Realize your dreams

At IHI Group, we design and build progressive engineering solutions for people and planet.

Our heritage is built upon a shared culture of striving for the highest standards in every facet of our business. This approach commits all relationships to our management philosophy, which is to contribute to the development of society through technology.

We work alongside customers, stakeholders and fellow employees to deliver outcomes that positively affect the world and its inhabitants. This powers our relationships to greater outcomes, and also makes good commercial sense. At our core, we are people who apply forward thinking to find lasting solutions to the toughest problems.

IHI Group. Realize your dreams.
An Enduring Legacy from 165 Years Ago

The arrival of Commodore Matthew Perry’s fleet in Japan in 1853 prompted the Tokugawa Shogunate to establish the Ishikawajima Shipyard to counter Western power.

Tomiji Hirano later set up the Ishikawajima Hirano Shipyard with a lease from the Meiji Government as Japan’s first private modern shipbuilding site. The construction of warships there propelled the nation’s progress through industrialization and technology.

It is from Mr. Hirano that the IHI Group derived the management philosophy of “Contribute to the development of society through technology” that remains central to its DNA.

A history of progressing with the community

1876

The Ishikawajima Hirano Shipyard was established at Ishikawajima island, at the mouth of the Sumida River (the address is now Tsukuda 2-chome, Chuo-ku, Tokyo).

1903

Tsukudajima island becomes an industrial area, and landfill work begins at Toyosu.

1950

Shipyard in Toyosu progresses with Japan’s postwar reconstruction.

History

1853

Established Ishikawajima Shipyard

1866

Completed the Chiyoda kata as Japan’s first steam-powered warship

1876

Established Ishikawajima Hirano Shipyard

1877

Completed Idemitsu Maru, the world’s first 200,000-ton-class tanker

1903

Established Harima Dock Co., Ltd.

1907

Established Ishikawajima-Harima Heavy Industries Co., Ltd.

1911

Built steel frame of Tokyo Central Station (now Tokyo Station)

1945

Produced the Ne20, Japan’s first jet engine

1960

Built the world’s first barge-mounted pulp manufacturing plant, for Brazil

1966

Completed Idemitsu Maru, the world’s first 200,000-ton-class tanker

1978

Built the world’s first F-LNG

1998

Helped complete the Akashi Strait Bridge, the world’s longest suspension bridge

2002

Japan’s first 600MW tower boiler started operating

3 IHI Integrated Report 2018
From the seas and the land to the skies and the stars: Continuing to meet new challenges

**Resources, Energy & Environment Business Area**

**Minimizing Environmental Impact**
- Boilers
- Large power systems
- Environmental response systems
- Power systems plants for land use
- Process plants
- Pharmaceutical plants
- Power system for land and marine use
- Nuclear energy

**Social Infrastructure & Offshore Facilities Business Area**

**Underpinning the Essentials of Modern Living**
- Bridges and watergates
- Shield systems
- Concrete construction materials
- Transport systems
- Urban development
- F-LNG

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

**Transforming the World’s Industrial Infrastructure**
- Logistics and machinery
- Thermal and surface treatment
- Agricultural machinery and small power systems
- Vehicular turbochargers
- Steel manufacturing equipment
- Parking
- Rotating machinery
- Paper machinery

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

**Opening New Horizons**
- Aero engines
- Rocket systems and space exploration
- Defense equipment and systems

---

**History**

- **1853**
  - Established Ishikawajima Shipyard
- **1866**
  - Completed the Chiyoda kata as Japan’s first steam-powered warship
  - Image courtesy of Museum of Maritime Science
- **1876**
  - Established Ishikawajima Shipyard
  - Constructed the Tsuun Maru steamship
- **1903**
  - Established Ishikawajima-Harima Heavy Industries Co., Ltd.
- **1907**
  - Established Harima Dock Co., Ltd.
- **1960**
  - Established Ishikawajima-Harima Heavy Industries Co., Ltd.
- **2007**
  - Company name changed from Ishikawajima-Harima Heavy Industries Co., Ltd., to IHI Corporation
- **2007**
  - Produced 50 millionth vehicular turbocharger
- **2010**
  - Epsilon rocket launched
- **2013**
  - Tsukudajima island becomes an industrial area, and landfill work begins at Toyosu
  - Toyosu begins transforming into a business and residential area
- **2015**
  - Produced 50 millionth vehicular turbocharger
  - Boeing 787 fitted with GEnx jet engine made first flight
- **2016**
  - Osman Gazi Bridge spanning Izmit Bay opens as Turkey’s longest suspension bridge

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**From the seas and the land to the skies and the stars: Continuing to meet new challenges**

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**Social Infrastructure & Offshore Facilities Business Area**

**Underpinning the Essentials of Modern Living**
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- Shield systems
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- Aero engines
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**IHI Integrated Report 2018**
Many of the manufacturing technologies employed in manufacturing IHI’s products have their roots in shipbuilding, from rotating machinery and welding to machining and pipe technologies.
A Manufacturing heritage that Originated in Shipbuilding

Many of the manufacturing technologies employed in manufacturing IHI’s products have their roots in shipbuilding, from rotating machinery and welding to machining and pipe technologies.

Various plants

Thermal and surface treatment

Cranes and transport machinery

Blast furnaces and waste incinerators

Bridges and watergates

Turbochargers for vehicles

Nuclear energy

Steam turbines

Turbochargers for ships

Aero engines, Gas turbines

Compressors

Boilers

Marine cranes

IHI’s Value-Creation Process

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

The IHI Group seeks to solve the various environmental, industrial, social, and energy related problems of the 21st century, through using engineering expertise to focus on “Monozukuri” technology. In striving towards these goals, IHI is becoming a global enterprise offering the safety and security for the benefit of both the environment and humanity.

This report is a reflection of the IHI value-creation process shown in the following chart.

Corporate Philosophy

IHI Group Vision

Group Management Policies 2016

Technologies based on shipbuilding

People inheriting our management philosophy

Global Marketing & Sales

Business foundations

Business Development & Solution

ESG Management

Experience and advancement

Products and services

Societal value

Customer

Suppliers

Shareholders and investors

Local communities

Government organizations

Employees

Input (capital)

Financial capital

Manufactured capital

Intellectual capital

Human capital

Social and relationship capital

Natural capital

Resources, Energy & Environment

Social Infrastructure & Offshore Facilities

Business Activities

Shared Group Functions

Output (business activities)

Societal value

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 SUSTAINABLE COMMUNITIES

11 CLEAN WATER AND SANITATION

12 LIFE ON LAND

13 CLIMATE ACTION

14 LIFE below WATERS

15 LIFE ON LAND

17 PARTNERSHIPS FOR THE GOALS

Experience and advancement
Financial Highlights

Net sales / Operating margin
- Net sales
- Operating margin

Overseas sales / Percentage of overseas sales
- Overseas sales
- Percentage of overseas sales

Interest-bearing debt / D/E ratio
- Interest-bearing debt
- D/E ratio

Cash flow
- Cash flows from operating activities
- Cash flows from investing activities
- Cash flows from financing activities
- Free cash flow

Management efficiency
- ROIC
- ROA
- ROE

R&D expenses / Investment in plant and equipment / Depreciation and amortization

1: Interest-bearing debt = net assets
2: (Operating income + interest and dividend income) after-tax = (owner’s equity + interest-bearing debt)
3: Profit attributable to owners of parent = (average of total assets at end of previous term and end of current term)
4: Profit attributable to owners of parent = (average of owner’s equity at end of previous term and end of current term)

All financial figures are on a consolidated basis.

Please view website for more detailed information.

Financial: https://www.ihi.co.jp/en/ir/
Non-Financial Highlights

Nikkei Environmental Management Survey

- Percentage of employees who are female / Number of female managers / Percentage of female managers
- Number of employees taking childcare leave / Percentage returning to work after childcare leave

CO₂ emissions from business activities

- CO₂ emissions from business activities in tons

Number of directors, percentage of outside directors, and attendance rates at board meetings

- Number of directors
- Percentage of outside directors
- Outside director meeting attendance rate

Compliance Hotline reports

- Compliance Hotline reports

All financial figures are on a consolidated basis, unless IHI Corporation is specified. Please view website for more detailed information.

Financial: https://www.ihi.co.jp/en/ir/
### IHI Group Medium-Term Business Plan (for fiscal 2016 through 2018)

**Group Management Policies 2016 - Strengthen earnings foundations -**

The IHI Group will endeavor to increase its profitability by contributing to social process by delivering advanced products and services and streamline capital efficiency and enhance shareholder returns in response to capital market demands.

We seek to become a trusted corporate group by pursuing sustainable growth while enhancing corporate value.

The prime focus of Group Management Policies 2016 is to strengthen earnings foundations, driving the following profit growth-centric initiatives.

#### IHI Group Vision

The IHI Group seeks to solve the various environmental, industrial, social, and energy related problems of the 21st century, through using engineering expertise to focus on "Monozukuri” technology, in striving towards these goals, IHI is becoming a global enterprise offering the safety and security for the benefit of both the environment and humanity.

#### Direction of Group Management Policies 2016

<table>
<thead>
<tr>
<th>Earnings growth</th>
<th>Business scale growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018</strong></td>
<td><strong>2020</strong></td>
</tr>
</tbody>
</table>

**Group Management Policies 2013**


**Group Management Policies 2010**

“Establish growth trajectory” (2010-2012)

**Group Management Policies 2007**


#### Initiatives to strengthen earnings foundations

1. **Concentration and selection through new portfolio management**
   - Establish missions combining strategic direction and targets (ROIC (see note3) and operating margin) for each strategic business unit.
   - Allocate management resources according to priority investment or revitalization and reorganization designations.

2. **Boost profitability by reinforcing project implementation structure**
   - Improve quotation processes and risk reviews.
   - Deploy human resources training programs to bolster project management capabilities.

3. **Employ common Group functions to transform business model**
   - Strengthen capabilities in solutions and new business, advanced information management, and global operations and sales.
   - Co-creation among business units and shared Group functions.

#### Grow sustainably and enhance corporate value

**Targets (Fiscal 2018)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7%</td>
<td>10%</td>
<td>0.7 x or less</td>
</tr>
</tbody>
</table>

Notes: 1. ROIC (return on invested capital) 2. Debt-to-equity ratio 3. Pre-tax ROIC

Through three initiatives to strengthen management foundations attained steady results by reforming the business structure through concentration and selection, reinforcing project screening and monitoring capabilities to prevent downswings, and set up facilities for the renewable energy business.

Outlook for fiscal 2018

Management looks to make all businesses profitable and eliminate the losses incurred in the previous year in projects in the Resources, Energy and Environment business, thus increasing earnings. After factoring out exchange rate and assumptions from its forecasts, the Company should reach the operating income target of Group Management Policies 2016.

<table>
<thead>
<tr>
<th>FY2016 Results</th>
<th>FY2017 Results</th>
<th>FY2017 Outlook</th>
<th>FY2018 Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Sales</td>
<td>¥1,486.3 billion</td>
<td>¥1,590.3 billion</td>
<td>¥1,500.0 billion</td>
</tr>
<tr>
<td>Operating margin</td>
<td>3.2%</td>
<td>4.5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Operating Income</td>
<td>¥47.3 billion</td>
<td>¥72.2 billion</td>
<td>¥85.0 billion</td>
</tr>
<tr>
<td>Ordinary Income</td>
<td>¥22.0 billion</td>
<td>¥21.4 billion</td>
<td>¥65.0 billion</td>
</tr>
<tr>
<td>Profit Attributable to Owners of the Parent Company</td>
<td>¥5.2 billion</td>
<td>¥8.2 billion</td>
<td>¥32.0 billion</td>
</tr>
<tr>
<td>ROIC(^1)</td>
<td>5.0%</td>
<td>7.7%</td>
<td>9.0%</td>
</tr>
<tr>
<td>D/E Ratio(^2)</td>
<td>1.10</td>
<td>0.92</td>
<td>0.89</td>
</tr>
<tr>
<td>Dividends</td>
<td>—</td>
<td>Interim: ¥3 per share Year-end: ¥30 per share (after reverse stock split)</td>
<td>¥60 per share planned ($30 interim and $30 at year-end)</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>¥108.27/US$</td>
<td>¥111.00/US$</td>
<td>¥105/US$</td>
</tr>
</tbody>
</table>

1: (Operating Income + interest and dividend income) after-tax / (owner’s equity + interest-bearing debt)
2: Interest-bearing debt / net assets
IHI has continued to contribute to social progress and change through manufacturing over its more than 165 years of operations. In 1853, the Tokugawa Shogunate set up our predecessor, the Ishikawajima Shipyards, ahead of the arrival of Commodore Matthew Perry in Uraga, which led to Japan’s opening to the West. It is from this origin that we have amassed outstanding technologies, people, and a commitment to change in our DNA.

We have always operated in eras of constant change. What is different now is that the pace of change is accelerating. Key examples are the digitization of information through the Internet of Things, artificial intelligence, and other vehicles, which are transforming the business landscape. There is a growing need to prevent global warming and safeguard the environment by reducing carbon emissions or decarbonizing while embracing diversity and reforming work practices. We must strive to match social expectations and our responsibilities to society.

The IHI Group will help materialize a sustainable economy by changing with the times and generating ongoing growth while resolving social issues.
Fiscal 2017 Review

We recognized a greater need to adopt more robust project implementation and risk management structures and accelerate the pace of change.

Group Management Policies 2016, which the IHI Group rolled out in fiscal 2016, aims to strengthen its earnings foundations. We aim to reach our management goals by pursuing concentration and selection through new portfolio management, boosting profitability by reinforcing our project implementation structure, and employing common Group functions to transform our business model.

In fiscal 2016, the first year of this initiative, we undertook a range of measures in keeping with the top priority, which was to restore stakeholder trust. Unfortunately, the profitability of large projects declined, and we were unable to reach our initial earnings targets.

In fiscal 2017, our efforts included strengthening project and risk management in keeping with a new slogan, “Recover trust and drive reforms.” To restore stakeholder trust, we need to remain consistently profitable by preventing earnings downturns in projects. We will drive reforms by accelerating business structure reforms to bolster our earnings foundations and reach our management targets.

We helped to recover trust by surpassing our initial operating income target, demonstrating our ability to strengthen our earnings foundations. That said, profitability deteriorated at a North American process plant project and at affiliate Japan Marine United Corporation. We must build more robust project implementation risk management structures to truly recover trust.

In fiscal 2017, our efforts included strengthening project and risk management in keeping with a new slogan, “Recover trust and drive reforms.” To restore stakeholder trust, we need to remain consistently profitable by preventing earnings downturns in projects. We will drive reforms by accelerating business structure reforms to bolster our earnings foundations and reach our management targets.

We have already addressed the situation at the North American process plant project by putting experts in the right places, including some former IHI Group employees, and undertaking frontline-focused risk management efforts. Our endeavors at Japan Marine United include reinforcing governance and dramatically increasing our cost competitiveness.

To drive reforms in keeping with the business area setup that we adopted in April 2017, we shifted away from the individual management of strategic business units to consolidate business domains and accelerate decision making under selection and concentration, focusing resources on growth areas. Notwithstanding these efforts, the operating climate changed faster than expected, and our business structure and model reforms did not progress swiftly enough.

