

Value Creation Process

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

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



Value Creation Process



Sustainable growth through innovation (FY2026-)
Relentlessly explore new opportunities for businesses to resolve social issues



IHI Carbon-neutral 2050



Sustainability Goal

Output

Outcome

Products and services

Resources, Energy & Environment

- Power systems (for land use/for ships)
- Carbon solutions (boilers/storage facilities)
- Components for nuclear power plants

Social Infrastructure & Offshore Facilities

- Bridges/Water gates
- Transport systems
- Shield systems
- Concrete construction materials
- Urban development

Industrial Systems & General-Purpose Machinery

- Vehicular turbochargers
- Parking
- Heat treatment and surface engineering
- Transport machineries
- Rotating machineries
- Logistics and industrial systems

Aero Engine, Space & Defense

- Aero engines
- Rocket systems and space utilization systems
- Defense systems

Providing value throughout the life cycle, building and enhancing value of the entire value chain



Growth Business

Aero Engines and Space



Development-focus Business

Clean Energy



Core Businesses

Resources, Energy & Environment, Social Infrastructure, Industrial Systems & General-Purpose Machinery

Value for Society

Decarbonize economies

- Energy transition
- Energy transformation

Recycling-oriented society

- Carbon solutions

Minimizing damage caused by natural disasters

- Realizing maintenance and disaster prevention and mitigation

Transportation and mobility with low environmental impact

- Environmentally friendly mobility

- Technologies and human resources that contribute to solving social issues
- Corporate culture that drives innovation
- Value creation through new business opportunities

Value for the IHI Group

Human Capital

Ratio of female managers **4.7%**
Ratio of female officers **18%**

Intellectual Capital

No. of patents acquired (FY2022) **608**

Financial Capital

Operating profit margin **6.1%**
ROIC **6.3%**
CCC **120**days

Natural Capital

GHG emissions (Scope 1 + Scope 2) **215,753** t-CO₂e
Water withdrawal **3,181** thousand m³

Create a World Where Nature and Technology Work in Unity

Value Creation Process

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

The IHI Group has identified material issues to be prioritized to achieve sustainable growth as a company and realize a sustainable society. Our ESG management considers the following to be material issues for our objectives: implementing global

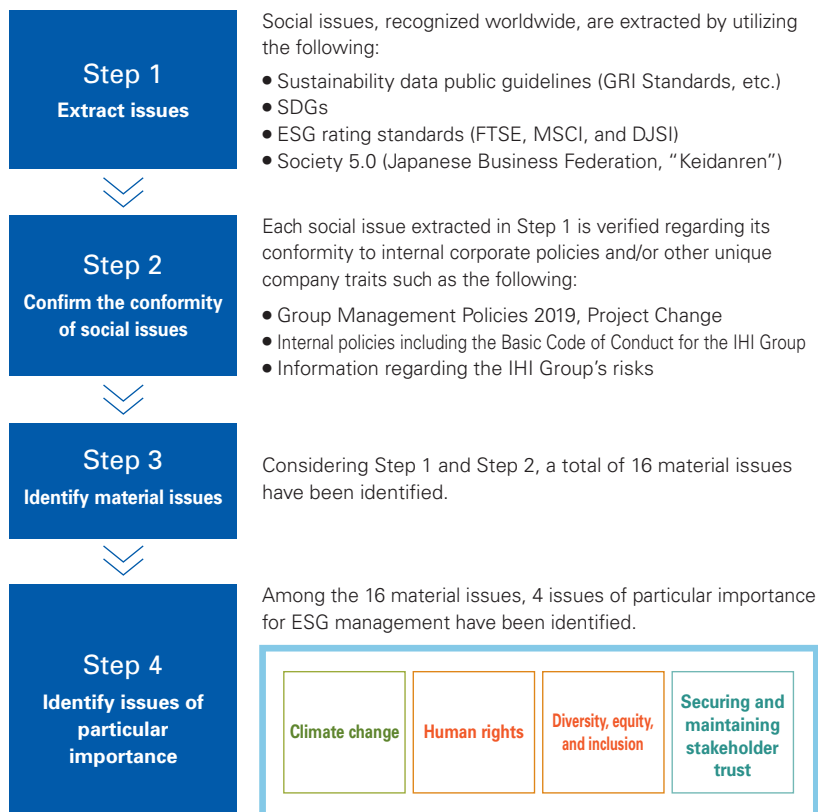
climate change countermeasures, respecting the human rights of people involved in our business operations, maintaining a diverse and inclusive workforce as a driving force of value creation, and securing stakeholder trust with earnest corporate management.

