the Audit & Supervisory Board (as of July 1, 2021)

Name Position at the Company	Reasons for nomination	Attendance at Board of Directors meetings in 2020	Attendance at Audit & Supervisory Board meetings in 2020	Term in office	Appointments to advisory committees	
					Remuneration Advisory Committee	Nomination Advisory Committee
Takashi Niimura Standing Audit & Supervisory Board Member	Takashi Niimura has accumulated a great deal of knowledge in the sales and marketing field since joining IHI. As the manager responsible for supervising domestic and overseas branches and affiliated companies, he has carried out sales strategies from a company-wide perspective, while globally expanding operations and managing risks according to the situation in each country. In the belief that his abundant experience, accomplishments, and insight will be effectively utilized in the auditing of the IHI Group, the Company has appointed him as an Audit & Supervisory Board Member.	13 of 13 (100%)	11 of 11 (100%)	1 year	-	-
Seiji Maruyama Standing Audit & Supervisory Board Member	Seiji Maruyama accumulated a great deal of knowledge, mainly in the areas of finance, internal control, internal audit and business management, and since April 2019 has worked on issues such as the Group's finance and accounting strategy, and improving the Group's financial position as General Manager of the Finance & Accounting Division. In the belief that his abundant experience, accomplishments, and insight will be utilized in the auditing of the IHI Group, the Company has appointed him as an Audit & Supervisory Board Member.	-	-	-	-	-
Toshio Iwamoto Outside Audit & Supervisory Board Member	Toshio Iwamoto gained extensive experience and broad insight as the executive of forefront IT company. Aiming for these qualities to be reflected in the auditing of the Company's management from an independent perspective, the Company has appointed him as an Outside Audit & Supervisory Board Member.	18 of 18 (100%)	14 of 14 (100%)	2 year	Committee Member	-
Aiko Sekine Outside Audit & Supervisory Board Member	Aiko Sekine has accumulated abundant experience and insight as Partner of PricewaterhouseCoopers Aarata, Japan, and Chairman and President of The Japanese Institute of Certified Public Accountants (JICPA). Aiming for these qualities and her independent perspective to be reflected in the auditing of the Company's management from an independent perspective, the Company has appointed her as an Outside Audit & Supervisory Board Member.	13 of 13 (100%)	11 of 11 (100%)	1 year	-	-
Yumiko Waseda Outside Audit & Supervisory Board Member	Yumiko Waseda 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. Aiming to have her reflect this experience and insight in the management oversight from an independent perspective, the Company has appointed her as an Outside Audit & Supervisory Board Member.	-	-	-	-	-

Average Attendance of Outside Audit & Supervisory Board Members

(Unit: %)

Category	2017	2018	2019	2020
Board of Directors meetings	96.0	92.6	100.0	100.0
Audit & Supervisory Board meetings	100.0	100.0	100.0	100.0

Corporate Governance

Remuneration for Officers

Policy on Determination of Remuneration for Officers

Basic Policy on Determining of Remuneration for Directors (Excluding Outside Directors)

Remuneration for Directors shall be aimed at fully encouraging Directors of IHI to perform their duties in line with management philosophy, Group vision, and Group management policy, and strongly motivating them toward the achievement of specific management goals to bring IHI's and the IHI Group's sustainable growth and improve the medium- and long-term corporate value. Remuneration shall be structured with the appropriate allocation of a fixed base amount, 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 IHI in consideration of IHI's management environment, and social roles and accountabilities IHI undertakes.

Remuneration Level and Allocated Ratios of Remuneration

IHI shall appropriately establish remuneration levels and allocated ratios of remuneration upon having considered factors that include IHI's business characteristics, effectiveness of incentive remuneration, and professional duties. Moreover, IHI shall perform verification by regularly surveying objective market data on remuneration researched by an external specialized institution. With respect to allocated ratios of remuneration, IHI shall set remuneration at approximate proportions of Base

Amount: Performance-Based Bonus: Performance-Based Share Remuneration equal to 50%:30%:20% for the President, and the Chairman of the Board, and at approximate proportions of 55%:25%:20% for other Directors, subject to standard business performance.

Calculation Method for Incentives

- Performance-based bonuses (Annual incentives)
 - Performance indicators and reasons for selection thereof
Performance indicators shall be those that include: profit attributable to owners of parent underpinned by the aim of maintaining common interests with our shareholders; consolidated operating cash flow underpinned by the aim of strengthening the capacity to generate cash necessary for growth, and; individual evaluation indicators corresponding to tasks assigned to each executive. The performance indicators shall be reviewed as necessary, particularly upon encountering changes in the management environment and executives' duties.
 - Method of calculating remuneration
The monetary amount of remuneration provided every fiscal year is calculated as the amount of payments based on individual evaluation indicators added to the product of the standard payment amount corresponding to titles and positions multiplied by the performance evaluation payout rate corresponding with percentage achievement of profit indicators. The performance evaluation payout rate varies from a range of zero to approximately 200 depending on the percentage achievement of profit indicators, with a baseline value of 100 for the amount of payment when performance targets have been achieved. In addition, regardless of the calculation results the annual incentive is not paid to Directors if no dividend is paid.
- Performance-based share remuneration (Medium- to long-term incentives)
 - Performance indicators and reasons for selection thereof
The performance evaluation period shall encompass the next three fiscal years, and performance targets for the final fiscal year of the performance evaluation period shall be established

at the outset of the performance evaluation period. Moreover, the performance indicators shall be of primary emphasis under the Group management policies, with consolidated ROIC serving as a performance indicator underpinned by the aims of engaging in business operations that place focus on investment efficiency, achieving sustainable growth, and increasing corporate value. IHI shall furthermore review the possibility of making necessary in alignment with review of the Group management policies.

(2) Method of calculating remuneration

The number of shares to be delivered on an individual basis as performance-based share remuneration (a monetary sum equivalent to the market value of the shares is to be delivered with respect to a portion of such remuneration) shall be calculated as the standard number of shares to be delivered with respect to each of the job title rankings, multiplied by a coefficient aligned with the percentage of the consolidated ROIC target achieved. The coefficient varies from a range of zero to approximately 150 depending on the extent of having achieved such target, with a baseline value of 100 for the number of shares to be delivered when performance targets have been achieved.

Procedures for Determining Remuneration

To ensure appropriateness and objectivity regarding matters of Officer remuneration, the Board of Directors shall make decisions on such matters subsequent to deliberation and reporting findings thereof by the Remuneration Advisory Committee established as an optional body by IHI.

Remuneration of Outside Directors and Audit & Supervisory Board Members

Remuneration of Outside Directors shall consist only of a base amount in the light of their duties. Remuneration of Audit & Supervisory Board Members shall consist only of a base amount, as compensation for responsibilities for auditing the execution of business throughout the IHI Group.

Corporate Governance

Results for 2020 Remuneration

Details of Director and Audit & Supervisory Board Members Remuneration

(Unit: Million yen)

Category	Number of people remunerated	Total remuneration by type			Total remuneration
		Basic remuneration	Performance-based share remuneration*	Performance-based bonuses	
Directors	16 person	365	199	0	565
Audit & Supervisory Board Members	7 person	102	–	–	102
Total (outside)	23 person (7 person)	467 (81)	199 (–)	0 (–)	667 (81)

* 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.

Targets, Results, and Other Data of Performance Evaluation Payout Rates

Type of remuneration	Performance evaluation indicator	Margin of performance evaluation payout rate	Targets	Results	Performance evaluation payout rates
Performance-based share remuneration	Consolidated ROIC	0 - 150%	Maximum: 15% Target: 12% Minimum: 3.5%	2.2%	0%
Performance-based bonus	Current net income attributable to owners of parent	0 - 200%	Maximum: 38.4 billion yen Target: 23.4 billion yen Minimum: 8.4 billion yen	-3.8 billion yen	0%
	Performance evaluation payout rate	0 - 200%	(Head Office) Maximum: 5.3% Target: 3.3% Minimum: 1.3%	(Head Office) 0.7%	0%
			(Business Areas) Maximum and minimum range set for each business area		
Consolidated CF (Revised Amount)	0 - 150%	(Head Office) Maximum: 60.0 billion yen Target: 40.0 billion yen Minimum: 20.0 billion yen	(Head Office) 24.5 billion yen	0%	
		(Business Areas) Maximum and minimum range set for each business area			

* The margin of performance evaluation rate of performance-based bonus indicated in the chart above are based on those of fiscal 2020.

* The performance based bonus has not been paid as dividends were determined to be zero yen for fiscal 2020.

Corporate Governance

Board of Directors Evaluation

IHI has been evaluating the performance of the Board of Directors annually in principles since 2015 to further its effectiveness.

The evaluation is performed as follows:

- An external consulting company administers an anonymous questionnaire to all Directors and Audit & Supervisory Board Members. Items covered by the questionnaire include the composition and operation of the Board of Directors, risk management, and culture of the Board of Directors.
- The external consulting company collects and analyzes the questionnaire responses.
- All relevant Officers are interviewed regarding the questionnaire and the analyzed responses.

The results of the above process are brought together in composition the form of a self-evaluation by the Board of Directors, and proposed points for improvement are identified.

Regarding the evaluation of the Board of Directors implemented in fiscal 2020, it has been self-evaluated that effectiveness of the Board of the Directors has been continuously secured thoroughly.

In addition, in order to further enhance the effectiveness of the Board of Directors, we recognized the need to further deepen discussions on ESG management, business portfolios, the composition of the Board of Directors, and succession plans.

The next evaluation of the Board of Directors is scheduled to be conducted during fiscal 2021.

Officer Shareholdings

Category	Company shareholding
Directors (8)	37,600 shares
Outside Director (1)	1,900 shares

* As of July 1

Shareholder Composition

Shareholder Composition

[Web](#) [Annual Securities Report](#)

[Web](#) [Integrated Report](#)

Employee Stock Ownership Association Membership Rate

Of the IHI employees, 52.1% are member of the Employee Stock Ownership Association as of March 31, 2021.

Others

Corporate Governance Report

Please see our Corporate Governance Report for more information about IHI corporate governance.

[Web](#) [Corporate Governance Report](#)

Cross Shareholdings

Approach

Purpose of cross shareholdings

As a general rule, IHI looks to reduce cross shareholdings after engaging in a suitable dialogue with the issuing company. However, IHI may hold shares in strategic partners for business alliances, joint research and development, or other forms of collaboration for the purpose of pursuing medium- to long-term growth and increased corporate value for IHI.

Management of cross shareholdings

The propriety of holding individual shares is determined at the Board of Directors every year by confirming the mid- and long-term significance based on the above holding policy and examining the economic rationality of holding the shares.

Results

In fiscal 2020, IHI has wholly sold six security names and partially sold three security names, among 50 security names of cross shareholding IHI owned.

Compliance

General Compliance

Policies

The IHI Group implements its compliance program in accordance with the “Basic Rules of Compliance for IHI Group” and other internal policies.

IHI’s compliance program addresses legal compliance but also aspires to meet the fluctuating values and needs of society.

To prevent a recurrence of the quality issue that we experienced in 2019, we have been focusing on and reinforcing our compliance and quality assurance systems as part of our risk management activities. For example, in fiscal 2019 we established the “IHI Group Code of Action” with reference to the “Basic Code of Conduct for the IHI Group” as the guiding light in everyday work of all IHI Group employees.

Our compliance efforts emphasize management’s unwavering commitment to compliance and our determination to learn from past problems such as the inadequate practices discovered at our Mizuho Aero-Engine Works.

IHI Group Code of Action

1. We truly understand and will comply with any and all applicable rules.
2. We do not engage in any wrongdoing.
3. We respect human rights.
4. We make safety and quality for our customers a top priority.
5. We enter into fair and legitimate transactions.
6. We never impair the safety of ourselves or our colleagues.
7. We strictly manage and control information.
8. If we discover an issue, we report it immediately.

Basic Rules of Compliance for IHI Group

Compliance is the foundation for companies to do business in society.

The IHI Group shall act as follows in accordance with the Basic Code of Conduct for the IHI Group:

- Strictly observe all laws, internal rules, and other regulations.
- Act in a fair and responsible manner as business people.

Tax Compliance

IHI Group Global Tax Policy

The IHI Group enacts the Global Tax Policy in accordance with “Basic Code of Conduct for the IHI Group”, for the purpose of developing global tax compliance, and aims at growing sustainably and enhancing corporate value over the future.

1. Respect for the rule of law

The IHI Group observes the laws and ordinances on taxes of each country or region based on a clear understanding of their meaning. The IHI Group also acts sincerely and fairly with high ethical standards so that it does not violate social rules or international norms.

2. Transfer pricing

The IHI Group, by assessing transfer pricing in accordance with the laws and ordinances of each country or region and The International Transfer Pricing Guidelines, is committed to appropriately allocating income commensurate with the contribution of each Group company and to making proper tax payment in each country and region.

3. Tax planning

The IHI Group does not engage in tax planning for the purpose of tax avoidance.

4. Relationship with the tax authorities

The IHI Group, by providing information in the course of tax administration procedures and tax audits appropriately and in a timely manner, strives to maintain a sound relationship with the tax authorities of each country or region.

Compliance

Structure

Compliance Committee

The IHI Group established the Compliance Committee as a Group-wide committee on compliance under the Risk Management Conference. Made up of compliance officers from each division with the Chief Compliance Officer as chairperson the Compliance Committee deliberates and drafts important policies on compliance as well as promotes compliance activities.

Compliance Committee members roll out the decisions made by the Committee to each division by adapting them into compliance activities tailored to the division. Compliance Committee members inform the Committee of progress made by the divisions and also use a PDCA cycle for compliance activities.

The Legal Division acts as a secretariat to plan and execute compliance activities in accordance with the policies created by the Compliance Committee while also monitoring the progress of compliance activities in each division and providing guidance and support as necessary.

Compliance Structure



Compliance Committee

Chairperson	Chief Compliance Officer
Secretariat	Compliance Group of the Legal Division
Members	Compliance Officer of each division
Meetings convened in 2020	4

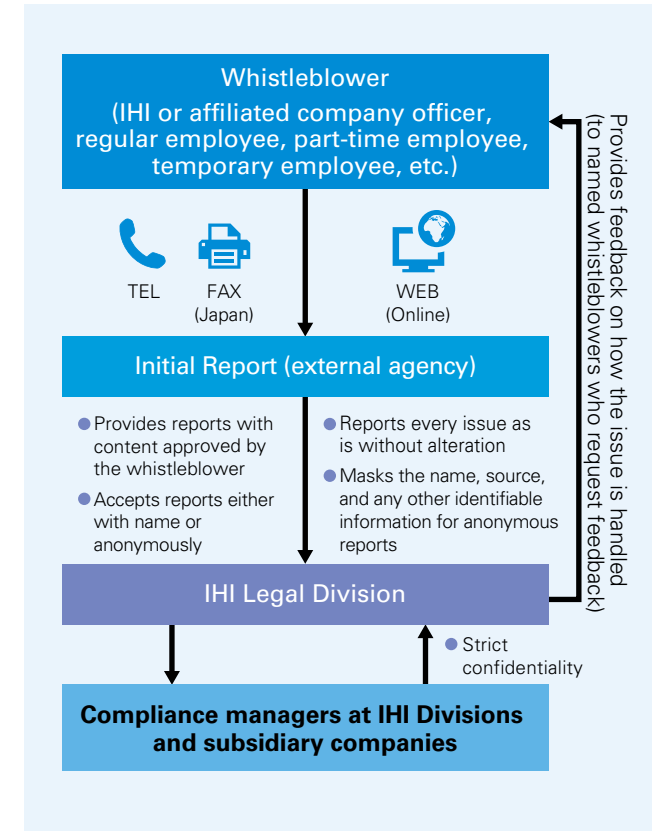
Compliance Hotline

The IHI Group runs the Compliance Hotline as an internal reporting system to quickly identify actions that violate or potentially violate laws, internal regulations, or internal and external rules by IHI Officers and employees to allow IHI to take corrective action as soon as possible. This system prohibits retribution towards whistleblowers. Anyone who retributes against a whistleblower will be disciplined in accordance with applicable employment regulations.

IHI Officers and employees can directly report to or consult with third-party experts outside of their chain of command via this hotline.

We also launched the Compliance Hotline in the United States in fiscal 2017 and in the Asia Pacific region in fiscal 2018. Preparations for launch the Compliance Hotline in Europe have finished in fiscal 2020. Hotlines are available in the respective local languages.

Framework of the Compliance Hotline



Compliance

Education/Awareness Building

Quality & Compliance Training

In fiscal 2020, a training course called Quality & Compliance Training (Second Edition) that focused on quality and on-time delivery was conducted for all IHI Group companies.

Launch of Compliance Day (May 10)

In fiscal 2021, the IHI Group submitted a report to the Ministry of Land, Infrastructure, Transport and Tourism on corrective measures to address the inadequate practices at Civil Aero Engine Maintenance Business in 2019. These corrective measures included the launch of a Compliance Day (May 10) as an opportunity to reflect on and think about compliance each year. This compliance event makes past issues personal for each and every person with the goal of continually raising awareness about compliance.

Number of Compliance Training Participants

(Unit: People)

Item		Scope of Data	2017	2018	2019	2020
Officer Training		IHI and subsidiary companies in Japan	50	47	–	–
Line Manager Training		IHI and subsidiary companies in Japan	83	75	72	–
Quality & Compliance Training		IHI and subsidiary companies in Japan	–	–	27,866	24,085
		Affiliated companies overseas	–	–	1,774	3,261
e-Learning	Japan (Conducted as Quality & Compliance Training in 2020)	IHI and subsidiary companies in Japan	18,020	18,234	18,164	20,169
	Overseas	Affiliated companies overseas	1,261	1,126	1,214	–

Results

Number of Compliance Hotline Reports

(Unit: Reports, Scope: IHI and affiliated companies)

Item	2017	2018	2019	2020
Reports	209	238	239	202

Compliance

Competition Laws/Anti-corruption Laws

Policies

Commitment to Competition and Anti-corruption Law Compliance

More global and borderless corporate activities make compliance with various competition laws in each country indispensable to maintain and gain business opportunities in international markets. International rules prohibit any form of illicit profit or other corruption. We are fully committed to complying with competition laws, anti-corruption laws, and all other laws and regulations as part of the code of action for all the employees, Officers and Directors of the Group.

We strive to prevent violations of competition laws by implementing the IHI Group Competition Law Compliance Policy and other various guidelines, which provide more specific guidance than the IHI Group Code of Action.

The IHI Group also adheres to anti-corruption laws. The IHI Group Basic Policy Against Bribery of Public Officials prohibits bribes, facilitation payments, and other inappropriate payments and donations to public officials. To increase the effectiveness of this policy, we have drafted operating standards, appointed compliance officers, and put in place specific procedures in each division.

Structure

The IHI Group promotes educational and monitoring programs with the IHI Legal Division at the core of Group compliance and risk management.

The IHI Group assesses the risk of violations of competition and anti-corruption laws as well as other compliance risks according to the above mentioned IHI Group rules. Each IHI Group company conducts risk assessments tailored to their business and addresses

any issue found according to the level of risk with the support of the IHI Legal Division.

We also identify and handle any compliance issues at the earliest possible stage through the Compliance Hotline. If any major compliance issues are ever discovered, IHI establishes a task force led by the CEO to quickly and flexibly handle the issue while leveraging the knowledge of internal and external experts. This task force does not only address the issue but also introduces and supports measures to prevent recurrence.

Results

Competition Law/Anti-corruption Law Violations

(Unit: Incidents, Scope: IHI and consolidated subsidiaries)

Item	2017	2018	2019	2020
Competition law	0	0	0	0
Anti-corruption law	0	0	0	0

Expenditure to political organizations, economic organizations, and other major industry organizations

(Unit: Millions of yen, Scope: IHI)

Item	2017	2018	2019	2020
Political organizations	10	10	10	10
Economic organizations	42	48	56	57
Other major industry organizations	55	101	120	122

Education/Awareness Building

Employee Training and Education

The IHI Group provides training to teach employees about various competition laws worldwide, such as the Japan Antimonopoly Act and Unfair Competition Prevention Act, the United States Sherman Antitrust Act, and competition law in the European Union. IHI trains all of its new employees on the basics of anti-corruption laws. We also regularly educate all employees about the United States Foreign Corrupt Practices Act (FCPA) and the United Kingdom Bribery Act 2010 while monitoring the risk of anti-corruption law violations in Japan and overseas. We gain feedback from participants about these awareness-raising activities, and the IHI Legal Division reviews the effectiveness of the program to help enhance compliance education every year.