In fiscal 2018, we rolled out companywide priority policies to tackle these issues.

Priority policies in fiscal 2018

We aim to materialize Group Management Policies 2016 by pushing ahead under a new slogan.

For fiscal 2018, we unveiled a new slogan to guide our endeavors in view of changes in the operating climate that have made it imperative to transform the organization. The slogan is, “First year for change.” The idea is to encourage our people to collaborate with each other beyond business or divisional boundaries. The slogan underscores our commitment to swiftly reforming our business structure and model amid relentlessly dramatic changes in the operating climate.

Priority companywide policies for fiscal 2018

“First year for change”

— Drive change through teamwork beyond divisional boundaries and effective communication —

Switch to robust project implementation and risk management structures

Reform quality and operational systems to bolster manufacturing capabilities

Increase profitability by changing business structure in line with operational strategies

Transform business model to create customer value

Create new workplaces by reforming work practices and cultivate human resources
Adopting a more robust project and risk management structure

A top priority measure is to adopt a more robust project and risk management structure. We will manage risks more attentively under the setup that we put in place in fiscal 2017. We will additionally enhance communications at business sites to tackle risks in a timely manner.

We cannot avoid all risks, of course, and in fact we should be prepared to embrace them where necessary. If we fail to do so, we cannot expect to generate growth or great returns. This is particularly true in deploying new technologies or engaging in new national projects.

Boosting profitability by matching the business structure to business strategies

We will deploy resources in any business area with profitability potential. In the Civil Aero-Engine business, for example, we have enhanced profitability by supplying high-value-added products based on proprietary technology. We have focused on developing and engineering proprietary materials to greatly increase the lightness and fuel economy required of such engines and building production processes. This effort led to the selection of our composite components for the PW1100G-JM engine, for example, helping us to expand our market share.

On top of that, we will step up our post-sales maintenance and other aftermarket efforts. We have long and outstanding records in the Civil Aero-Engine, boiler, and other businesses in this respect. We will also allocate resources to cultivate our aftermarket capabilities in the Industrial System and General-Purpose Machinery and other businesses to increase groupwide profitability.

Changing our business model to create customer value

It is vital for the IHI Group to serve advanced information society needs to generate growth in the years ahead. We accordingly position digital technology as the engine for changing our business model.

We developed the IHI Group Lifecycle Partner System (ILIPS), for example, a shared remote maintenance platform that we apply to a range of products and services. ILIPS analyzes operational data from equipment delivered to customers to identify potential failures, and we have begun using it to recommend optimal maintenance and operational regimes.

It is through such efforts to bring together digital technology and our manufacturing expertise to provide solutions that help increase customer value and thereby build a new business model.

Improving business processes to reinforce our manufacturing capabilities and reform work practices

Steady and ongoing improvements are essential for us to materialize the goals of our management policies. Since fiscal 2013, we have deployed I-Project activities groupwide. I-Project entails cutting costs, streamlining tasks, and reforming work practices by formulating and rolling out initiatives to improve business processes. We are determined to generate results by implementing PDCA cycles, and our management team exchanges views with employees at business sites to help step up activities.

We will make improvement efforts integral to our corporate culture so we can ensure that our businesses can respond robustly to changes in the operating climate.
ESG initiatives

We will resolve social issues and materialize a sustainable economy.

The sustainability of society and businesses has returned to the spotlight among stakeholders, who increasingly demand growth based on long-term perspectives. Many companies maintain strong environmental, social, and governance (ESG) commitments. It is also worth noting that even the United Nations adopted Sustainable Development Goals (SDGs). Such developments illustrate the importance of the public and private sectors partnering to overcome social issues and ensuring that this planet is permanently habitable.

We will strengthen ESG efforts as business underpinnings. We also look to our products and services to contribute to economic sustainability by resolving social issues that are the subject of Sustainable Development Goals.

We will additionally contribute to conserving energy and lowering environmental impact by supplying products and services that increase manufacturing efficiency for customers. The need for products that lead to low-carbon emissions or decarbonization will increase in the years ahead. The Carbon-Free Energy Project unit, which Corporate Research & Development launched, exemplifies our dedication to resolve social issues through intensive technological development.

We consider it essential to improve corporate value by embracing diversity. We will step up efforts groupwide to enhance our employment systems and corporate culture to enable diverse people to reach their potential regardless of gender, race, nationality, disabilities, age, or sexual orientation.

We also believe that the diverse talents of individuals are important for us to flexibly address changes in the business climate. We will transfer personnel among Group companies so younger employees can become more experienced.

To Our Stakeholders

This integrated report is an important tool for informing stakeholders about our operations and initiatives. We look forward to your feedback to help us further improve our business.
Mission of Project Risk Management Division
IHI inaugurated the Project Risk Management Division in April 2017 to strengthen the Company’s position in view of extensive losses on large projects in fiscal 2014 through 2016.

The division’s main task is to analyze these projects and investment risks and support implementation to prevent downturns. Another key role is to report swiftly to relevant departments and management upon becoming aware of risks that could compromise corporate operations.

Project management structure
The division assesses large projects prior to bids, monitors ongoing projects, and audits and monitors investments. It allocates more of its people to monitoring ongoing projects.

In fiscal 2017, the division set up a certified reviewer program, through which IHI retirees and external experts versed in our operations bolster its monitoring setup. Most of those reviewers were formerly division director or executive expert with extensive project management experience. These people overview projects from overall and frontline worker perspectives to ensure proper execution.

Management targets and auditing and monitoring processes
The division audits prospective projects and monitors ongoing projects and investments. Projects can be as short as two years or extend to four or five years. So, around half of the projects were already under way started before IHI strengthened pre-bid assessment processes in fiscal 2016. Ongoing projects are subject to deliberations at each major milestone so the division can determine whether they have reached targets set at the outset and take proactive measure before risks materialize.

At the pre-investment assessment stage, the division...
establishes prerequisites for each milestone and exit strategies to minimize the impacts of financial losses. The division rigorously assesses the consistency of business strategies and policies, competitive positions, and investment frameworks, as well as total and annual investment levels, investment returns, and other factors. After investment initiation, the division liaises with business area Risk Management department to monitor whether things progress as planned.

Collaborating with business areas and overseas bases
At the same time we set up the Project Risk Management Division in fiscal 2017, we established organizations to oversee risk management for each business area. Since projects execution procedure and expertise vary across the SBUs, the division deepens communication with each business area by sharing key risk management points and improving screening and monitoring. For overseas projects, we collaborate with bases in New York for the United States and Singapore for Southeast Asia that are well versed in situations in their regions.

Fiscal 2017 review and outlook
At this juncture, no major downside elements have arisen with projects for which we have received orders since fiscal 2016, so we have concluded that pre-bid assessments have helped to lower risks. Still, our monitoring efforts have focused on detecting risks at early stages. For the year under review, we accordingly booked losses to cover several downside risks, including for a North American process plant project. Most downturns have stemmed from failing to sufficiently identify risks and take countermeasures against them when estimating project expenses in the proposal stage. So, risks materializing during projects have exceeded budgeted amounts. To eliminate downside factors we are focusing on comprehensively estimating risks based on our experience and systematically dispensing with them. We will assist efforts to produce more accurate estimates in accordance with specific characteristics. Projects and investments can never be risk-free. In order not recur large scale downturns at all we will therefore do our best to eliminate risk factors by screening more carefully, and will exert ourselves utmost to early identify and minimize risks by communicating closely with frontline sites.

Numbers of downside events on major projects

![Chart showing numbers of downside events on major projects]

Note: The chart shows the number of downside events that resulted in significant gaps between estimated and actual costs on large projects subject to monitoring.

Operating income targets and results

![Chart showing operating income targets and results]

(Billions of yen)

<table>
<thead>
<tr>
<th>Year</th>
<th>Initial targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
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<tr>
<td>2015</td>
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<td></td>
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<tr>
<td>2016</td>
<td></td>
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</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Maximizing cash generation by undertaking measures that prioritize ROIC improvements

Under Group Management Policies 2016, our medium-term management plan, for fiscal 2018 we target an operating margin of 7%, a ROIC (see note 1) of 10%, and a debt-to-equity ratio (see note 2) of 0.7 times or less. By strengthening our earnings foundations, we aim to maintain an ROE (see note 3) of 10% or more over the medium to long terms. The IHI Group’s management has traditionally emphasized earnings. Under the current medium-term management plan, we made generating cash another priority as an ultimate business goal while also seeking to increase our return on capital. In other words, we are focusing on such key capital efficiency benchmarks as ROE and ROIC.

Pursuing concentration and selection efforts that are commensurate with the IHI way

Under Group Management Policies 2016, we allocated 25 strategic business units to five future mission classes according to their business positions and established two categories to optimize our business portfolio. One category designates investment priorities for management resources. The other designates rehabilitation or reorganization for businesses posing viability concerns, notably in terms of market attractiveness and assets held. By thus clarifying business-specific missions, we have created a framework for making swift concentration and selection decisions.

Key financial indicators
(In bold are management objectives under Group Management Policies 2016)

<table>
<thead>
<tr>
<th></th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018 (Targets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating margin</td>
<td>3.2%</td>
<td>4.5%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Operating profit</td>
<td>¥47.3 billion</td>
<td>¥72.2 billion</td>
<td>—</td>
</tr>
<tr>
<td>ROIC (return on invested capital)¹</td>
<td>5.0%</td>
<td>7.7%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Debt-to-equity ratio²</td>
<td>1.10</td>
<td>0.92</td>
<td>0.7x or less</td>
</tr>
<tr>
<td>ROE³</td>
<td>1.6%</td>
<td>2.6%</td>
<td>—</td>
</tr>
<tr>
<td>Shareholders’ equity ratio</td>
<td>18.8%</td>
<td>19.9%</td>
<td>—</td>
</tr>
</tbody>
</table>

Notes: 1. (operating profit + Interest and dividend income) after tax ÷ (shareholders’ equity + Interest-bearing debt)
2. Net interest-bearing debt ÷ Net assets
3. Profit attributable to owners of parent ÷ (average of previous fiscal year-end and current fiscal year shareholders’ equity)

Some investors may point out that having an array of strategic business units might impede optimal management resource allocation. On that note, it is important to note that areas like our core aero engines business inherently take years to become profitable. We can only cultivate our investment strategies by diversifying and investing in a wide range of businesses. So, while 25 strategic business units may be too many, it is vital to diversify investments to an extent to cultivate tomorrow’s core businesses.

Focusing on generating cash flows and swiftly enhancing long-term shareholder value

The IHI Group’s capital policy prioritizes producing shareholder returns, remunerating employees, and making growth investments rather than simply retaining cash. We fundamentally seek to pay stable shareholder dividends, amounting to ¥60 per share annually. Notwithstanding minor swings in current yearly investment levels in view of business strategies, basically it is our policy to maintain capital expenditure, R&D, and investment and lending at more than ¥100 billion. We seek to swiftly generate more than ¥100 billion in operating profit to further enhance shareholder value. That would be sufficient to repay loans, deliver shareholder dividends, and undertake growth investments. If we thereby reinforce our financial position, we will be able to improve our credit rating and secure higher quality funding that we can use to invest in growth. In entering a virtuous circle like this, we should be able to take steps to improve shareholder value even more, notably by reassessing our shareholder returns policy. We look forward to the ongoing support and encouragement of stakeholders for our efforts.
Business Overview

- Resources, Energy & Environment
- Social Infrastructure & Offshore Facilities
- Industrial Systems & General-Purpose Machinery
- Aero Engine, Space & Defense
- Other and adjustments

Sales ratio (FY2017) ¥1,590.3 billion

- Aero Engine, Space & Defense ¥463.7 billion 29%
- Resources, Energy & Environment ¥490.4 billion 31%
- Industrial Systems & General-Purpose Machinery ¥459.0 billion 29%
- Social Infrastructure & Offshore Facilities ¥154.5 billion 10%
- Urban development ¥53.3 billion 34%
- Boilers ¥474.0 billion 32%
- B-LNG ¥533.0 billion 34%
- Other and adjustments ¥22.6 billion 1%

Ratio of orders received (FY2017) ¥1,505.0 billion

- Aero Engine, Space & Defense ¥463.7 billion 29%
- Resources, Energy & Environment ¥490.4 billion 31%
- Industrial Systems & General-Purpose Machinery ¥459.0 billion 29%
- Social Infrastructure & Offshore Facilities ¥154.5 billion 10%
- Urban development ¥53.3 billion 34%
- Boilers ¥474.0 billion 32%
- Other and adjustments ¥25.1 billion 2%

Note: The total of percentages for all segments may not reach 100%, as amounts less than 100 million yen are rounded off.
Sales rose owing to progress in large process plant projects and higher boiler sales.

Despite gains in shield systems owing to business integration and progress with construction projects, segment sales were down amid lower revenues for the FLNG/offshore structure business and transport systems.

Sales rose on higher vehicular turbocharger unit sales in China.

The Company returned to the black after eliminating the F-LNG/offshore structure losses of the previous fiscal year.

Orders received were up despite a downturn for nuclear power and process plants, reflecting such factors as a rise for a boiler project in Bangladesh.

Orders received were up on bridge and watergate orders, notably for constructing the Brailia suspension bridge in Romania and a Mumbai Trans Harbor Link road bridge, offsetting a downturn in shield systems.

Orders received were up on gains for vehicular turbocharger and thermal and surface treatment.

Although we eliminated the impact of a deterioration in boiler earnings in the previous term, contributing to higher sales in the year under review, losses increased because of a downturn in process plant profitability.

Net sales

Operating income

Orders received / Order backlog

Investment in plant and equipment / Depreciation

Sales rose on higher vehicular turbocharger unit sales in China.

Operating income increased from higher vehicular turbocharger unit sales in China.

Orders received were up on gains for vehicular turbocharger and thermal and surface treatment.

Operating income increased from higher vehicular turbocharger unit sales in China.

Orders received were up on gains for vehicular turbocharger and thermal and surface treatment.
Sales declined amid lower unit sales of civil aero engines.

Despite the impacts of sales of higher the new PW1100G engine and a rise in selling, general and administrative expenses, operating income rose on gains in spare parts for civil aero engines and favorable exchange rates.

Orders received rose on increases for civil aero engines, which outweighed declines for defense equipment and systems and for aero engines following Japanese Ministry of Defense’s lump-sum procurement of such engines in the previous term.
Conserving the environment while stabilizing energy supplies
We have a social responsibility to ensure stable supplies of the energy that is vital to people’s lives while lowering environmental impact. We provide products and services that are optimal for humankind and the planet throughout their life cycles, drawing on our technological strengths in handling such energy sources as coal, natural gas, nuclear power, and renewables.

Overviewing fiscal 2017 and looking ahead
Orders were far lower than targeted in fiscal 2017, a key factor being a global downturn in plant construction demand. We collaborated with the Project Risk Management Division to more tightly monitor and stem profitability downturns on large projects that have caused concerns. Analyzing the causes of previous drops enabled us to significantly improve business processes and position ourselves more solidly to eliminate such downturns. We were unable to eliminate an operating loss, however, owing to large losses on a project in North America.
We will continue to reduce engineering, procurement, and construction costs in fiscal 2018 to become more cost competitive and secure orders. It is also worth noting that we adopted a structure in which we can flexibly reallocate capital investments, R&D expenses, personnel, and other resources as order volumes change. We seek to return to the black in fiscal 2018 by steadily implementing our measures.