Reference Page

- ▶ [P27 Initiatives for Material Issues](#)
- ▶ [P63-64 Sustainability Governance](#)

● Identification Process of Material Issues

Identify Material Issues According to Our Future Aspiration



● Main Initiatives for Material Issues

	Material Issues	Main Initiatives
Environment E	Climate change	<p>Taking measures against climate change through products and services</p> <ul style="list-style-type: none"> • Development and social implementation of technologies to achieve carbon neutrality • Helping provide economic infrastructure that is resistant to natural disasters <p>Reducing GHG emissions</p> <ul style="list-style-type: none"> • Using energy efficiently • Using less carbon energy
Society S	Human rights	<p>Promoting human rights due diligence</p> <ul style="list-style-type: none"> • Human rights risk assessment, countermeasures, and monitoring • CSR procurement monitoring for business partners
	Diversity, equity, and inclusion	<p>Human resource management and development</p> <ul style="list-style-type: none"> • Promoting institutional reform and fostering a corporate culture that evaluates the reform challenges • Conducting employee awareness surveys to increase engagement • Developing educational programs that enable diverse human resources to grow and play active roles <p>Diversity, equity, and inclusion</p> <ul style="list-style-type: none"> • Active participation by diverse human resources (women, employees with disabilities, etc.) • Secondary jobs outside of the Company, or additional jobs within it
Governance G	Securing and maintaining stakeholder trust	<p>Improving corporate governance</p> <ul style="list-style-type: none"> • Evaluate Board of Directors’ effectiveness with displayed results <p>Through compliance</p> <ul style="list-style-type: none"> • Compliance Hotline operation <p>Through risk management</p> <ul style="list-style-type: none"> • Review of risk management activity by the Board of Directors <p>Innovative management</p> <ul style="list-style-type: none"> • Concentrating research funds and human resources toward focus areas <p>Improving information security</p> <ul style="list-style-type: none"> • Taking measures to prevent security risks from three angles: rules, tools, and training <p>Providing timely and appropriate information</p> <ul style="list-style-type: none"> • Dialogue with stakeholders through financial result briefings, individual meetings, etc.

Risks and Business Opportunities

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

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

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

- ① **Ensure the continuity of the IHI Group's business operations.**
- ② **Improve the public reputation of the IHI Group.**
- ③ **Protect the IHI Group's managerial resources.**
- ④ **Avoid jeopardizing stakeholders' interests.**
- ⑤ **Achieve recovery from damage as soon as possible.**
- ⑥ **Take responsible action when an issue arises.**
- ⑦ **Meet public requirements regarding risks.**

The IHI Group established the Risk Management Conference chaired by the CEO. The Conference assesses key general risk management matters, and considers policies, annual plans, corrective measures, and other important matters.

The Group formulated “IHI Group Key Risk Management Policies” as for the risks to be treated on a priority basis, and all parent units and Group companies in Japan and abroad independently pursue risk management in keeping with those policies.

(2) Risk management activities for FY 2023

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

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

● Compliance

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

● Quality assurance

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

● Economic security

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

● Information security

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

● Upholding human rights

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

● Human resource risks

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

② Response to risks that hinder to execute business scenario

The IHI Group is prioritizing the management of risks that impair the ability of the four Business Areas to execute their respective strategies in order to respond to them quickly and appropriately, while keenly grasping the drastic changes in the business environment surrounding the IHI Group.

In order to systematically check the latent risks in the business plan, the IHI Group are also constantly assessing and

confirming the response plans and implementation progress for a wide range of business-related risks and, if needed, executing revision to the response plans including risk assessment.