Number of Training Participants

(Unit: People)

Item		Scope of Data	2020
Employees	Total	IHI and consolidated subsidiaries	2,252
	By Region	Japan	IHI, IPS, IPC, IIS, IIK, NTS, JIMT, IUK, ILM, IA
Asia Pacific		IHIAP, IHIAPT, IEA, IPI	386
USA		IAI	23
Europe, Middle East, and Africa		IEL	16

Compliance

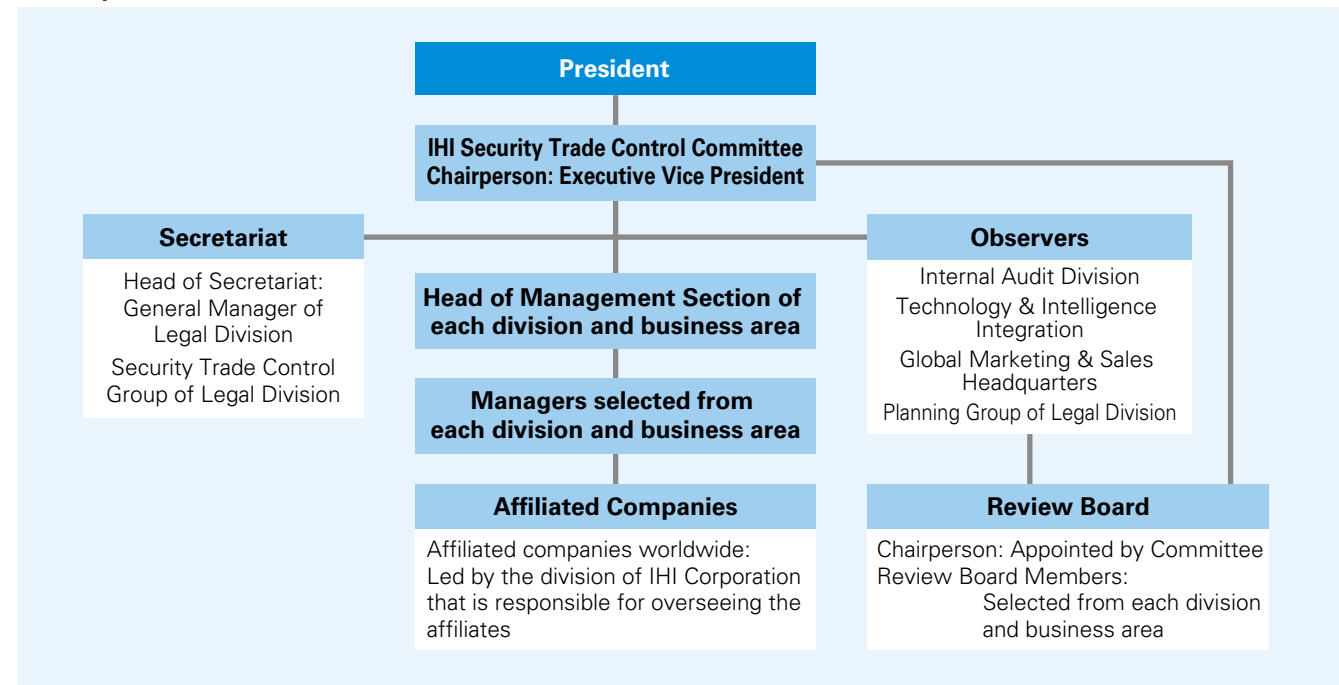
Security Trade Control

Structure

IHI Security Trade Control Committee

The IHI Group has established internal security trade control rules and set up the IHI Security Trade Control Committee. Under these rules, the Committee works to manage risk and ensure compliance with Japan's Foreign Exchange and Foreign Trade Acts. The IHI Security Trade Control Committee is a Group-wide body led by an Executive Vice President as chair with the Legal Division acting as secretariat. The members are made up of managers selected from each division and business area as well as review board members. The Committee audits overseas business proposals from each division, independently assesses the progress of security trade control practices, shares relevant legal and regulatory information, raises awareness, and provides training. We will continue to improve the business operations in each division based on the points and issues raised in these self-assessments in an effort to enhance the quality of our security trade control practices.

Security Trade Control Structure



IHI Security Trade Control Committee

Chairperson	Executive Vice President
Secretariat	Security Trade Control Group of Legal Division
Members	Head of Management Section of each division and business area
Meetings convened in 2020	3

Compliance

Quality

Approach

The IHI Group expanded the following quality measures throughout the Group in an effort to return to the core principles of its corporate ethics in light of the inadequate practices which occurred in 2019.

1. Deploy an IHI Group Code of Action and Quality Declaration
2. Strengthen the compliance structure

P28 **Compliance**

3. Strengthen the quality assurance and quality management systems
4. Create workplaces where everyone has a voice
5. Strengthen risk management

P35 **Risk Management**

IHI Group Code of Action and Quality Declaration

The IHI Group has established the “IHI Group Code of Action” with reference to the “Basic Code of Conduct for the IHI Group” as the guiding light in everyday work of all IHI Group employees in fiscal 2019, clarifying the standards for what actions to take and making judgments.

P28 **IHI Group Code of Action**

We have also made quality a top priority in the IHI Group Quality Declaration. The Quality Declaration reaffirms and clarifies the mindset and quality-oriented actions that are the basis for our approach to manufacturing. Our training program also helps raise awareness about the Code of Action and Quality Declaration to ensure proper daily business practices throughout the entire IHI Group.

IHI Group Quality Declaration

We, the IHI Group shall:

1. Always put quality first.
2. Continue improving quality via Sangen-Shugi and communication.
3. Listen sincerely to issues, swiftly take action and share accurate information.
4. Provide quality assurance through compliance with rules and working appropriately.
5. All strive for the satisfaction of our customers.

Compliance

Structure

Strengthening Quality Assurance and Quality Management Systems

The IHI Group established the IHI Group Quality Committee as a Group-wide committee on quality. The Committee deliberates and drafts important quality policies as well as promotes activities with the Officer in charge of overall Group Quality Assurance as chair. The members are made up of the President of a business area, Executive in charge of quality for a business area, and Executive of the Head Office Division.

Quality Improvement Promotion System



IHI Group Quality Committee

Chairperson	Officer in charge of Overall Group Quality Assurance
Secretariat	Monozukuri System Strategy Planning
Members	President of a business area, Executive in charge of Quality for business area, and Executive of Head Office Division
Meetings convened in 2020	2

Education/Awareness Building

P30 Quality & Compliance Training

Initiatives

Creating Workplaces Where Everyone has a Voice (Worksite Visits by Top Management)

Top management, including the President, visit worksites to engage in discussions and to actively exchange ideas with employees, both from an equal standpoint. We value "Sangen Shugi", which involves visiting the actual site, looking closely at the actual product, and correctly recognizing the actual situation. By communicating and hearing the voices of the employees directly involved, management and on-site staff work together in small group activities to resolve any problems encountered on-site by focusing on operational processes.

Risk Management

Risk Management

Policies

The IHI Group considers and engages in risk management as the top material issue of management. The basic objectives of risk management are ensuring business continuity and the safety of officers, employees and their families, securing managerial resources and maintaining public trust. We manage risk in accordance with the following action guidelines based on the "Basic Code of Conduct for the IHI Group":

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.

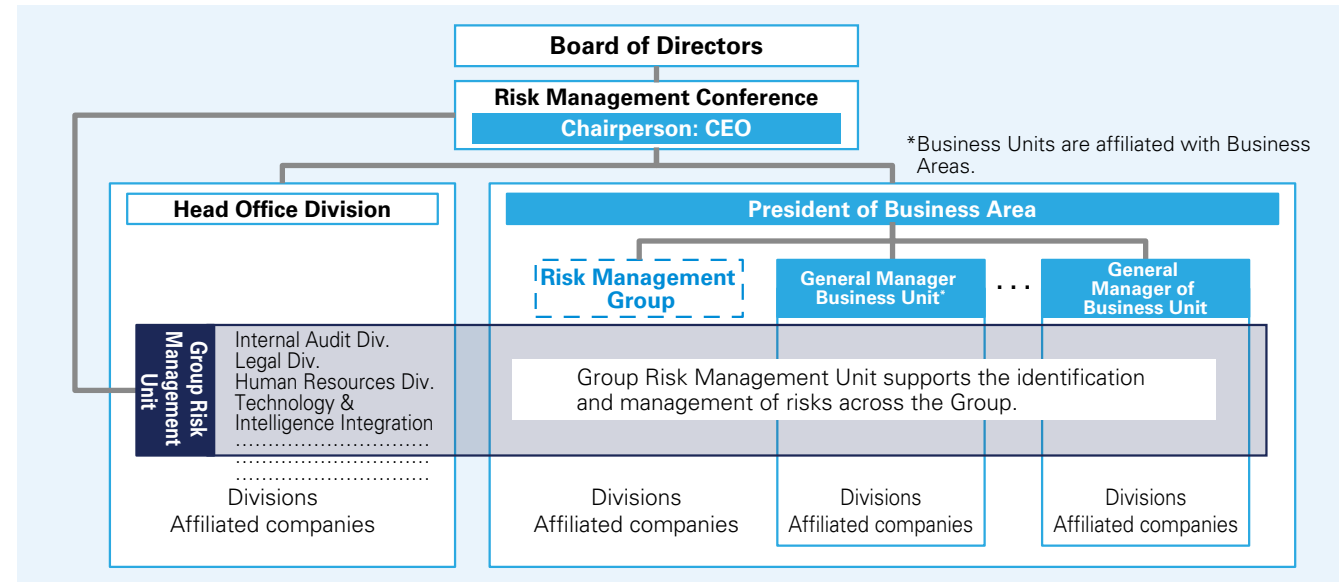
Structure

The IHI Group established the Risk Management Conference chaired by the CEO as a body to review policy initiatives, annual plans, corrective measures and other matters vital to overall risk management. The Compliance Committee is positioned as the subcommittee of the Risk Management Conference.

The "IHI Group Key Risk Management Policies" was formulated to prioritize risks that need to be addressed. Each IHI division and Group company worldwide move forward with independent risk management in accordance with these policies. There are common risks throughout the entire IHI Group; therefore, the Group Risk Management Unit made up primarily of head office divisions share information and

provide education to take advantage of expert knowledge and support risk management activities of each Group division. The Internal Audit Division strives to secure a suitable level of risk management by assessing the readiness and progress of the Group risk management structure.

Risk Management System



Risk Management Conference

Chairperson	Chief Executive Officer (CEO)
Secretariat	Corporate Planning Division
Attendees	General Managers of each Group Risk Management Unit, Presidents of each Business Area, and others nominated by the Chairperson
Number of meetings convened in 2020	4

Risk Management

Initiatives

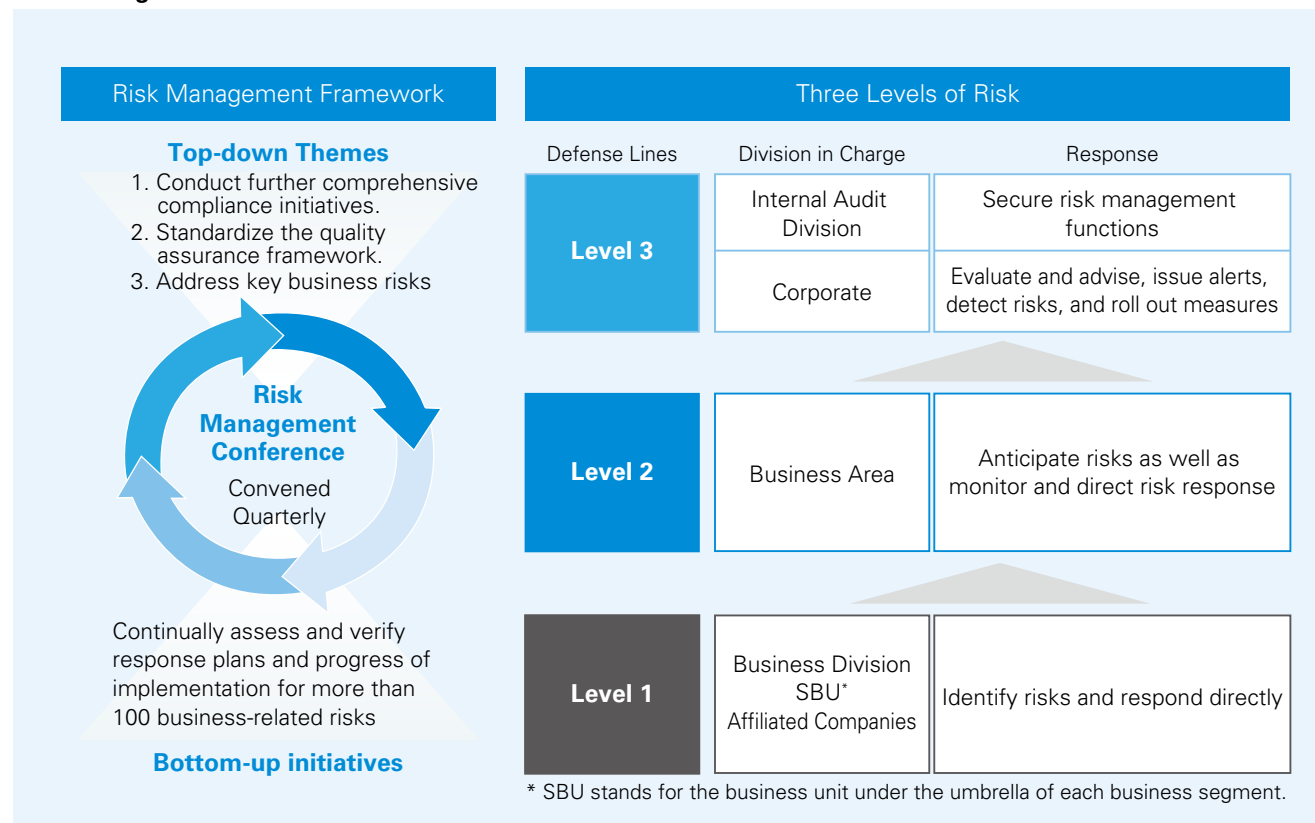
In fiscal 2020, initiatives were conducted to strengthen risk management through key themes. Progress of these initiatives is verified on a quarterly basis at the Risk Management Conference, furthermore accelerating risk management through a PDCA cycle.

P.28 Compliance

Key Policies for Risk Management in 2021

The IHI Group considers the risks and opportunities brought by the ever-changing business environment as a Group-wide issue. It is necessary for us to discern potential risks which are beyond conventional frameworks in this business environment, to identify and analyze vital risks, and to promote swift risk management are critical in advancing business reforms. Taking these necessities into account, our efforts which emphasize the key risk management themes are indicated on the right.

Risk Management Framework



• Risk Management Initiatives to Plan and Promote Risk Management Plans for Top-down Themes

1. Conduct further comprehensive compliance initiatives.
2. Standardize the quality assurance framework.
3. Address key business risks.

• Risk Management Initiatives to Comprehensively Identify Risks Inherent to Business Activities as well as Plan and Promote Risk Management Plans

1. Thoroughly implement and strengthen safety management.
2. Conduct further comprehensive compliance initiatives.
3. Reform quality and operation systems.
4. Respond to changes in management platforms and competitive environments, and promote ESG management.
5. Properly respond to risks associated with global strategy.
6. Improve operational productivity through work-style reforms and build workplaces where diverse human resources can actively participate.
7. Transition to robust project implementation and risk management structures.
8. Ensure the appropriateness of large-scale investments.
9. Maintain and improve trusting relationships with stakeholders.
10. Implement thorough measures against harassment.
11. Promote even greater diversity.
12. Promote education on human rights and activities to raise awareness.
13. Ensure information security.
14. Prevent leaks of confidential sales information, personal information, and vital technical information.
15. Develop adequate Business Continuity Plans (BCP) in case of disasters/accidents.

Risk Management

Disaster Prevention

Approach

We have defined a crisis management structure, response procedures, and Business Continuity Plans (BCP) for the entire IHI Group to respond to emergency situations as part of the Basic Rules on Crisis Management for IHI Group.

The IHI Group formed the Crisis Management Headquarters to take the necessary steps to minimize damage of an emergency situation with the potential to gravely impact corporate management and business activities.

Initiatives

Preventing the Spread of the Novel Coronavirus (COVID-19)

The IHI Group prioritizes the health and safety of employees, their families, and every other stakeholder above all and engages in measures to prevent the spread of the COVID-19 infection and any potential cluster infections.

Given this fundamental principle, guidelines are formulated individually for each department (offices, plants, and construction sites) to prevent the spread of the virus throughout the Group, considering national and local government policies and guidelines.

The IHI Group implements the following measures to reduce the number of employees at the office and ensure safety as part of its efforts.

1. Provide a work system to prevent infection.

Telework (work done from home) is formulated as a general rule. Furthermore, any work which requires an employee to come to the office combine various countermeasures, such as a combination of telework and flextime, to shorten their time in office as much as possible.

At plants and construction departments where working from home is less of an option, measures are formulated which ensure a work environment avoiding closed spaces, crowded places and close-contact settings. Our measures adapt to the circumstances on each site, such as working in shifts, strengthening measures to prevent the spread of the virus when commuting to and from work such as commuting more by car and increasing the number of buses and other vehicles.

2. Initiatives to promote telework

The IHI Group is revising its operational processes with telework as a core component to prevent the spread of infection and to ensure business continuity. Our efforts reform traditional work processes and systems to accelerate the adoption of “new work-styles” from

digitalization of internal approval and procedures to online meetings and training.

Disaster Prevention Initiatives

To prepare for severe disasters, the IHI Group has built a system to ensure both employee safety and business continuity. In addition, we have clarified the organizational structure and necessary actions in our internal rules, during both normal times and during times of disaster. A Business Continuity Plan (BCP) is established at each representative office, division and affiliated company. Furthermore, our plans regularly undergo desk training and constant reviews to verify their effectiveness. In addition to capital investments, such as earthquake proofing of plants and offices, the IHI Group has entered into disaster prevention and readiness agreements and is building other cooperative relationships with local governments in case of disasters.

BCP Formulation and Improvement

The IHI Group regularly holds training for the purpose of reviewing the BCP to maintain and strengthen its effectiveness, in addition to encouraging officers and employees to register to the safety confirmation system, and consistently updating the risk maps on all sites. Every March, IHI conducts a response training Group-wide, which the President and other management executives participate, in case of severe disasters. This training varies the day, time, and estimated damage of a disaster each year to test the effectiveness of the BCP from various angles. Our affiliated companies also conduct training to test their BCP to enhance disaster prevention capabilities.

Information Security

Policies

The IHI Group has established the IHI Group Information Security Policy to ensure the protection of confidential information of customers and business partners as well as corporate management and technical information. We strive to properly manage information while maintaining and improving information security.

IHI Group Information Security Policy

The IHI Group hereby sets the following IHI Group Information Security Policy for the purpose of ensuring the security of information assets in its possession and thereby further solidifying its trust-based relationship with customers, users and society.

(Basic Activities)

1. The IHI Group will take appropriate measures with technology, organization and employees, in order to protect information assets against any leakage, theft, loss, destruction, illegal access, and disaster. In the event of any security problem regarding this information, the IHI Group will locate the cause as quickly as possible, and exert every possible effort to minimize the damage incurred.

(Information Assets)

2. "Information assets" refer to the information the IHI Group handles in the course of business activities, regardless of the type of media, and the equipment, facilities and services necessary for handling such information.

(Scope)

3. This Information Security Policy applies to all those using the information assets of the IHI Group, including but not limited to officers and employees

of the IHI Group companies and temporary staff.

(Compliance with Laws, Regulations, etc.)

4. The IHI Group will strictly observe the laws, regulations and codes pertaining to the protection of information assets, and the requirements and obligations regarding information security provided for in the agreements with the customers.

(Education)

5. The IHI Group companies will provide all those using the information assets of the IHI Group with the necessary education on information security to enhance and maintain their awareness thereof.

(Management of Information Security)

6. The IHI Group companies will establish a mechanism of implementing and managing information security by taking measures such as establishing rules concerning information security and appointing persons in charge of information management, thereby conducting, maintaining and improving information security activities on a continual basis.

(Responsibilities of Senior Management)

7. The Senior Management of the IHI Group will set

the example of enforcing this Information Security Policy. In the event of any infringement of this Policy, Senior Management will address the situation properly by defining their authorities and responsibilities, and do their utmost to resolve the problems, diagnose their causes, and prevent their recurrence.

(Punishment)

8. Any action in violation of the rules of information security will incur punishment according to the employment regulations of IHI Group companies.