Harnessing the IHI Group’s technologies and network to build new ties with customers
In fiscal 2018, we established a business development department that integrates business development functions and sales supervisory functions directly under business areas. Here, we look at the customer’s needs widely from the viewpoint of business areas, promote development to realize customer value, and are accelerating commercialization. At the moment, about 30 projects, mainly renewable energy-related projects, are moving. Recently, we are also increasing the number of customers who are aiming to expand business overseas. We are extremely pleased to make use of customers overseas as partners by utilizing the track records of overseas plant construction and the networks around the world. Of course, throughout the entire life cycle of products such as maintenance and preventive maintenance, we work hard not only to build facilities but also to contribute to efficiency improvement and profit maximization by optimal operation of facilities as a long-term partner of customers.

Utilizing its strengths such as combustion technology, contribute to the realization of a low-carbon society
The global community increasingly demands the creation of a low-carbon economy. Nonetheless, some regions and customers still need affordable fossil fuels to maintain stable power supplies. We are accordingly endeavoring to provide renewables that employ our strengths in technology that optimizes combustion efficiency. A good example is the use of biomass and ammonia with coal in boiler fuel to reduce carbon dioxide emissions.
In March 2018, we completed construction at the Nippon Paper Ishinomaki Energy Center. The center can derive up to 30% of its fuel from wood biomass, and is the largest facility...
of its type in Japan.
We have started proposing an energy management setup that combines storage batteries and gas turbines with renewable energy facilities, whose output fluctuates according to the weather, to optimize operations in keeping with demand changes. We have made significant progress in research and development into producing hydrogen from brown coal with a view to expanding the use of hydrogen energy.

We will help materialize a sustainable economy by fulfilling our commitment to providing stable energy supplies and lowering environmental impact by drawing on the technologies we have cultivated over the years and the Group’s comprehensive strengths.

Operating income and operating margin (%)

<table>
<thead>
<tr>
<th>(Billions of yen)</th>
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<tbody>
<tr>
<td>60</td>
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</table>

Operating margin (Left axis)
Operating income (Right axis)

IHI and Sumitomo Corporation entered into an agreement with Electricidade de Moçambique to construct a gas-fired combined cycle power plant in Temane, Inhambane Province. Gas-based facilities will likely become the Republic of Mozambique’s prime source of electricity in the years ahead. The new facility will be the nation’s second such setup after one in Maputo, the capital.

Our IHI Global Monitoring and Technical Service Center assists plants around the clock
Energy supply infrastructure must operate stably, and it is important for customers that this also be at minimal cost. We monitor plants worldwide around the clock through at our IHI Global Monitoring and Technical Service Center. We work to prevent failures if detecting anomalies and quickly restore operations if problems occur. Together with regular maintenance and day-to-day operation support services, we will continue to provide support throughout the life cycle.

Building a 100-megawatt facility
IHI and Sumitomo Corporation entered into an agreement with Electricidade de Moçambique to construct a gas-fired combined cycle power plant in Temane, Inhambane Province. Gas-based facilities will likely become the Republic of Mozambique’s prime source of electricity in the years ahead. The new facility will be the nation’s second such setup after one in Maputo, the capital.

Electric power infrastructure development vital to sustaining Africa’s ongoing economic growth
Mozambique is part of sub-Saharan Africa, which is generating economic growth of around 4% annually. The power infrastructure is inadequate, however, constraining growth.

We seek to help improve the regional power infrastructure and enjoy mutual progress by deploying our world-leading power turbine technology there.

Our IHI Global Monitoring and Technical Service Center assists plants around the clock
Energy supply infrastructure must operate stably, and it is important for customers that this also be at minimal cost. We monitor plants worldwide around the clock through at our IHI Global Monitoring and Technical Service Center. We work to prevent failures if detecting anomalies and quickly restore operations if problems occur. Together with regular maintenance and day-to-day operation support services, we will continue to provide support throughout the life cycle.

We will help materialize SDGs by providing products and services.
Our sustainable growth mission and strengths in supporting business strategy implementation

Our Social Infrastructure & Offshore Facilities business encompasses such areas as social infrastructure development, security, and offshore and urban development. We have a particularly strong record in shield tunneling machines for bridges and tunnels. Through these projects, we pursue our mission building social infrastructure that safety and security.

Many projects are large, bespoke, and extend over several years. Engineering has to reflect progress with specific works, customer requirements, and other factors, with installation matching local characteristics. Our integrated manufacturing capabilities empower us to satisfy these needs.

Overviewing fiscal 2017 and looking ahead

We performed better in almost every aspect of operations in the year under review. Improvements were particularly noteworthy in the floating natural gas facility business, which had hampered operating income. In the year under review, our numbers were much better, as we shortened construction lead times by collaborating more closely with Japan Marine United Corporation and leveraged information and communication technology to boost productivity.

In the mainline bridge and watergates business, the number of large projects has increased to repair facilities constructed during Japan’s fast economic growth period. We have also undertaken many new projects in emerging nations, and seek to expand this business area with local partners.

The Linear Chuo Shinkansen project will enable us to demonstrate the comprehensive capabilities of such offerings as shield tunneling machines and concrete segments.

In urban development, redevelopment of the Toyosu area of Tokyo’s Koto Ward will end with the completion of Toyosu Bayside Cross, an office and hotel complex. We will draw on our achievements in Toyosu to redevelop a factory site in Sunamachi, Koto Ward.

Improving customer value and productivity through information and communication technology

Improving customer value will be central to our efforts beyond fiscal 2018. Corporate Research and Development, which we established in fiscal 2017 provides services that employ information and communication and artificial intelligence technologies. One application is the use of remote monitoring devices in locations that are difficult to access to streamline inspections of bridges, watergates, shield tunneling machines, and other facilities. Another service deploys information and communication technologies to enable real-time management of progress at construction sites. This setup could not only enhance productivity but also improve site work practices.

Working with partners to grow as a corporate group that contributes to social infrastructure development

We will need to accelerate global development to grow over the long term. We aim to lift overseas from around 10% of earnings, to 40% or 50% by 2023.
Collaborating with overseas partners will be essential as cultural norms and rules differ from country to country. Outside Japan, we will shift away from solely engaging in bridge construction to engage in the concession business. It will thus become more important to build long-term relationships and optimize supply chains. We are also proceeding in cooperation with local companies for two projects whose construction started in 2018. The construction is for the Mumbai Trans Harbour Link in India and for a suspension bridge over the Danube in Braila, Romania. We aim to grow with our partners by becoming an enterprise that contributes to safety and security by constructing and operating transport infrastructure throughout life cycles.

1 Concrete segments: Concrete blocks installed on tunnel walls.
2 Concession business: This entails contracting to construct and maintain facilities after operations begin and engaging in long-term management.

Operating income and operating margin

<table>
<thead>
<tr>
<th>(%)</th>
<th>Operating margin (Left axis)</th>
<th>Operating income (Right axis)</th>
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<td>-7.6%</td>
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(Billions of yen)

Exchange rate assumptions

Sales: ¥108.27 = US$1.00 ¥111.00 = US$1.00 ¥105 = US$1.00

Operating income (Right axis)

Priority investment SBUs

<table>
<thead>
<tr>
<th>SBU</th>
<th>Key initiatives</th>
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<tbody>
<tr>
<td>Bridges and Watergates</td>
<td>• Providing solutions for maintenance and projects</td>
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<tr>
<td></td>
<td>• Exporting overseas infrastructure</td>
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<tr>
<td></td>
<td>• Using information and communication technology to improve productivity</td>
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</table>

Project urbanization rates of key emerging markets

<table>
<thead>
<tr>
<th>(%)</th>
<th>China</th>
<th>Southeast Asia</th>
<th>Sub-Saharan Africa</th>
<th>India</th>
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<tr>
<td>90</td>
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<td>70</td>
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</table>

Source: Ministry of Economy, Trade and Industry
Based on United Nations Urbanization Prospects

Expected urbanization rates for 2018

1.0% 10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0% 100.0%

We will help achieve SDG goals by providing products and services.

Themes

Working with partners to deliver Japanese technology to the world

— Construction order for Mumbai Trans Harbour Link —

Demand rising for infrastructure development in fast-growing emerging economies

China, Southeast Asia, India, Africa, and other emerging markets are experiencing swift economic development. Urbanization will likely accelerate in the years ahead, inevitably generating demand for large infrastructural development. To date, we have constructed the Nhat Tan Bridge in Vietnam and the Osman Gazi Bridge in Turkey. We plan to keep participating in infrastructure development in emerging markets.

Forming consortiums that harness our strengths

In emerging markets, we have formed partnerships with firms that are familiar with local business norms, rules, and supply chain conditions. For the road bridge order from the Mumbai Metropolitan Region Development Authority, we teamed up with Larsen & Toubro Limited, India’s largest general contractor.

Employing advanced technological capabilities to construct 10-kilometer bridge for Mumbai Trans Harbour Link

IHI Infrastructure Systems Co., Ltd., is part of a consortium that received an order to construct a bridge for the Mumbai Trans Harbour Link, a maritime road that is around 22 kilometers long. Once completed, the road will slash travel times between the Mumbai city center and the suburb of Navi Mumbai. This will alleviate traffic congestion and cut carbon dioxide emissions. The consortium is manufacturing and transporting box girders for the bridge. Since the structure will be constantly exposed to sea breezes, we are applying a heavy corrosion-proof coating on the girders. This coating will be a first in India. Advanced Japanese technology will contribute to the safety and reliability of this infrastructure.

Computer illustration of Mumbai Trans Harbour Link

Source: Mumbai Metropolitan Region Development Authority
Changing our business model to sell value rather than products and reinforce customer value

**Business area situation and goals**

The Industrial Systems & General-Purpose Machinery business has seven strategic business units offering an array of products in key industry fields. They are logistics and machinery, transport machinery, parking, thermal and surface treatment, vehicular turbochargers, rotating machinery, agricultural machinery and small power systems. We seek to eliminate inefficiencies and resolve social issues worldwide in manufacturing, mobility, logistics.

**Overviewing fiscal 2017 and looking ahead**

Sales and operating income exceeded initial forecasts in fiscal 2017. This reflected higher revenues in vehicular turbochargers and increased thermal and surface treatment orders. Products accounted for the bulk of sales. After analyzing our earnings structure, we found that it was more profitable to sell value than products. This was particularly so in such areas as maintenance, parts replacements, and contracted processing.

In fiscal 2018, we will accelerate a shift away from selling products in keeping with a companywide focus on changing its business model to create customer value.

**Business model transformation initiatives**

Around half of the 10,000 people or so in our business area are outside Japan. We have traditionally focused on selling individual products, but to expand after-sales services we need to strengthen cooperation within and outside that area, partly by setting up service units that can accommodate our product diversity.

In a drive to sell more value, we joined hands with Kansai Electric Power Co., Inc., to research the use of the Internet of Things for advanced coal unloading yard facilities operations services. We are deploying ILIPs®, our proprietary shared remote monitoring platform, at coal unloading facilities that we have delivered to date to oversee facility operations. This setup replaces humans in daily inspections, with these labor savings improving customer value.

**Developing new technologies in response to change**

We believe that the vehicular turbocharger market will keep expanding for the foreseeable future as manufacturers downsize engines to lower environmental impact. We are accordingly developing new models to match customer needs and are also working on electromotive turbochargers for hybrid cars. The business development department that we established in fiscal 2017 is developing technologies for electric vehicle contactless power supply systems, and will serve changing customer needs.

With artificial intelligence (AI) evolving rapidly, Corporate Research & Development collaborated with an American venture to develop the IHI Depalletizing System, a robotic setup that unloads cardboard and other items in logistics warehouses. We believe that demand for such unmanned
systems has surged as tools for resolving such social problems as an aging population and labor shortages. One of our key strengths is that we have a diverse product range and networks of customers in an array of industries. We will take advantage of those capabilities to overhaul our profit structure by guiding our business model away from selling products toward selling value. We will strengthen our ability to suggest ways to resolve customer issues by building open and global partnerships.

**SBU Key initiatives**

- **Vehicular turbochargers**
  - Create a sophisticated global business framework

- **Rotating machinery**
  - Expand global value sales and reform business structure

- **Parking**
  - Increase stock to maintain business and develop global markets

- **Thermal and surface treatment**
  - Strengthening treatment services

---

**Eliminating increasing labor shortages in logistics sector**

The spread of smartphones has boosted the scale of online ordering, exacerbating logistics labor shortages. It will likely become difficult to secure sufficient workers for heavy tasks. Palletizing and depalletizing loads at distribution centers will probably become more difficult, making it vital to deploy robots to overcome labor shortages.

**Developed with American startup to dramatically improve processing capacity**

We combined the IHI Group’s robotics control technology with the 3D vision and AI technology of Kinema Systems Inc., an American startup, to develop and commercialize the world’s first AI-equipped depalletizing system. This setup employs AI-based object recognition technology to determine positions, sizes, and orientations of cardboard items. This makes it possible to unloading 450 packages and mixed pallets per hour, representing a 30% capacity improvement.

**Helping resolve social problems through partnerships**

We will draw on our control and robotics technologies to work with partners that can best apply their strengths to drive logistics system and manufacturing advances and help resolve social problems.

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**Priority investment SBUs**

<table>
<thead>
<tr>
<th>SBU</th>
<th>Key initiatives</th>
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<td>Rotating machinery</td>
<td>Expand global value sales and reform business structure</td>
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<tr>
<td>Parking</td>
<td>Increase stock to maintain business and develop global markets</td>
</tr>
<tr>
<td>Thermal and surface treatment</td>
<td>Strengthening treatment services</td>
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</tbody>
</table>

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**Operating income and operating margin**

<table>
<thead>
<tr>
<th></th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018 (Forecast)</th>
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<tbody>
<tr>
<td>Operating margin (Billion yen)</td>
<td>17.5</td>
<td>18.9</td>
<td>22.0</td>
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<tr>
<td>Operating margin (%)</td>
<td>33%</td>
<td>34%</td>
<td>50%</td>
</tr>
</tbody>
</table>

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**Exchange rate assumptions**

- ¥108.27 = US$1.00
- ¥111.00 = US$1.00
- ¥105 = US$1.00
- ¥411.6 billion = US$459.0 billion = ¥440.0 billion

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**System configuration**

- 3D/2D Camera: Detect position, size and direction of box
- AI embedded Robot Driving Device
- Object Recognition using AI
- Peripheral Equipment Control System (PLC)
- Warehouse Management Server

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**Helping resolve logistics personnel shortages with artificial intelligence**

— Jointly developing the world’s first AI-equipped depalletizing system —

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**IHI Integrated Report 2018**

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Roles and business strategies for sustainable growth
In this business area, we supply civil and defense aero engines, rocket systems, space utilization systems, and defense equipment and systems. We are Japan’s dominant producer of aero engines. Our operational mission is to contribute to safe, comfortable, and environmentally friendly aviation and to Japan’s national security and help realize the dreams of humankind through space development.

What sets us apart from other areas of the IHI Group is that we engage more in mass production. We face a greater challenge in calibrating supply to fluctuating demand levels. We must manage operations based on teamwork that involves customers and the supply chain to streamline production and generate cash flows, and such a capability is one of our key strengths.

