

The Hitachi Metals Group Report **2018**

Integrated Report

MISSION
Corporate Creed

The origins of our company can be traced back more than one hundred years, and our main products have been standing at the top in each industry both qualitatively as well as quantitatively.

We devote ourselves to technology and aspire to contribute to society by being the best enterprise based on “*Wa sureba tsuyoshi*” our people possess and their loyalty to the company.

VALUE
Corporate Philosophy

Wa sureba tsuyoshi

“*Wa*” refers to “individuals with different characters coming together to create harmony.” “*Tsuyoshi*” means “strength to accomplish the results we hope for.” “*Wa sureba tsuyoshi*” portrays our endeavor to work as one while improving ourselves individually in order to create the best possible company.

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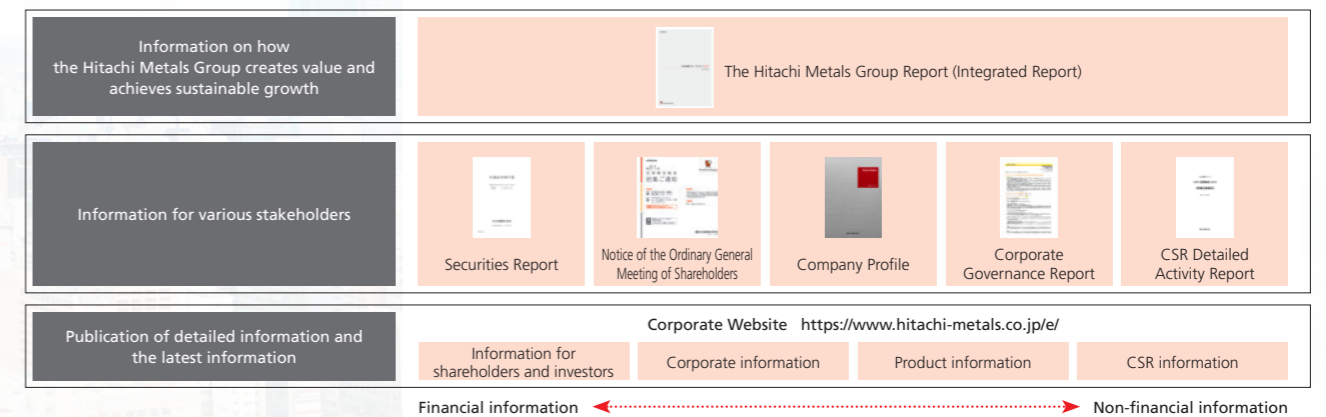
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Information provided by the Hitachi Metals Group



Editorial Policy

From 2016 (Fiscal 2015 Report), we have released the Hitachi Metals Group Report (Integrated Report) for all stakeholders, including shareholders and other investors. The aim of the report is to deepen understanding among stakeholders about how the Group utilizes its strengths to create value for customers and achieve sustainable growth. In compiling the report, we referred to the International Integrated Reporting Framework, published by the International Integrated Reporting Council (IIRC). In addition to the Hitachi Metals Group Report (Integrated Report), we provide information to our various stakeholders as shown in the chart. We also periodically update our corporate website with the latest information, including detailed information and news releases.

Review Period

Fiscal 2017 (April 1, 2017–March 31, 2018)
Note: Where possible, the latest information is used at the time of publication.

Relevant Entities

Hitachi Metals, Ltd. and its consolidated subsidiaries
Note: In cases where information contained herein refers to a review period and/or relevant entities different from those stated above, this is pointed out accordingly.

To Our Stakeholders

On the Publication of the Hitachi Metals Group Report 2018

The Hitachi Metals Group is a high-performance materials company unparalleled in the world, and through our businesses, we aim to help to resolve social issues and by doing so, contribute to society and enhance our corporate value. This report is one part of that effort, and we consider this an important form of communication with shareholders.

By systematically integrating financial and non-financial information, this report is intended to convey the Group's strengths and vision and to clarify our process for creating value. This report also references the International Integrated Reporting Council's (IIRC) International Integrated Reporting Framework and the Ministry of Economy, Trade and Industry's (METI) Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation, and is prepared in close cooperation with our corporate divisions to consolidate our thinking across the Group.

We hope that readers will find this information useful in deepening their understanding of the activities of the Hitachi Metals Group.

Akitoshi Hiraki

Representative Executive Officer,
President and Chief Executive Officer



About the Hitachi Metals Group

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Hitachi Metals WAY

The Hitachi Metals WAY has been systematically developed based on our Corporate Creed (Mission), Corporate Philosophy (Value), and our diverse DNA that are the embodiment of Hitachi Metals' uniqueness, which has been cultivated over the more than 100 years of the Hitachi Metals Group's history.

We are pursuing new challenges every day through our various business activities. The Hitachi Metals WAY refers to the systematic philosophy that is derived from our corporate culture and Good Practice Guidance, to bring together these diverse individual strengths and create harmony that is unique to the Hitachi Metals Group.

We will build on the Hitachi Metals WAY, which has evolved from our diverse history and culture, as Hitachi Metals' uniqueness, which we will focus on developing as we continue to grow.

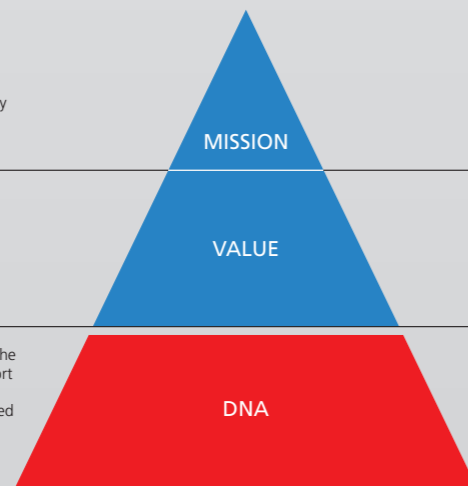
Hitachi Metals' uniqueness, referred to as the Hitachi Metals WAY, forms the foundation on which we set our direction and strategies.

Hitachi Metals WAY

Mission to be fulfilled in society by the Hitachi Metals Group

Values that the Hitachi Metals Group protects and fosters in order to realize the corporate creed

The unique DNA nurtured by the Hitachi Metals Group to support the corporate creed and the corporate philosophy. It is added to through the process of corporate evolution such as mergers, integrations, etc.



Corporate Creed

The origins of our company can be traced back more than one hundred years, and our main products have been standing at the top in each industry both qualitatively as well as quantitatively. We devote ourselves to technology and aspire to contribute to society by being the best enterprise based on "wa sureba tsuyoshi" our people possess and their loyalty to the company.

Corporate Philosophy

Wa sureba tsuyoshi

一則一強

Under our corporate philosophy of "wa sureba tsuyoshi," our group is One Force for Change.

Diverse DNA is the basis of our corporate culture that realizes *Wa Sureba Tsuyoshi*.

The development of the Hitachi Metals Group's uniqueness over time

Sustainable growth by achieving "the mass production of high-quality materials"

The Hitachi Metals Group has grown through numerous mergers and acquisitions. The Group's uniqueness lies in the unique and diverse technologies, products, and business portfolio that have emerged from that process, and is our main strength.