(Announcement)

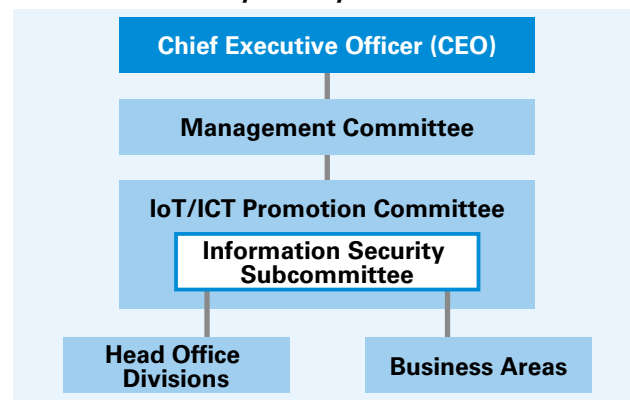
9. This Information Security Policy will be announced and notified to all those using the information assets of the IHI Group as well as being announced to the public.

Information Security

Management Framework

The IHI Group has established an “Information Security Promotion Framework,” chaired by the Chief Information Security Officer, for the purpose of information security management. The Information Security Subcommittee operates within the IoT/ICT Promotion Committee as an organization in charge of promoting the company’s information security activities overall. A General Manager is appointed at each IHI Head Office Division, Business Area, Business Unit and group company to accelerate activities under this framework.

Information Security Activity Promotion Framework



Information Security Subcommittee

Chairperson	General Manager of Intelligent Information Management Headquarters
Secretariat	Information Security Department of Intelligent Information Management Headquarters
Subcommittee members	Members Business Areas, Business Units and Head Office Divisions
Number of meetings convened in 2020	3

Information Security Management System

The IHI Group convenes the Information Security Subcommittee three times yearly to plan, implement and evaluate information security measures in an annual cycle.

In fiscal 2019, we built a three-stage auditing framework for information security consisting three types of audits by different auditors to strengthen checks (“C”) in the PDCA cycle. Each organization (IHI divisions and group companies) conducts its own internal audit, the corporate division executes documentation audits, and each Business Area, as the responsible division, implements on-site audits. In fiscal 2020, these on-site audits evaluated 1 Business Unit and 9 affiliated companies. Guidance on corrective actions for any issues that were found was provided by the responsible Business Area. Divisions and group companies involved in highly sensitive national projects in the IHI Group must undergo annual reviews by an external specialized agency to renew the ISO 27001 international information security certification.

Measures to Prevent Information Leakage During Telework

In fiscal 2020, the IHI Group implemented telework (work from home) as a measure to prevent the spread of COVID-19. However, due to the increase in remote access to online systems compared to traditional office work, cyber-attacks continue to increase, exploiting the vulnerabilities of these work style reforms and changes in the working environment. The IHI Group has, therefore, worked to raise employee awareness through e-Learning and internal newsletters covering security compliance rules for work done outside the office. These rules specifically prohibit personal use of work computers and prohibit work data from being stored on personal IT devices of the individual and/or family. Prior to the COVID-19 pandemic, the IHI Group had already provided specific computers, containing no work

data, which are dedicated for external use. We have made it mandatory for these computers to be used for any work conducted outside the office. The use of these computers reduces the risk of information leakage upon loss or theft of these devices.

Education/Awareness Building

Employee Education

The IHI Group provides e-Learning to all employees on a yearly basis to deepen their understanding of information security rules and tools, and to maintain and raise information security awareness.

Rate of Participation in e-Learning

(Unit: %, Scope: IHI)

Item	2017	2018	2019	2020
Rate of Participation in e-Learning	98.0	96.8	83.0	96.0

Results

Information Security Measures

The IHI Group takes steps to address information security risks from three perspectives: rules, tools and education. The rules include the IHI Group Information Security Policy, Information Security Measure Standards and Information System User Rules. In addition, we have introduced antivirus software and security tools, all of which are always kept up to date.

Information Security

Evaluation of Information Security Measures

We assess the information security measures of the entire IHI Group quantitatively every year based on the benchmark for information security measures implemented by companies offered by the Information Technology Promotion Agency, Japan (IPA). The level of information security measures in fiscal 2020 was 3.4 out of 5. We will strive to achieve a score of 4, and further continue to improve our level of information security in fiscal 2021.

Evaluation of Information Security Measures

(Unit: Score, Scope: IHI and consolidated subsidiaries)

Item	2017	2018	2019	2020
Evaluation of Information Security Measures (Out of 5)	3.0	2.9	3.2	3.4

Materialize an Affluent Society



Human Rights	042
Customer Relationships	045
Human Resource Management	047
Diversity and Inclusion	050
Diversity and Inclusion (Human Resource Development)	055
Labor Practice (Occupational Health and Safety)	059
Supply Chain Management	065
Corporate Citizenship	067

Human Rights

Policies

IHI Group Human Rights Policy

The IHI Group formulated the IHI Group Human Rights Policy in December 2020 based on its management philosophy and its approach to human rights outlined in the Basic Code of Conduct for the IHI Group under the approval of the Board of Directors.

Through human rights awareness activities based on international standards, we will fulfill our responsibility to respect the human rights of all by fostering a respectful corporate culture and promoting human rights throughout our business activities.

IHI Group Human Rights Policy

The IHI Group recognizes and contributes to solving global issues based on group management philosophies of “Contribute to the development of society through technology” and “Human resources are our single most valuable asset”. As the basis of this activity, we have established the “IHI Group Human Rights Policy” in line with the Basic Code of Conduct for the IHI Group. Through human rights awareness activities based on international standards, we will fulfill our responsibility to respect the human rights of all by fostering a respectful corporate culture and promoting human rights throughout our business activities.

(Scope)

1. This policy applies to all officers and employees engaged in IHI Group business (hereinafter “Officers and Employees”).
2. We will account for the Human Rights of all people in the course of our business activities.
3. We will request our suppliers and business partners to understand this policy and respect human rights.

(Compliance with international standards, laws and regulations, Basic Code, etc.)

1. We support and respect international standards for human rights (e.g. the Universal Declaration of Human Rights, the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work, and the UN Guiding Principles on Business and Human Rights) and will act progressively in line with these standards.
2. In the countries and regions where we conduct our business, we will strive to respect international standards while upholding the laws and regulations of those countries or regions.
3. We always act in accordance with the Basic Code of Conduct for the IHI Group.

(Human rights awareness promotion structure and human rights due diligence)

1. We will establish a system to systematically and continuously promote human rights awareness and will work proactively to resolve human rights issues.
2. We will develop a structure to understand and assess human rights risks and to evaluate and

improve the effectiveness of our commitment (human rights due diligence) and implement continuously.

3. When a potential or actual human rights risk is assessed or confirmed, we will promptly take corrective and preventive measures through appropriate procedures.

(Training)

We will provide our Officers and Employees with appropriate training continuously so that actions based on this policy will be implemented throughout our business activities.

(Dialogue and consultation, information disclosure)

1. We will maintain continuous dialogue and consultations with relevant stakeholders on the set of actions set forth in this policy.
2. We will periodically disclose information about our efforts and results on respect for human rights.

December 10, 2020
IHI Corporation
President Hiroshi Ide

Human Rights

Management Framework

We established the IHI Group Human Rights Committee as a Group-wide committee. The Committee led by the officer in charge of human resources as the chairperson with members from the Head Office Divisions and Business Areas plans and deliberates important policies and promotes initiatives related to human rights. This body reports on important human rights activities at the ESG Management Promotion Committee as a way to consistently instill the importance of promoting human rights throughout the Group.

Human Rights Awareness Promotion Framework



IHI Group Human Rights Committee

Chairperson	Officer in charge of human resources
Secretariat	Human Resources Division
Members	President of each business area, General Manager of Procurement Strategy Planning, General Manager of Technology & Intelligence Integration, General Manager of Global Marketing & Sales Headquarters, General Manager of Secretariat Div., General Manager of Corporate Planning Div., General Manager of Corporate Communication Div., General Manager of Legal Div., General Manager of Administration Div., and General Manager of Human Resources Div..
Number of meetings convened in 2020	2

Education/Awareness Building

Employee Education

We held stratified and positional training, Headquarters Representative's Office training and external seminars in fiscal 2020, which has raised awareness about important topics such as human rights, compliance and harassment.

In fiscal 2021, we are expanding training for the purpose of solidifying our human rights policy throughout the entire Group worldwide.

Management Training on Creating Workplace Free of Harassment

The IHI Group conducted anger management training for everyone in a management role.

Number of Human Rights Training Participants

(Unit: People, Scope: IHI and affiliated companies in Japan)

Item	2017	2018	2019	2020
New and Third-year Employee Training (Group Stratified Training)	686	624	569	476
Instructor and Main Participants (Group Stratified Training)	637	679	784	555
Leader and Middle Manager Training (Group Stratified Training)	612	670	576	711
New foreman and assistant foreman (Group Positional Training)	116	109	151	140
e-Learning on Harassment	–	–	18,607	20,940

Human Rights

Initiatives

The IHI Group does everything in its power to ensure fair employment, fair labor practices, equal opportunities and a workplace free of harassment by promoting and respecting diversity and individuality.

Collaborative human rights measures with our business partners are preventing any human rights violations throughout all of our business activities, not just in the IHI Group but throughout the entire supply chain.

We monitor human rights on a daily basis and continually improve these measures through regular audits.

Human Rights Due Diligence

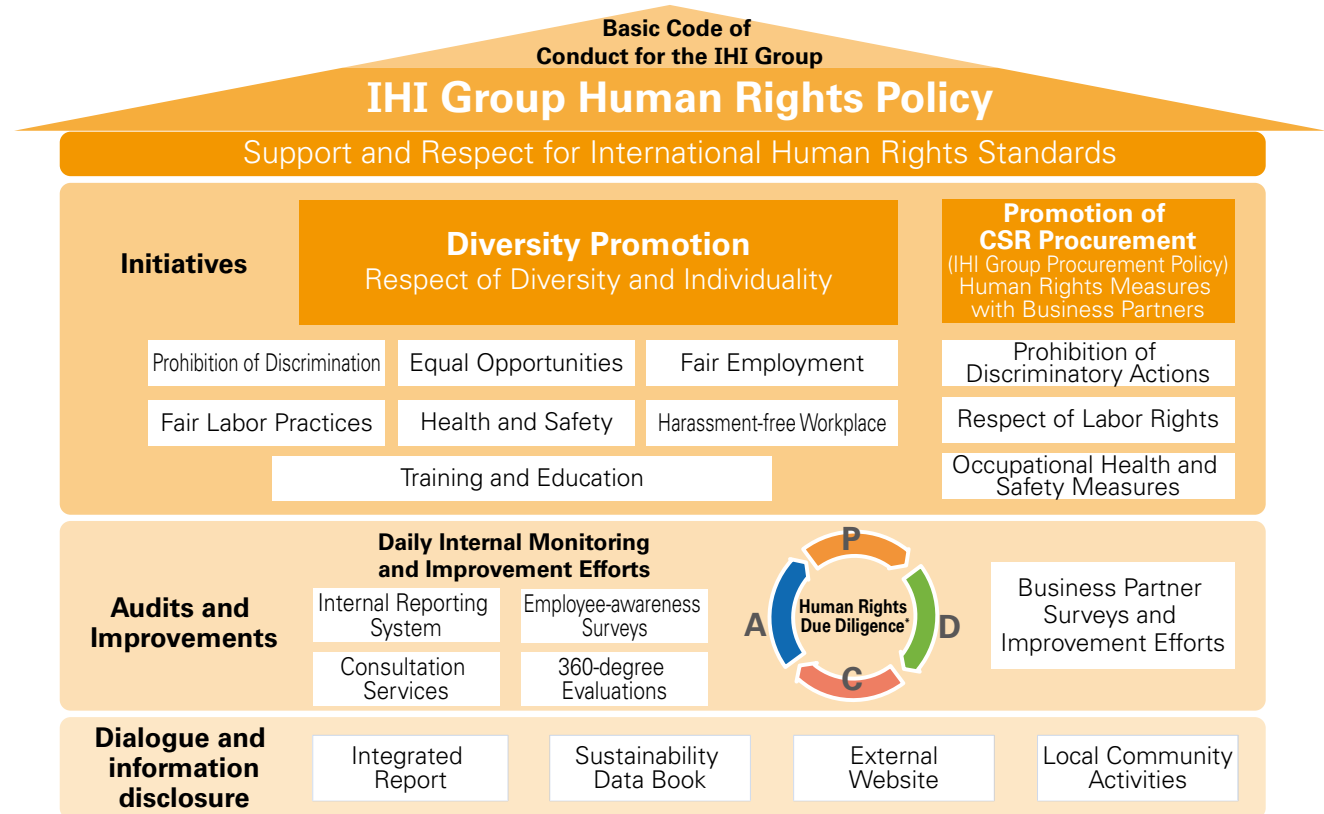
The IHI Group began human rights due diligence to fully understand, assess and eliminate the risks related to human rights.

In fiscal 2021, we identified and analyzed risks while seeking insight from external experts in an effort to reduce any potential and existing risks.

Freedom of Association and Respect for Collective Bargaining

The IHI Group recognizes the freedom of employees to unionize and work together as a labor union and union members. Our Group will never treat anyone involved in the union unfairly. We also engage in sincere collective bargaining efforts founded in a mutual trust between IHI and the labor union.

Human Rights Initiatives (Overall)



*We will develop a structure to understand and assess human rights risks and to evaluate and improve the effectiveness of our commitment.

Customer Relationships

Approach

The IHI Group fosters business growth by providing safe products and services to earn our customers' satisfaction and trust, and by contributing to the development of society. The quality of our products and services forms a bond of trust between the IHI Group, customers, and society. We perceive quality assurance as a social mission and as a foundation of our existence.

Education/Awareness Building

Employee Training and Education

Based on our management philosophy, "Human resources are our single most valuable asset," quality management and assurance systems have been established and conducted in order to improve customer satisfaction. Furthermore, to heighten employee awareness regarding product safety and to improve their skill level, a mandatory position-specific training is conducted for all employees as education and training. Our training program for first-year employees provides an opportunity to experience customer-oriented perspective to enable the employees to experience its importance from an early stage.

Third-year employee training emphasizes on ethics, the environment, and safety as a manufacturing company. Regular e-Learning programs raise awareness about internal rules and important laws and regulations. Each business area also provides their own independent training systems.

We have also designed systems to raise questions about legal compliance for the purpose of raising employee awareness. These systems also strive to mitigate risk.

Number of Training Participants

(Unit: People, Scope: IHI and affiliated companies in Japan)

Item	2018	2019	2020
Internal auditor training	105	74	31
Third-year employee training on quality management and product safety	352	314	211
Training seminars for newly-appointed foremen and assistant foreman of manufacturing divisions focuses on problem solving and issue achieving in quality management	101	316	136
Training related to quality and product safety (Three courses with a total of six classes)	472	354	87
Professional quality training	–	6	7

Initiatives

Customer Satisfaction Surveys

The IHI Group surveys customers' satisfaction through questionnaires and other avenues to gain customer feedback. We determine and inquire about aspects distinct to each business, and then analyze and share our findings with all relevant divisions. This information helps us adapt efforts to improve in order to further heighten customer satisfaction.

Ensuring Product Safety

Through risk assessment which considers the product life cycle during development, measures which reduce risks as much as possible are incorporated into product designs. We provide customers with information about any residual risk.

Disclosure of Information about Products and Services

The IHI Group discloses information about our products and services through various mediums, such as television and newspaper advertisements and the company homepage. This information helps familiarize the public at large about our company. We cooperate with all relevant internal departments to provide accurate information in accordance with copyrights, trademarks and all other relevant laws and industry regulations. The effectiveness of these advertisements are conducted to examine opportunities on areas of improvement.

Number of Law Violations

(Unit: Incidents, Scope: IHI and consolidated subsidiaries)

Item	2017	2018	2019	2020
Laws/regulations relating to PR activities	0	0	0	0

Customer Relationships

Emerging Market Initiatives

- **Research and Development in Emerging Markets**

- **China**

The IHI Group concluded a comprehensive partnership agreement with Tsinghua University in 1999, and Shanghai Jiao Tong University in 2000. Through these partnerships, we have conducted technology development in fields of fundamental technologies, including thermal fluid, combustion, applied physics/chemistry, material/strength properties, and rotating machineries for over 20 years.

Recently, we are focusing on development for technology related to carbon neutrality and environmental issues, aimed at resolving local social issues.

- **Southeast Asia**

The IHI Group uses sites in Southeast Asia for pre-commercial validation from proof-of-concept testing of algae biofuel in Thailand to proof-of-concept testing for biomass gasification technology in Indonesia. We also established IHI Solid Biomass Malaysia Sdn. Bhd. (ISBM) as an engineering site in Malaysia. This company drives the manufacture, export and sale of EFB pellets—a solid biomass fuel—derived from Palm Empty Fruit Bunches (EFB).

- **System to Feedback Knowledge into R&D for Emerging Markets (Reverse Innovation)**

Based on joint research with universities, workshops are conducted twice a year as means to return knowledge, gained from research and development activities in emerging markets, to developed markets.

This approach also assists the field of carbon neutrality and environmental issues by sparking innovational solutions that could not have been reached in Japan due to cultural and locational differences.

- **Measures to Secure Outstanding Human Resources for Emerging Markets**

This IHI Group encourages local recruitment in China, Southeast Asia and North America to secure outstanding human resources for emerging markets. As the domestic market grows in China, we have emphasized hiring of local people as Group employees. In fiscal 2018, four new members joined our management team. In fiscal 2020, one member has been promoted as a manager, totaling five managers. In fiscal 2021, one of the five managers has been promoted as a general manager.

We are also implementing initiatives to transfer employees with extensive experience who are in charge of research and development from developed markets. In April 2019, mid-level engineer from China was deployed to IHI (Shanghai) Management Co., Ltd. as a technical attaché. We strive to continuously strengthen industry-academia collaborations and accelerate the development of new technologies and businesses in the Chinese market throughout fiscal 2021.

- **Revision of Product Specifications for Emerging Markets**

The IHI Group revises specific products by considering factors such as local standards of emerging markets, usage conditions, and accessibility of components and materials.

The IHI Group procures components for universal and process compressors from China centered upon parts accessible in both Japan and China which offer the same performance, and parts with less impact on compressor function and quality.

To rapidly and flexibly respond to the needs of customers overseas, IHI-Sullair Compression Technology (Suzhou) Co., Ltd. in China and IHI Dalgakiran Makina Sanayi Ve Ticaret A.S. in Turkey are transitioning to local operations, including specification and pricing processes. In terms of specifications, the IHI Group offers material changes, additional coatings and other various options from gas absorption filters to compressor parts and cooling devices which consider the product usage environment.

Human Resource Management

Policies

The IHI Group recruits and trains human resources as the most vital management resource. Our management philosophy ensures that we contribute to the development of society through technology and states that human resources are our single most valuable asset. We strive to realize a healthy, safe, work-friendly environment where everyone respects one another and prospers.

Group Human Resource Management Policy

The IHI Group believes having common values among the employees are required to reform corporate culture as well as building workplaces and systems that empower people to reach their full potential. We drafted the Group Human Resource Management Policy to embed this basic approach to human resource management in the entire Group. This management policy expands various recruitment, assignment, development, and evaluation measures according to key group, global and diversity attributes for ideal human resources.

Group Human Resource Management Policy

The IHI Group aims to create customer value by using engineering expertise to focus on manufacturing technology in line with the management philosophy and IHI Group Vision through the following:

- 1. IHI will define and raise awareness about ideal human resources shared by all Group employees to become an enterprise of professionals with excellent skills from perspectives of global manufacturing and engineering technologies as well as high quality products and services renowned worldwide.**
- 2. IHI will establish and carry out human resource management measures based on ideal human resources and provide Group employees with growth opportunities.**
- 3. IHI will provide a work environment where people of diverse backgrounds are in tune with the management philosophy and Group Vision of IHI and can reach their full potential.**

Ideal Human Resources

Integrity and Trust

For Customers and Society

Innovation and Creation

Teamwork

World-class Professional

Keywords

Group

Global

Diversity

Education/Awareness Building

Global Standardization of the Human Resource Management Policy

The IHI Group has created a video to present the ideal attributes of human resources as a way to standardize the human resource management policy to overseas employees. In this video, IHI Group employees from around the world discussed the concepts and episodes behind these ideal attributes during an online meeting, and this video is used widely for educational purposes and recruitment activities.

Human Resource Management

Initiatives

Revisions to the Human Resource Treatment Policy

In October 2020, the IHI Group revised the personnel treatment policy to not only mobilize Group human resources but also ensure proper treatment and Group-wide promotions of outstanding human resources which puts the right person in the right job. The revised policy adopts common Group-wide criteria set according to the role and responsibility of each position and standardizes the evaluation and compensation system throughout the IHI Group to flexibly deploy human resources.

Fair and Equal Treatment

The IHI Group strives for fair and equal treatment according to position and responsibilities of the employees, with a focus on performance and achievement. There is no discrimination based on gender.