Overviewing fiscal 2017 and looking ahead
Sales in fiscal 2017 were down amid lower unit demand because of a shift to new civil aero engine models. In contrast, operating income increased, owing largely to stronger demand for spare parts and favorable exchange rates.

The business model in civil aero engines is to inject forward investments to undertake development, begin mass production, and thereafter recoup investments over long periods, notably through maintenance and spare parts sales. We participate in programs to develop such engines as the Passport20 and GE9X as foundations for sustainable, long-term growth. Earnings may flatten out for several years after fiscal 2018, as we are pushing forward with development. I am confident that such investments will result in future growth.

Spare parts sales for defense aero engines were solid in the year under review. We are developing a production framework for the F135 turbofan for the Japan Air Self Defense Force’s F-35A fifth-generation fighter. As a primary contractor of Japan’s Ministry of Defense, we developed and delivered a prototype engine for a future fighter jet in June 2018.

In the rocket systems and space utilization systems, we are developing technologies to improve satellite load capacities to foster private sector demand. January 2018 saw the launch of the Epsilon-3 launch vehicle, which offers additional capacity.

Contributing to society through business by delivering new solutions
Societies place growing expectations on solutions that use satellite data. We accordingly launched a service to provide ship location information around the world, and we are cultivating ways to ensure safe and efficient maritime traffic. We plan to develop satellite data usage services by bringing together resources from the IHI Group’s diverse business. Applications include long-term weather forecasting and early forest fire detection.

Responding to market needs and progressing with partners
In fiscal 2016, we constructed building employing advanced technology to manufacture composite parts at the Soma No. 1 Works in Fukushima Prefecture to serve rising demand for civil aero engines.

We are concentrating functions by extending the capabilities
of our Akishima office in Tokyo to ensure rapid and efficient technological development and engine design. The Mizuho Works in Tokyo catered to our expanding maintenance business by building a disassembly and assembly facility for the PW1100G-JM engine. We plan to construct a new factory for additional projects.

We seek to double productivity, and are accordingly rolling out Internet of Things technology to create smart factories. We are creating a system that digitally links people, objects, and facilities to enhance efficiency and are endeavoring to improve capacity utilization rates and work efficiency. We seek to progress further with customers and partners by catering to growing market needs.

Air passenger demand should remain strong worldwide in the years ahead. In the next two decades, it is estimated that roughly double the current number of aircraft will be needed. We must cultivate high-value-added manufacturing to capitalize on such market growth. We contribute to safer, more comfortable, and more affordable air transportation, and are thus working on a range of proprietary production technologies.

### Topics

**Contributing to safer, more comfortable, and affordable air transportation through proprietary advanced technology**

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**Developing new materials and technologies for aero engines**

Carbon fiber reinforced plastics (CFRP)

We developed techniques to employ light and strong CFRP on large fan parts that create thrust on aero engines. Such parts have been used on the advanced PW1100G-JM engine. The results are considerable weight savings, improved fuel economy, and lower noise.

Ceramic matrix composites (CMC)

As well as lightening engine fans, which is pivotal to improving fuel economy, we are working on CMC, a light and extremely heat-resistant material, for turbine parts. With engine manufacturers worldwide making new breakthroughs, we are accelerating development with materials producers and domestic research organizations to swiftly cultivate practical uses for CMC.

Additive manufacturing (3D printer) technology

We are developing additive manufacturing, or 3D printing, technologies, which have captured considerable attention worldwide in recent years. The advantages of 3D printers include flexible designs, low manufacturing cost for small runs, short production lead times. These printers could revolutionize parts designs and development lead times. We have already demonstrated the benefits of 3D printing for shaping large components of rocket turbo pumps, and are pushing ahead with 3D technology development to drive aerospace manufacturing innovations.

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### Operating income and operating margin

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<thead>
<tr>
<th></th>
<th>Operating margin (Left axis)</th>
<th>Operating income (Right axis)</th>
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<tbody>
<tr>
<td>FY2016</td>
<td>$530 billion</td>
<td>10.2%</td>
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<tr>
<td>FY2017</td>
<td>$601 billion</td>
<td>11.0%</td>
</tr>
<tr>
<td>FY2018 (Forecast)</td>
<td></td>
<td>8.8%</td>
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### Priority investment SBUs

<table>
<thead>
<tr>
<th>SBU</th>
<th>Key initiatives</th>
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</thead>
<tbody>
<tr>
<td>Aircraft engines</td>
<td>- Develop production framework for new mass-production engines and reduce costs</td>
</tr>
<tr>
<td></td>
<td>- Develop engines for future fighter jets and civil aircraft</td>
</tr>
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<td></td>
<td>- Strengthen proprietary technology in such areas as new materials and innovative production</td>
</tr>
<tr>
<td>Rocket systems and space exploration</td>
<td>- Develop the H3 and Epsilon rockets and other new models</td>
</tr>
<tr>
<td></td>
<td>- Foster solutions businesses that harness space technology</td>
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We will help achieve SDG goals by providing products and services.
## Shared Group Functions

### Driving business model reforms through Three Tsunagu (Links)

The IHI Group identifies diversifying customer needs through the Corporate Business Development & Solution Headquarters, the Intelligent Information Management Headquarters, and the Global Marketing & Sales Headquarters, which it set up in April 2013 to handle shared Group functions and accelerate business model reforms. We will link technologies accumulated in our business areas. We will innovate by combining technologies and business models amassed in our operations and combining shared Group functions to provide new value to customers.

### Corporate Business Development & Solution

Corporate Business Development & Solution resolve companywide operational issues and create businesses that address diversifying customer value and social changes. We accordingly develop businesses by combining products, services, and technologies of within and outside IHI group in light of market needs.

### Intelligent Information Management

Intelligent information management draws on IoT, AI and machine learning, and other advanced information and communication technologies to drive IHI’s digital transformation with its business areas and strategic business units. This management setup deploys a common IoT platform within the Group to provide predictive diagnostics and proposals on optimal operations and product designs and supply information related to customer product usage and operations.

### Global Marketing & Sales

Global Marketing & Sales accelerates the IHI Group’s globalization and business model transformations by integrating domestic and overseas business units. Global Marketing & Sales brings together marketing and comprehensive sales capabilities, forms private-public projects, and localizes operations to create value with customers.
Generating new value with digital technology
The IHI Group’s digital transformation

Our digital transformation entails changing our products, services, business models, and other aspects of our operations with IoT, artificial intelligence, and other technologies to create new value.

We collect and analyze operational and other information across product life cycles through ILIPS®, our shared remote maintenance platform. It is through this approach that we will innovate predictive diagnostics, optimal drive assist, and other unique services.

Advanced coal conveying services leveraging IoT — Starting joint field tests with customer —

IHI Transport Machinery Co., Ltd., started field tests with Kansai Electric Power Co., Inc., to jointly develop advanced coal conveying facilities services that would be a world first in the electric power sector.

Belt conveyors take coal from ships to power station boilers. Over the years, personnel have had to inspect the conveyors several times daily, regularly replacing or repairing parts, to keep everything up and running around the clock.

The tests with Kansai Electric are at its Maizuru Power Station. The coal unloader is connected through the Internet to ILIPS® to remotely monitor the facilities. An artificial intelligence setup analyzes running data in real time, predicting and preventing problems to ensure operational stability.

We are developing sensing technology to identify belt damage and roller deterioration on the belt conveyor. Timely parts replacement before deterioration goes too far would minimize costs and labor.

We could apply such remote monitoring and predictive diagnostics to a range of facilities that we supply. We will draw on advanced IoT-based services to help resolving problems, notably by stabilizing the operations of social infrastructure and plant facilities and cutting costs.
Going further and faster in developing technologies that society will need tomorrow

Director
Managing Executive Officer
General Director of Corporate Research & Development
Kouichi Murakami

Driving R&D at unprecedented speed and contributing to social needs

New value in technological development comes from understanding and catering to the customer needs that predate services and products. Corporate Research & Development’s mission is essentially to ensure the timely delivery of vital technology. The world and customer needs are changing as never before. But R&D does not change overnight. So, how can we reduce that gap? One approach is to undertake R&D after anticipating customer needs. Another is to accelerate R&D by harnessing open innovation with partners who can compensate for our shortfalls.

Establishing Works Lab to cultivate new fields with business areas

In fiscal 2017, we established the Works Lab to focus on high priority areas to accelerate the R&D that customers demand. The Works Lab collaborates with our business areas in renewable energy, electrification, and advanced manufacturing. The focus in the latter areas is to automate manufacturing processes. In aero-engines, for example, IHI has already deployed a process to automatically laminate carbon fiber-reinforced composites, enabling it to handle increased orders. Naturally, customers can also employ our advances.

Strengthening activities of IHI Tsunagu Lab activities and accelerating innovation

We opened the IHI Tsunagu Lab in 2014 as an open innovation hub. It has since welcomed more than 10,000 visitors from enterprises, universities, and research institutions in Japan and abroad. This facility showcases the seeds of IHI Group innovation and holds seminars on technologies that the Group is exploring to identify matches with external technologies.

IHI Technology Strategy 2016

It is also a direct engagement vehicle for researchers and customers, and has contributed to ideas to resolve issues and accelerate technological development. IHI is a manufacturing and engineering enterprise that remains dedicated to the best interests of its customers. That is the IHI way. Companies cannot hope to survive without anticipating and addressing change, but this fundamental commitment should remain perpetual. By staying close to our customers, we will always continue to explore manufacturing the IHI way.
IHI Tsunagu Lab a hub for open innovation

We set up the IHI Innovation Lab in 2014 as a hub for fostering open innovation for the IHI Group. We pursue that goal by collaborating with enterprises, universities, and research institutions in Japan and abroad.

Achievements
As well as exhibiting Group products and technologies, the facility holds seminars to match our technologies with customers. It also conducts workshops to brainstorm themes to help create new businesses. Through its activities, the IHI Tsunagu Lab fosters collaborative research with customers, creating new value through these connections.

Drawing on our strengths to creatively resolve issues
— Joint workshop initiatives with 3M Japan —

3M Japan Ltd. is a leading manufacturer of an array of industrial materials and daily necessities. IHI Tsunagu Lab conducted workshops, technical exchange sessions, and other gatherings with that company with reference to its “Customer Technical Center, which conducts exhibitions in which people can immerse themselves in its technology. The workshops consider creating approaches to resolving issues, an example being energy for tomorrow. Engineers engage directly with each other to come up with new ideas and the foundations of innovation.

The workshops consider creating approaches to resolving issues, an example being energy for tomorrow. Engineers engage directly with each other to come up with new ideas and the foundations of innovation.

IHI and 3M have long supplied each other’s products. IHI encompasses a wide range of social infrastructure areas and is familiar with materials processing technology. We believe that by incorporating 3M’s technology platform we can be very confident in creating better products. A good example is the task of pouring concrete for IHI road bridge repair projects. For this work, we have made the concrete more durable by using a special 3M film.

We look to continue building relationships that enable people to share learning through ongoing interactions that produce new things.

Number of visitors
Since 2014
10,500

Number of technical matching seminars
Number of times in 2017
8

Number of enterprises participating in workshops
In fiscal 2017
50

3M Japan Ltd.
Customer Relations  Mitsuhiro Ohta

IHI and 3M have long supplied each other’s products. IHI encompasses a wide range of social infrastructure areas and is familiar with materials processing technology. We believe that by incorporating 3M’s technology platform we can be very confident in creating better products. A good example is the task of pouring concrete for IHI road bridge repair projects. For this work, we have made the concrete more durable by using a special 3M film.

We look to continue building relationships that enable people to share learning through ongoing interactions that produce new things.

IHI Integrated Report 2018  32
Roads are vital to the quality of life and economic activity. Much of Japan’s social infrastructure was developed when the nation experienced high economic growth in the 1960s and 1970s. Given that some of this infrastructure exceeds 50-year life planned life spans, such aging poses serious social issues. There have also been maintenance issues with some younger infrastructure. A tragic outcome was the December 2012 collapse of concrete ceiling panels in the Sasago Tunnel that killed nine people. It is increasingly important in Japan and even overseas to upgrade infrastructure to prevent such catastrophes from recurring.

In the next decade, around 30% of Tokyo’s Metropolitan Expressway will be more than 50 years old. Around a million vehicles a day travel along the network, making construction very challenging. The daily traffic volume of large vehicles is around five times greater than that on general roads in Tokyo’s 23 wards. As a result, cracks have increased in decks supporting expressway bridges, and steel decks and girders are incurring more fatigue damage.

Over the next 10 years or so, expressways and bridges around Japan will undergo upgrades and repairs at an estimated cost of ¥4 trillion. Around ¥1.6 trillion has been earmarked to replace decks. In fiscal 2017, the IHI Group won an order to replace the deck Kawabata Viaduct deck on the Central Nippon Expressway Company’s Odawara-Atsugi Road.
Slashing construction periods for large replacement projects

We undertook a major project from 2011 through 2014 to reconstruct the Shiodome Viaduct on the Yaesu route of the Tokyo Metropolitan Expressway. It was a challenge on this congested section of the road to minimize closures without compromising quality and safety. The project involved removing all of the bridge girders in a single overnight operation in view of safety and location considerations. We then installed new ones. We shortened installation and reduced road closures by using the large block batch erection method. This entails assembling bridge girders at the site and lifting sections with modular transporters above intersections.

This process enabled us to complete the project in 17.5 months, 2.5 months faster than planned. We received the Tanaka award from the Japan Society of Civil Engineers in 2014 in recognition of this achievement.

Project handling decks with complex structure

We rebuilt the deck of the Tsunakigawa Bridge on the Tohoku Expressway in 2012 through 2014. The bridge is near the Sendai-Miyagi Interchange, opening in 1975. The reinforced concrete deck had suffered considerable corrosion from aging, increased heavy vehicle traffic, and the application of de-icing salts in winter. Maintenance had entailed adding concrete to the top of the deck and repairing parts of the pavement. We replaced the deck in view of repairs becoming more frequent recently. The bridge has a complex structure because of a nearby interchange. Deck replacement also necessitated imposing traffic restrictions as the bridge crosses a national highway.

Other complications to the project were the engineering challenges and the mandate for replacement work to be only at nights.

We tackled the engineering by replacing the bridge’s conventional reinforce concrete deck with a precast prestressed concrete (PCa) one that could work with complex linear shapes. We developed a light PCa deck and lines to connect deck slabs and ensure compactness to quickly undertake construction. We completed the project within the allotted time despite the nocturnal nature of the work.

Leveraging Japanese technology to ensure long service lives

Our outstanding partial bridge replacement and deck repair technologies are designed to deliver long service lives for existing infrastructure. Even for facilities with just a few years of service left if nothing is done, we can extend lifespans for decades through proper repairs and reinforcements. Another benefit is that unlike with new construction, we can more quickly use existing resources, conserving them and energy.