The Hitachi Metals Group's unique and diverse human resources, technologies, and products have top-level competence in their respective fields, giving them a strong sense of individuality. Bringing together this strong individuality enables us to create successive innovations in a way that other companies cannot match. At the same time, we use the success of those innovations to deliver products and services to resolve the issues of customers and society leveraging advanced *monozukuri* skills that achieve both quality and quantity.

In this way, the success of this diversity-based innovation achieves "the mass production of high-quality materials," and this ability for sustainable growth is what constitutes the Hitachi Metals Group's uniqueness.

Path to pursue

The world's leading high-performance materials company

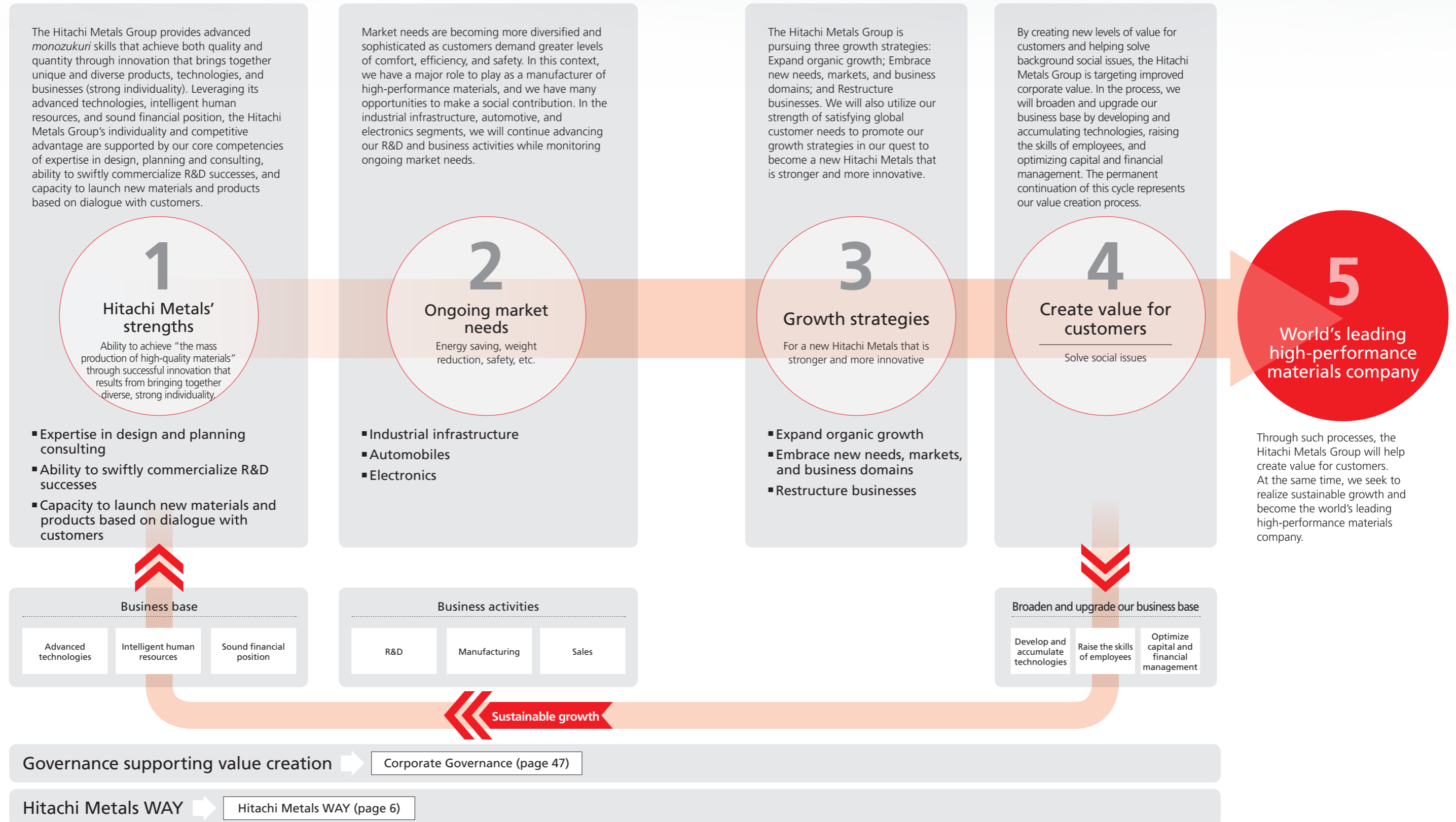
Amid the constant changes ongoing in society, the materials area, in which the Hitachi Metals Group operates, is experiencing increasingly drastic change. To continue to be a company with sustainable growth that is indispensable to customers and society, we are extending and strengthening our uniqueness, to contribute to the creation of new value sought by society through a broad variety of environmentally conscious products, while at the same time pursuing sustainable growth as we strive to be the world's leading high-performance materials company.

Corporate Philosophy | *Wa sureba tsuyoshi*

"*Wa*" refers to "individuals with different characters coming together to create harmony," while "*tsuyoshi*" means "strength to accomplish the results we hope for." The Hitachi Metals Group's Corporate Philosophy is to endeavor to work as one while improving ourselves individually, to create the best possible company.

Value Creation

In these ever-changing times, the Hitachi Metals Group constantly monitors the requirements of customers and markets and supplies advanced new products and technologies that are at the forefront of their era. For us, creating value for our customers means providing help to solve social issues in various fields and leads to enhanced corporate value. Through this process of value creation, we embrace the challenge of becoming the world's leading high-performance materials company.



Business Foundation: Our Sources of Strength

The keys to the Hitachi Metals Group's strengths are its "advanced technologies" and "intelligent human resources." Since our foundation, our widely knowledgeable personnel have maintained a commitment to quality. Rather than keeping pace with and following the competition, we develop a wide range of products brimming with creativity and backed by advanced technologies, to meet the needs of customers all over the world.

Advanced Technologies

In addition to exploiting our knowledge about the characteristics of various materials to pursue extremely high-quality core technologies and enhance quality, we have *monozukuri* skills that enable us to create and mass-produce items that meet customers' needs. We deploy these capabilities to achieve "the mass production of high-quality materials" and support value creation at the Hitachi Metals Group.

By exhaustively targeting "the mass production of high-quality materials" in this way, we have achieved the top market share in our fields of focus.