Our basic policy is not to simply comply with the minimum wage globally, but rather provide a higher living wage.

Social Welfare Programs

Our non-statutory social welfare programs provide a variety of options employees can choose from as a way of supporting the needs of a diverse labor force including basic welfare such as residential and financial support to childcare, nursing care, education, recreation, and other various options.

Employee-awareness Surveys

The IHI Group conducts employee-awareness survey targeting all employees once a year to grasp the status of the employee engagement. Results of the survey are analyzed for each department and employee status to highlight the strengths and issues, reflect them in human resource measures of each department, and improvement of operational processes.

Results

Number of Employees

(Unit: People, Scope: IHI and consolidated subsidiaries)

Item		2017	2018	2019	2020
Consolidated Number of employees		29,706	29,286	28,964	29,149
IHI	Number of employees	8,256	8,011	7,741	7,796
	Male	7,245	6,994	6,730	6,766
	Female	1,011	1,017	1,011	1,030
	Ratio of female employees	12.2%	12.7%	13.1%	13.2%

Number of Employees by Region

(Unit: People, Scope: IHI and consolidated subsidiaries)

Item	2017	2018	2019	2020
Japan	22,667	21,862	21,700	21,778
Asia Pacific	3,888	4,213	4,141	4,132
USA	1,244	1,352	1,292	1,122
Europe, Middle East, and Africa	1,907	1,859	1,831	2,117

Number of Employees by Business Area

(Unit: People, Scope: IHI and consolidated subsidiaries)

Item	2017	2018	2019	2020
Resources, Energy & Environment	7,579	6,467	6,812	6,595
Social Infrastructure & Offshore Facilities	2,290	2,359	2,399	2,469
Industrial Systems & General-Purpose Machinery	9,946	10,220	10,079	10,028
Aero Engine, Space & Defense	6,463	6,660	6,684	6,765
Other	2,458	2,619	2,014	2,320
Entire company (common)	970	961	976	972

Number of Employees by Age

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Under 30	1,930	1,780	1,612	1,520
30 to 39	2,285	2,277	2,198	2,313
40 to 49	2,274	2,171	2,119	2,078
50 to 59	1,290	1,389	1,462	1,575
60 and over	477	394	350	310

Human Resource Management

Number of Employees by Employment Status

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Regular employees	7,938	7,678	7,410	7,447
Male	6,958	6,694	6,438	6,456
Female	980	984	972	991
Ratio of female employees	12.3%	12.8%	13.1%	13.3%
Re-hires	83	84	88	93
Male	83	84	88	92
Female	0	0	0	1
Ratio of female employees	0.0%	0.0%	0.0%	1.1%
Second by other companies	235	249	243	256
Male	204	216	204	218
Female	31	33	39	38
Ratio of female employees	13.2%	13.3%	16.0%	14.8%
Constants and contract employees	131	83	91	107
Male	125	77	86	102
Female	6	6	5	5
Ratio of female employees	4.6%	7.2%	5.5%	4.7%
Part-time employees	470	498	496	476
Male	71	85	90	85
Female	399	413	406	391
Ratio of female employees	84.9%	82.9%	81.9%	82.1%
Fixed-term employees	43	106	101	81
Male	28	84	85	64
Female	15	22	16	17
Ratio of female employees	34.9%	20.8%	15.8%	21.0%
Temporary employees	1,322	1,325	1,330	956
Male	1,038	1,034	1,046	753
Female	284	291	284	203
Ratio of female employees	21.5%	22.0%	21.4%	21.2%

Turnover Rate

(Scope: IHI)

Item	2017	2018	2019	2020	
Total turnover rate	4.0%	4.3%	3.5%	2.9%	
Rate of retirement due to personal reasons	2.0%	2.0%	2.0%	1.1%	
Rate of retirement due to personal reasons by age	Under 30	4.4%	4.6%	4.9%	3.1%
	30 to 39	1.8%	2.3%	2.3%	1.2%
	40 to 49	1.0%	0.9%	0.8%	0.3%
	50 to 59	2.9%	2.7%	2.3%	2.2%
Turnover rate within 3 years of joining the company	5.7%	7.4%	6.8%	4.3%	

Average Years of Service

(Unit: Year, Scope: IHI)

Item	2017	2018	2019	2020
All employees	14.8	14.9	15.8	15.1
Male	15.1	15.1	16.0	15.3
Female	12.5	13.2	14.5	14.2

Ratio of Answered Employee-awareness Surveys

(Scope: IHI and affiliated companies)

Item	2017	2018	2019	2020
Ratio of answered employee-awareness surveys	90.9%	91.7%	91.4%	88.0%

Employees union membership rate

(Unit: %, Scope: IHI and 7 labor unions of consolidated subsidiaries)

Item	2017	2018	2019	2020
Employees union membership rate	74	73	73	72

Number of Labor Complaints Received

(Unit: Reports, Scope: IHI)

Item	2017	2018	2019	2020
Number of Labor Complaints Received	0	0	0	0

* To quickly and fairly respond to labor complaints from employees, IHI established a committee in accordance with labor agreements.

Diversity and Inclusion

Approach

The IHI Group advocates diversity as an important keyword in the Group Human Resource Management Policy and actively promotes diversity as part of its management strategy.

A workplace where people with diverse backgrounds and values can reach their full potential cultivates an organizational climate that embodies broad views and brings about innovation and creation. More specifically, we are spearheading efforts to empower women as senior management candidates while leveraging the broad perspectives and ideas of young up-and-coming staff. We also help encourage opportunities both inside and outside of the company as a way to provide broader experiences and open minds.

The IHI Group has always promoted mid-career recruitment as well as the active participation of women, foreign nationals, people with disabilities, and employees past retirement age. We are further advocating diversity from supporting work-life balance for employees raising children or taking care of sick family to the active participation of LGBTQIA+ gender minorities.

Targets and Results

Diversity Targets and Results

KPI	Targets	Target Year	2020 Results
Ratio of female employees	University graduates: 15% or more	Continuous target (to be revised in future)	University graduates: 16.5%
Ratio of female managers	2.5 times the number of female managers (4.0%) compared to 2014	2022	3.4%
Female officers	Participation in Keidanren's Challenge to 30% by 2030 (activities to increase the proportion of female directors to more than 30% by 2030)	2030	18%
Ratio of Employees with Disabilities	2.4%	2021	Steadily exceeds 2.3%
Promotion of male employees to take childcare leave	Promote all applicable male employees to take childcare leave of at least a week, and promote 2 or more weeks	2022	–

Diversity and Inclusion

New Graduate Recruitment Results

(Unit: People, Scope: IHI, University graduates)

Item	2017	2018	2019	2020
Total	245	158	153	194
Male (Engineers)	174	113	95	133
Female (Engineers)	19	7	16	6
Male (Administrative)	36	25	28	29
Female (Administrative)	16	13	14	26

Mid-career Recruitment Results

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Number of recruits	87	66	77	55
Recruitment rate	21%	23%	23%	16%

Female Recruitment Rate

(Scope: IHI, University graduates)

Item	2017	2018	2019	2020
Female recruitment rate	14.3%	12.7%	19.6%	16.5%

Number of Officers*¹

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Total	19	17	16	17
Male	16	13	13	14
Female officers (outside)	3 (3)	4 (3)	3 (2)	3 (3)

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

Ratio of Female Officers*²

(Scope: IHI)

Item	2017	2018	2019	2020
Ratio of female officers	16%	24%	19%	18%

*2 As of July 1 each year, members of the Board of Directors and Audit & Supervisory Board.

Number of Managers*³

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Total	2,626	2,643	2,767	2,732
Male managers	2,558	2,569	2,684	2,640
Female managers	68	74	83	92

*3 As of April 1 each year

Ratio of Female Managers*⁴

(Scope: IHI)

Item	2017	2018	2019	2020
Ratio of female managers	2.6%	2.8%	3.0%	3.4%
Ratio of general managers	0.8%	0.8%	0.8%	0.8%
Ratio of section managers	1.8%	2.0%	2.2%	2.5%

*4 As of April 1 each year

Number of Employees and Managers from Abroad*⁵

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Number of employees	86	89	81	82
Number of managers	6	8	10	13

*5 As of April 1 each year

Number of Managers that Joined IHI Mid-career*⁶

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Number of managers	184	204	220	234

*6 As of April 1 each year

Diversity and Inclusion

Local Managers at Overseas Sites*7

(Unit: People, Scope: China, Singapore, and USA)

Item	2017	2018	2019	2020
Total	23	22	23	22
China	1	4	4	5
Singapore	12	8	7	6
United States	10	10	12	11

*7 As of April 1 each year

Ratio of Employees with Disabilities*8

(Scope: IHI)

Item	2017	2018	2019	2020
Ratio of employees	2.03%	2.21%	2.39%	2.35%

*8 As of June 1 each year

Re-employment rate of employees at retirement age

(Scope: IHI)

Item	2017	2018	2019	2020
Re-employment rate of employees at retirement age	87%	84%	81%	81%

Work Hours

(Unit: Hours, Scope: IHI)

Item	2017	2018	2019	2020
Monthly average overtime	22.90	22.50	21.10	13.00
Annual work hours	2,024.60	2,003.30	1,967.80	1,797.90

Average Annual Paid Vacation Days Taken

(Unit: Days, Scope: IHI)

Item	2017	2018	2019	2020
Average annual paid vacation days taken	17.63	18.36	19.40	18.73

Leave Acquisition Rate

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Employees who have used the reduced work hour program	159	158	161	139

Item	2017	2018	2019	2020
Employees who have taken childcare leave	677	689	779	768
Employees who have taken parental leave	Total	100	118	131
	Female	99	110	110
	Male	1	8	21
Percentage of employees who return to work after parental leave	100%	100%	99.2%	100%
Employees who have taken nursing care leave	18	6	7	2

Ratio of Male Employees that Took Childcare Leave (1 Week or More)

(Scope: IHI)

Item	2017	2018	2019	2020
Ratio that took leave	22.1%	25.2%	28.6%	26.5%

Training Participants

(Unit: People, Scope: IHI and affiliated companies in Japan)

Item	2017	2018	2019	2020
Active participation of women*9	133	148	116	–
Active participation of persons with disabilities	–	–	160	140
Work-life balance of employees raising children	–	34	134	53
Work-life balance of employees taking care of sick family	–	–	400	290

*9 Activities postponed in fiscal 2020 due to the impact of the COVID-19 pandemic.

Participants in Training to Cultivate Local Managers at Overseas Sites

(Unit: People, Scope: China and Asia Pacific region)

Item	2017	2018	2019	2020
Participants	25	36	42	–*10

*10 Activities postponed in fiscal 2020 due to the impact of the COVID-19 pandemic.

Diversity and Inclusion

Initiatives

Mid-career Recruitment

The IHI Group actively pursues mid-career candidates as diverse human resources with a wealth of experience outside of its organization. Flexible and timely employment of human resources who have the capabilities demanded of our businesses and technological strategies are crucial in an ever-changing business environment. Our avenues to recruit human resources go beyond the regular hiring of new graduates to a variety of other channels leading to truly diverse human resources with the experience and expertise essential to our businesses.

Empowering Female Employees

The IHI Group executes a wide range of initiatives to help better develop the careers of all female employees. These initiatives not only recruit and develop outstanding human resources to promote to middle and top management but also define various goals to build a workplace environment where everyone can actively participate. Workshops and seminars are only a few examples of these efforts.

Network Leader Training helps female employees build a network of professionals around them centered upon female managers who act as real-life role models. In addition, we hold seminars taught by guest instructors as a way for women to forge a career path as managers. These seminars provide the guidance and coaching of supervisors to help female employees advance their careers while considering major life events.

Empowering Employees from Abroad

The IHI Group strives to create workplaces motivating fantastic employees to fully realize their potential regardless of their nationality. This includes broad assistance for foreign nationals working in the IHI Group. We offer a variety of training opportunities to enhance communication skills in Japanese while events such as those to encourage multicultural exchanges build broader professional networks. These are just some of the many things IHI does to promote work-friendly environments where foreign nationals can utilize all of their skills.

Empowering Local Employees Overseas

The IHI Group is working to accelerate global expansion. Overseas, we recruit and nurture human resources with roots in the community according to the Group Human Resource Management Policy while considering the unique labor market and practices of each country. Our human resource development programs offer training to cultivate local managers, which also strengthens our Group management capabilities. Moreover, we emphasize the development of global procurement officers and advance training programs for local staff.

Empowering Persons with Disabilities

The IHI Group promotes the active participation of people with disabilities. We have put in place assistance programs, such as specialized support staff, across all occupations and aspects of life in society. We also support career advancement of each employee in addition to guidance and coaching by superiors. The IHI Group held its 2nd Group-wide Diversity Challenge Lecture for employees with disabilities and their supervisors in 2020, which emphasized the active participation of all. The IHI Group will always empower persons with disabilities aware everyone can reach their full potential with the right support and understanding in the workplace.

Building an Inclusive Workplace Regardless of Sexual Orientation or Gender Identity

The IHI Group is promoting to create a working environment where LGBTQ+ employees can reach their full potential. As part of our support for gender minorities, we provide employment programs, corporate dormitories, and other benefits as well as raising awareness about gender minorities through an ally program and other networking and enlightenment opportunities.

Empowering People Over 60

IHI Group promotes the active participation of employees at retirement age in many different ways. We have adopted a program for each employee to decide when to retire between the ages of 60 to 65. Approximately 80% of our employees who have reached the age of 60 decide to continue working in their present position. Programs to capitalize on the high level of expertise and skill also create a framework to better encourage employees at retirement age to play a greater role.

Hiring Temporary Employees as Regular Salaried Employees

IHI has put in place a system to hire temporary workers as regular salaried employees. This program lays a path for temporary employees who satisfy certain criteria to request a regular salaried position.

Diversity and Inclusion

Providing Opportunities to Gain Diverse Experience

The IHI Group continually enhances the workplace to ensure human resources with diverse backgrounds, experience and views have a means to fully leverage their skills. We offer programs to nurture broader experiences and open minds as well as a wide range of opportunities.

• Employment

The IHI Group clearly defines the type of work and human resources critical to business and technical strategies which will realize its long-term business vision. This demands a strategic mix of new graduate and mid-career recruitment. We hire around the globe throughout the year while expanding the scope of our recruitment channels.

• Transfer

The IHI Group rotates staff between departments, dispatches employees to external training programs as well as to partner companies, government agencies and startups. Our staff also participates in joint development projects with other companies, universities, and research institutes, which are just some of the many ways in which IHI provides access to a variety of experiences and differing viewpoints. To help facilitate the career development plans defined by each employee, we also recruit constantly from within the Group (career challenge).

• Training

The IHI Group provides opportunities to gain broader experiences and an open mind through active human resource exchanges outside the organization, such as external training and events as well as participation in various academic societies.

• Concurrent In-house Positions and Side Businesses Outside IHI

The IHI Group encourages everyone to gain broad experience both inside and outside the organization. We support employees to have concurrent positions inside IHI and side businesses (second jobs) outside of it in the hope of leveraging diverse viewpoints and ideas in management. Some examples include a second job as an advisor on university reforms or industry-university collaborations as well as concurrent in-house positions developing image recognition technologies or applications using AI and SNS. As of fiscal 2020, our employees have registered about 50 different side businesses and roughly 80 concurrent positions.

Work-Life Balance

• Creating New Working Style

The IHI Group strives to realize work-life balance to achieve a work-friendly environment where every employee can find balance between their personal and professional lives.

For example, we are promoting more effective and flexible working style by reforming the way in which work is done through actively leveraging ICT and taking full advantage of all employment programs.

• Work-Life Balance Programs and Consultation Services

The IHI Group has put in place various hard and soft support programs to help employees actively participate in the company while raising children, taking care of sick family or undergoing treatment for an illness of their own. We publish handbooks and leaflets to raise awareness and promote use of these support programs, hold seminars by external lecturers, and have set up a consultation desk with outside experts who can provide support based on the circumstances and needs of each individual.

Diversity and Inclusion (Human Resource Development)

Approach

The IHI Group places cultivating ideal human resource attributes as the pillar of human resource development and lays out educational systems, curriculum and training plans for individuals in each department.

We also support each employee's continuous effort for independent career development and growth so they can achieve their career plans.

In addition, we provide four main growth opportunities—career development support, on-the-job training, off-the-job training, and transfers to new business assignments—so every person can put in the work to develop these skills and advance their careers and promote human resource development remains consistent with evaluations and appointments

P47 Human Resource Management

Career Development Program (CDP)

The IHI Group has introduced a Group-wide Career Development Program (CDP) in fiscal 2019 as a training system tailored to the career of each employee. Consultation with a superior based on individual employee's career plan (future design) is held to discuss what challenges and training each employee must undertake to achieve their career plan.

Though this initiative, we are supporting each employee to be able to independently think about their career plan as well as offer opportunities to grow through work and training so that they can continue their growth.

Career Development Program (CDP)

Considering an Independent Career Plan

- Support of Career Development and Changes

Discovery and Ongoing Learning

- Education According to Development Goals



Accelerating Growth Heightening Motivation and Satisfaction

- Coaching to Accelerate Individual Growth (Supervisor Support)
 - ✓ Common organizational vision
 - ✓ Clear development plan and mission
 - ✓ Common development goals

Bringing Out the Skills and Growth of Each Person

- Opportunities to Gain Diverse Experiences and Learn Broad Viewpoints

Diversity and Inclusion (Human Resource Development)

Human Resource Development Program

The IHI Group has been revising its human resource development programs during fiscal 2021. Our aim is a workplace where everyone can reach their full potential. That is why we migrated our educational programs from conventional education emphasizing training by level and position to one more focused on career development support programs and voluntary/independent selective training which helps to accelerate growth and foster ongoing learning. An environment of ongoing independent learning helps expand the potential for everyone to fully participate.

Initiatives to Develop Diverse Human Resources

The IHI Group provides common education programs for diverse human resources to grow and actively participate from training programs which groom human resources as management to new employee training (new graduates/mid-career recruits) and positional training for new key and managerial employees as well as assistant foremen. Employees take part in courses to learn global communication skills and gain cultural competency before taking a post overseas while strategically accumulating experience at overseas production plants and in major projects through our global human resource development programs.

IHI Group Education and Training Programs

(As of April 1, 2021)

	Management Training		Professional Human Resource Training	Career Development Support	Voluntary/Independent Selective Training	Positional Training	Global Human Resource Development Training	Diversity
	Common	Specialist Course						
Managers	External Training (Executive Training, Cross Industry Exchanges, Study Abroad Programs, MBA, etc.)	Senior Executive Program	Executive Specialist Program	Career Management Training Career Design Seminar (By Stage of Career)	IHI-University (Approx. 300 Courses) Technical Skills (Specialist Courses) Business Skills Mental Fitness and Liberal Arts Communication Skills	New Manager Training	Global Human Resource Training (Overseas Assignments, etc.)	Diversity Seminars (Work-life Balance Training) External Training and Cross Industry Exchanges
		Executive Manager Program	Specialist Program					
Workplace Leaders		Business Leader Program (Advanced)						
Senior Employees		Business Leader Program (Basic)				Supporter Training New Employee Training Foreman Training Assistant Foreman Training		
Junior Employees								

Elective Training
Selective Training
Positional Training

Diversity and Inclusion (Human Resource Development)

Results

Participants in Main Training Courses and Total Number of Training Hours

(Scope: IHI and affiliated companies in Japan)

Item	2017	2018	2019	2020
Stratified Training				
Participants	2,900	3,300	3,276	1,882
Training Hours	101,000	112,000	106,208	34,672
Open Lecture				
Participants	5,800	6,200	3,343	1,948
Training Hours	44,000	47,000	25,073	16,358
Average Annual Training Hours per Employee				
Training Hours	16.7	16.7	19.8	13.3

* In 2020, some training was postponed due to the effects of the COVID-19 pandemic.