The aging of infrastructure is set to peak in North America, with renovation demand similarly rising in Japan. Asia, Africa, and other emerging markets are pushing ahead with building bridges and other social infrastructure that will ultimately need renovations. We accordingly look to accelerate overseas business development by drawing on the technology and knowhow we have cultivated in Japan. We will quickly undertake top-quality infrastructure innovations to contribute to transport safety and security the world over.
Energy demand should rise in coming years as the global population grows, urbanizes, and industrializes. At the same time, the Paris Agreement adopted at the 2015 United Nations Climate Change Conference set national reduction targets for carbon dioxide emissions, a factor in climate change. The global community thus faces the challenge of lowering environmental impacts while accommodating greater energy demand.

Fossil fuels play an important role in generating electricity and stabilizing power supplies. Combustion produces carbon dioxide, creating a need for technology to streamline power generation and reduce emissions to tap fossil fuels more effectively.

The IHI Group seeks to help materialize circular societies that do not depend on finite resources by reducing emissions through its low-carbon and decarbonization technologies.

Biomass is a carbon neutral energy source because carbon sequestration through plant photosynthesis balances out carbon dioxide emissions from burning biomass. For thermal power plants, you can reduce emissions by co-firing biomass chips from thinned timber and other wood sources with fossil fuels. Conventional setup limit the biomass mixture to 2% or 3% of the heating value in co-firing. We developed a wood biomass high-ratio co-firing system that raises the calorific value of wood biomass in utility power boilers to 50%. Companies can deploy this technology with minimal modifications to existing facilities, for which IHI received a New Energy Award of the Minister of Economy, Trade and Industry Prize in fiscal 2016.
If half of the calorific value of coal-fired boilers of Japan’s leading power producers came from wood biomass, the nation’s annual carbon dioxide emissions could reduce by almost 100 million metric tons.

Creating biomass fuel from waste

As well as developing biomass combustion technology, we are also producing biomass fuels. In Southeast Asia, palm trees are grown extensively for palm oil. Empty fruit bunches resulting from production contain a lot of water, ash, and salt, and are often dumped as is. The resulting unpleasant odors and methane are among the resulting environmental problems. IHI created a technique to pelletize empty fruit bunch waste as biomass fuel for thermal power plants. We have constructed a pilot plant in Malaysia with a view to commercializing this process.

Creating biomass fuel from palm tree waste

Converting untapped low-grade coal into valuable fuel and products

Lignite accounts for half of global coal reserves. While this low-grade coal is inexpensive, it has not been used effectively because of its low heating value and handling challenges.

We accordingly developed the Twin IHI Gasifier, also known as TIGAR®, which converts untapped resources into valuable fuel substances by applying circulating fluidized-bed technology. TIGAR can produce syngas, which consists of hydrogen and carbon monoxide.

Using carbon dioxide-free ammonia

Ammonia is a nitrogen and hydrogen compound that does not generate carbon dioxide when burned, and could be a useful clean fuel in power production if a technique can be developed to stabilize combustion. IHI is participating in the Cross-Ministerial Strategic Innovation Promotion Program of the Japanese Cabinet Office’s Council for Science, Technology and Innovation to develop ammonia-fueled combustion technology.

We created a technique to co-fire ammonia with conventional fuels in gas turbines and boilers. We were the first in the world to achieve a co-firing ratio representing 20% of the gross heating value for a 2,000 kilowatt-class gas turbine. The nitrogen oxide emissions were lower than the regulatory limit. With boilers, our technique can cut carbon dioxide emissions and lower maintenance by reducing sulfide corrosion and ash volumes. It is also worth noting that we were able to generate power from a one-kilowatt-class direct ammonia solid oxide fuel cell.

Value chain centered on TIGAR®

Materializing circular societies

Beyond the technologies presented in this report, the IHI Group is developing a range of low-carbon and decarbonization technologies. They include ocean current and binary power generation systems and algae biofuels.

We will step up efforts to develop technologies and practical applications to help materialize circular societies.
Management Team

**Director**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position at the Company</th>
<th>Reasons for nomination</th>
<th>Attendance numbers at Board of Directors meetings in fiscal 2017</th>
<th>Period in office</th>
<th>Appointments to board advisory committees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nobuko Mizumoto</td>
<td>Director</td>
<td>He has led the IHI Group’s management as President and Chief Executive Officer since April 2012, and since April 2016, as Chairman of the Board, he has worked to achieve further improvements in corporate governance. His abundant experience and insight as corporate manager has been utilized in the management of the IHI Group.</td>
<td>18 of 18</td>
<td>10 years and 2 months</td>
<td>—</td>
</tr>
<tr>
<td>Tamotsu Saito</td>
<td>Chairman of the Board</td>
<td>He was appointed President of Aero-Engine &amp; Space Operations in April 2016 and assuming the role of President and Chief Executive Officer in April 2017, in which capacity he has led the IHI Group’s management. His abundant experience and insight as corporate manager has been utilized in the management of the IHI Group.</td>
<td>18 of 18</td>
<td>4 years</td>
<td>Member Chairman</td>
</tr>
<tr>
<td>Hiroyuki Otani</td>
<td>Executive Wt President</td>
<td>He has accumulated a great deal of knowledge mainly in the aero-engine production and technology division. He has also been responsible for business divisions including power systems and machinery &amp; logistics, and has been serving as President, Energy &amp; Environment Business Area since this April. This wide range of business management experience and insight has been utilized in the management of the IHI Group.</td>
<td>18 of 18</td>
<td>4 years</td>
<td>—</td>
</tr>
<tr>
<td>Tomoharu Shikina</td>
<td>Director</td>
<td>He has accumulated a great deal of knowledge mainly in the aero-engine technology development field, and then he was appointed President of Aero-Engine &amp; Space Operations in April 2016. His abundant results and experience has been utilized to the growth of the IHI Group particularly in Aero Engine, Space &amp; Defense Business Area.</td>
<td>18 of 18</td>
<td>2 years</td>
<td>—</td>
</tr>
<tr>
<td>Takeshi Yamada</td>
<td>Director</td>
<td>He has accumulated a great deal of knowledge mainly in the finance &amp; accounting field and corporate planning division. He was appointed Deputy General Manager of Finance &amp; Accounting Division in April 2014 and General Manager of Finance &amp; Accounting Division in April 2017. He has shown a high level of insight into the Group’s overall business management, achieving improvement in the financial condition, etc.</td>
<td>14 of 14</td>
<td>1 year</td>
<td>Member</td>
</tr>
<tr>
<td>Nobuko Mizumoto</td>
<td>Director</td>
<td>After accumulating achievements as a researcher at the IHI’s technology research institute, she has served in important posts at headquarters divisions, beginning with the Headquarters relocation project. The wide range of experience and achievements she has accumulated in her career has been utilized for the growth of the IHI Group.</td>
<td>—</td>
<td>Since June 2018</td>
<td>—</td>
</tr>
</tbody>
</table>

**Outside Director**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position at the Company</th>
<th>Reasons for nomination</th>
<th>Attendance numbers at Board of Directors meetings in fiscal 2017</th>
<th>Period in office</th>
<th>Appointments to board advisory committees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masafumi Nagano</td>
<td>Director</td>
<td>He has accumulated a great deal of knowledge mainly in the human resources division. He has also been responsible for the domestic sales headquarters and the human resources division, and subsequently responsible for the corporate planning division. His abundant experience and results has been utilized to the growth of the IHI Group particularly in Industrial Systems &amp; General-Purpose Machinery Business Area.</td>
<td>—</td>
<td>Since June 2018</td>
<td>—</td>
</tr>
<tr>
<td>Tsugio Mitsuoka</td>
<td>Outside Director</td>
<td>He gained experience in the research &amp; development of materials and overall technological management in corporate research &amp; development division. Following this, he was in charge of the rotating machinery operations division. He was appointed General Manager of Corporate Research &amp; Development in April 2017. This experience and high level of insight into the Group’s overall technologies has been utilized to the growth of the IHI Group.</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Kouichi Murakami</td>
<td>Outside Director</td>
<td>He gained extensive experience and broad insight at the Asahi Kasei Corporation, where he has implemented diversified management. These qualities have been reflected in the management of the Company, and acknowledging his proven ability to perform management oversight and monitoring functions from an independent perspective.</td>
<td>18 of 18</td>
<td>3 years</td>
<td>Chairman Member</td>
</tr>
<tr>
<td>Takeshige Fujiiwa</td>
<td>Outside Director</td>
<td>He gained extensive experience and broad insight at the AGC Inc. These qualities have been reflected in the management of the Company, and acknowledging his proven ability to perform management oversight and monitoring functions from an independent perspective.</td>
<td>16 of 18</td>
<td>2 years</td>
<td>Member Member</td>
</tr>
<tr>
<td>Hiroshi Kimura</td>
<td>Outside Director</td>
<td>He gained extensive experience and broad insight at the Japan Tobacco Inc. These qualities have been reflected in the management of the Company, and acknowledging his proven ability to perform management oversight and monitoring functions from an independent perspective.</td>
<td>14 of 14</td>
<td>1 year</td>
<td>Member Member</td>
</tr>
<tr>
<td>Kazuhiko Ishimura</td>
<td>Outside Director</td>
<td>He gained extensive experience and broad insight at the AGC Inc. These qualities have been reflected in the management of the Company, and acknowledging his proven ability to perform management oversight and monitoring functions from an independent perspective.</td>
<td>13 of 14</td>
<td>1 year</td>
<td>Member Member</td>
</tr>
<tr>
<td>Yayoi Tanaka</td>
<td>Outside Director</td>
<td>She has developed a high degree of specialist knowledge and diverse experience through her evaluation and research of non-profit organizations and through her work on various governmental committees. These qualities have been reflected in the management of the Company, and acknowledging her proven ability to perform management oversight and monitoring functions from an independent perspective.</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
Audit & Supervisory Board Member

<table>
<thead>
<tr>
<th>Name</th>
<th>Position at the Company</th>
<th>Reasons for nomination</th>
<th>Attendance numbers at Audit &amp; Supervisory Board &amp; Advisory Committees in Fiscal 2017</th>
<th>Period in Office</th>
<th>Appointments to board advisory committees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shigeru Uesugi</td>
<td>Standing Audit &amp; Supervisory Board Member</td>
<td>He has accumulated a great deal of knowledge mainly in the accounting and finance field of the aero-engine &amp; space business. After having been in charge of formulating policy for the management of the Company’s affiliates, he has extensive knowledge in internal control and compliance. These qualities have been reflected to the management auditing operations of the Company.</td>
<td>18 of 18</td>
<td>2 years</td>
<td>—</td>
</tr>
<tr>
<td>Taizo Suga</td>
<td>Standing Audit &amp; Supervisory Board Member</td>
<td>He has accumulated a great deal of knowledge mainly in the finance &amp; accounting field. He was appointed President and Chief Executive Officer of IHI ASIA PACIFIC PTE. LTD. His high degree of specialist knowledge of financial management and a wide range of business experience in overall business management have been reflected to the management auditing operations of the Company.</td>
<td>14 of 14</td>
<td>1 year</td>
<td>—</td>
</tr>
<tr>
<td>Takayuki Hashimoto</td>
<td>Standing Audit &amp; Supervisory Board Member</td>
<td>His extensive experience and knowledge of global companies gained at the helm of a state-of-the-art at the IBM Japan, Ltd. have been reflected to the management auditing operations of the Company.</td>
<td>17 of 18</td>
<td>3 years</td>
<td>Member</td>
</tr>
<tr>
<td>Yoko Hatta</td>
<td>Outside Audit &amp; Supervisory Board Member</td>
<td>Her extensive experience and insight in global business operations, notably international taxation from an independent perspective have been reflected to the management auditing operations of the Company.</td>
<td>18 of 18</td>
<td>2 years</td>
<td>—</td>
</tr>
<tr>
<td>Tomomi Yatsu</td>
<td>Outside Audit &amp; Supervisory Board Member</td>
<td>She has accumulated extensive experience and insight by responding to various corporate issues as an attorney at law and certified public accountant. These qualities and her independent perspective have been reflected in the management auditing operations of the Company.</td>
<td>13 of 14</td>
<td>1 year</td>
<td>—</td>
</tr>
</tbody>
</table>

Executive Officer

<table>
<thead>
<tr>
<th>Name</th>
<th>Position at the Company</th>
<th>Reasons for nomination</th>
<th>Attendance numbers at Audit &amp; Supervisory Board &amp; Advisory Committees in Fiscal 2017</th>
<th>Period in Office</th>
<th>Appointments to board advisory committees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tsugio Mitsuoka</td>
<td>Chief Executive Officer</td>
<td></td>
<td>18 of 18</td>
<td>2 years</td>
<td>—</td>
</tr>
<tr>
<td>Hiroyuki Otani</td>
<td>Senior Executive Officer</td>
<td></td>
<td>17 of 17</td>
<td>3 years</td>
<td>Member</td>
</tr>
<tr>
<td>Kazuki Awai</td>
<td>Senior Executive Officer</td>
<td></td>
<td>17 of 17</td>
<td>2 years</td>
<td>—</td>
</tr>
<tr>
<td>Takamori Kunihiro</td>
<td>Managing Executive Officer</td>
<td></td>
<td>18 of 18</td>
<td>1 year</td>
<td>—</td>
</tr>
<tr>
<td>Masatake Ikeyama</td>
<td>Executive Officer</td>
<td></td>
<td>13 of 13</td>
<td>3 years</td>
<td>Member</td>
</tr>
<tr>
<td>Tomoharu Shikina</td>
<td>Managing Executive Officer</td>
<td></td>
<td>17 of 17</td>
<td>2 years</td>
<td>—</td>
</tr>
<tr>
<td>Yosinori Kawasaki</td>
<td>Executive Officer</td>
<td></td>
<td>17 of 17</td>
<td>3 years</td>
<td>Member</td>
</tr>
<tr>
<td>Atsushi Kuwata</td>
<td>Managing Executive Officer</td>
<td></td>
<td>18 of 18</td>
<td>2 years</td>
<td>—</td>
</tr>
<tr>
<td>Takashi Niimura</td>
<td>Executive Officer</td>
<td></td>
<td>17 of 17</td>
<td>2 years</td>
<td>—</td>
</tr>
<tr>
<td>Nobuko Mizumoto</td>
<td>Managing Executive Officer</td>
<td></td>
<td>18 of 18</td>
<td>1 year</td>
<td>—</td>
</tr>
<tr>
<td>Yoshio Yoneyzawa</td>
<td>Executive Officer</td>
<td></td>
<td>13 of 13</td>
<td>3 years</td>
<td>Member</td>
</tr>
<tr>
<td>Takeshi Yamada</td>
<td>Managing Executive Officer</td>
<td></td>
<td>13 of 13</td>
<td>1 year</td>
<td>—</td>
</tr>
<tr>
<td>Yutaka Kunisada</td>
<td>Executive Officer</td>
<td></td>
<td>13 of 13</td>
<td>3 years</td>
<td>Member</td>
</tr>
<tr>
<td>Takeshi Kawakami</td>
<td>Executive Officer</td>
<td></td>
<td>13 of 13</td>
<td>1 year</td>
<td>—</td>
</tr>
</tbody>
</table>
Messages from Outside Officers

Outside directors take part in the decision making of the Board of Directors and provide independent advice to the Company’s management team, which is responsible for business execution. Management audits reflect the outstanding expertise, experience, and independence of outside audit & supervisory board members. These outside directors and audit & supervisory board members extensively assist and advise the Compensation Advisory Committee and the Nomination Advisory Committee.