The mass production of high-quality materials

Core technologies

Technologies and ideas to extract materials' maximum performance

Alloys and design technologies

Manufacturing and processing technologies

Analysis/evaluation technologies

Monozukuri skills

Industry-leading production capacity

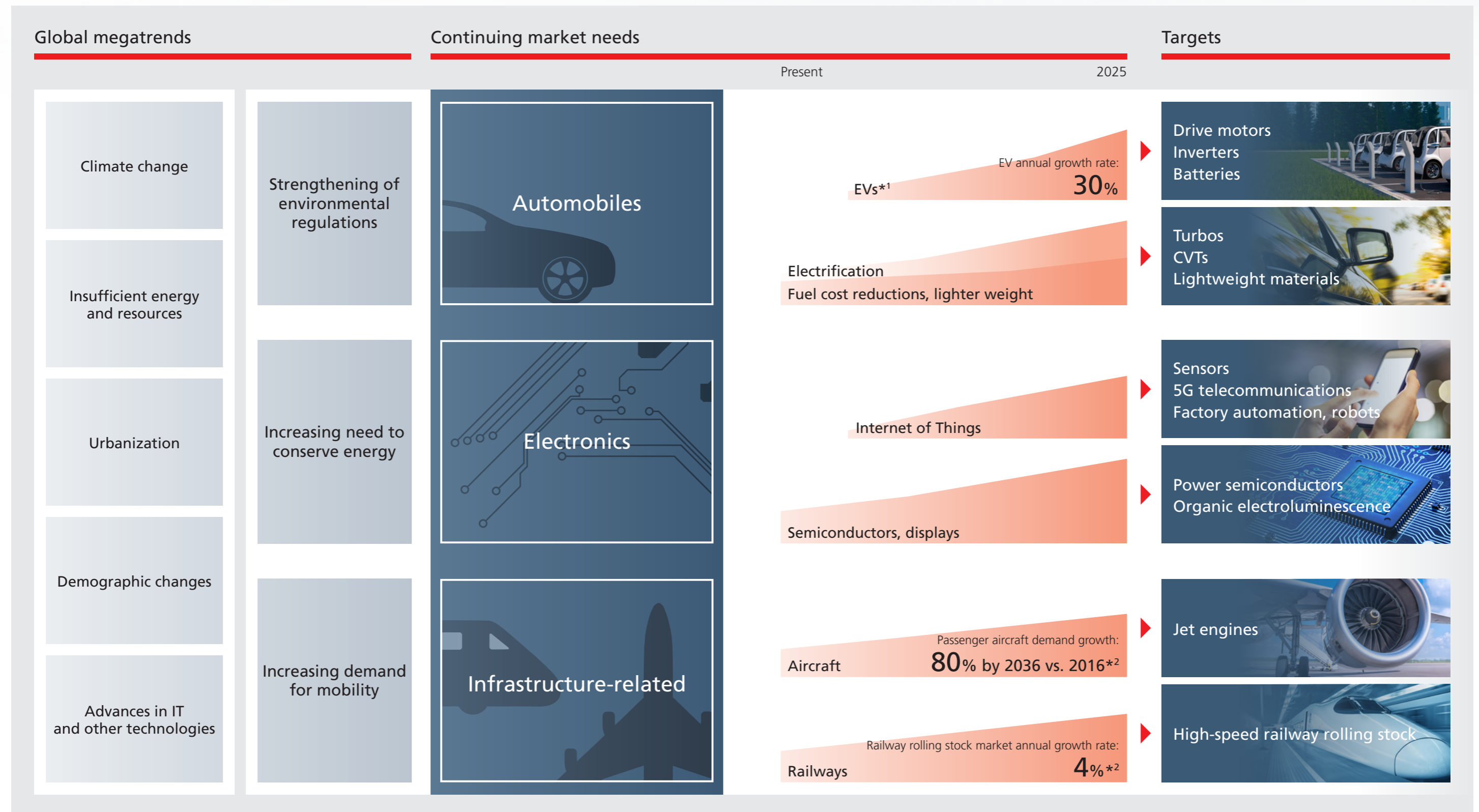
Industry-leading cost competitiveness

Top Market Share Achieved

- 1 CVT belt materials
- 2 Ni-based lead frame materials
- 3 Organic EL-related components/materials
- 4 Rolls for steel mills
- 5 Cast iron products
- 6 Razor and blade materials
- 7 SOFLEX™ flexible piping system
- 8 Amorphous alloys Metglas®
- 9 Neodymium magnets NEOMAX®
- 10 Ferrite magnets NMF™
- 11 Cylinders and screws for injection molding machines
- 12 Stainless steel piston ring materials
- 13 Probe cables for ultrasound diagnostic equipment
- 14 Wires and cables for rolling stock

Target Areas

Megatrends like climate change and insufficient energy and materials are bringing about major transformations to the industrial sector as a whole. The Hitachi Metals Group is working to understand market needs from a customer perspective, to transform megatrends into business opportunities and identify threats, and accurately address social needs for the future.

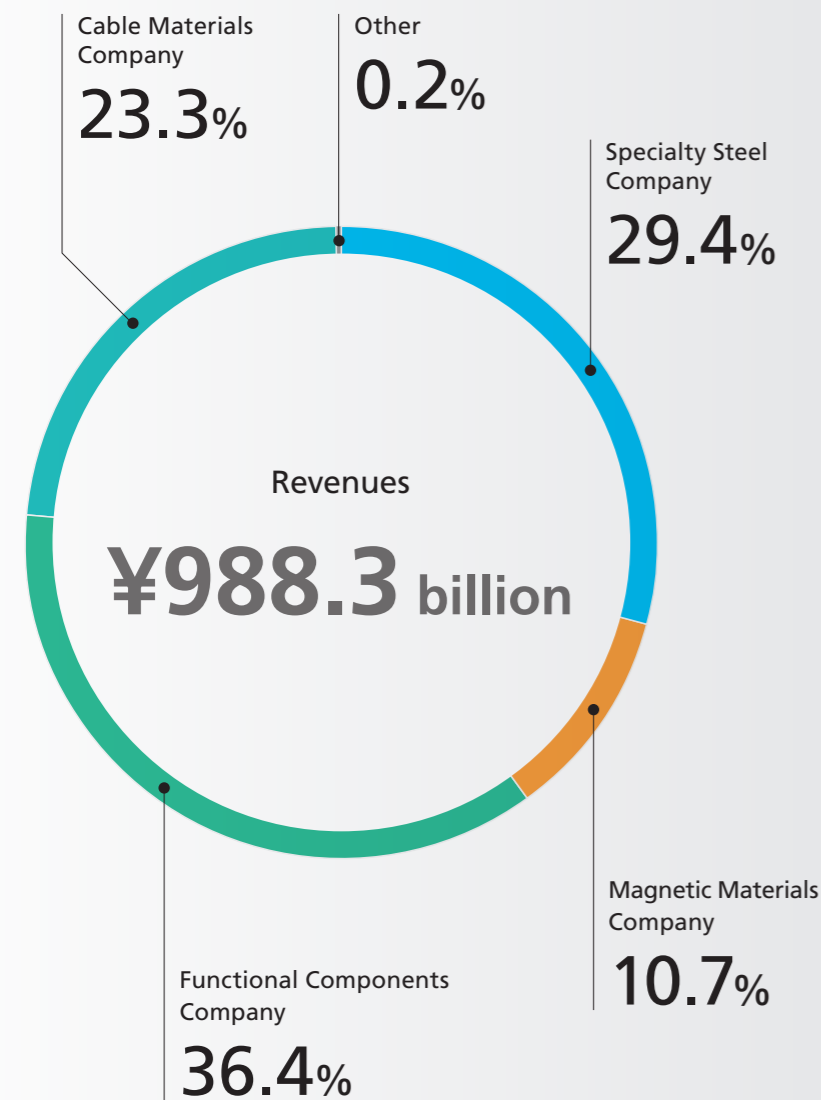


*1 Refers to electric vehicles (EVs) including hybrid electric vehicles (HEVs) and plug-in hybrid electric vehicles (PHEVs).
*2 Market trends are Company estimates based on various sources.