Employees Certified as Master Artisans

(Unit: People, Scope: IHI)

Item	2017	2018	2019	2020
Number of employees certified	42	37	41	39

Initiatives

Career Development Support Program

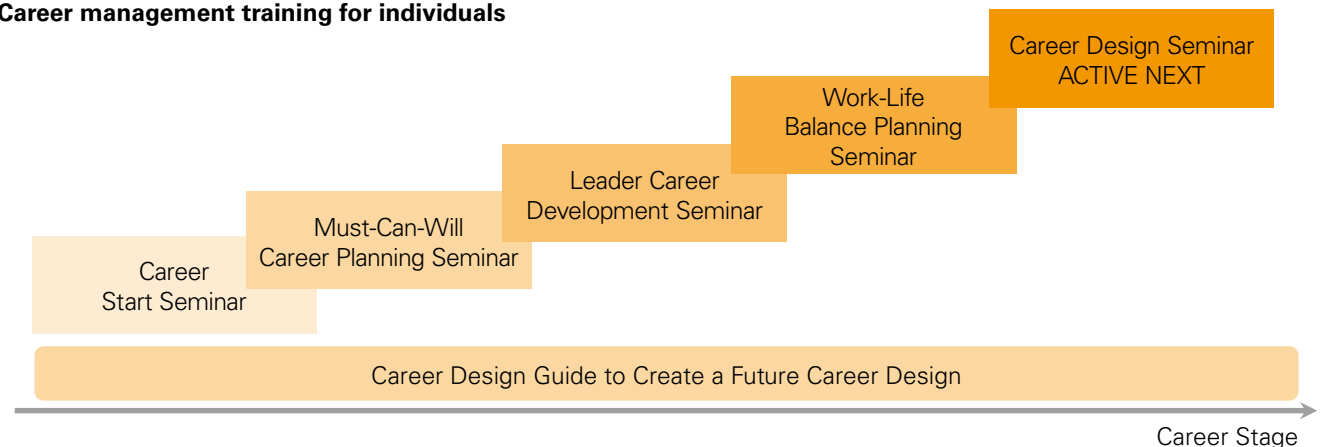
The IHI Group capitalizes on the Career Development Support Program as both an initiative to build a workplace where everyone can actively participate and to support the career design. Based on this program, we hold Career Design Seminars tailored to each career stage to help our employees consider and execute their plans for developing the skills necessary to better advance their

careers in the next five to ten years.

To go one step further toward realizing these career plans, we also strive to provide career management training to supervisors (understanding about career theories and enhanced coaching skills) because IHI is well aware the support of superiors is crucial.

Career Development Support Program

Career management training for individuals



Career management training for supervisors

Coaching Guide to Support Independent Career Development and Career Management Seminar, etc.

Diversity and Inclusion (Human Resource Development)

Independent Selective Training

The IHI Group put together full-fledge independent selective training in fiscal 2021 as a framework for each employee to choose and learn various subjects anytime anywhere according to their career plan. This training system provides over 300 different in-house

technical, business and communication skill courses designed to help employees consider and take the initiative to gain the knowledge and skills necessary to achieve their career plan.

Voluntary/Independent Selective Training

Selective training (IHI-University)

Technical Skills (Approx. 200 courses)	Business skills (Approx. 70 courses)	Communication skills (Approx. 20 courses)
Physics/Chemistry Materials/Structures Heat/Fluids/Combustion Turbo Systems/ Mechanical Elements/Vibrations Production Processes Control/Sensing Project Management Intellectual Property Sales Procurement	Management Policy Sustainability/ESG Quality/Compliance DX Design Thinking Business Models Marketing Problem Solving/PDCA Finance/Accounting Engineering and Manufacturing Company Basics Management	Business Communication Team Building Coaching
		Mind (Approx. 30 courses)
		Philosophy Leadership Motivation Diversity

• Relearning

We are expanding training programs for actively "relearn" knowledge and skills that are required to respond to the changing business environment and technological innovation.

As increase of job mobility and optimum appointment is under progress, we offer support programs that enable employees to quickly play an active role.

• Passing Down Skills to Others

IHI strives to pass down welding, machining, and other core skills at each plant, which are the foundation of our manufacturing expertise. Many of our employees are experts in each of these fields. IHI has introduced a master artisan program to encourage employees certified as master artisans to pass on their skills to new up-and-comers.

• IHI Human Resources Development & Communication Center

We use the I-STEP Shonan IHI Human Resources Development & Communication Center (Yokosuka City, Kanagawa) for training and various meetings joined by Group employees from around the world. The Center is a base that promotes active communication and learning and where IHI Group colleagues from each corner of the globe can come together to share our corporate philosophy and values.

Labor Practice (Occupational Health and Safety)

Policies

Ensuring health and safety is foundation of our business activities and one of the extremely important management issues. Every month, IHI shares the progress of Group-wide occupational health and safety as well as health management to all officers. We actively strive to build a work-friendly environment where all Group employees can reach their full potential. The initiatives on the right are undertaken according to the IHI Health and Safety Policy as a way to ensure a safe and healthy workplace for everyone who works with the IHI Group whether Group or partner company employees.

IHI Health and Safety Policy

1. The "Five Safety Principles" will be taken as a principle shared throughout the Group and managers as well as all employees will engage in safety and health activities to prevent accidents.

[Five Safety Principles]

- Safety is our first priority
 - Never do or let anyone else do anything dangerous
 - Eliminate potential hazards
 - Strictly follow the rules
 - Make a real effort
2. We will endeavor to prepare facilities and provide opportunities to promote and maintain the mental and physical health of our employees, and create ideal workplaces in which employees can work in good health.
 3. While complying with relevant laws and regulations on safety and health, we will give full consideration to how our business activities affect local communities and endeavor to ensure safety and health as a member of society.

Labor Practice (Occupational Health and Safety)

The IHI Group will implement management that values the health of employees based on the management philosophy of “Human resources are our single most valuable asset.”

We will support the proactive improvement of employee health and aim to energize the organization by maximizing employee vitality and capabilities. By doing this, we will contribute to the development of society through the growth of the IHI Group.

July 1, 2020
Hiroshi Ide
President and Chief Operating Officer
IHI Corporation

Specific Initiatives

The IHI Group will work on both corporate health management and work style reforms. We will actively cooperate with labor unions and health insurance associations to spearhead the key measures below.

IHI asks every employee to strive to better their own health and take part in building an enthusiastic working environment.

1. Reduce individual and organizational health risks.
 - (i) Enforcement of working conditions according to the results of medical check-ups.
 - (ii) Ensure the implementation of reactive mental healthcare measures.
(Improve the working environment through stress checks and a clear response to illnesses.)
 - (iii) Encourage employees to stop smoking and prevent second-hand smoking.
2. Improve individual and organizational health to invigorate the working environment.
 - (i) Assist each person to actively manage their own health.
 - (ii) Proactively implement active mental healthcare measures.
(Build a working environment where enthusiasm and professional growth is felt so that everyone cultivates an enduring spirit.)
3. Promote better health for both employees and their families.
 - (i) Expand activities to better health of employees and their families.
 - (ii) Increase employee participation in medical check-ups and health guidance.

Structure

Occupational Health and Safety Structure



IHI Group Health and Safety Committee

Chairperson	Officer in charge of Health and Safety
Deputy Chairperson	President of Social Infrastructure & Offshore Facilities Business Area, President of Industrial Systems & General-Purpose Machinery Business Area and President of Aero Engine, Space & Defense Business Area
Members	President of Resources, Energy & Environment Business Area, General Manager of Technology & Intelligence Integration, General Manager of Human Resources Division and other persons nominated by the chairperson
Secretariat	Human Resources Division
Meetings convened in 2020	1

Labor Practice (Occupational Health and Safety)

Education/Awareness Building

Employee Training and Education

The IHI Group provides education on health and safety specific to each position to everyone from new employees to management.

Work division employees undergo Supervisor Safety Training (SST) to learn about health and safety when promoted to assistant foreman or foreman.

Design and development employees on construction sites undergo Construction Safety Standard Training (CSST) to learn the ins and outs of construction health and safety as new and senior employees or group leaders and management.

Employees who are candidates for construction site director or supervisor undergo Site Manager Safety Training (SMST) to learn about on-site health and safety. We also provide follow-up training thereafter to expand knowledge about health and safety. The IHI Group also cultivates trainers for the SST, CSST, and SMST programs as a Group.

In addition, the Health and Safety Committee constantly reflects feedback from employees based on standards laid out in the occupational health and safety management system at Works and research facilities.

IHI Group Health and Safety Training System

Position		Training Hours (Estimate)			
		New Employees	Senior Employees	Section Managers	General Managers, etc.
Work Division Employees		New Employee Training	SST-I Assistant Foreman Health and Safety Training SST-II Foreman Health and Safety Training, etc.	New Manager Training	Managers Follow-up Training, etc.
Construction	Design, Development, etc.	New Employee Training CSST New Employee Training Course	CSST Senior Employee Training Course CSST Group Leader Training Course	Basic CSST Manager Training Course	CSST Business Area President/General Manager Training Course
	Director/supervisor (On-site)		Basic SMST Training Course (Newly appointed foremen/ inspectors) Group-wide SMST Follow-up Training Course (Basic training course taken the following year) SMST Follow-up Training Course (Once every one to three years)	Basic SMST Manager Training Course	

Note: SST stands for Supervisor Safety Training.

CSST stands for Construction Safety Standard Training.

SMST stands for Site Manager Safety Training.

Training Participants

(Unit: People, Scope: IHI and affiliated companies in Japan)

Item	2017	2018	2019	2020
Foreman training	33	26	48	50
Assistant foreman training	85	83	103	90
Technical leader training	–	33	165	–
Basic Site Manager Safety Training (SMST) Course (Graduates)	246	260	169	125
Supervisor Safety Training (SST) and SMST Trainer Course (Graduates)	13	31	18	–

* Training in 2020 was postponed due to the effects of the COVID-19 pandemic.

Labor Practice (Occupational Health and Safety)

Targets and Results

Occupational Accidents*1

(Unit: Incidents (figure inside parentheses indicates fatal incidents),
Scope: IHI and 31 affiliated companies)

Item	2017	2018	2019	2020
Total	87(1)	55(0)	71(0)	38(0)
Employees	52(0)	28(0)	42(0)	18(0)
Temporary employees	4(0)	4(0)	4(0)	1(0)
Partners	31(1)	23(0)	25(0)	19(0)

*1 Fatalities caused by occupational accidents

Occupational Health and Safety Rate (2020)

Item		Targets	Results
Total injuries frequency rate	Works Divisions	Under 0.7	0.62
	Construction Divisions	Under 1.2	1.31

Total Injuries Frequency Rate*2

(Unit: Incidents, Scope: IHI and 31 affiliated companies)

Item	2017	2018	2019	2020
Total injuries frequency rate	1.64	1.11	1.49	0.87

*2 Fatalities or injuries caused by occupational accidents per million working hours

Lost Time Injuries Frequency Rate*3

(Unit: Incidents, Scope: IHI and 31 affiliated companies)

Item	2017	2018	2019	2020
IHI Group Average	0.57	0.26	0.40	0.28
National average in manufacturing industry*4	1.02	1.20	1.20	1.21

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

*4 Scope: Business sites with at least 100 people (sample survey)

Health Management

(Scope: IHI and 35 affiliated companies)

Item	2017	2018	2019	2020
Participation rate of medical check-ups	69%	70%	71%	72%
Participation rate of stress checks	91%	96%	94%	95%
Absenteeism(Employees who take three or more months of leave)	0.9%	0.9%	1.0%	0.8%
Presenteeism (Employees with restricted hours)	1.6%	1.7%	1.6%	2.1%
Smoking rate	28%	28%	27%	27%

Rate of Occupational Diseases*5

(Unit: Incidents, Scope: IHI and 35 affiliated companies)

Item	2017	2018	2019	2020
Rate of occupational diseases	-	0.165	0.165	0.15
Deaths due to occupational diseases or illnesses	-	-	-	0

*5 People suffering from occupational diseases per million working hours (poor mental health/broken bones)

Labor Practice (Occupational Health and Safety)

Initiatives

Health and Safety Management

The IHI Group is committed to eradicating occupational accidents through Five Safety Principles that act as a Group-wide code of conduct.

We assess risk at our works and construction sites to identify and mitigate potential hazards through strict verifiable countermeasures. We conduct regular health and safety training for all of our employees to eradicate occupational accidents. We give support to business partners at works and construction sites to improve health and safety management in a cooperative effort to ensure safe working environments. We carry out these health and safety initiatives as part of the occupational health and safety management system.

• Activities to Reduce the Risk of Occupational Accidents

The IHI Group promotes health and safety activities after defining occupational health and safety policies, targets and plans according to the standards set by the occupational health and safety management system. Our annual occupational health and safety management evaluations also drive improvements to eradicate occupational accidents.

We define items requiring our attention as well by identifying dangers and hazards related to machinery, facility, chemicals and other such factors in order to reduce and eliminate them.

We rolled out IHI Group Basic Safety Rules for the six most common types of occupational accident in fiscal 2020 and are focusing on eradicating these occupational accidents throughout the entire IHI Group.

Occupational Health and Safety Management Priority Items and Measures

Occupational Health and Safety Management

Focus on following measures

to create a workplace that prioritizes safety with active participation of managers of business divisions.



IHI Group Basic Safety Rules

1. Falls from high places
2. Falls from medium and low places
3. Pinching or entanglement in machinery or devices
4. Pinching when handling heavy objects
5. Accidents when using hand tools
6. Accidents when using grinders

• Investigation Procedures and Observations in the Event of an Occupational Accident

The IHI Group assesses and analyzes factors of any occupational accidents through Group-wide disaster investigation procedures. The use of standardized accident report formats quickly shares information about an accident in the Group. An analysis and evaluation of the accident information collected helps put in place measures to prevent any recurrence of the same or similar accidents throughout the Group.

Labor Practice (Occupational Health and Safety)

Health Management

The IHI Group believes building a working environment where employees can work with both motivation and enthusiasm helps improve personal productivity and invigorates the workplace. We strive for both physical and mental health management.

Our mental health education takes both reactive approaches, such as detailed follow-up with individuals suffering from mental illness, programs to help employees return to work, and reintegration programs, as well as active approaches, such as education to teach mental toughness to improve motivation and performance. These educational programs aim to build an enthusiastic workplace for everyone from new employees to senior management.

We also provide additional health measures to improve lifestyle habits and prevent metabolic syndrome, smoking and other such lifestyle illnesses.

• Activities to Promote Health Management

The IHI Group engages in activities that heighten the well-being* of Group employees and the organization as a way to accomplish the reforms that achieve a business constitution overcoming an ever-changing business climate advocated in the Project Change.

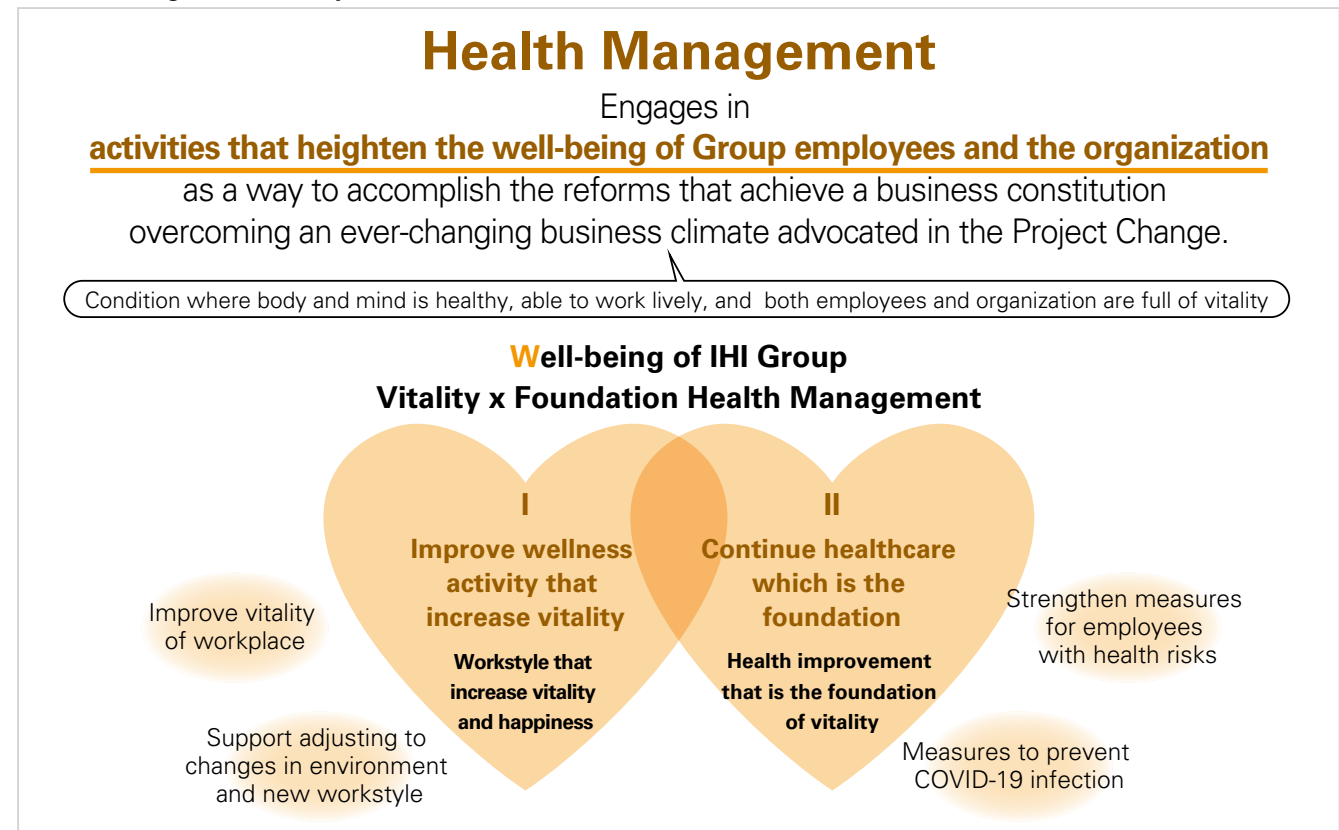
In fiscal 2021, we selected 150 trial workplaces for well-being improvement and promoting activities to improve the workplace with a focus on management and communication.

* Well-being refers to not only the mental but physical health of employees so that every person can feel motivate and be active both in their personal and professional lives.

• Main Dialogue Between Employee Representatives and Management on Health and Safety

The IHI Group convenes the Central Health and Safety Committee every year to engage in a labor-management dialogue about employee health and safety.

Health Management Priority Items and Measures



Preventing the Spread of the Novel Coronavirus (COVID-19)

P37 Disaster Prevention

Supply Chain Management

Policies

The IHI Group Procurement Policy guides procurement activities around three main pillars: practicing fair and impartial procurement, establishing mutually beneficial partnerships, and responding to legal compliance and societal needs.

We revised and released the IHI Group Procurement Policy in fiscal 2020 to clarify and promote CSR procurement. The revised policy thoroughly considers human rights, labor, occupational health and safety, the environment, and information management in addition to quality, price, delivery date and other basic procurement requirements for the materials and equipment necessary for our corporate activities. This policy requires suppliers to adhere to legal, regulatory and social codes, consider human rights, labor, occupational health and safety, the environment, and information disclosure as well as ensure quality and delivery dates, strengthen competitiveness, engage in conflict mineral* initiatives and promote CSR procurement throughout the entire supply chain. We also ask our suppliers to provide information regarding the progress of their CSR procurement initiatives to fulfill our corporate social responsibilities.

The IHI Group utilizes the IHI Group Procurement Policy as reference to define the Basic Rules on Procurement. These rules define our basic procurement philosophy, fundamental knowledge and business criteria for all our procurement departments.

* Conflict minerals refer to minerals mined in contexts of armed conflicts which may inadvertently fund armed insurgents and fuel regional disputes.

IHI Group Procurement Policy

Basic Policy

1. Fair and Impartial Procurement

We provide business opportunities in an open manner to business partners from around the world, and welcome working with creative and competitive business partners.

We also evaluate and select business partners in a comprehensive and fair manner based on factors such as quality, price, delivery schedule, technology and financial conditions.

2. Mutually Beneficial Partnership with Our Business Partners

We regard our business partners as value creators, and through seeking to realize optimal levels for quality, price and delivery, together with procurement reliability, we aim to establish relationships of trust with our business partners and bring about the mutual enhancement of competitiveness and prosperity with them.

3. Approach to Compliance and Social Needs

We comply with the related laws that govern our local and global businesses. We even go beyond quality, price, delivery date and other basic requirements to fulfill our social obligations by promoting CSR procurement activities that fully consider factors such as human rights, labor, occupational health and safety, the environment and information management.

Requests to Our Business Partners

The IHI Group asks for its suppliers' cooperation and understanding in the pursuit of the following values to further CSR procurement in collaboration with the suppliers while promoting business activities:

- (1) Compliance
- (2) Paying Attention to Human Rights, Labor Conditions, and Occupational Safety and Health
- (3) Respect for the Environment
- (4) Information Disclosure
- (5) Ensuring Optimal Quality and Delivery Conditions
- (6) Enhancement of Competitiveness
- (7) Conflict Mineral Initiatives
- (8) Promotion throughout the Entire Supply Chain
- (9) Disclosure of the Progress of Initiatives

Supply Chain Management

Education/Awareness Building

The IHI Group prioritizes training and internal audits related to relevant procurement laws to continually strengthen compliance.