The IHI Group’s management aims to strengthen corporate governance by drawing on the views of these individuals.

Composition of corporate governance entities

<table>
<thead>
<tr>
<th>Entity</th>
<th>Inside Officers</th>
<th>Outside Officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of Directors</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Audit &amp; Supervisory Board</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Compensation Advisory Committee</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Nomination Advisory Committee</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Kazuhiko Ishimura
Outside Director

I believe that it is management’s mission to fulfill corporate social responsibilities to stakeholders. I accordingly became involved in business management to thus help enhance corporate value.

Overseas revenues account for 75% of consolidated net sales at AGC Inc., where I am chairman. As an outside director of IHI, I can leverage my international corporate management experience to help the Company globalize and advise on commensurately strengthening management to improve the Company’s corporate value.

IHI’s greatest strength is its combination of people and technology to pursue the creation of products that resolve social issues. The Company has long prized and invested in human resources, and in stepping up business concentration and selection it will be crucial to better assess the suitability of people and provide assignments in which they can shine. I also think it important to set up a fairer evaluation system.

We are contributing to the environment with our highly efficient technology for coal-fired power plant boilers. I chair the Japan Association of Corporate Executives’ Environment, Natural Resources and Energy Committee, which assesses the role of coal in optimizing the energy mix with a range of resources. India and other emerging economies with strong energy demand levels will continue to need coal. So, for the foreseeable future IHI’s highly efficient high-efficiency technology should play a significant role in lowering environmental impact in such nations.

IHI is formulating its next medium-term management plan this fiscal year. Management should ideally do more to incorporate concentration and selection into its plans for and beyond fiscal 2019 so it can better deploy human resources. I will extensively present my views from the perspectives of external stakeholders on optimizing IHI’s overall business portfolio.
One of my roles as an outside director for IHI is to draw on my experience in assessing and studying nonprofit organizations to present my independent views on how such entities should function. Corporate performances go beyond financials to encompass elements that are more qualitative than quantitative, examples being measuring social trust and employee motivation levels. Non-financial activities buttressing business efforts are pivotal to sustainable corporate growth. Such activities are increasingly a social demand, which is why the Japan Business Federation, commonly called Keidanren in Japan, reviewed its Charter of Corporate Behavior to encourage members to deliver on SDGs. In my view, we can help boost corporate value by determining whether the Company’s organizational governance properly factors in non-financial activities.

Today, the focus of diversity is on fostering the workplace success of women, and the Japanese government has accordingly set targets for the proportion of managerial positions held by women. Female account for around 15% of IHI’s workforce, so reaching the targets will be challenging. That said, IHI is very aware of this, and is providing more vehicles for women to study and engage in workplaces. I also want to increase communication opportunities at worksites and contribute to greater diversity.

I believe that IHI’s employees are very earnest and proud and passionate about technology. On the downside, I do not think they are always sufficiently aware of the contributions of their products and services to society. I look forward to disseminating internally and externally. We will actively disseminate to the inside and outside of the company the social commitments that are built into IHI’s product and business and how they help resolve social issues.
Corporate Governance

Corporate governance initiatives

- Ensuring corporate management integrity -

Basic Views

IHI defines corporate governance as a system that assures sustainable growth and maximization of corporate value by enhancing management efficiency so that the Company can leverage its innate capabilities to the fullest extent possible. To achieve this, the Company 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, the Company ensures appropriate operations across the entire Group. The Company promotes constant improvement of its corporate governance, aiming to earn the trust and support of its shareholders and other stakeholders over the long term.

Basic Policies for Enhancing Corporate Governance

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

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 dialogues with shareholders whose investment policies accord with the medium-to-long-term interests of shareholders

Overview of Corporate Governance Structure

The Company has an Audit & Supervisory Board, which comprises audit & supervisory board members who audit the duties executed by directors. The Board of Directors, which consists of directors, makes decisions related to all important matters concerning the management of the Company and the Group, in addition to supervising directors in their business execution. The outside directors, who are elected from among individuals with extensive experience and broad insight gained at the helm 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.

Business Execution Framework

The Company has an executive officer system to strengthen the decision-making and supervisory functions of the Board of Directors, as well as to improve the efficiency of business operations. The executive officers are appointed by resolution of the Board of Directors.

Compensation Advisory Committee

To ensure that directors and audit & supervisory board members are remunerated appropriately, the Company has the Compensation Advisory Committee, a voluntarily established body consisting of six members: three outside directors, one outside audit & supervisory board member, one director in charge of human resources, and one director in charge of finance and accounting. The chair is an outside director.

Nomination Advisory Committee

The Board Directors decides on ideal attributes for officers and draws up standards of independence for outside directors and outside audit & supervisory board members. These standards are based on the requirements for independent directors/audit & supervisory board members stipulated by the Tokyo Stock Exchange. The emphasis is to assure that outside directors and outside audit & supervisory board members are genuinely independent. The Board Directors sets the basic policy of appointing the most appropriate officers according to ideal attributes and independence standards for outside directors and outside audit & supervisory board members*. The aim is to ensure sustainable growth and increased corporate value for the IHI Group over the medium to long term.

* See website for details.

Corporate Governance
https://www.ihi.co.jp/en/company/policy/governance/
Evaluating the Board of Directors

IHI has evaluated the Board of Directors since fiscal 2015 to enhance the latter’s effectiveness. In fiscal 2017, we reformed the board in light of the assessment for the previous year, and plan to appraise the impact of measures in fiscal 2018.

1. External consultancy conducts anonymous questionnaire of all directors and audit & supervisory board members. Questionnaire items encompass such areas as the composition and management of the Board of Directors, risk management, and the board culture audit & supervisory board members.
2. External consultancy collected and analyzed questionnaire responses.
3. All relevant executives interviewed regarding questionnaire and response analysis.
4. Members of panel largely comprising outside directors exchanged views.
5. Results of above process summarized as board self-evaluation to identify areas for improvement.

Board summary of areas for improvement in fiscal 2017
- Bolster deliberations about important matters
- Delegate more authority to business units
- Streamline board operations

Resolved steps for issues identified in board evaluations
1. **Bolster deliberations about important matters**
2. Deepened discussions about management policies and plans
3. Monitored large construction orders and monitor major investment projects
4. Reviewed approach to executive remuneration and human resources deliberations
5. Employed informal meetings (directors and auditors meeting and outside officer meetings)
6. **Delegate more authority to business units**
7. Lifted monetary amount criteria for board consultation
8. Although not covered by monetary criteria, projects incurring great risks are determined through business unit resolutions or board deliberations as reporting matters. Such projects include those for new businesses and other areas not envisaged in initial plans or those with great significance for business strategies.
9. **Streamline board operations**
10. Dramatically reduced business unit proposals and explanation times

Key point
- The board will allocate time saved from delegating authority to business units and streamlining board operations to deliberating more on important matters

Future initiatives Fiscal 2018
- Started operations from April 2018 under new appointment standards
- Bolster deliberations on important matters to drive improvements
- Will reassess effectiveness in fiscal 2018 to evaluate reform results

Governance improvement milestones

2003 Reform of Board of Directors and introduced executive officer system
2007 Increased number of outside audit & supervisory board members from two, to three
2008 Established Compensation Advisory Committee
2008 Doubled number of outside directors to two
2008 Halved director terms to one year
2013 Notified Tokyo Stock Exchange that all outside directors and outside audit & supervisory board members are independent officers
May 2015 Revised basic approach to corporate governance and formulated basic policy
June 2015 Increased number of outside directors from two, to three
June 2015 Strengthened executive appointments (including by establishing Nomination Advisory Committee)
June 2015 Made outside members a majority on Compensation Advisory Committee
August 2015 Board determined approach to Japan’s Corporate Governance Code
January 2016 Board assessments launched
June 2016 Reduced number of directors from 15, to 13
June 2017 Number of outside directors increased from three, to four
June 2017 Performance-based bonuses and stock compensation program introduced in keeping with new benchmarks (completed review of executive compensation system)
June 2018 Lowered number of directors from 14, to 12, with outside directors constituting one-third of the board
Corporate Governance

Policies and procedures in determining officer remuneration

Basic Policies

We will ensure the sustainable growth of the parent and Group and enhance corporate value over the medium and long terms by encouraging directors and executive officers to do their best in line with our management philosophy, Group vision, and Group management policies and motivate them to reach specific business targets. We will accordingly augment fixed remuneration with performance-based stock compensation and bonuses.

* See website for details.

Corporate Governance
https://www.ihi.co.jp/en/company/policy/governance/

Procedures for determining remuneration

To ensure appropriateness and objectivity in determining the director and executive officer remuneration, the Compensation Advisory Committee shall examine and report on remuneration related to these individuals. The Board of Directors shall make final decisions.

Remuneration of outside directors and audit & supervisory board members

Remuneration for outside directors shall consist only of base amounts reflecting duties. Remuneration for audit & supervisory board members shall consist only of base amounts as compensation for auditing IHI Group operations. Amount shall be determined through discussions among the audit & supervisory board members.

Framework of incentive remuneration and remuneration ratios

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Performance-linked stock remuneration (medium- and long-term incentives)</td>
<td>Assuming a performance target of 100, compensation to vary between 0 and 150 in line with performance. Performances to be assessed over three next fiscal years, with targets for the final year being set in the initial year assessed</td>
<td>Consolidated return on invested capital, a key target of Group Management Policies 2016</td>
<td>Consider changing in light of review of Group Management Policies</td>
<td>Variable</td>
<td>Stock and cash</td>
</tr>
</tbody>
</table>
| Performance-linked bonus (annual incentives) | Assuming a performance target of 100, compensation to vary between 0 and 200 in line with performance. | • Consolidated profit attributable to owners of the parent company to ensure shared interests with shareholders  
• Profitability emphasized under Group Management Policies 2016 (consolidated and business area operating margins)  
• Individual assessment indicators for the missions of individuals | Review according to business climate changes and individual roles | Variable | Cash |

Details of director and audit & supervisory board members remuneration in fiscal 2017 (Millions of yen)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of people remunerated</th>
<th>Total remuneration by type</th>
<th>Total remuneration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basic remuneration</td>
<td>Performance-linked stock remuneration</td>
<td>Performance-linked bonuses</td>
</tr>
<tr>
<td>Directors</td>
<td>17</td>
<td>523</td>
<td>135</td>
</tr>
</tbody>
</table>
| Audit 
Supervisory Board Members | 7 | 108 | - | - | 108 |
| Total | 24 (9) | 631 (81) | 135 (-) | 124 (-) | 892 (81) |

Note: Annual remuneration for directors is capped at 1,090 million yen, while the maximum corporate auditors is 120 million yen.
Compliance Initiatives – Serving as a Good Corporate Citizen –

Basic Policies

Compliance helps form the foundation for corporate activities. The following conduct is specified in the Basic Code of Conduct for the IHI Group.

- Observing strictly all laws, company rules and other regulations
- Acting in a fair and responsible manner as business people

System for Implementing Compliance Activities

We established the Compliance Committee as a companywide entity that meets quarterly. The chief compliance officer chairs the committee, which deliberates and formulates important compliance policies and undertakes activities.

Compliance Initiative

Compliance Education

IHI conducts multifaceted training and education to improve compliance awareness. Creative approaches are taken to achieve highly effective activities, such as ensuring that training is carefully tailored to the target audience.

- Officer Training
  All IHI officers participate in collective compliance training. In fiscal 2017, an external lecturer provided training on creating an organizational culture that prevents compliance issues and fosters positive work environments.

- Training for Line Management
  IHI holds training for line managers who instruct their subordinates on a daily basis. In fiscal 2017, we considered keys to preventing compliance violations, the importance of fostering a corporate culture that heightens occupational self-esteem, and future management guidelines.

- e-Learning
  Compliance education is provided to employees in the form of e-learning based on set themes. The fiscal 2017 theme was Lesson learned from bid rigging cases, and education based on this theme was provided to IHI companies worldwide.

Compliance Organizational Chart

Compliance Hotline

IHI’s Compliance Hotline facilitates reporting of possible illegal, unethical or improper conduct and to facilitate prompt corporate responses to remedy such actions. The hotline extended beyond Japan to encompass the United States in fiscal 2017. It received 209 calls during the year.

Compliance training results (fiscal 2017)

<table>
<thead>
<tr>
<th>Target</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHI Corporation executives</td>
<td>50</td>
</tr>
<tr>
<td>IHI group line managers</td>
<td>83</td>
</tr>
<tr>
<td>e-Learning participants in Japan</td>
<td>18,020</td>
</tr>
<tr>
<td>e-learning participants overseas</td>
<td>1,261</td>
</tr>
</tbody>
</table>

Compliance Hotline reports

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>158</td>
</tr>
<tr>
<td>2014</td>
<td>238</td>
</tr>
<tr>
<td>2015</td>
<td>333</td>
</tr>
<tr>
<td>2016</td>
<td>218</td>
</tr>
<tr>
<td>2017</td>
<td>209</td>
</tr>
</tbody>
</table>
Corporate Governance

Approach to Risk Management
– For Sustainable Development –

Basic Policies for Risk Management

Risk management is a top priority for the IHI Group, which strives to reinforce its overall capabilities in that regard. We constantly identify, analyze, and evaluate risks to ensure business continuity, maintain the safety of executives, employees and their families, protect operational resources, and ensure social credibility.

Risk Management System

We established the Risk Management Conference under the leadership of the CEO. The Conference assesses key general risk management matters, and considers policies, annual plans, corrective measures, and other important matters.

We formulated the IHI Group Key Risk Management Policies. All parent units and Group companies in Japan and abroad independently pursue risk management in keeping with those policies.

Regarding commonly existing risks in the IHI Group, the Group Risk Management Units, which comprise parent divisions, take responsibility for supporting each group units, as well as monitoring the implementation of the rules and developing effective risk management measures. The Internal Audit Division assesses Group risk management structure deployments and progress to ensure their suitability.

Key Policies for Risk Management in FY2018

The earnings forecasts of IHI group were revised downward in fiscal 2017 due to deteriorations of affiliate performances. Furthermore, the Group was unable to achieve zero accident for the year. We will thus prioritize the following initiatives in fiscal 2018.

1. Enhance safety management
2. Shift to robust project implementation and risk management system
3. Reform quality and operational systems
4. Improve productivity and eliminate long working hours by reforming work practices
5. Respond to changes in business and competitive environment
6. Ensure appropriateness of large-scale investments
7. Respond to risks in execution of global strategies
8. Strengthen compliance
9. Prevent leaks in trade secrets, personal information and key technologies
10. Ensure information security
11. Comply with environmental laws and regulations, and undertake environmental management
12. Prevent disasters and accidents
13. Maintain and enhance stakeholder trust

Reform quality and operational systems

One priority under Group Management Policies 2016 is to reform our quality and business systems to reinforce our manufacturing capabilities. Our efforts in this respect include reviewing engineering, production, and other business systems while accordingly rebuilding our quality management systems and strengthening our framework for guaranteeing the quality of our products and services.

Initiatives include educating engineers and technicians about quality, and enlightening directors, managers, and employees about compliance. As well as informing about quality, we provide opportunities to better understand customer needs and the importance of complying with relevant legislation and regulations, fostering a corporate culture that is conducive to proper business practices. Internal audits have confirmed that our quality management system is functioning properly. We aim to involve people outside the Audit & Supervisory Board in such checks to enhance monitoring.