Business Portfolio

The Hitachi Metals Group specializes in the development of high-performance materials. Leveraging this expertise, we supply materials and products mainly to customers in the industrial infrastructure-, automotive-, and electronics-related segments.

Percentage of FY2017 Revenues by Segment*



* The percentage of revenues by segment is calculated based on sales to external customers.

Market segments

Industrial infrastructure-related Automobile-related Electronics-related

Specialty Steel Company

Revenues
¥290.6 billion

Adjusted operating income
¥27.9 billion

| | | |
|-----------------------------|--|--|
| Turbine case materials | Specialty steel | Cladding materials for lithium batteries |
| Rolls | "SLD-MAGIC™" cold work tool steel | |
| Rolls for steel mills | Soft magnetic components and materials | |
| "Metglas®" amorphous alloys | Common mode choke coils | High-frequency low-loss soft ferrite cores |

Magnetic Materials Company

Revenues
¥106.1 billion

Adjusted operating income
¥9.6 billion

| | | |
|--|-----------------------------|------------------------------|
| | "NMF™" ferrite magnets | Magnets and applied products |
| | "NEOMAX®" neodymium magnets | |

Functional Components Company

Revenues
¥360.1 billion

Adjusted operating income
¥11.8 billion

| | | |
|---------------------------------|---|--------------------|
| Piping components | Casting components for automobiles | |
| Polyethylene gas piping systems | "SCUBA™" fashionable aluminum road wheels | Cast iron products |
| | "HERCUNITE™" heat-resistant cast components | |

Cable Materials Company

Revenues
¥230.5 billion

Adjusted operating income
¥14.9 billion

| | | |
|------------------------------------|--|--|
| Wires and cables for rolling stock | Magnetic wire for high-efficiency motors | Probe cables for ultrasound diagnostic equipment |
| | Electric wires and cables | |
| | High-performance components | Harness for electric parking brakes |

Performance

Highlights of fiscal 2017

| | | |
|---|----------------------|----------------------|
| Revenues | ROE* ² | EBIT |
| ¥988.3 billion | 7.7% | ¥48.9 billion |
| Adjusted operating income* ¹ | ROA* ³ | R&D expenses |
| ¥65.1 billion | 4.5% | ¥17.7 billion |
| Adjusted operating margin | Overseas sales ratio | Number of employees |
| 6.6% | 56% | 30,390 |

*1 Adjusted operating income = Revenues – Cost of sales – Selling, general and administrative expenses

*2 ROE (return on equity) = Net income attributable to owners of the parent company ÷ Equity attributable to owners of the parent company (the average of the beginning and ending balances of the year) x 100

*3 ROA (return on assets) = Income before income taxes ÷ Total assets (the average of the beginning and ending balances of the year) x 100

Scope of operations by region in fiscal 2017

| | | |
|----------------------------------|----------------------------------|-----------------------------------|
| Europe | North America | Japan |
| Revenues ¥51.4 billion | Revenues ¥294.8 billion | Revenues ¥431.5 billion |
| Number of employees 212 | Number of employees 7,765 | Number of employees 13,054 |
| China | Other Asia | |
| Revenues ¥75.3 billion | Revenues ¥122.7 billion | |
| Number of employees 3,055 | Number of employees 6,304 | |

Management Strategies

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Strategy and Vision – Message from the CEO



Becoming a high-performance materials company unparalleled in the world

Akitoshi Hiraki

Representative Executive Officer,
President and Chief Executive Officer

Introduction

Under the Fiscal Year 2018 Medium-Term Management Plan, the Hitachi Metals Group aims to expand its businesses globally and improve its profitability. Along with organic growth, we will seize opportunities for further growth through mergers and acquisitions, and work continuously to renovate our portfolio. With our diverse business portfolio that has evolved over the more than 100 years since the Company was established, we aim to become even stronger by bringing together diverse high-performance materials, and demonstrate a conglomerate premium unique to Hitachi Metals.

In the automobile industry, the shift toward EVs* is rapidly accelerating as the overall manufacturing industry is experiencing a major wave of technological innovation led by the Internet of Things (IoT) and artificial intelligence (AI). These developments are providing a strong boost to the Hitachi Metals Group. Hitachi Metals' strength as a high-performance materials company unparalleled in the world lies in being able to address the shift to EVs by proposing integrated solutions that involve magnets, soft magnetic materials, and power cables for high-efficiency motors, as well as integrated

solutions for the IoT and AI with semiconductor-related products such as lead frame materials, LTCC substrates, and mass flow controllers.

Looking back at fiscal 2017

Fiscal 2017 was my first year as President and CEO. During that year, we faced three difficult operating issues, but I believe we have made steady improvements in each area. Through *monozukuri* innovation, we overcame production technology issues for the automotive heat-resistant cast component HERCUNITE™ for significantly increased yields, while also reviewing our pricing with the understanding of customers, and in March 2018, the business turned profitable on a single-month basis. With regard to aluminum wheels, AAP St. Marys Corp. implemented the highly efficient *monozukuri* management reforms of Waupaca Foundry, Inc., the world's best casting manufacturer, resulting in higher production efficiency. With a jump in costs for secondary materials including graphite electrodes and heat-resistant materials, earnings have been pressured in the specialty steel business in particular, but in fiscal 2018 our customers agreed to the

*1 Refers to electric vehicles (EVs) including hybrid electric vehicles (HEVs) and plug-in hybrid electric vehicles (PHEVs).

Strategy and Vision – Message from the CEO

introduction of a surcharge system as a new method for setting prices. This allows fluctuations in raw material prices to be reflected in product prices and minimizes the impact of those fluctuations on the Company's operating results.

At the same time during fiscal 2017, we made solid progress with three cross-organizational reforms. Along with research and development, *monozukuri*, and sales being carried out based on common, companywide policies at the four internal companies—Specialty Steel, Magnetic Materials, Functional Components, and Cable Materials—management is becoming highly transparent. The *monozukuri* innovation that we initiated in fiscal 2016 has been further strengthened from April 2018 with the shift to a structure whereby the Technology, Research & Development Division has primary responsibility for “Technological Innovations” and the newly established GEMBA Innovation Management Division primarily responsible for “GEMBA (Workplace) Reforms.” With regard to sales innovation, employees are experiencing major synergies through the handling of companywide product groups as sets that transcend the divisions of each internal company. The research wing of the Global Research & Innovative Technology center (GRIT), a companywide R&D organization, was completed in April, and many customers have already visited the facility and directly seen the extent of the Hitachi Metals Group's potential.

During fiscal 2017 we also emphasized the strengthening of communication with stakeholders. In terms of senior-level sales, I personally visited customers, and for investor relations, we held numerous small meetings with analysts, briefings, and other events to engage in direct dialog with investors. We also held roughly 50 town hall meetings globally, which provided opportunities for direct dialog with close to 10% of the Hitachi Metals Group's global workforce of approximately 30,000 people.