Professional procurement training has been conducted for procurement divisions within the IHI Group and for departments with a need to understand the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors (hereinafter, "Subcontract Act") and the Construction Business Act.

The e-Learning programs provide the knowledge necessary for all IHI Group employees in charge of procurement to execute their daily operations. This includes information regarding the Subcontract Act, transaction reforms to specific designations of distribution, the Japan's Stamp Tax Act and proper import declarations.

Each IHI Group procurement division voluntarily reviews and verifies the Subcontract Act and import declarations to ensure proper practices and to promote improvement. In addition, internal audits provide guidance regarding areas of improvement.

Overseas Procurement Network



Tokyo, Japan
 London, England
 New York, United States
 Shanghai and Dalian, China
 Seoul, Korea
 New Delhi, India
 Bangkok, Thailand
 Singapore, Singapore
 Kuala Lumpur, Malaysia
 Ho Chi Minh City and Hanoi, Vietnam

Participants in Procurement Training

(Unit: People, Scope: IHI and affiliated companies in Japan)

Item	2018	2019	2020
Lecture on Subcontract Act *1	120	126	38
Lecture on Construction Business Act*1	93	48	40
Lecture on Overseas Procurement*1	231	81	78
Professional Procurement Training*2	–	643	233

*1 As these three lectures make up the professional procurement training, the number of participants for these lectures are included in the number of participants for the professional procurement training.

*2 Professional procurement training has been held only for the second half of 2020 due to the COVID-19 pandemic.

Raising Supplier Awareness about the Basic Procurement Policy

The IHI Group has publicized the basic procurement policy with its suppliers in Japan throughout fiscal 2020 to fully standardize its guidelines in their procurement practices.

In the future, we will also promote the basic procurement policy targeting our suppliers overseas.

Initiatives

Responding to Anti-social Forces and Anticorruption

The IHI Group contractually requires business partners to prohibit all relationships with anti-social forces and commit no acts of bribery toward foreign government officials as prohibited by the Penal Code, the Unfair

Competition Prevention Act or against the laws enacted in the particular country. If any business partner is found guilty of such acts, they are required to cooperate in the reporting and investigation process.

Number of Critical Suppliers and Identification Process

Based on the results of surveys conducted by individual procurement departments and from a stand point of BCP, the IHI Group redefined our definition of "critical suppliers" in fiscal 2020.

The new definition of "critical supplier" includes high-volume suppliers, suppliers of vital components and non-substitutable suppliers.

We identified approximately 700 suppliers as "critical supplier" as of fiscal 2020.

Number of Suppliers

(Unit: Companies, Scope: IHI and affiliated companies in Japan)

Category	2018	2019	2020
Suppliers	8,187	8,870	26,100
Critical Suppliers	1,305	4,097	700

* For 2018 and 2019, critical suppliers are defined and aggregated as suppliers with annual transaction amount of ¥10 million or more.

Recognition of Outstanding Suppliers

To further strengthen partnerships with outstanding suppliers, the IHI Group commends suppliers who have shown remarkable excellence.

In fiscal 2020, we have not commended specific suppliers as many suppliers have provided extensive support during the COVID-19 pandemic.









Corporate Citizenship

Approach

The IHI Group strives to contribute to society as we believe corporate social responsibility means fulfilling the expectations of society.

The Group Management Policy 2019 sets targets selected from the Sustainable Development Goals (SDGs) for each of our business areas. These targets define the material issues for social contribution activities in regions where we operate businesses and construction sites. The IHI Group encourages every director, officer and employee to recognize themselves as a member of society and to proactively respond to social expectations through activities that contribute to society.

Material Issues of Social Contribution Activities

Material Issues	Relevance to Business	Sustainable Development Goals (SDGs)
Coexistence with Local Communities	Establishing and maintaining good relationships with local communities is essential for smooth business expansion.	 
Development of Next-generation Professionals	Developing next-generation professionals in the manufacturing field and supporting research regarding future science and technology fields are essential to solidify the foundation for the coming industries, to drive IHI brand recognition, and to guarantee business continuity.	  
Environmental Protection	Supporting activities concerning preservation of the ecosystem, measures to combat extreme climate change, cultivation of natural bounties and protection of our planet are essential for a sustainable business. This will consequently assist in raising employee awareness regarding environmental issues.	  

Targets and Results

Approximately 1% of the IHI Group's ordinary income is dedicated to social contribution activities.

We invested a total of ¥215 million—approximately 1.27% of ordinary income—into fiscal 2020 activities concerning social contribution.

Social Contribution Expenses

(Unit: Millions of Yen, Scope: IHI and consolidated subsidiaries)

Item		2018	2019	2020
Breakdown by Activity	Coexistence with local communities	502	382	71
	Development of next-generation professionals	56	104	135
	Environmental protection	16	16	3
	Other	61	17	6
Breakdown by Expenditure	Cash investment	113	115	156
	Time investment	162	187	40
	Goods donations and site costs	360	217	19
Reference	Membership Fees for Local Organization	10	13	14
	Operating costs	121	109	117

Activity Results

(Scope: IHI and consolidated subsidiaries)

Material Issues	Indicators		2018	2019	2020
Coexistence with Local Communities	Business interests*	Visitors to events	9,129	7,977	632
	Social/environmental interests*	Investments to Local Communities	502 million JPY	382 million JPY	71 million JPY
Development of Next-generation Professionals	Business interests*	Participants in science (manufacturing) classes	2,664	1,628	1,356
	Social/environmental interests*				
Environmental Protection	Business interests*	Participants in Hosted Events	200	165	60
	Social/Environmental Interests*	Environment protection area	11,605m ²	3,860,000m ²	12,652m ²

* The indicators above for business and social/environmental interests defined by S&P Global are as follows.
 Business interests: Factors directly related to product development, brand improvement, human resource development and other such business interests
 Social/environmental interests: Factors linked to Sustainable Development Goals (SDGs) and other social/environmental interests

Corporate Citizenship

Initiatives

Major Activities in 2020

In fiscal 2020, the IHI Group focused on conducting remote science lessons to nurture next-generation professionals along with supporting measures to prevent the spread of COVID-19, while also engaging in collaborative activities with students. We collaborated with Ochanomizu University to promote activities regarding environmental protection. The IHI Group began investigating soil micro-organisms in the green areas of business sites. The purpose of this activity is to deepen the understanding about the vital role of soil micro-organisms in the carbon dioxide cycle in addition to their impact on sustaining the food chain and ecosystem.

Joint Environmental Conservation Activities with Government and NPOs

A vast green belt that stretches 6km from north to south exists in the industrial area in the coast of the Chita Peninsula. Activities to protect and nurture the animals and plants in this green area are conducted by local governments of Chita City and Tokai City in Aichi, the Japan Ecologist Association of Support, universities, and local companies. IHI not only has embraced this initiative but also participates in managing the habitats of animals living in the area and conducts events to raise awareness of citizens about the activity.

In fiscal 2020, local students conducted four biological investigations in the green area of IHI. The investigation covered Japanese white dandelion, an index species* that blooms in early May every year along with other species. We also participated in the "Green Smile Festa", an event centered on local universities, held at the Chita Labor and Culture Hall in December.

We will continue to cooperate with NPOs and local governments regarding environmental protection activities and contribute to the local communities.

*Index species: A living organism that requires specific environmental conditions to exist

Coexistence with Local Communities

• Contributions to Prevent the Spread of the Novel Coronavirus Infection (COVID-19) and Natural Disasters

The IHI Group distributed masks (approx. 25,000), protective clothing (approx. 100) and other sets of articles to local governments and hospitals near our business sites to assist in preventing the spread of COVID-19. In addition, the IHI Group provided financial assistance to local governments afflicted by the Kyushu floods in July 2020 and the Fukushima Oki Earthquake in February 2021 to provide relief to the people impacted and support the affected areas to recover as quickly as possible.

• Development of Next-Generation Professionals

• Jet Engine Class for Elementary and Junior High School Students

The IHI Group teaches classes at elementary and junior high schools to nurture next-generation science professionals. These classes are developed jointly with Ochanomizu University through a curriculum that teaches wonders of science as well as how each individual can contribute to society through science learned in school. In fiscal 2020, IHI held this program at four schools and public institutes despite the COVID-19 pandemic. The first ever remote class focused on jet engines was held at an elementary schools near our head office. All students learned about the construction and principles of jet engines through a video before conducting hands-on experiments. We received positive feedback from the students through survey results, such as that it was fun learning experience for the students or students were surprised to learn that jet engines are manufactured based on the science learned at school.

• Aerospace Class at Nanshun Junior & Senior High School

In 2015, Nanshun Junior & Senior High School was established in Kagoshima, Kimotsuki-cho, famous for the Uchinoura Space Center which launched the Epsilon rocket.

Upon the high school's establishment, IHI Group employees have since held a class on rocket propulsion. This class is held upon the request of Kagoshima Prefecture, which hopes to offer unique learning experience for the students.

As the high school reaches its 6th anniversary in fiscal 2020, we held two classes for 9th grade students (total of 60 students) remotely as a measure to prevent the spread of COVID-19.

The students showed tremendous interest in the field of science technology and space as they listened to lectures about the unfamiliar topic of rocket propulsion conducted by engineers on the front line.

• Collaboration with the Tohoku University of Art & Design

As means to create new businesses, the IHI Group has been engaging in activities with Tohoku University of Art & Design since December 2018. We have been envisioning the future of society and discussing about the innovative products and services to lead us there with the students. For the students' graduation exhibition, outstanding student projects were commemorated with awards such as the "IHI Award", "Product Design Award", and the "Art Award". These artworks are on display in the innovation space at our "i-Base" in Yokohama Headquarters Representative's Office.

We will continue these activities to nurture students' flexible and user-oriented creativity.

Corporate Citizenship

• Lectures at Ritsumeikan Asia Pacific University

With the aim of nurturing the next-generation global professionals, the IHI Group has been deploying staff to teach at Ritsumeikan Asia Pacific University, upon the request of the university since fiscal 2018.

Although these courses were conducted remotely in fiscal 2020 due to the spread of COVID-19, the “Capstone Program” covered hands-on knowledge and skills necessary for global business. In this lecture, discussions on topics such as management issues and strategies including global strategies are held between teams consisting from Japanese students and students from overseas. Students are required to draft and present their solutions during the course. The lecturer from IHI Logistics & Machinery Corporation evaluates and provides feedback on the presentations.

• Support of Aerospace Innovative Structural Design Laboratory, the Department of Aeronautics and Astronautics at The University of Tokyo

IHI Aerospace supports the University of Tokyo by sponsoring basic research to realize extremely lightweight structural designs and efficient design analysis methods in its aerospace program. We also support the development of human resources who contribute to fostering academic and societal development. In April 2020, the University of Tokyo Graduate School opened the Aerospace Innovative Structural Design Laboratory as part of the Department of Aeronautics and Astronautics. This Laboratory aims to realize innovative lightweight structural designs, which achieve high performance and cost efficiency. It will also establish fundamental analysis technology for innovative structural models for aerospace equipment using advanced composite materials as well as numerical analysis and optimization technology to execute efficient structural designs toward societal implementation. The program also assesses the reliability and damage tolerance of these advanced composite materials to facilitate this

societal implementation, in addition to researching technology applications of these structural designs in prototypes. This series of processes also aims to nurture talented human resources who are versed in basic technology to achieve innovative structural designs as well as societal implementation.

These technologies will significantly contribute to fuel efficiency by reducing the weight required of aircrafts while aiding in the development of a sustainable society.

Environmental protection

• Initiative to Survey Soil Micro-organisms

IHI began survey of soil micro-organisms in green areas around its business sites together with Ochanomizu University to promote environmental conservation.

The purpose of this activity is to deepen the understanding about the vital role of soil micro-organisms in the carbon dioxide cycle as well as their impact on sustaining the food chain and ecosystem.

In fiscal 2020, we extracted soil samples from green areas of five business sites and discovered a variety of micro-organisms. In the green areas around our head office, we discovered a rare type of land snail, seldom found in urban parks.

In the future, IHI will protect the soil micro-organisms living in the green areas around business sites and protect their habitat. We also plan to host an educational seminar on the function of the forest and soil for neighboring elementary and junior high schools.

• Initiatives by IHI Aioi Works

IHI Aioi Works is surrounded by a rich natural environment, from the mountain forests to Aioi Bay. In the lush green grounds that make up 70% of its land area, the potential for biodiversity have been verified through plant and animal surveys and green infrastructure.

In fiscal 2018, the Association for Business Innovation in Harmony with Nature and Community (ABINC) praised

IHI Aioi Works for its consideration of biodiversity with the “Business Location in Harmony with Nature (ABINC)” certification. Since then, we have been conducting surveys from detailed topography of the mountain forest on our grounds to plant distribution. As a result, IHI has been able to digitalize and centrally manage this information as cartographic information to sustain biodiversity and improve the natural environment around Aioi Works.

In the future, we will utilize this data to create specific conservation plans and protect diverse and plentiful forest resources.

Reduce Environmental Impact



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Environmental Management

Policies

The IHI Group aims to create the new value pursued by a sustainable society in its Group Management Policies 2019. We continue to work to reduce the environmental impact on society at large in an effort to combat climate change and address other social issues. The Group Management Policies further clarify the ideal direction of environmental management to cultivate new business opportunities and pioneer innovative business models. Our Group will continue to comply with all environmental laws and regulations as well as endeavor to reduce the environmental impact of our plants and offices in local regions. We will also propose low-carbon and carbon-neutral businesses using CO₂ emissions throughout the entire life cycle of our products and services as a core metric.

IHI Group Basic Environmental Policy

Article 1. Establishment of Environmental Management System

To ensure continuous improvement of environmental management, the IHI Group establishes an environmental management system, sets specific objectives and executes an action and a performance evaluation.

Article 2. Complying with Environmental Laws and Regulations

The IHI Group complies with environmental-related laws and regulations/agreements, policies/plans in related industries, and strives to stipulate and apply independent management standards to enhance environmental management.

Article 3. Provision of Environmentally-friendly Products

The IHI Group provides the society with the products and services that contribute to reduce environmental burdens.

Article 4. Reduction in Environmental Burdens in Business Activities

The IHI Group strives to preserve environment and reduce the environmental burdens in its all business activities.

Article 5. Environmental Education

The IHI Group, through environmental education, raises awareness of all people engaging in operations, including officers, employees, and temporary staff of IHI Group companies, thereby they are able to act having concern with environmental problems on their own.

Article 6. Disclosure of Information

The IHI Group actively participates in the society, disclosure information, and communicates to commune with local communities and preserve regional environment.

Environmental Management

Structure

Environment Committee

The IHI Group established the Environment Committee to take the lead on environmental activities throughout the entire Group. We promote and expand Environment Committee decisions at all Environmental Manager Liaison Groups in each business area and SBU as well as Environmental Officer Liaison Groups at the Headquarters Representative's Office. After constructive deliberation, IHI raises awareness and expands these decisions to all Group companies.

Business areas and SBUs strive to reduce our environmental impact through capital investments to mitigate environmental risks—one Group-wide risk management initiative—legal and regulatory compliance, energy savings, waste emission reductions and more. We draft action plans at the beginning of the fiscal year in line with each material subject and track progress as well as provide support using a PDCA cycle through the Environment Committee.

Since fiscal 2019, the Environment Committee positioned environmental impact-reducing initiatives into two categories—products/services (proactive environmental activities) and plants/offices (reactive environmental activities)—with the former category under the Corporate Planning Division and the latter under the Administration Division of the Environment Group.

*SBU stands for the business unit under the umbrella of each business area.

Environmental Management Systems Diagram



Environment Committee

Chairperson	Officer in charge of Administration Division
Secretariat	Administration Division, Corporate Planning Division
Committee Member	Business areas, headquarters representative's offices, and environmental general manager at the Head Office divisions nominated by the Committee chairperson
Number of meetings convened in 2020	4

Collection of Environmental Information

The IHI Group collects environmental data related to environmental management at all overseas affiliates and consolidated Group companies (subsidiaries).

Each Group company appoints both environmental general manager and environmental manager to oversee the decision making and expansion of environmental activities at their organization. As the smallest unit of environmental activities at each company, the environmental management centers appoint site environmental manager to take charge of particular environmental activities.

The Group companies encompassed by environmental management engage in a variety of different businesses. These entities include companies with production plants, companies overseeing engineering, and on-site construction work as well as companies focused on only administration. Each environmental management center verifies the flow of energy, water and other resources and builds systems to efficiently collect environmental data.

The fiscal 2020 data shows figures current as of June 15, 2021.

Environmental Management

ISO 14001 (Environmental Management System)

The IHI Group has put in place Environmental Management Systems (EMS) at each primary production plant and other environmental management centers to manage environmental efforts with a PDCA cycle. Each of these environmental management centers is acquiring the ISO 14001 certification to ensure each established EMS satisfies international standards for environmental management.

These environmental management centers acquire the ISO 14001 through the most suitable review board based on its business activities.

ISO 14001 Internal and External Audits

The IHI Group always strives to enhance the level of environmental management through regular internal and external audits of each environmental management center. These audits evaluate the fitness and effectiveness of each EMS in accordance with ISO 14001 standards.

External audits conducted in fiscal 2020 did not find deficiencies at any of the ISO 14001-certified environmental management centers and affirmed each EMS complied with the all of the ISO 14001 requirements.

ISO 14001 Certification Status

Targets	Item	2020
IHI and all affiliated companies	Coverage rate (%)	79.7 ^{*1}
	Number of sites	44
IHI and affiliated companies in Japan	Coverage rate (%)	61.0 ^{*2}
	Number of sites	36
Affiliated companies overseas	Coverage rate (%)	57.1 ^{*2}
	Number of sites	8

*1 Based on amount of energy consumption

*2 Based on number of sites

Education/Awareness Building

Environmental Education

The IHI Group environmental education includes Group-wide education programs and training for everyone in charge of environmental management at each environmental management center. The Head Office leads and monitors these training and education programs.

All of our employees have taken our e-Learning program on urgent sustainability issues. The Basics of a Manufacturing Company (Environment) stratified training program for employees up to their third year provides e-Learning that reaffirms the IHI Group approach to global environmental issues.

The on-site education program taught by guest experts provides training on waste management and energy efficiency. This training enhances the expert knowledge of qualified persons and person in charge of management aiming to put efficient environmental activities into practice through uncompromising legal compliance. In addition to perspectives on new works-style reforms offered in fiscal 2020, we held waste training in December 2020 and energy efficiency training in January and February 2021.

The IHI Group has also designated every June as environment month. We not only share information about familiar energy-saving activities through an internal newsletter to heighten employee environmental awareness but also conduct education founded in EMS at each environmental management center.

Environmental Education and Training Participants

(Unit: People, Scope: IHI and affiliated companies in Japan)

Eligible Participants	Curriculum	2019	2020
Employees	e-Learning	18,447	Not conducted ^{*1}
	Environmental Quiz	5,820	Not conducted ^{*1}
Environmental Officers	Group Energy Efficiency Training ^{*2}	36	58
	Group Waste Training	Not held	62

*1 Postponed in 2020 due to COVID-19 pandemic

*2 Total number of participates for the Group energy efficiency training held twice (some returning students)

Environmental Management

Targets

The IHI Group drafts environmental action plans every three years and strives to engage in comprehensive environmental initiatives.

The IHI Group Environmental Action Plan 2019 creates three major pillars for environmental initiatives from fiscal 2019 to 2021: reduce the environmental impact of products and services, reduce the environmental impact of plants, offices, and other business establishments, and cultivate human resources to promote environmental management.