(3) Business risks

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

① Social responsibility

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

② Preparation for changes in external environment







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

③ Management Resources & Business Operations

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

Value Creation Process

Six Types of Capital

	Basic Policy	Capital
 Human Capital	<p>The IHI Group established the Group Human Talent Strategy 2023 linked with the "Group Management Policies 2023." In order to achieve business transformation and corporate structural reform, we will implement human talent strategies aiming to balance a good-standing & resilient company and individual growth & happiness.</p>	<ul style="list-style-type: none"> • Consolidated number of employees 28,486 (Japan 21,266, Overseas 7,220) (Consolidated) • Ratio of female managers 4.7%, ratio of female officers*1 18% (IHI) • Amount spent for education/training ¥23,512/employee, Training hours 14.3 hours/employee (IHI)
 Intellectual (Technological) Capital	<p>We will work on technology development to continuously provide new value, aiming to solve issues faced by society and our customers. Aiming to strengthen the competitiveness of Core Businesses, expand Growth Business, and create business in Development-focus Business, we will conduct everything from basic research to practical application in collaboration with a variety of partners.</p>	<ul style="list-style-type: none"> • R&D expenses ¥34.0 billion (FY2022 result), ¥40.0 billion (FY2023 forecast) • Number of patents held: Japan 3,989, Overseas 3,818 (FY2022) • Number of patents acquired per year 608 (FY2022 result)
 Financial Capital	<p>We will strengthen our cash flow generation and actively invest in business transformation to achieve sustainable high growth, while balancing the expansion of our financial base and shareholder returns. The basic policy in stockholder returns is stable dividends, and we will aim for a consolidated dividend payout ratio of around 30%.</p>	<ul style="list-style-type: none"> • Total assets ¥1,941.9 billion • Equity ¥456.2 billion • Interest-bearing liabilities ¥519.4 billion • Operating profit margin 6.1% • ROIC (after tax) 6.3% • CCC 120 days
 Manufactured Capital	<p>Through our products and services, we aim to solve social issues and realize a safe, secure, and affluent society. We aim to establish manufacturing sites that place the highest priority on the safety and quality of our products and services, minimize environmental impact, and give full consideration to the safety of our employees.</p>	<ul style="list-style-type: none"> • Capital expenditure ¥61.1 billion (FY2022 result), ¥84.0 billion (FY2023 forecast) • Manufacturing sites in Japan 14 (IHI 6, subsidiaries 8)
 Social and Relationship Capital	<p>We established the ESG Management Promotion Committee in FY2021 and are reinforcing our sustainability promotion system. We uphold human rights, customer relationships, supply chain management, corporate citizenship, and others as material issues to engage with the social and relationship capital.</p>	<ul style="list-style-type: none"> • Overseas bases 21 (As of April 1, 2023) • Social contribution expenses ¥489 million (FY2022 result)
 Natural Capital	<p>We established the Environment Committee chaired by the officer in charge of ESG-related matters. The Committee deliberates and determines the measures to address climate change, resource recycling, and environmental protection in plants and offices. The Environmental management system has been established at each primary production plant as we strive to enhance the level of environmental management.</p>	<ul style="list-style-type: none"> • Energy consumption 2,294 TJ (FY2022 result) • Water withdrawal 4,037 thousand m³ (FY2022 result) • GHG emissions (Scope 1 + Scope 2) 215,753 t-CO₂ (FY2022 result) • Waste water 3,181 thousand m³ (FY2022 result)

*1 Directors and Audit & Supervisory Board Members

Value Creation Process

Strategies to Achieve "Group Management Policies 2023"

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

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

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

In addition to realizing exploit and evolution of LCB in each business, we will make capital investments to accelerate production and business transformations leveraging digital transformation. At the same time, we will transition to manufacturing facilities that enable us to monitor and control CO₂ emissions to achieve carbon neutrality.

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

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



Social Values to Be Created

Value for Society

Decarbonize economies

- Energy transition
- Energy transformation

Recycling-oriented society

- Carbon solutions

Minimizing damage caused by natural disasters

- Realizing maintenance and disaster prevention and mitigation

Value for the IHI Group

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