Although our operating results are not yet satisfactory, the direction we are taking is clearly being understood across the Group, communication is improving, and technological innovation like EVs is boosting the Hitachi Metals Group's prospects.

Key issues for fiscal 2018

The first key issue for fiscal 2018 is to implement price revisions. Jumps in prices for raw materials and secondary materials in fiscal 2017 depressed operating income by roughly ¥6 billion. Measures and new products introduced at the specialty steel business over several years are showing results, but there has been a large impact from the steep rise in prices for secondary materials, and we have been unable to have our strengths fully reflected in operating results. Through dialog with customers, we were able to introduce a surcharge system

in July 2018 in which price fluctuations for secondary materials are reflected in product prices.

We are also emphasizing the early deployment of our strategic capital expenditure. Major investments made during the April-June quarter are successively nearing completion, including the GRIT research wing, the innovative production lines for ferrite magnets and rare earth magnets at the Kumagaya Works, the new continuous casting and rolling line for wire and cable conductor materials at the Ibaraki Works, and the Yasugi Works' 10,000-ton free forging press. The new line for cladding materials at the Tsuchiura Works will commence operations early in 2019. In addition to increasing production capacity, the early deployment of these major investments will increase marginal profit rates by improving yields and reducing variable costs in other ways as well. At the same time, we will aggressively pursue orders to increase the effect of increased production capability, thereby increasing total marginal profit.

Magnets are a business bound to gain importance as the shift to EVs progresses, and by having production capacity prior to the emergence of demand, we will gain the trust of customers for our degree of stability in procurement in addition to product quality. The innovative production line for rare earth magnets has been approved by customers and begun full-scale operations. This line applies heavy rare earth diffusion

technology, uses IoT for process management, and automates inspection processes. We will increase and strengthen these lines going forward, with the aim of rapid growth.

Progress in R&D innovation

Internal companies' research labs focus on refining existing products and medium-term product development, while GRIT pursues the challenge of technological innovation with a view 10 to 20 years into the future. Changes in technological trends pose a major threat to the special materials handled by the Hitachi Metals Group, but by introducing our own technological innovation in terms of both materials development and process development, these changes can become major opportunities for growth. We are also pursuing product areas we have not previously handled and aiming for open innovation with customers, the Hitachi Group, and research institutions. GRIT has incorporated the former Production System Laboratory and the Magnetic Materials Research Laboratory has moved to the same floor. We expect this to lead to internal, cross-organizational innovation.

With the market undergoing major changes and cross-sales beginning to show results, GRIT's promotion function is also important. Promoting product groups across internal company boundaries makes it possible to combine or upgrade current products with a view to meeting market need 10 to 20 years

Summary of FY2017

- Implemented measures against three negative factors for profits (heat-resistant casting components, aluminum wheels, rise in raw materials prices) and expect the factors to be solved.
- Accelerated three companywide initiatives (R&D, *monozukuri*, sales).
- Strengthened communication with stakeholders (town-hall style meetings: direct communication with more than 2,000 employees; increased direct dialogue opportunities with investors; aggressive sales by top management).

Change in corporate culture:
Transparency and reliability of management, sharing of values, improved motivation of employees

A positive corporate culture that is oriented to the creation of new value

Priority Issues of FY2018

► Price revision

Corporate-led pricing that “maximizes the aggregate of marginal profit”

Review and expand application of the surcharge system (price revisions for products not covered by the system)

► Early launch of investments and harvesting gains

| | |
|-------------------------------------|---|
| Specialty Steel Products | 10,000-ton class free forging press, cladding materials, rolls for steel mills, etc. |
| Magnetic Materials and Applications | Innovative production line, acquisition of Santoku, etc. |
| Functional Components and Equipment | New casting line for piping components, etc. |
| Wires, Cables, and Related Products | New continuous casting & rolling line, innovative production lines for magnet wires, etc. |
| Corporate | Opening of new building at GRIT, corporate research lab |

The first year of “New Hitachi Metals”

Strategy and Vision – Message from the CEO

into the future. With products like materials indispensable for clean engines and materials that contribute to the shift to EVs, the Hitachi Metals Group is a genuinely development-driven company paving the way for the future with both current products and innovative advanced materials.

Progress in *monozukuri* innovation

Monozukuri innovation comprises both workplace reforms and technological innovations, and significant progress is being made in workplace reforms in particular. We are using the “2S-3F” concept (Sort Out, Set In Order, Fixed Location, Fixed Quantity and Fixed Item) to clear up workplaces through bottom-up activities and working to make activities “visible,” and spreading this globally through workplace exchanges. This is stimulating employees to learn from each other across internal companies, and a new Hitachi Metals Group culture is taking root. It is extremely important for everyone, including senior management, to have a common understanding of what might happen in the workplace, including safety-related activities. The GEMBA Innovation Management Division, reporting directly to the President, was established in April to accelerate this process.

Technological innovation has also achieved successes including the introduction of an innovative production line for magnets, and in fiscal 2017 a concentrated investment of

management resources was made for *monozukuri* innovation in HERCUNITE™. We are putting renewed effort into technological innovation in fiscal 2018, as we strive to strengthen *monozukuri* innovation in this area as well as workplace reforms.

Progress in sales innovation

Hitachi Metals provides customers with technologically advanced, unique products with industry-leading production capability and cost competitiveness. This is, in essence, “the mass production of high-quality materials” that we seek. The idea of selling technologically advanced products at high prices and maintaining profit margins would limit areas where we can be globally competitive, and high growth cannot be expected.

Under the Business Activity Power Up Project, cross-organizational functions like the common understanding of our basic policy for pricing as “maximizing the aggregate of marginal profit” are being strengthened, and staffing at sales divisions is being increased. In terms of efforts to develop new products and new markets using companywide resources across internal companies, we have launched a project for next-generation automotive parts and materials, led by younger employees. Over the long term, we will closely follow long-term trends in technology and market growth, including

the shift to EVs and weight reduction in iron castings, and work with GRIT to create a roadmap for a product portfolio strategy and new business creation.

Capital strategies and shareholder returns

Capital expenditure will remain at the ¥100 billion level in both fiscal 2017 and fiscal 2018, focusing on proactive investment for growth and investment for streamlining to strengthen workplaces, but we see this as the peak and plan to implement capital expenditure not exceeding the amount of depreciation and amortization from fiscal 2019. With respect to shareholder returns, our policy is to emphasize a balance between investment and returns to shareholders, and we have raised our dividend payout ratio target to 30% from the previous 25%.

Corporate governance

Hitachi Metals is a company with a nominating committee, etc., and our organization is managed so that management oversight and operational execution function effectively. This year we have reviewed the roles of the Board of Directors and Executive Committee, which executes business operations, so that deliberations of the Board of Directors will not duplicate those of the Executive Committee, leaving the Board to focus on long-term business strategy and engage in active discussions on the direction Hitachi Metals should take.

Becoming the world’s leading high-performance materials company

The Hitachi Metals Group seeks to increase its corporate value by using unique products to create new value for customers and contribute to resolving underlying social issues.