In November 2017, we conducted an internal survey about quality, confirming the results of our initiatives in that regard.

We will continue to improve our quality assurance process ensuring close engagement with customers and workplaces.
CSR Management

CSR Management Initiatives – Creating More Sustainable Societies –

Basic Policies

IHI believes that meeting society’s expectations is one of its basic corporate social responsibilities (CSR). In accordance with this belief, the Company’s Basic Code of Conduct compiles the necessary practices IHI is obliged to carry out. A guide to the Basic Code of Conduct has been translated into 18 languages other than Japanese to ensure that all IHI employees understand and follow these practices in their work. The United Nations adopted SDGs in 2015. We believe that society expects us to help attain these goals. We will contribute to these SDGs through business and materialize social sustainability.

Identifying key challenges

With social challenges and disclosure demands diversifying, we tasked each business unit to identify key challenges, based on which we determined 14 themes. We will formulate specific action goals, with the Group undertaking concerted environmental, social, and governance management initiatives and disclosure measures.

Pursuing key challenges to underpin operations

Themes

Environment – Reduce environmental impact –
- Climate change
- Circular economy
- Environmental protection

Society – Materialize an affluent society –
- Customer relationship management
- Corporate citizenship
- Labor practices
- Diverse human resources
- Human rights

Governance – Principled corporate management –
- Corporate governance
- Information security
- Compliance
- Risk management
- Timely and proper disclosure

CSR Promotion System

CSR Committee
Chairperson President
Vice-chairperson Chief CSR Officer
Officers Director
General Manager
President of Business Area

Conveying policies

Reporting

Head Office Division
Business areas

CSR Liaison Group
Members Business units
CSR management

Secretariat

Corporate Planning Division
Issuing communication tools
Integrated Report / Sustainability Report

CSR Liaison Group
Members Business units
CSR management

Secretariat

Educational activities

Public relations

Conveying policies

Reporting

Head Office Division
Business areas

CSR Liaison Group
Members Business units
CSR management

Secretariat

Dialogue

Main engagement methods

Customers
- Sales activities, customer satisfaction surveys, product/service information on website, and CSR questionnaires

Suppliers
- Procurement activities, explanation of group procurement basic policies, reviews of quality-management systems, and supplier award system

Government organizations
- Making notification and receiving authorization to comply with relevant laws

Shareholders & investors
- General meeting of shareholders, financial results briefing, factory tours, and institutional investor visits

Local communities
- Activities contributing to local communities, (sponsorship of traditional events, atrium concerts, etc.), and IHI Forum

Employees
- e-learning (questionnaires) and employee-awareness surveys

Social pick-up

Social Contributions

We will determine five social activity themes and undertake various initiatives to meet social expectations.

Five key themes

1. Nurturing future generations
2. Promoting precision-manufacturing and scientific technologies
3. Resolving problems in local communities
4. Supporting environmental sustainability
5. Providing access to medical care, food, and water

Results of FY2017 initiatives

1. Total spending on social contributions: 330 million yen
2. Major initiatives
   - Sponsorship of activities by the United Nations World Food Program (WFP)
   - Development of training programs for next-generation development
   - Sponsorship of events in business localities
Since FY2014, we have implemented the Environmentally Friendly Products Designation Scheme to encourage further reductions of the environmental impact of products and services. Under the scheme, the environmental performance of products and services is evaluated against self-established criteria and those exhibiting particularly outstanding performance are designated “environmentally friendly products.”

In fiscal 2017, three noise and vibration reduction products and services at subsidiary INC Engineering Co., Ltd., were certified as environmentally friendly, increasing the number of such offerings to 18. We will endeavor to secure more certifications in the years ahead. See the following website for details about certified products.

https://www.ihi.co.jp/csr/english/environmental/environmental03.html

Environmentally friendly products website

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**Environment**

**Environmental initiatives – Creating More Sustainable Societies –**

**Basic Policies**

Our lives and business activities could not function without a diverse environment and natural resources. The IHI Group undertakes environmental initiatives because it recognizes the importance of reducing environmental impact and creating more sustainable societies. Our business encompasses such social infrastructure as plant facilities and bridges, increasing the social impact of our activities. We will endeavor to lower our overall ecological impact on communities by offering customers products and services that are more environmentally friendly and by streamlining our own operations.

**Materializing Environmental Management**

We formulated IHI Group Environmental Vision 2013 in fiscal 2013. The vision established three core eco strategies through fiscal 2018. These are to reduce the environmental impact of our products and services, lower the environmental impact of our operations, and strengthen environmental management. We seek to realize this vision by formulating three-year activity plans through the IHI Environment Committee, which the chief CSR officer chairs. Business areas and regional environmental committees undertake initiatives in keeping with these plans as part of an ongoing environmental management approach.

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**Environmentally Friendly Products Certification Scheme**

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Environmantly friendly products website

https://www.ihi.co.jp/csr/english/environmental/environmental03.html
The IHI Group maintains tiers of companywide educational programs, educates about the environment at sites acquiring ISO 14000 certification, and undertakes collective training to enhance specialist knowledge among key people in environmental activities. In August 2017, each business site conducted collective training on energy conservation for 52 energy and environmental managers from IHI and 10 Group companies. The training encompassed lectures from external energy conservation experts and group discussions in which participants shared issues and developed initiatives. One month later, we conducted waste collection training to ensure proper processing of production byproducts. We instituted practical exercises about sharing information and waste treatment sites with regard to the revised Waste Management and Public Cleansing Act to deepen the practical knowledge of participants. We will continue to enhance environmental efforts through training and other educational activities.

In December 2017, we took part in EcoPro 2017, an international environmental and energy exhibition that is the largest such event in Japan. For prospective science experts attending this gathering, we used simple explanations to showcase products and services that help stabilize energy supplies. We received considerable encouragement from its roughly 6,000 visitors.

June is Environment Month for the IHI Group. It is during this time that we conduct environmental quizzes and disseminate in-house news to increase employee awareness of environmental issues. In fiscal 2017, 5,072 employees took part in quizzes. In the years ahead, we will engage extensively with stakeholders and harness such efforts in environmental management.

Subsidiary Toyosu Energy Service Co., Ltd., provides steam and cold water to the Toyosu IHI Building and the Shibaura Institute of Technology campus. It also supplies electricity to the Toyosu IHI Building. A cogeneration system in the basement of that facility is equipped with IHI gas turbines and exhaust heat recovery boilers. This setup generates power efficiently by harnessing surplus steam. It is in recognition of this setup that the Bureau of Environment Tokyo Metropolitan Government certified Toyosu Energy Service for outstanding efforts as a Near-Top-Level facility to tackle global warming. This was the second time that the subsidiary received such recognition, the first being in 2011. The company will continue tackling global warming by further enhancing operational efficiency to stabilize regional energy supplies.
Supply Chain Management

Supply Chain Management Initiatives
– Collaborating with Suppliers –

**Basic Policies**

IHI’s Group Procurement Policy is based on three core principles — fair and impartial procurement, mutually beneficial partnerships with business partners and satisfying compliance and societal needs. The procurement of materials or equipment involves not only compliance with legal requirements but also consideration of human rights, the environment and conflict minerals. In addition to education for employees, IHI also satisfies societal demands by educating suppliers for beneficial coexistence and co-prosperity.

Considering that IHI conducts business on a global scale, strategically sound supply chains are a vital part of the effort to achieve medium-term goals. Under the current three-year business plan, IHI is focusing on three main activities.

**Building an optimal procurement network**

IHI has established Product-Specific Expert Councils to strengthen groupwide procurement capabilities. Council members endeavor to build optimal procurement networks for the Group by reviewing product specifications and suppliers in collaboration with business areas. These efforts cover key items common to the entire Group, including steel and electrical products.

In fiscal 2018, we established a council to focus on the transportation of parts between factories and product deliveries to customers. We seek to streamline logistics and reduce environmental impact and transportation expenses, notably in terms of selecting packaging and packaging materials and assessing transportation modes and routes.

**IHI Group Procurement Policy**

1. **Fair and impartial procurement**
   IHI provides business opportunities in an open manner to business partners around the world, aiming to work with creative and competitive partners. Partners are evaluated and selected in a fair and comprehensive manner based on factors such as quality, price, delivery schedule, technology and financial conditions.

2. **Mutually beneficial partnerships**
   IHI regards partners as value creators. To secure optimal quality, prices and deliveries as well as reliable procurements, the company aims to establish relationships of trust with partners for mutual competitiveness and prosperity.

3. **Satisfying compliance and societal needs**
   IHI complies with all laws that govern its local and global businesses. IHI procurements give priority to consideration for the environment, human rights, labor conditions, occupational safety and health, and information management.

**Topics**

**From land to sea: Expanding modal shifts**

IHI Transport Machinery Co., Ltd.’s multi-storey parking systems are installed in many commercial buildings and condominium complexes. The systems are shipped by numerous four-metric-ton trucks because installation sites are so narrow. To ship to remote locations, the company has switched to marine transportation in which it is more feasible to reduce carbon dioxide emissions and logistics costs. In fiscal 2017, the company deployed that approach for Kyushu. Compared with transportation modes to date, the company succeeded in reducing carbon dioxide emission by 74% and transportation cost by 44%.

Note 1: Minerals from conflict regions that, if purchased, sometimes result inadvertently in funding armed insurgents or fueling regional disputes.

**ihi Integrated Report 2018**
IHI holds once-annual Procurement Cost-reduction Case Study Presentations for the promotion of Group efforts to reduce procurement costs and share best practices. The presentations introduce outstanding internal examples of improving and standardizing procurement specifications, improving competitiveness by shifting to global multisourcing and concentrated purchasing.

At a presentation held in March 2018, 9 of the 90 case studies were deemed outstanding and were therefore specially commended and then shared within the Group.

Note 2: Framework for selecting optimal suppliers worldwide

**Efforts to Reduce Procurement Costs**

**Materializing 3Rs in aero-engine parts production**

IHI Aero Manufacturing Co., Ltd., uses cutting technology to produce a range of parts. The company is endeavoring to reuse cutting oil when processing parts. Metal machining processes employ a lot of oil. Traditionally, the company shipped out oil incorporating metal shavings for recycling. Facilities to perform such separation were installed to enable the repeated use of oil. The company can thus recycle the shavings, reuse oil, and reduce waste. It is expected to save around ¥20 million annually by decreasing oil purchases and waste disposal. The company plans to roll out this approach throughout its plant to further shrink its environmental footprint and procurement costs.

**Overseas Procurement Network**

| Tokyo, Japan | London, UK | New York, USA |
| Shanghai and Dalian, China | Seoul, South Korea | Mumbai, India |
| Bangkok, Thailand | Singapore | Kuala Lumpur, Malaysia | Ho Chi Minh City and Hanoi, Vietnam |

**Recognizing supplier excellence**

The IHI Group recognizes excellence among suppliers and endeavors to strengthen collaboration with them. In January 2017, we bestowed an excellence award to OSR Vietnam Joint Stock Company. Since its establishment in 2013, OSR has supplied a range of products to IHI Group companies, centering on steel frames and ducts for generator boilers. Our award expressed gratitude to that partner for maintaining reliable deliveries and high product quality.
We manage our people in keeping with our corporate philosophy of “human resources are our single most valuable asset.” We endeavor to maximize the potential of our employees and enhance their skills by providing training programs, positive work environments, and reforming the corporate culture.

Our Group Human Resource Management Policy emphasizes such key concepts as group, global, and diversity in hiring, assigning, training, and evaluating employees.

- **Group**
  Optimally assigning people and providing collective Group training in keeping with our management and business strategies

- **Global**
  Fostering global human resources by providing language and intercultural communication education and cultivating local managers at overseas sites

- **Diversity**
  Actively employing women, foreign nationals, people with handicaps, and the elderly, setting up in-house nurseries, and holding diversity seminars

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**Ideal Human Resources**

<table>
<thead>
<tr>
<th>Integrity and Trust</th>
<th>For Customers and Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation and Creation</td>
<td>Teamwork</td>
</tr>
</tbody>
</table>

**World-class Professional**

**Keywords**

- Group
- Global
- Diversity

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**IHI Group education and training system**

<table>
<thead>
<tr>
<th>Executives</th>
<th>Managerial training</th>
<th>Training by level and position</th>
<th>Open lectures</th>
<th>Global human resources education</th>
<th>Professional training</th>
<th>Diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>Social position-based training</td>
<td>Training by position and job category</td>
<td>Open lectures</td>
<td>Global human resources education</td>
<td>Professional training</td>
<td>Diversity</td>
</tr>
<tr>
<td>Workplace leaders</td>
<td>Training by position and job category</td>
<td>Open lectures</td>
<td>Global human resources education</td>
<td>Professional training</td>
<td>Diversity</td>
<td></td>
</tr>
<tr>
<td>Mid-ranked personnel</td>
<td>Open lectures</td>
<td>Global human resources education</td>
<td>Professional training</td>
<td>Diversity</td>
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<tr>
<td>Young employees</td>
<td>Open lectures</td>
<td>Global human resources education</td>
<td>Professional training</td>
<td>Diversity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Selected courses**

- Position and job category education
- Elective courses

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51 IHI Integrated Report 2018
Diversity is integral to our corporate management strategies. We aim to create workplaces in which individuals with diverse values can reach their potential and foster a corporate culture that brings together diverse ideas and generates opportunities for creativity and innovation.

November is Diversity Month for the IHI Group. In fiscal 2017, we shared best practices and held diversity seminars and workshops. We made wheelchair-accessible restrooms at each business site open to all users based on universal design, and we building work environments that fully accept sexual minorities and are friendlier to people with disabilities.

We have rolled out various programs that exceed legal requirements to help employees balance their professional and provide commitments.

In fiscal 2017, we set up two in-house nurseries for the families of Group employees to ease returns from childcare leave. These facilities at business sites in Soma, Fukushima Prefecture, and our Mizuho Works in Tokyo foster healthy growth for children, and feature many indoor plants to make them feel more comfortable.

Feedback from employees entrusting their young ones to these nurseries has been very positive. Some have noted the safety aspect while others highlight the time savings in dropping children off and picking them up. Such advantages have made it easier for employees to enhance their work-life balance.

In fiscal 2017, we secured recognition in two key respects for our efforts materialize work environments in which employees can reach their full potential.

**Receiving Eruboshi Certification for Excellence based on the legislation to promote the interests of women in the workplace**

In keeping with the Act on Promotion of Women’s Participation and Advancement in the Workplace, which was enacted in 2016, the Ministry of Health, Labour and Welfare maintains three categories of corporate excellence in fostering the interests of female employees. IHI obtained recognition in the second Eruboshi certification class for passing four of five assessment criteria, notably for recruitment, work hours, managerial ratios, and career courses.