Progress of IHI Group Environmental Action Plan 2019

Action Plans	Targets	2020 Progress and Results
Reduction of the Environmental Impact of Products and Services	Reduce the CO ₂ emissions of products and services	Executed initiatives to reduce the CO ₂ emissions of products and services
Reduce the environmental impact in plants, offices, etc.	No major violation of environmental laws/regulations and environmental accidents	Achieved no major violation of environmental laws/regulations and environmental accidents
	Reduce CO ₂ emissions intensity by at least 3% by 2021 compared to 2018	Reduced per unit CO ₂ emissions by 11.4% compared to 22.8 t-CO ₂ emissions per 100 million yen in 2018 to 20.2 t-CO ₂ emissions per 100 million yen in 2020.
	Reduce energy consumption intensity by at least 3% by 2021 compared to 2018	Reduced energy intensity by 48.1% year-on-year from 39.3TJ per 10 billion yen in 2018 to 20.4TJ per 10 billion yen in 2020.
	Generate less waste than the amount generated in 2018 in 2019 and 2021	Reduced waste generation by 27.9% compared to 29,010 tons in 2018 to 20,912 tons in 2020.
	Use less water withdrawal* than the amount used in 2018 in 2019 and 2021	Water withdrawal increased by 32.6% compared to 4,182 thousand m ³ in 2018 to 4,008 thousand m ³ in 2020.
Cultivate human resources to promote environmental management	Develop professionals who can carry out environment management	Provided waste management and energy efficiency training to Group members in charge of these duties

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

Results

Costs to Reduce the IHI Environmental Impact

(Unit: Millions of yen; Scope: IHI Corporation)

Item	2017	2018	2019	2020
Investments	713	696	652	334
Expenditures	79	143	78	23

Environment-related Capital Investments

(Unit: Millions of yen, Scope: Non-consolidated IHI plants and offices)

Category	Amount invested* ¹	Cost effect* ²	Main items	Environmental impact mitigation* ³	Risk mitigation* ³
Energy-saving/climate change measures	60	6	Adoption of independent air-conditioning systems at plants, etc.	Energy consumption and CO ₂ emission reductions	No major violation of environmental laws/regulations or environmental accident
Environmental risk measures	271	–	Renewal of aged equipment, etc.		
PCB measures	4	–	Renewal and update of equipment containing PCBs		
Total* ⁴	334	6			

*1 Environmental-related capital and construction investments for non-consolidated IHI plants and offices made in 2020

*2 Reductions in energy purchasing costs estimated over a year

*3 IHI Corporation will consider additional approaches and examine the effectiveness in the future

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

Reduction of the Environmental Impact of Products and Services

Approach

The IHI Group certifies products and services as environmentally-friendly products and services if demonstrating outstanding contributions to the protection of the global environment for society and a reduction in our environmental impact. Environmentally-friendly designs will help us contribute to achieving carbon neutrality by 2050 while enhancing corporate value throughout the entire IHI Group.

The IHI Group certifies products satisfying the criteria below as environmentally-friendly products.

- The product incorporates environmental consideration at every stage throughout the life cycle from research, development, and design to procurement, manufacture, use, service and disposal
- The product adheres to the ISO 14021 standard (Environmental labels and declarations—Self-declared environmental claims [Type II environmental labelling])

Initiatives

Environmentally-Friendly Products Certification Scheme

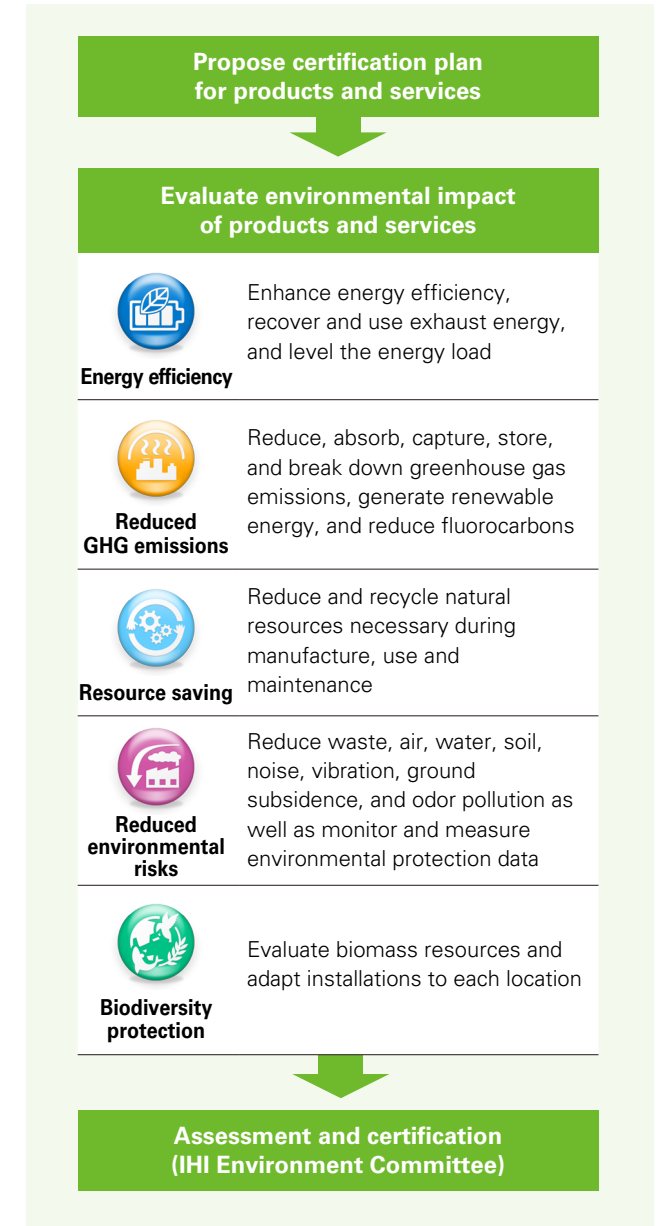
The IHI Group uses an environmentally-friendly products certification scheme to promote reductions in the environmental impact of its products and services. This system certifies products and services as having outstanding environmental performance. Such products and services help protect the environment and reduce our environmental impact.

Environmentally-friendly products and services also contribute to reductions of the environmental impact on society at large, which in turn helps protect the environment.

• Certification Process

The Group-wide Environmental Committee evaluates the environmental performance of products and services based on IHI guidelines. We only certify products and services with outstanding environmental performance as environmentally-friendly. This review process assesses whether products and services incorporate environmental performance measures throughout every stage of the life cycle.

Certification Process of Environmentally-Friendly Products



Reduction of the Environmental Impact of Products and Services






Results

Environmentally-Friendly Products

Products and services certified as environmentally-friendly products are listed in the table to the right. The website below also introduces both certified and non-certified IHI products and services.

[web](#) **IHI-WORLD**

Certified Products

Products and services	Evaluation items				
	Energy efficiency 	Reduced GHG emissions 	Resource saving 	Reduced environmental risks 	Biodiversity protection 
Intake facility (Selective water withdrawal facility)					●
LRT (Light Rail Transit)	●	●	●	●	
New Transit System	●	●	●	●	
Active Noise Control System				●	
Silencer/Enclosure				●	
Noise/Vibration Consultation				●	
Diesel Engines	●	●	●	●	
Life Cycle Administrator (LC-A)	●		●	●	
TF-Detector	●		●	●	
MF-Detector	●		●	●	
Energy-saving Parking System NPC24H Tachikawa Midori-cho No.2 Parking Lot	●				
IHI IC Reactor	●		●	●	
ORC Power Generator HEAT INNOVATOR®		●	●	●	
LNG Smart Satellite	●	●	●		
Industrial photovoltaic power system		●			
Technology for cleaning, chipping and cutting surfaces without using water		●	●	●	
Cycle Management Systems	●	●	●		
Turbochargers for Vehicles	●		●	●	
ORC Power Generator Heat Recovery HR Series		●	●	●	
IWV-34C Vacuum Degreaser	●		●		
Toyosu Foresia Environmentally-Friendly Building	●	●	●	●	

Climate Change

Approach

Climate change has an enormous social and economic impact and is a vital social issue for companies to address in order to realize sustainability.

The IHI Group sees climate change as one important management issue and is doing everything possible to combat it.

Our products and services strive to reduce CO₂ emissions throughout the entire life cycle.

We monitor the environmental impact from business activities at our plants, offices and other business establishments to help us reduce CO₂ emissions.

Participation in Third-party Initiatives

In May 2019, the IHI Group became a signatory to the Task Force on Climate-related Financial Disclosures (TCFD) by resolution of the Board of Directors. This framework plays a role as a tool to formulate strategies able to strengthen risk management and cultivate business opportunities.

Structure

The IHI Group engages in environmental initiatives that include measures to combat climate change centered upon the Environment Committee.

P71 Environmental Management

The IHI Group has put in place a TCFD Task Force directly under the President to fully utilize the framework as a strategic planning tool for proper disclosure of information as a TCFD signatory. The TCFD Task Force is made up of members from the four business areas, Technology & Intelligence Integration, and the Solution & Business Development Headquarters with the Corporate Planning Division acting as the Secretariat.

The IHI Group also conducts uncompromising risk management to fully and rapidly respond to any risks found by carefully identifying changes around business operations. We are integrating TCFD Task Force activities and the risk management systems to create a PDCA cycle for climate change risks.

P35 Risk Management

TCFD Disclosure

The disclosure items on the page below are recommended by TCFD.

- **Governance**
P.71-74 Environmental Management
P.77 Climate Change
- **Strategy**
P.79-81 Climate Change
- **Risk Management**
P.35-37 Risk Management
P.77 Climate Change
- **Metrics and Targets**
P.78 Climate Change

Climate Change

Targets and Results

The IHI Group aims to reduce CO₂ emissions from plants, offices and other business establishments in line with the Japanese government's policy target of a 46% reduction in 2030 (compared to fiscal 2013 levels) and carbon neutrality by 2050.

CO₂ Emission and Energy Consumption Targets and Results

Action Plans	Targets	KPI	2018 Results (Base Year)	2019 Results	2020 Results
Reduce the environmental impact in plants, offices, etc.	Reduce CO ₂ emissions intensity at least 3% by 2021 compared to 2018	CO ₂ emissions intensity (t-CO ₂ /100 million yen)	22.2	18.3	20.2
	Reduce energy intensity at least 3% by 2021 compared to 2018	Energy consumption intensity (TJ/10 billion yen)	39.3	17.8	20.5

CO₂ Emission and Energy Consumption

(Scope: IHI and consolidated subsidiaries)

Item		2017	2018	2019	2020
CO ₂	CO ₂ emissions (t-CO ₂)	330,162	329,602	254,227	225,066
	Scope 1 (t-CO ₂)	–	80,032	64,724	58,517
	Scope 2 (market-based) (t-CO ₂)	–	249,570	189,503	166,549
	CO ₂ emissions intensity* ¹ (t-CO ₂ /100 million yen)	20.8	22.2	18.3	20.2
Energy	Energy consumption* ² (TJ)	6,087	5,828	2,468	2,283
	Fuel consumption (TJ)	–	–	1,044	974
	Electricity consumption (TJ)	–	–	1,398	1,276
	Heat consumption (TJ)	–	–	–	7
	Steam consumption (TJ)	–	–	0	0
	Renewable energy used (TJ)	–	–	26	26
Energy consumption intensity* ¹ (TJ/10 billion yen)	38.3	39.3	17.8	20.5	

*1 Net sales as the denominator.

*2 Changed the method of calculating energy consumption since 2019.

Initiatives

Reducing CO₂ Emissions from Business Activities

The IHI Group makes every effort to reduce CO₂ emissions from plants, offices and other business establishments by both actively pursuing energy-efficient business practices and promoting the use of low-carbon energy.

Our energy-efficient initiatives not only enhance operations but also make the necessary capital investments. We have put in place energy management standards to drive these operational improvements. We have put in place energy management standards to drive

these operational improvements. These standards aim to provide ideal operation conditions and criteria to review operational management. These standards also become a knowledge base to conduct training on energy efficiency through guest experts in an effort to heighten the management quality of the person in charge. Our capital investments systematically renew aged equipment with energy-efficient equipment. Another aspect important to reducing CO₂ emissions is shipping

and transport. The IHI Group strives to promote modal shifts through greater load efficiency and active use of marine vessels.

Our data also divides the CO₂ emissions resulting from fuel and electricity by energy consumption for fuel and electricity to create an indicator illustrating the decarbonization effect through the adoption of renewable energy and other such measures.

Climate Change

Risk and Opportunity due to Climate Change

•TCFD Initiatives

The IHI Group set simple scenario analyses of four business domains with a significantly large impact on climate change: the energy business, vehicle turbocharger business, bridge and water gate business, and the civil aero engine business.

The first step set (1) a carbon-neutral world as the highest transition risk and (2) a world greatly impacted by climate change as the highest physical risk in our own

independent scenarios drafted with reference to external scenarios drafted by the International Energy Agency (IEA) and Intergovernmental Panel on Climate Change (IPCC). The second step identified risks and opportunities for all four business domains. The third step assessed the impact each business has. The fourth and last step drafted countermeasures according to our findings.

In the future, the IHI Group will enhance its ability to leverage scenario analyses in business strategy through efforts such as assessing the financial impact of climate change.

The IHI Group will proactively incorporate the concepts pursued by TCFD signatories in management policies and business strategies. These policies and strategies will contribute to the development of a sustainable corporate group and society at large.

Scenario Analysis Process

Step 1 Set independent scenarios.

The IHI Corporation referred to external scenarios* to set independent Group scenarios in anticipation of the world in 2050.

- (1) High-transition risk scenario
- (2) High-physical risk scenario

Step 2 Identify risks and opportunities.

The IHI Corporation identifies risk and opportunities for the two scenarios set in Step 1

Step 3 Evaluate the business impact.

The IHI Corporation assigns point values for the potential of occurrence and scale of impact for each risk and opportunity identified in Step 2. The intersection between both defines the impact and estimate the influence the risks and opportunities have on our businesses.

Step 4 Formulate countermeasures.

The IHI Corporation formulates measures to respond to these risks and opportunities to foster resilient businesses.

*External reference scenarios:

A carbon-neutral world

IPCC RCP 2.6, IEA 2DS Scenario, etc.

A world greatly impacted by climate change

IPCC RCP 8.5, etc.

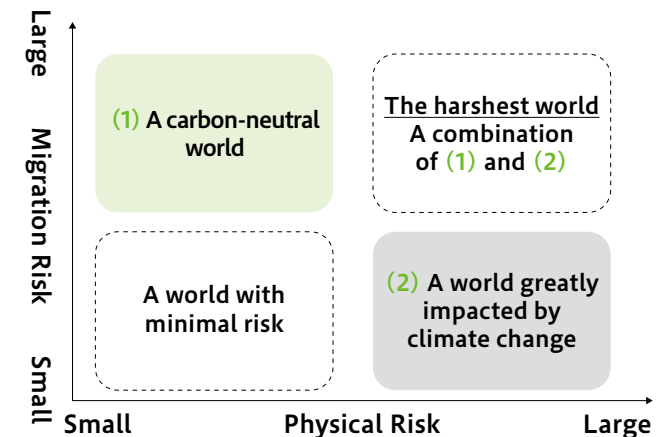
IHI Group scenarios:

(1) High-transition risk scenario

This scenario presents (1) a carbon-neutral world where society at large shifts to mitigate climate change to stop all greenhouse gas emissions.

(2) High-physical risk scenario

This scenario presents (2) a world greatly impacted by climate change that needs to adapt to the physical impact to directly confront drastic devastation by natural disasters.



Countermeasures set to address the two extreme worlds anticipated by these IHI scenarios enhance the resilience of IHI Group businesses against future risks.

The IHI Group can also reduce risks against the harshest world facing both these scenarios at the same time by integrating the countermeasures for each.

Climate Change

The IHI Corporation divides the risks and opportunities identified for each of the four business domains and the countermeasures into two categories: **1. risks, opportunities, and countermeasures specific to each business** and **2. risks, opportunities, and countermeasures shared across all businesses**.

Risks, opportunities, and countermeasures in 1. are shown in the table below while those in 2. are shown in the table on the next page.

1. Main risks, opportunities, and countermeasures specific to each business (four main business domains)

	Energy business	Bridge and water gate business	Vehicle turbocharger business	Civil aero engine business
(1) Risks, opportunities and main countermeasures in a carbon-neutral world				
Risks	<ul style="list-style-type: none"> Declining demand for large fossil fuel power generation equipment 	<ul style="list-style-type: none"> Increasing procurement costs (carbon tax, etc.) for materials with high CO₂ emissions (concrete, steel, etc.) 	<ul style="list-style-type: none"> Declining demand for combustion engine vehicles unable to address carbon-neutral requirements and a falling demand for existing turbochargers 	<ul style="list-style-type: none"> Declining demand for aircrafts due to carbon-neutral requirements and standardization of alternative high-speed means of transportation
Opportunities	<ul style="list-style-type: none"> Increasing demand for fuel conversion, carbon capture and storage (CCUS) and other decarbonization technologies Increasing demand for regulated power supplies, storage energy, and Power-to-X to provide a stable energy supply as renewable energy becomes the standard 	<ul style="list-style-type: none"> Increasing demand for roads (bridges and tunnels) to provide a more efficient transportation network Increasing demand for railway construction due to expansion of railway systems overseas 	<ul style="list-style-type: none"> Potential to secure market competitiveness and leverage an increase in demand for turbochargers by being first to market with new turbocharger products (electric products in addition to existing models) for carbon-neutral electric vehicles (PHEV, HEV, FCV, etc.) 	<ul style="list-style-type: none"> Increasing demand for the development of aircraft engines supporting carbon-neutral requirements and opportunities raise due to electrification of engines and utilization of advanced material technologies.
Main Countermeasures	<ul style="list-style-type: none"> Rapidly deploy carbon-neutral technologies to society Promote technological development to stabilize the energy supply Expand the life cycle business through remote monitoring and other Internet of Things (IoT) technologies 	<ul style="list-style-type: none"> Reduce construction schedules and labor costs by labor-saving, remoteization, and improving construction methods through promoting digital transformation (DX) 	<ul style="list-style-type: none"> Rapid development and commercialization of turbochargers for electric vehicles that comply with carbon-neutral requirement trends 	<ul style="list-style-type: none"> Early commercialization of electric engines and advanced technologies such as advanced composites.
(2) Risks, opportunities and main countermeasures in a world greatly impacted by climate change				
Risks	<ul style="list-style-type: none"> Extreme delays due to on-site construction stoppages or disasters caused by frequent severe weather 	<ul style="list-style-type: none"> Extreme delays due to on-site construction stoppages or disasters caused by frequent severe weather 	<ul style="list-style-type: none"> Suspension of production due to disrupted supply chains caused by frequent severe weather 	<ul style="list-style-type: none"> Suspension of production due to disrupted supply chains caused by frequent severe weather
Opportunities	<ul style="list-style-type: none"> Contributing in early recovery of equipment damaged in severe weather Increasing demand for digital technologies to promote labor saving and remote operation 	<ul style="list-style-type: none"> Increasing demand to build robust national infrastructure Contributing in early recovery of infrastructure damaged in severe weather 	<ul style="list-style-type: none"> No opportunities unique to our business 	<ul style="list-style-type: none"> No opportunities unique to our business
Main Countermeasures	<ul style="list-style-type: none"> Expand the life cycle business through remote monitoring and other Internet of Things (IoT) technologies 	<ul style="list-style-type: none"> Expand business beyond life cycle business with wider perspective to include disaster prevention business Create technologies and systems that contribute to maintenance, disaster prevention, disaster mitigation, and quick recovery of infrastructure 	<ul style="list-style-type: none"> Strengthen supply chains 	<ul style="list-style-type: none"> Strengthen supply chains

Climate Change

2. Main risks and countermeasures shared across all businesses

(1) Transition Risks and Countermeasures for a Carbon-neutral World

Category	Main Topics	Main Countermeasures and Transitioning to Opportunities
Policies, Laws and Regulations	Introduction of carbon taxes, stronger industrial waste regulations, raising costs due to the adoption of renewable energy and energy-efficient equipment, etc.	Reduce costs in business activities through efficient production and distribution as well as the proper management of energy consumption
Technologies	Rising costs due to research to realize carbon-neutral products and services, failed technological development, etc.	Concentrate investments in technological development while staying acutely aware of policies, technologies, markets, and other social trends
Markets	Declining demand for products and services with high CO ₂ emissions, etc.	Actively draft and promote business plans that always anticipate multiple business scenarios to adapt to dramatic changes in market structures
Reputation	Lost opportunities due to poor evaluations of our response to climate change, declining social credibility, etc.	Disseminate easy-to-understand information about products and services that can help both mitigate and adapt to climate change

(2) Physical Risks and Countermeasures in a World Greatly Impacted by Climate Change

Category	Main Topics	Main Countermeasures
Acute/Chronic	Ceased business activities due to damaged offices and plants caused by typhoons, floods, or other natural disasters, etc.	<ul style="list-style-type: none"> • Incorporate the response to climate change into the business continuity plans of plants and offices to ensure the safety of officers and employees and strengthen the supply chain • Draft, execute and manage advanced measures in anticipation of foreseeable flood damage

Circular Economy

Approach

The IHI Group properly manages waste and water resources and strives to enhance resource efficiency and reduce the environmental impact to realize a sustainable society.

We advocate the reduction, reuse, and recycling (3Rs) of waste and properly manage and dispose of any waste produced by each environmental management center. Our water resource initiatives carefully manage water use and work to prevent any pollutants from reaching water resources through a deliberate water supply from stable water resources and proper equipment maintenance.

The IHI Group has laid out chemical substance initiatives in the Basic Policy on Chemicals Information Management. We have identified prohibited and controlled substances regulated by both legal and customer requirements in each region and country where our products and services are available. Our supply chain also pinpoints and properly manages the chemical substances contained in products for the purpose of minimizing the impact IHI Group products and services have on human health and the environment.