To achieve this, we are working to instill a vibrant corporate culture in which each employee is a soldier fighting on the front line of the workplace, with a sense of determination to implement the strength of “One Force for Change.” This means using diversity to achieve successive innovations that other companies cannot match and create unique products, for continuous growth to become a high-performance materials company unparalleled in the world. We ask that you look forward to that.

Acceleration of Growth by Strengthening Corporate Functions

| | |
|-------------------|---|
| R&D (GRIT) | <ul style="list-style-type: none"> Promote creation of new business with a view to threats and opportunities. Strengthen human resources development/education functions (sales divisions, group companies). Enhance the process of identifying and evaluating new technologies and R&D speed in cooperation with sales. |
| Sales | <ul style="list-style-type: none"> Carry out multilayered proposal activities including top management, utilizing GRIT. Strengthen relationships with customers by establishing an account sales system. Carry out cross-sectional projects. |
| <i>Monozukuri</i> | <ul style="list-style-type: none"> Carry out activities based on the two pillars of “GEMBA (workplace) Reforms” and “Technological Innovations.” Establish the GEMBA Innovation Management Division. Implement technological innovations for the entire materials flow using IoT. |

A genuinely development-driven company

The mass production of high-quality materials



Examples of Initiatives in Target Areas

EV*-related products

The rapid shift toward electric power is one of the measures being taken to reduce the environmental load of automobiles, and EV production is seen growing by 30% annually on a unit basis. Hitachi Metals is able to use the advanced technologies and *monozukuri* capabilities it has developed over the years in a range of areas that are growing with unlimited potential; in addition to drive motors, these include inverters, batteries, chargers, power semiconductors, and various sensors that are essential to safety and autonomous driving. We see this as a major opportunity, and will work toward contributing to the realization of a low-carbon society together with sustainable growth.

A total supplier of high-performance materials

Becoming a core supplier of EV-related products

With powertrains being powered electrically, innovation is being sought not only in drive motors, but also in all major necessary components, including higher output and lighter weight for automotive-use secondary batteries, and brake and handle controls for automated driving. Hitachi Metals is able to supply a total range of various high-performance materials, including magnets for drive motors, inverters and converters, and soft magnetic materials and cladding materials used in secondary batteries. We are therefore accelerating our development and production with the aim of being a core supplier of EV-related products that is also a reliable partner.

Hitachi Metals' products driving EV evolution

Products for "moving"

- NEOMAX® neodymium magnets
- NMF™ ferrite magnets
- Amorphous motor core materials
- Magnet wires for high-efficiency motors



NEOMAX® neodymium magnets



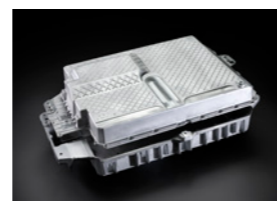
NMF™ ferrite magnets

Products for "storing"

- Cladding current collector for large-capacity lithium ion batteries
- Aluminum battery cases



Lithium battery-use cladding materials



Aluminum battery case

Products for "reducing weight"

- High-strength, high-toughness ductile cast iron
- OMEGA KNUCKLE®
- SCUBA™ fashionable aluminum road wheels
- Aluminum motor housings
- Tools for friction stir welding (FSW)
- NEOMAX® neodymium magnets



OMEGA KNUCKLE®



Aluminum motor housing

Products for "transmitting"

- Nanocrystalline soft magnetic material FINEMET® coils, cores, transformers
- High-frequency low-loss soft ferrite cores
- High-performance amorphous powder cores
- Silicon nitride substrates
- Harnesses for electric parking brakes
- Power cable harnesses for hybrid vehicles



High-frequency low-loss soft ferrite cores



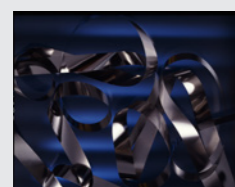
Amorphous powder cores



Harness for electric parking brakes



Power cable harness for hybrid vehicles



FINEMET® ribbon

Increasing production capacity for FINEMET®

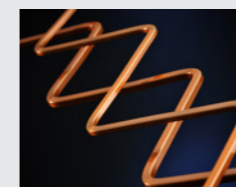
With the aim of smaller sizes and lighter weights for power supply circuits used in equipment with an output of more than several kilowatts, including electric vehicles, railways, and renewable energy systems, drivers need to operate at even higher frequencies. The magnetic steel sheets previously used in high-frequency ranges, however, experience significant iron loss (loss of the energy generated in the iron core) when used in transformers and reactors, causing a loss of electric power that leads to issues including lower efficiency and higher temperatures. In addition, shifting to higher frequencies means that the associated high-frequency noise needs to be addressed. To resolve this, FINEMET®, a nanocrystalline soft magnetic material with high magnetic permeability and high flux density with low iron loss, has proven effective for use as the iron core in equipment including transformers, reactors, and chokes for noise filters. To meet market needs, Hitachi Metals is boosting the capacity of its production line with a planned three-fold increase by the end of fiscal 2018 (compared with fiscal 2017). We are also improving processes in an effort to enhance quality on an individual piece basis.



NEOMAX® neodymium magnets

NEOMAX® neodymium magnets make motors smaller and more efficient

NEOMAX® is a neodymium magnet with superior magnetic characteristics of which Hitachi Metals led the world in developing and launching the mass production. It is widely used in EV powertrains, which need to have high output. At our innovative production line that started mass production in September 2018, extensive automation and the use of the Internet of Things have achieved significant increases in product quality and productivity, in response to increased market demand. In addition, by making Santoku Corporation a subsidiary in April 2018, we have reduced procurement costs for raw materials and concentrated alloy manufacturing and recycling to increase production volume and build an integrated development structure. Going forward, we will focus on reducing the size and increasing the efficiency of motors, and expand and bolster our lineup of high-performance magnets that use less volume of heavy rare earth elements.



Magnet wires for high-efficiency motors

Expanding magnet wire business in anticipation of robust EV demand

The magnet wire business, which includes magnet wires for drive motors, is growing from the use of HiFC™ high-performance pure copper and the introduction of innovative production lines. HiFC™ was developed by Hitachi Metals by adding trace amounts of titanium to copper, which controls the actions of the impurities oxygen and sulfur, while properties including conductivity, flexibility, and weldability are enhanced. Using HiFC™ for motor magnet wires increases productivity in manufacturing the motors while also reducing their size and weight and increasing their efficiency and reliability. In addition, we have introduced innovative production lines in Japan and Thailand to accelerate *monozukuri* and expand the magnet wire business.



Silicon nitride substrate with high thermal conductivity for use in power semiconductor module

Silicon nitride substrate makes dramatic improvement in cooling properties for power modules

Power modules efficiently transform and control electric power, and their use is spreading rapidly in control components for electric vehicles, rolling stock, and motors for industrial machinery. In addition to insulation, insulating substrates used in power modules need thermal conductivity for the efficient transfer of the heat emitted from power semiconductors, and the sophisticated mechanical property of resistance against the stress created by the temperature cycle. In addition, the use of silicon carbide (SiC) semiconductors as next-generation power semiconductors is seen increasing going forward, leading to heightening requirements for high thermal conductivity and mechanical properties in insulating substrates. The silicon nitride substrate developed by Hitachi Metals has both high thermal conductivity and mechanical properties. Use of this substrate can be expected to reduce the size and lower the cost of cooling mechanisms in power modules. The use of SiC semiconductors could also make it possible to operate at higher temperatures.