**Health & Productivity Companies 2018 (White 500)**

The Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi (Japan Health Council) maintain the White 500 program to recognize excellence in strategic corporate healthcare management. In keeping with the IHI Group Health Management Declaration, we collaborate with health insurance associations to foster the wellbeing of employees and their families. In fiscal 2017, five IHI Group companies received White 500 certification. They were the parent, IHI Scube Co., Ltd., IHI Plant Construction Co., Ltd., Niigata Power Systems Co., Ltd., and IHI Jet Service Co., Ltd.
## Financial Summary

### Key financial highlights

<table>
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<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Orders received</td>
<td>1,556.5</td>
<td>1,176.7</td>
<td>970.4</td>
<td>1,200.9</td>
<td>1,269.6</td>
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<td>▲ 14.1</td>
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<td>410.6</td>
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<td>Net assets</td>
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<td>263.0</td>
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### Per share data

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<td>Profit attributable to owners of parent per share 1</td>
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<td>Book value per share 2</td>
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<td>Annual dividends per share</td>
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### Sales by region

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<td>North America</td>
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<td>157.6</td>
<td>139.2</td>
<td>126.1</td>
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<td>271.5</td>
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<td>90.4</td>
<td>70.3</td>
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<td>99.4</td>
<td>93.0</td>
<td>152.2</td>
<td>171.0</td>
<td>139.9</td>
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<td>Asia and other</td>
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<td>358.6</td>
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<td>295.1</td>
<td>295.8</td>
<td>245.7</td>
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<td>315.3</td>
<td>320.2</td>
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<td>Japan</td>
<td>773.1</td>
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### Sales by business segment

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<td>Resources, Energy &amp; Environment</td>
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<td>-</td>
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<td>312.3</td>
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### Financial index

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<td>Percentage of overseas sales</td>
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<td>ROA (return on assets 4)</td>
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<td>ROIC (return on invested capital 5)</td>
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<td>Debt-to-equity ratio (times) 6</td>
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<td>Equity to total assets</td>
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<td>Current assets</td>
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<td>Non-current assets</td>
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<td>Total assets</td>
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<td>Total liabilities</td>
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<td>Total net assets</td>
<td>234.4</td>
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<tr>
<td>Total liabilities and net assets</td>
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</table>

| **Cash flow statement-related information** |          |          |          |          |          |          |          |          |          |          |          |
| Cash flows from operating activities | 3.3      | ▲ 17.6   | 76.7     | 95.5     | 24.7     | 74.3     | 39.2     | 63.5     | 95.3     | 65.3     | 99.0     |
| Cash flow from investing activities | 46.7     | ▲ 41.7   | ▲ 62.7   | ▲ 77.7   | ▲ 37.7   | ▲ 61.0   | ▲ 62.2   | ▲ 74.6   | ▲ 35.5   | ▲ 28.9   | ▲ 47.9   |
| Cash flow from financing activities | ▲ 48.7   | 42.8     | ▲ 1.8    | ▲ 25.9   | ▲ 38.5   | ▲ 3.1    | 11.3     | 33.4     | ▲ 47.5   | ▲ 21.9   | ▲ 57.3   |
| Change in interest-bearing debt | ▲ 36.6   | 59.2     | 4.9      | ▲ 68.7   | ▲ 28.1   | 8.6      | 4.0      | 52.8     | ▲ 36.1   | ▲ 2.6    | ▲ 49.7   |
| Free cash flow7 | ▲ 50.1   | ▲ 59.3   | 13.9     | ▲ 17.7   | ▲ 12.9   | ▲ 2.9    | ▲ 30.0   | ▲ 1.10   | 59.8     | 36.4     | 51.0     |

1: Profit attributable to owners of parent ÷ total number of shares outstanding  
2: Net assets ÷ total number of shares outstanding  
3: Profit attributable to owners of parent ÷ (average of owner’s equity at end of previous term and end of current term)  
4: Profit attributable to owners of parent ÷ (average of total assets at end of previous term and end of current term)  
5: (Operating income + interest and dividend income) after tax ÷ (owner’s equity + interest-bearing debt)  
6: Interest-bearing debt ÷ net assets  
7: Cash flows from operating activities + Cash flow from investing activities

For more detailed information, please refer to the website.

Financial: [https://www.ihi.co.jp/en/ir/](https://www.ihi.co.jp/en/ir/)
Non-Financial: [https://www.ihi.co.jp/csr/english/](https://www.ihi.co.jp/csr/english/)
## Non-financial summary

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<tr>
<th>Areas</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018 Plan</th>
<th>Future objectives</th>
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<tr>
<td>Level of employee awareness</td>
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<td>90%</td>
<td>92%</td>
<td>90%</td>
<td>Achieve SDG recognition rate exceeding 90%</td>
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<td>Outside director meeting</td>
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<td>85% or greater</td>
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<td>Measures</td>
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<td>Number of legal infringements (guidance)</td>
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<td>Rate of occurrence of work-related accidents requiring time off</td>
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<td>17.63 days</td>
<td>16 days or more</td>
<td>Work to ensure workplace environments are healthy and safe for all people working for or with IHI</td>
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### Diversity

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<tr>
<th>Areas</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018 Plan</th>
<th>Future objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender diversity</td>
<td>• Promoted awareness of gender diversity</td>
<td>• Established networks for female presence</td>
<td>• Promoted work-life balance</td>
<td>• Expanded gender-diversity initiatives throughout Group</td>
<td>Ongoing</td>
<td>Ongoing</td>
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<tr>
<td></td>
<td>• Supported women’s career ambitions and increased motivation</td>
<td>• Improved male awareness of gender diversity</td>
<td>• Provided ongoing support for networking among females</td>
<td>• Held group-wide seminar to promote female careers and Diversity Month (November)</td>
<td>Ongoing</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>• Heightened gender-diversity among males, especially managers and supervisors</td>
<td>• Provided ongoing support for networking among females</td>
<td>• Implemented Diversity Promotion Month (November)</td>
<td>• Opened day care centers at company premises (Soma and Musashi)</td>
<td>Ongoing</td>
<td>Ongoing</td>
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<tr>
<td></td>
<td>• Identified obstacles to gender diversity</td>
<td></td>
<td>• Followed up on Group company initiatives</td>
<td>• Created telecommute system and spouse-relocation-leave system</td>
<td>Ongoing</td>
<td>Ongoing</td>
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<tr>
<td></td>
<td>• Executive Officer Mizutomo received Award for Cultivating Women Engineers</td>
<td>• Formulated action plan for Women’s Advancement Promotion Law</td>
<td>• Selected as a Nadeshiko Brand</td>
<td>• Obtained Eruboshi certification</td>
<td>Ongoing</td>
<td>Ongoing</td>
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#### Measures

- **Executive Officer Mizutomo received Award for Cultivating Women Engineers**
- **Launched diversity page on website and released messages from top executives**
- **Supported women’s career ambitions and increased motivation**
- **Heightened gender-diversity awareness among males, especially managers and supervisors**
- **Provided ongoing support for networking among females**
- **Implemented Diversity Promotion Month (November)**
- **Followed up on Group company initiatives**
- **Formulated action plan for Women’s Advancement Promotion Law**
- **Selected as a Nadeshiko Brand**
- **Held group-wide seminar to promote female careers and Diversity Month (November)**
- **Prepared day care centers at company premises (Soma and Musashi)**
- **Created telecommute system and spouse-relocation-leave system**
- **Released numerical targets for FY2020**
- **Held collective lectures on promoting interests of women in workplaces and held Diversity Month initiatives in November**
- **Prepared to set up nursery school at Yokohama site and launched babysitting service**
- **Instituted measures to encourage male workers to take childcare leave**

#### Employment opportunities for persons with disabilities

- **Ensured appropriate workplaces and workloads**
- **Posted job openings on an employment site**
- **Participated in joint briefing session hosted by disability-support provider**
- **Established consultation desk**
- **Some business sites set up business support teams to consolidate and outsource work to cater to a wider range of disabilities**
- **Further expand business support teams to consolidate and outsource work within business sites**

#### Employment opportunities for seniors

- **Revised life-planning seminars**
- **Added life-planning seminars at age 50 existing seminars at age 58**
- **Raised base wages from age 60 for (selective retirement scheme)**
- **Further expand business support teams to consolidate and outsource work within business sites**

#### Employment opportunities for non-Japanese

- **Recruited candidates from priority areas (Asia)**
- **Ongoing**
- **Future objectives**

### Relevant data

#### Female recruitment

- **College graduates**: 32 (14%) Technical: 3
- **College graduates**: 47 (18%) Technical: 3
- **College graduates**: 40 (14%) Technical: 6
- **College graduates**: 35 (14%) Technical: 4
- **College graduates**: 20 (12.7%) Technical: 6
- **College graduates**: 15% or greater of total
- **Female officers**: 1
- **Percentage returning to work after childcare leave**: 100%
- **Employment opportunities for non-Japanese**: 2.02%
- **Non-Japanese graduates**: 11
- **Number of female managers and percentage of employees**: 51 (1.8%) 60 (2.1%)
- **Female officers**: 1 1
- **Percentage returning to work after childcare leave**: 100% 100% 100% 100%
- **Employment opportunities for non-Japanese**: 2.02% 2.17% 2.14% 2.03% More than 2.2% (FY2019, April) 2.3% (FY2021, March)
- **Non-Japanese graduates**: 11
- **Female managers**: 51 (1.8%) 60 (2.1%)
- **Female officers**: 1 1
- **Female managers**: 51 (1.8%) 60 (2.1%)
- **Female officers**: 1 1

### Environment

#### Measures

- **Established targets for energy consumption, CO2 emissions and waste reduction, and monthly monitoring program**
- **Finalized environmental impact collection system**
- **Established Group Environmental Action Plan 2016**
- **Study mid-to-long-term environmental issues**
- **Ongoing**
- **IHI’s vision is to make environmental sustainability an integral part of all Group companies by working together with customers and business partners worldwide.**

#### Relevant data

- **CO2 emissions from business activities\(^1\)**: 346,000 tons 326,000 tons 317,000 tons 330,000 tons
- **CO2 emissions from business activities\(^1\)**: Less than 300,000 tons Less than 300,000 tons
- **Reduced CO2 emissions**: 2.5 million tons or greater 2.5 million tons or greater
- **Sales ratio of eco-friendly products**: 70% or greater 70% or greater
- **Nikkei Environmental Management Survey**: 400 points or higher 400 points or higher

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\(^1\): Emissions coefficients by electrical power provider were used for calculation of CO2 emissions from electrical power consumption.

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<table>
<thead>
<tr>
<th>Areas</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018 Plan</th>
<th>Future objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental management</td>
<td>Established targets for energy consumption, CO2 emissions and waste reduction, and monthly monitoring program</td>
<td>Finalized environmental impact collection system</td>
<td>Established Group Environmental Action Plan 2016</td>
<td>Study mid-to-long-term environmental issues</td>
<td>Ongoing</td>
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</tbody>
</table>
Corporate Data (As of March 31, 2018)

Name ........................................ IHI Corporation
Head office .................................. Toyosu IHI Building, 3-1-1 Toyosu, Koto-ku, Tokyo 135-8710, Japan
Tel: +81-3-6204-7800
President and CEO .......................... Tsugio Mitsuoka
Founded ..................................... December 5, 1853
Incorporated ................................. January 17, 1889
Capital ....................................... 107.1 billion yen
Employees (consolidated) ............... 29,706
Works ........................................ 7
Branches in Japan ......................... 8
Overseas offices ........................... 13
Group companies ......................... In Japan: 70 (52 subsidiaries, 18 affiliates)
                                      Overseas: 147 (120 subsidiaries, 27 affiliates)
Securities code ........................... 7013
Stock exchange listings ................. Tokyo, Nagoya, Sapporo, Fukuoka
Share unit .................................. 100
Total number of authorized shares .... 300,000,000
Outstanding shares ...................... 154,446,519 (not including 233,435 treasury shares)
Shareholders .............................. 78,991
Fiscal year ................................. April 1 to March 31 of following year
General shareholders’ meeting ....... June of each year
Record date for year-end dividend .... March 31 of each year
Record date for interim dividend ...... September 30 of each year
Shareholder registry administrator / Special account managing institution .......... 1-4-1 Marunouchi, Chiyoda-ku, Tokyo 100-8233, Japan
                                      Sumitomo Mitsui Trust Bank, Limited
                                      Stock transfer Agency Business Planning Department
                                      2-8-4 Izumi, Suginami-ku, Tokyo 168-0063, Japan
                                      0120-782-031 (toll-free in Japan)

Major Shareholders

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of shares held (thousand shares)</th>
<th>Shareholding ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Master Trust Bank of Japan, Ltd. (holder in Trust)</td>
<td>8,425</td>
<td>5.45</td>
</tr>
<tr>
<td>Japan Trustee Services Bank, Ltd. (holder in Trust)</td>
<td>6,938</td>
<td>4.49</td>
</tr>
<tr>
<td>Japan Trustee Services Bank, Ltd. (TOSHIBA CORPORATION Retirement Benefit Trust Account re-entrusted by Sumitomo Mitsui Trust Bank, Limited)</td>
<td>5,542</td>
<td>3.58</td>
</tr>
<tr>
<td>The Dai-ichi Life Insurance Company, Limited</td>
<td>5,406</td>
<td>3.50</td>
</tr>
<tr>
<td>State Street Bank And Trust Company 505001</td>
<td>4,756</td>
<td>3.07</td>
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<td>State Street Bank And Trust Company 505223</td>
<td>2,993</td>
<td>1.93</td>
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<tr>
<td>State Street Bank And Trust Company Ltd. (holder in Trust 5)</td>
<td>2,936</td>
<td>1.90</td>
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<tr>
<td>State Street Bank And Trust Company Ltd. (holder in Trust 9)</td>
<td>2,930</td>
<td>1.89</td>
</tr>
<tr>
<td>State Street Bank West Client - Treaty 505234</td>
<td>2,642</td>
<td>1.71</td>
</tr>
</tbody>
</table>

Notes: 1. The number of shares and shareholder ratios less than a single unit are rounded down.
2. Shareholding ratios are calculated without including the total number of treasury shares.

Shareholder Composition

Distribution by type of shareholder

- Financial instrument brokers
  73 shareholders / 4,108,275 shares
  2.65%
- Individuals / Others
  77,321 shareholders / 33,229,744 shares
  21.51%
- National and local governments
  0 shareholders / 0 shares
  0.00%
- Foreign individuals and corporations
  608 shareholders / 51,408,516 shares
  33.28%
- Other Japanese corporations
  906 shareholders / 6,028,637 shares
  3.90%
- Financial institutions
  82 shareholders / 59,671,347 shares
  38.63%

Notes: Due to rounding, the total percentage may not add up to 100.
The Company conducted a consolidation of common stock on a 10 for 1 basis on October 1, 2017. The above figures have been applied retroactively.

About IHI Integrated Report 2018

This report presents important information on IHI’s policies and strategies, and the foundations that support them, with a special focus on the Group Management Policies 2016 business plan. We use this report as a tool for communicating with stakeholders, aiming to increase our corporate value.

Scope
IHI Corporation and its major group companies

Period
This report covers FY2017, which began on April 1, 2017 and ended on March 31, 2018. However, information prior to and after this period may also be included.

Guidelines
• International Integrated Reporting Framework, International Integrated Reporting Council
• Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (GRI Standards)

Inquiries
Please contact us via the inquiry form on IHI website.
https://contact.ihi.co.jp/index.php/ihi_eng/IHI/form_10707

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

Websites
See our websites for other details.

Investor relations information
https://www.ihi.co.jp/en/ir/

CSR information
https://www.ihi.co.jp/csr/english/index.html