IHI Group's Basic Policy on Chemicals Information Management

Basic Activities

1. The IHI Group independently manages chemical substance data by not only complying with the laws, regulations and standards on the management of chemical substances in Japan but by also clearly grasping trends of global chemicals management. Minimizing the health and environmental impact of IHI Group products and services enhances the competitiveness of our products.

Scope

2. All IHI Group Business Activities

Education

3. The IHI Group provides the necessary information and training on laws and regulations to heighten legal and regulatory awareness in all officers as well as IHI and partner company employees.

Structure

The IHI Group deliberates and decides on the approach and important matters of circular resources through the Environment Committee, a Group-wide body chaired by the officer in charge of administration.

P.72 **Environmental Management**

Circular Economy

Targets and Results

Waste Emissions and Water Withdrawal Targets and Results

Action Plans	Targets	KPI	2018 Results (Base Year)	2019 Results	2020 Results
Reduce the environmental impact in plants, offices, etc.	Generate less waste than the amount generated in 2018 in 2019 and 2021	Waste generated (ton)	29,010	27,564	20,912
	Use less water withdrawal* than the amount used in 2018 in 2019 and 2021	Water withdrawal (1000 m ³)	4,182	4,251	4,008

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

Waste Emissions and Water Withdrawal

(Scope: IHI and consolidated subsidiaries)

Item		2017	2018	2019	2020
Waste	Waste generated (ton)	28,691	29,010	27,564	20,912
	Toxic waste generated* ¹ (ton)	–	–	164	182
	Amount recycled* ² (ton)	–	–	61,799	15,067
Water	Water withdrawal (1,000m ³)	3,776	4,182	4,251	4,008
	Public water (1,000m ³)	–	–	750	651
	Industrial water (1,000m ³)	–	–	868	799
	Groundwater (1,000m ³)	–	–	1,948	1,731
	Rainwater, rivers, lakes, etc. (1,000m ³)	–	–	685	827
	Waste water (1,000m ³)	–	–	–	3,373

*1 Total of specified hazardous wastes and infectious wastes within specially-controlled industrial wastes

*2 Waste turned in to valuable resources

Circular Economy

Initiatives

Waste

The IHI Group strives to reduce waste by improving production yield at plants as well as sorting and recovering resources from waste.

To ensure all waste is disposed of properly, our waste management initiatives also review collection, transportation, and waste disposal contracts, verify final disposal through digital manifests, and confirm circumstances on-site at intermediate and final waste disposal sites.

• Cooperation with Third-parties to Reduce Waste Emissions

The IHI Group contracted expert consultants to examine potential reductions in the waste generated by our plants and offices. This started our analysis of the types and content of waste. As a result, we discovered useful waste which can help turn the waste generated into valuable resources, and confirmed whether innovations to waste management could further reduce the remaining waste. In the future, we will advance initiatives toward reduction of specific waste.

Water Resources

The IHI Group primarily uses public and industrial water as water resources. In regions with abundant underground and river water resources, we use these resources in combination with public water careful to reduce our water withdrawal. Therefore, each plant and office considers the water quality and quantity necessary for its use and chooses the best resource to withdrawal water.

In particular, we purify and distribute underground water through a relatively easy manner in regions with potable underground water. Cooling water for heat treatment furnaces and other equipment uses river or sea water instead of potable water. We also use heat exchangers to avoid pollution risks during water discharge. In addition, sprinklers on our grounds reuse water processed through tertiary treatment as an alternative to public water as much as possible.

• Water Risk Survey (On-Site Visits)

In fiscal 2020, the IHI Corporation audited the water usage management progress and water risks at 3 different sites.

Water risks in this report refer to risks of waste water from our plants, offices and other business establishments contaminating public waters. These audits verified proper water management by visiting each site, interviewing the people in charge and conducting physical on-site inspections. We also share the findings of these audits to raise awareness about water risks. In the future, the IHI Group plans to successively audit whether plants which did not undergo on-site audits present any risk to public waters.

• Specific Efforts to reduce Water Use

The IHI Group heightens awareness about reducing water use by tracking monthly (or bimonthly) water withdrawal by each environmental management center to graph annually for year-by-year comparisons. By monitoring the annual changes in water withdrawal for the same period each year, we expect the data will help us discover any leakage quickly.

Chemical Substances

Chemical substances used at our plants come with leakage and other risks which may result in polluting the soil, water, or air. We must not only safely manage these chemical substances during use but also in every process from warehousing to disposal. The IHI Group prevents leakage during purchase and transport and regularly verifies and inspects the retaining storage walls, deterioration on interior walls and corrosion of transfer pipes.

We regularly repair equipment with any deterioration or aging found during these inspections.

• Chemical Substances Contained in Products

The IHI Group strictly complies with every law and regulation controlling the chemical substances contained in products. We aggregate data about the chemical substances contained in products throughout the supply chain and confirm whether use of any of these chemicals is prohibited. The IHI Group is also furthering a system to provide this same data to customers. Regulations to control the chemical substances contained in products are becoming more stringent than ever not only in the EU but also North America and Asia. Our Group pays extremely close attention and responds accordingly to regulations that apply to each product as one business risk.

Environmental Protection

Approach

The IHI Group has set compliance to environmental laws and regulations and the prevention of environmental accidents as the highest priorities of environmental activities in business. We have also set the reduction of the environmental impact from our business activities as a priority subject in our environmental targets designated for each Group site. We emphasize cooperation with the local communities in each region where IHI does business to advance environmental conservation activities according to the unique needs of each. These efforts include agreements to prevent pollution with local government agencies and residents.

Our plants and offices in particular are often located near water source, which means initiatives to prevent any pollutants from reaching these water sources are imperative. Therefore, we have defined independent standards that go beyond the Water Pollution Control Law and other local governmental waste water standards based on the Environmental Management System (EMS) adopted at each site. We ensure that the standards are met through regular water sampling and analysis. In addition, the person in charge of drainage and coastlines at each site conducts regular patrols to visually inspect and make sure there is no oil or other floating chemicals or irregularities in water quality. In the event of any leakage of substances into waters from IHI plants or offices, our initial response follows EMS procedures to prevent any spread of the contaminants and damage, trigger an emergency response, such as correspondence with relevant departments in an effort to investigate the root cause and prevent recurrence. In addition to the above, measures and proper disposal to prevent soil contamination from oil, chemical and other leakage used at offices, plants, and other business establishments are also vital.

Management level of these activities is improved through regular internal auditing, environmental patrols, and external reviews according to the EMS adopted by each site.

Structure

The IHI Group deliberates and decides on the approach and important matters of environmental conservation through the Environment Committee, a Group-wide body chaired by the officer in charge of administration. Each office, plant and business establishment has set up an environment committee to draft policies tailored to the needs of each region based on Group-wide policy.

P72 Environmental Management

Targets and Results

No Major Violation of Laws/Regulations or Environmental Accidents

Action Plans	Targets	2019 Results	2020 Results
Reduce the environmental impact in plants, offices, etc.	No major violation of environmental laws/regulations and environmental accidents	0	0

Compliance with Environmental Laws and Regulations

The IHI Group properly investigates any environmental incident that occurs on a Group site and evaluates the severity and underlying factors to reduce environmental accidents and legal violations as well as to prevent recurrence.

In fiscal 2020, our Group had no major environmental incidents or legal violations.

Number of Environmental Accidents and Violations of Law

(Unit: Incidents, IHI and consolidated subsidiaries)

Item	2017	2018	2019	2020
Significant environmental accidents	0	0	0	0
Major violation of environmental laws/regulations	0	0	0	0
No. of cases IHI paid fines, penalties, etc.	0	0	0	0

Environmental Protection

Initiatives

Water Pollution Prevention

The IHI Group monitors the quality of water discharged from offices, plants and other business establishments. By defining and managing water discharge according to independent standards stricter than waste water standards, we protect the water quality of public waters from oceans to rivers where this water is discharged. We must not only maintain and calibrate wastewater treatment facilities but also regularly renew aged equipment, devices, and meters.

The IHI Group also prioritizes measures to prevent leaks from unseen underground pipes as a key issue. Our other initiatives include measurements of the amount of water used in specific areas, creation of underground piping blueprints, and periodic replacement of underground piping. We also define rules on chemical substance management based on the EMS at each environmental management center to prevent disasters and environmental pollution by chemical substances used at plants and other business establishments. Our Group categorizes the hazardous, toxic, volatile, and combustible chemical substances it handles while defining equipment and handling standards to manage these substances in a way that prevents leakage into the environment. In fiscal 2020, there were no incidents of chemical substance leakages to water sources.

Soil Contamination Prevention

The IHI Group identified specific areas at offices, plants and other business establishments that use hazardous substances and other chemicals. We strive to prevent leaks of chemical substances by establishing operational procedures and periodic patrols. We manage 68 old factory sites and production bases via a database compiling survey results for the usage history of specific harmful substances* and oils. This survey data used as a starting point for initial reviews when restructuring plant

operations.

* Harmful chemical substances refers to lead, hexavalent chromium, mercury and other substances listed in Article 2 of the Japan Soil Contamination Countermeasures Act

Toxic Waste

The IHI Group is furthering its response to properly dispose of hazardous polychlorinated biphenyls (PCB) waste by organizing a specialized team led by the Head Office.

As of March 31, 2021, we have successfully disposed of 99.7% of electrical equipment containing a high-concentration of PCBs and 98.1% with a low-concentration of PCBs. However, the IHI Group currently holds a large number of fluorescent lamps waiting for disposal. To date, we have successfully disposed of 44.5%.

Chemical Resources

The IHI Group identifies and manages emissions of chemicals regulated by the PRTR Law into the air, public waters, soil, sewers and waste.

We are also suppressing emissions of Volatile Organic Compounds (VOC) in to the atmosphere in accordance with the Voluntary Action Plan for Establishing a Sound Material-Cycle Society by the Japan Society of Industrial Machinery Manufacturers.

Biodiversity

We also have set an environment month for officer and employee enlightenment to raise awareness about biodiversity conservation.

Performance Objectives

Non-financial Summary

Material issues	Theme	Index	Scope of data	Results					
				2017	2018	2019	2020		
Governance – Principled Corporate Management –									
Corporate governance	Corporate governance	Average attendance rate of outside directors	Board of Directors meetings (%)	IHI	95.3	98.6	98.1	96.8	
		Average attendance rate of outside Audit & Supervisory Board Members	Board of Directors meetings (%)	IHI	96.0	92.6	100.0	100.0	
			Audit & Supervisory Board meetings (%)	IHI	100.0	100.0	100.0	100.0	
Compliance	Legal compliance	Number of law violations / Number of guidance cases	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	42	48	56	57	
			Other major industry organizations (Millions of yen)	IHI	55	101	120	122	
		Number of Compliance Hotline reports		*1		209	238	239	202
		Number of compliance training participants	Officer training	IHI and subsidiary companies in Japan		50	47	–	–
			Line Manager Training	IHI and subsidiary companies in Japan		83	75	72	–
			Quality & Compliance Training (Japan)	IHI and subsidiary companies in Japan		–	–	27,866	24,085
			Quality & Compliance Training (Overseas)	Subsidiary companies overseas		–	–	1,774	3,261
e-Learning (Japan)	IHI and subsidiary companies in Japan		18,020	18,234	18,164	20,169			
e-Learning (Overseas)	Subsidiary companies overseas		1,261	1,126	1,214	–			
Innovation management	Intellectual property protection	Patents held by region	Patents in Japan	IHI	3,915	4,120	4,150	3,868	
			Patents overseas	IHI	2,598	3,047	3,502	3,808	
Information security	Information security measures	Information security measures level evaluation (out of five) (score)		IHI and consolidated subsidiaries	3.0	2.9	3.2	3.4	

*1 IHI, affiliated companies in Japan, and some affiliated companies overseas (USA and Brazil) in 2017. IHI, affiliated companies in Japan, and some affiliated companies overseas (USA, Brazil, Asia Pacific, China, and Korea) in 2018, 2019 and 2020.

Non-financial Summary

Material issues	Theme	Index	Scope of data	Results				
				2017	2018	2019	2020	
Society – Materialize an Affluent Society –								
Human resource management	Number of employees	Consolidated number of employees	IHI and consolidated subsidiaries	29,706	29,286	28,964	29,149	
		Number of employees (IHI)	IHI	8,256	8,011	7,741	7,796	
			Male	IHI	7,245	6,994	6,730	6,766
			Female	IHI	1,011	1,017	1,011	1,030
	Average years of service	Ratio of female employees (%)	IHI	12.2	12.7	13.1	13.2	
		All employees	IHI	14.8	14.9	15.8	15.1	
			Male	IHI	15.1	15.1	16.0	15.3
	Turnover rate	Female	IHI	12.5	13.2	14.5	14.2	
		Total turnover rate	IHI	4.0	4.3	3.5	2.9	
			Rate of retirement due to personal reasons (%)	IHI	2.0	2.0	2.0	1.1
	Employee-awareness surveys	Turnover rate within 3 years of joining the company (%)	IHI	5.7	7.4	6.8	4.3	
		Ratio of answered employee-awareness surveys (%)	IHI and affiliated companies	90.9	91.7	91.4	88.0	
Diversity and inclusion	Employment	Number of new graduate recruitment	IHI, University graduates	245	158	153	194	
		Number of mid-career employment	Male	IHI, University graduates	210	138	123	162
			Female	IHI, University graduates	35	20	30	32
			Female recruitment rate (%)	IHI, University graduates	14.3	12.7	19.6	16.5
	Gender diversity	Recruitment ratio of people with disabilities (%)	IHI	87	66	77	55	
		Re-employment rate of employees at retirement age (%)	IHI	2.03	2.21	2.39	2.35	
		Number of employees from abroad	IHI	87	84	81	81	
		Local managers at overseas sites	China, Singapore, and United States	86	89	81	82	
		Number of female officers	Local managers at overseas sites	China, Singapore, and United States	23	22	23	22
			Number of female officers	IHI	3	4	3	3
	Ratio of female officers (%)		IHI	16	24	19	18	
	Number of female managers		IHI	68	74	83	92	
Gender diversity	Ratio of female managers (%)	IHI	2.6	2.8	3.0	3.4		
	Ratio of female general managers (%)	IHI	0.8	0.8	0.8	0.8		
	Ratio of female section managers (%)	IHI	1.8	2.0	2.2	2.5		
	Ratio of female section managers (%)	IHI	1.8	2.0	2.2	2.5		

Non-financial Summary

Material issues	Theme	Index		Scope of data	Results				
					2017	2018	2019	2020	
Diversity and inclusion	Work-life balance	Employees with reduced work hours		IHI	159	158	161	139	
		Employees who have taken childcare leave		IHI	677	689	779	768	
		Employees who have taken parental leave		IHI	100	118	131	137	
		Percentage of employees who return to work after parental leave (%)		IHI	100	100	99.2	100	
		Employees who have taken nursing care leave		IHI	18	6	7	2	
		Average annual paid vacation days taken		IHI	17.63	18.36	19.40	18.73	
		Monthly average overtime (hours)		IHI	22.90	22.50	21.10	13.00	
	Human resource development	Stratified training	Participants		IHI and affiliated companies in Japan	2,900	3,300	3,276	1,882
			Training hours		IHI and affiliated companies in Japan	101,000	112,000	106,208	34,672
		Open lectures	Participants		IHI and affiliated companies in Japan	5,800	6,200	3,343	1,948
			Training hours		IHI and affiliated companies in Japan	44,000	47,000	25,073	16,358
		Average annual training hours per employee		IHI and affiliated companies in Japan		16.7	16.7	19.8	13.3
		Employees certified as master artisans		IHI		42	37	41	39
	Labor-management partnership	Employee union membership rate (%)		IHI and 7 labor unions of consolidated subsidiaries		74	73	73	72
		Number of labor complaints received		IHI		0	0	0	0
Occupational health and safety	Occupational health and safety	Participation rate of medical check-ups (%)		IHI and 35 affiliated companies		69	70	71	72
		Participation rate of stress checks (%)		IHI and 35 affiliated companies		91	96	94	95
		Absenteeism (Employees who take three or more months of leave) (%)		IHI and 35 affiliated companies		0.9	0.9	1.0	0.8
		Presenteeism (Employees with restricted hours) (%)		IHI and 35 affiliated companies		1.6	1.7	1.6	2.1
		Smoking rate (%)		IHI and 35 affiliated companies		28	28	27	27
		Lost time injuries frequency rate		IHI and 31 affiliated companies		0.57	0.26	0.40	0.28
		Total injuries frequency rate		IHI and 31 affiliated companies		1.64	1.11	1.49	0.87
		Rate of occupational diseases		IHI and 35 affiliated companies		–	0.165	0.165	0.15
		Occupational accidents*2		IHI and 31 affiliated companies		87 (1)	55 (0)	71 (0)	38 (0)
				Employees*2		IHI and 31 affiliated companies	52 (0)	28 (0)	42 (0)
Temporary employees*2				IHI and 31 affiliated companies	4 (0)	4 (0)	4 (0)	1 (0)	
Partners*2				IHI and 31 affiliated companies	31 (1)	23 (0)	25 (0)	19 (0)	
Corporate citizenship	Social contribution activities	Social contribution expenses (Millions of yen)		*3	331	635	519	215	

*2 Figure inside parentheses indicates fatal incidents

*3 IHI and affiliated companies in 2017. IHI and consolidated subsidiaries in 2018, 2019 and 2020.

Non-financial Summary

Material issues	Theme	Index	Scope of data	Results			
				2017	2018	2019	2020
Environment – Reduce Environmental Impact –							
Climate change	CO ₂	CO ₂ emissions (t-CO ₂)	IHI and consolidated subsidiaries	330,162	329,602	254,227	225,066
		Scope 1 (t-CO ₂)	IHI and consolidated subsidiaries	–	80,032	64,724	58,517
		Scope 2 (market-based) (t-CO ₂)	IHI and consolidated subsidiaries	–	249,570	189,503	166,549
		CO ₂ emissions intensity* ⁴ (t-CO ₂ /100 million yen)	IHI and consolidated subsidiaries	20.8	22.2	18.3	20.2
	Energy	Energy consumption* ⁵ (TJ)	IHI and consolidated subsidiaries	6,087	5,828	2,468	2,283
		Fuel consumption (TJ)	IHI and consolidated subsidiaries	–	–	1,044	974
		Electricity consumption (TJ)	IHI and consolidated subsidiaries	–	–	1,398	1,276
		Heat consumption (TJ)	IHI and consolidated subsidiaries	–	–	–	7
		Steam consumption (TJ)	IHI and consolidated subsidiaries	–	–	0	0
		Renewable energy used (TJ)	IHI and consolidated subsidiaries	–	–	26	26
Energy consumption intensity* ⁴ (TJ/10 billion yen)	IHI and consolidated subsidiaries	38.3	39.3	17.8	20.5		
External evaluation	Evaluation of CDP climate change	IHI and consolidated subsidiaries	B (Management)	B (Management)	B (Management)	B- (Management)	
Circular economy	Waste	Waste generated (ton)	IHI and consolidated subsidiaries	28,691	29,010	27,564	20,912
		Toxic waste generated (ton)* ⁶	IHI and consolidated subsidiaries	–	–	164	182
		Amount recycled (valuable resources) (ton)	IHI and consolidated subsidiaries	–	–	61,799	15,067
	Water	Water withdrawal* ⁷ (1,000m ³)	IHI and consolidated subsidiaries	3,776	4,182	4,251	4,008
		Public water (1,000m ³)	IHI and consolidated subsidiaries	–	–	750	651
		Industrial water (1,000m ³)	IHI and consolidated subsidiaries	–	–	868	799
		Groundwater (1,000m ³)	IHI and consolidated subsidiaries	–	–	1,948	1,731
		Rainwater, rivers, lakes, etc. (1,000m ³)	IHI and consolidated subsidiaries	–	–	685	827
Waste water (1,000m ³)	IHI and consolidated subsidiaries	–	–	–	3,373		
Environmental protection	Compliance with environmental laws and regulations	Significant environmental accidents	IHI and consolidated subsidiaries	0	0	0	0
		Major violation of environmental laws/regulations	IHI and consolidated subsidiaries	0	0	0	0
		Number of cases IHI paid fines, penalties, etc.	IHI and consolidated subsidiaries	0	0	0	0
	Costs to Reduce the IHI Environmental Impact	Investments (Millions of yen)	IHI	713	696	652	334
		Expenditures (Millions of yen)	IHI	79	143	78	23

*4 Net sales as the denominator.

*5 Changed the method of calculating energy consumption since 2019.

*6 Total of specified hazardous wastes and infectious wastes within specially-controlled industrial wastes.

*7 Changed from amount of water consumption to amount of water withdrawal since 2019.



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