* EV refers to electric vehicles including hybrid electric vehicles (HEV) and plug-in hybrid electric vehicles (PHEV).

Reforms and Progress Aimed at Expanding Organic Growth

Stepping up pursuit of *monozukuri* innovation

The *monozukuri* innovation that the Hitachi Metals Group is focused on pursuing seeks to activate employees and generate cash through the fusion of "GEMBA (workplace) reforms" and technological innovation in areas including productivity, materials processes, machine processing, and the Internet of Things. In the area of GEMBA reforms in particular, we established a new GEMBA Innovation Management Division in April 2018 as a cornerstone for these activities. Working in cooperation with the Technology, Research & Development Division, this new division will further accelerate GEMBA reforms at all Group locations around the world.

Manufacturing Innovation

Case 1

Using IoT technologies to lay a foundation for plant reform

At the Specialty Steel Company's Yasugi Works, operational reform is proceeding under YoT (Yasugi's Internet of Things), with data visualization and the use of IoT technologies operating side by side in what we call the YoT Project.

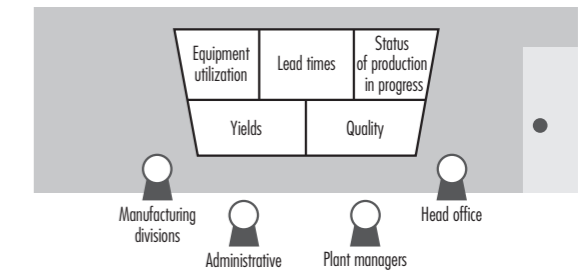
Within the Hitachi Metals Group, specialty steel manufacturing is known as producing small lots of a large number of product types. Because processes including melting, hot processing, and cold processing are completely separated, production management to date has been carried out by material and process. This has meant that even if we tried to manage the plant's overall production on an integrated basis, discussions with common parameters for optimization of product management could not take place. Therefore, as a way of visualizing data, we began to build a common, cross-division platform to understand the plant as a whole, including the utilization of main equipment, the status of production and production in progress for each process, lead times and yields, and occurrence of defects.

This made it possible for all manufacturing divisions, administrative divisions, and plant managers to access data from the same screen, facilitating appropriate identification of issues and formulation of countermeasures. In addition, the

use of IoT technologies allowed us to transfer inventory operations for raw materials from pen and paper to smart devices, which succeeded in reducing the time involved by half. We are also moving forward with the use of sensing to collect equipment data automatically.

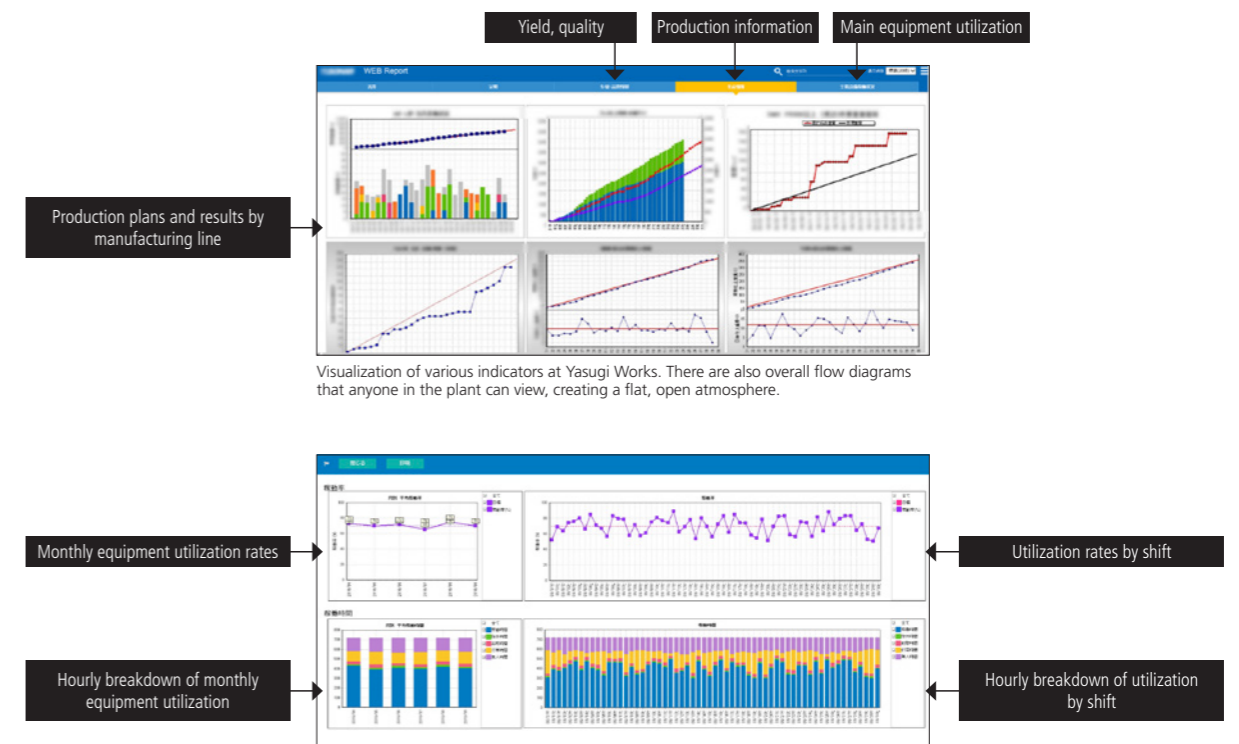
This YoT Project is one framework whereby we are using technology to make advances on the plant floor. Going forward, we will make further advances in the use of this framework for *monozukuri* innovation and enhancing productivity and safety.

Overview of use of common cross-division platform



Multifaceted understanding of situation and resolution of issues across divisions

Common cross-division platform screens



Visualization of various indicators at Yasugi Works. There are also overall flow diagrams that anyone in the plant can view, creating a flat, open atmosphere.

The utilization analysis screen makes it possible to identify discrepancies between utilization times and work operation times for main equipment.

Case 2

Advancing "2S-3F" activities from the workplace for the workplace

The Hitachi Metals Group is rolling out "2S-3F" activities as a Companywide initiative at the core of *monozukuri*, as we work to improve workplace environments and increase inventory turnover rates through the two "S" initiatives of Sort Out and Set In Order, and three "F" initiatives of Fixed Location, Fixed Quantity and Fixed Item at manufacturing sites.

For example, various 2S-3F activities are being implemented at the Cable Materials Company's Ibaraki Works with a basic concept of "creating an environment where it is easy to work." By rearranging the layout of the rewiring line for machinery cables for optimal line of flow, conveyance times during operations were reduced by roughly half. In cable end

processing operations, which are prone to produce inconsistent quality, making our own work chassis and tool rod have made it possible to reduce the roughly 4-kilogram electric saws to 1.2-kilograms load on the tool rod, resulting in significant improvements in operational efficiency and quality.

Implementing improvements based on feedback from the workplace is the starting point of 2S-3F activities, and by having the workplaces themselves implement the improvements, progress is being made through detailed improvements. This continuous activity is leading to dramatic improvements in workplace environments, and is improving operational efficiency ratios.

Rewiring line for machinery cables



Case 3

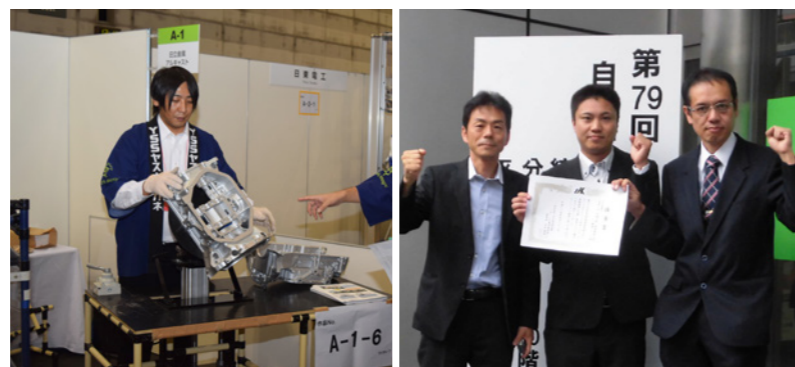
Disseminating the successes of workplace reforms through external exhibitions and presentations

The Hitachi Metals Group is proactively disseminating the successes of workplace reforms through various external venues.

The Company displayed eight exhibits at the Karakuri KAIZEN® Exhibition 2017, held by the Japan Institute of Plant Maintenance. Karakuri KAIZEN aims to use old technologies and principles based on leverage and gravity to improve operations using simple mechanisms. One of our exhibits, "Is it comfortable? (an inspection platform that uses spherical bearings and springs to easily and freely set an inspection surface without supporting it by hand)" was selected as one of "10 items of note" in the organizing committee's brochure.

In addition, two teams from Hitachi Metals participated in the Japan Iron and Steel Federation's 79th Voluntary Control Activity Seminar. The Yasugi Works inspection group's

presentation on its Inspection Efficiency Up Project, demonstrating a peripheral visual inspection method, was awarded a top prize in recognition of its improved operability and quality through reevaluating how visual inspections should be done.



* Karakuri KAIZEN is a registered trademark of the Japan Institute of Plant Maintenance.

R&D Innovation

GRIT research center creating disruptive and discontinuous innovation

Against the backdrop of current megatrends, the frameworks of industries themselves are changing in a variety of sectors. To address these rapid environmental changes, we believe that in addition to swifter decision-making, cross-sector initiatives that transcend internal company boundaries, and innovation that looks 20 years into the future, are important. With the aim of being a "genuinely development-driven company," we have established a corporate research lab to conduct research and development in advanced materials and processes that will lead to sustainable growth and contribute to society. We are embarking on a new stage of "change and challenges" in research and development.

R & D

R&D Innovation



Kenichi Inoue

Head of Global Research & Innovative Technology center, Technology, Research & Development Division

PROFILE

Joined Hitachi Metals in 1993 and assigned to the Metallurgical Research Laboratory. Involved in the development of surface treatment (coating) technologies, which attracted attention of mold manufacturers and automakers. Launched the full-scale surface modification business in 2005 with the establishment of the Surface Modification Center (current name: Solution and Engineering Center in the Specialty Steel Company, Yasugi Works). Appointed General Manager of Technology at High-Grade Metals Company (current name: Specialty Steel Company) in 2016. Assigned to lead GRIT in 2017.

Overview of GRIT and its direction

Pursuing the challenge of impossible, discontinuous innovation through continuous research and development

The Global Research & Innovative Technology center (GRIT) was established as a corporate research lab, and with the construction of the new research wing complete, GRIT has begun full-scale operations. In English, GRIT has the connotation of “the strength to follow through with undaunted courage and mettle, even when something is difficult,” which exemplifies our spirit of creating new technologies for 10 to 20 years into the future.

The new research wing represents an investment of roughly ¥10 billion, with a layout based on the concept of open space to facilitate active discussion. Even meeting rooms have glass walls, creating an image that contrasts sharply with that of a closed research facility. A major, unique feature of the facility is that in addition to research and development, GRIT can play a major role in marketing activities, with equipment in place for demonstrations of 3D printers and machine tools, as well as an exhibition space for presentations of Hitachi Metals’ products and technologies.

Digitalization, as seen in the Internet of Things (IoT) and artificial intelligence (AI), has already brought about creative disruption in a number of industries. Well-known examples include major innovations in production systems and the shift from gasoline-powered to electric vehicles. It is easy to move forward with continuous innovation, but today, in the midst of a paradigm shift, it is necessary to take a different approach that will bring about discontinuous innovation and disruptive innovation. GRIT was born as a venue where this can take place.

In addition to consolidating Hitachi Metals’ experience and expertise, GRIT is focusing on being a venue for open innovation and the creation of free and open-minded ideas. A research area named Open Lab, for example, functions as a space where staff can work together with outside research partners and customers in a free and open atmosphere to resolve issues and create innovations. GRIT has no special rooms for me. This is so that discussions can take place and work can be done anywhere. By working in GRIT’s various spaces, I intend to break down existing organizational levels.

Global Research & Innovative Technology center

■ Founding principle

To promote research, development, and innovation for the future, looking beyond the present, to become a genuinely development-driven company.

■ Concept

1. Lay the path for sustainable growth in the future through advanced materials and processes
2. Cultivate the growth of human resources
3. Act as Hitachi Metals’ technology base

GRIT’s missions

Use new strategic approaches to develop innovative materials

Materials have driven industrial technology innovation, and the development of innovative, advanced materials is the starting point for social transformation. Recognizing the importance of this development and innovation, GRIT looks beyond iron and metals and pursues development themes for research into

R&D Innovation

advanced materials for the medium to long term.

Research and development at GRIT are actually carried out by the Advanced Materials Development Department and the Advanced Process Development Department. The Advanced Materials Development Department is currently pursuing research into advanced materials under 16 designated themes. In addition, the Advanced Process Development Department is using advanced digital technologies to collect data via the IoT and analyze it using AI, and by providing feedback to the development site, we are pursuing production technology innovation through engineering.

Another of GRIT's important missions is to commercialize its research and innovation. For this reason, a new Business Innovation Department has been established within GRIT to assume functions across internal companies. A Strategic Innovation Department has also been established to produce research and development. This is where highly experienced managers identify new research themes, and groundbreaking trials are carried out under the guidance of these managers, who provide researchers with a clear direction for their work from start to finish. Researchers tend to submerge themselves in their research without considering its commercial possibilities, but by taking a strategic approach led by the Business Innovation Department and the Strategic Innovation Department, we expect to accelerate innovation at the global level.

Examples of research and development

Turnaround concepts transforming threats into business opportunities

GRIT is engaged in medium- to long-term research with a view toward threats and opportunities. One example of this is the development of metal powders for metal 3D printers.

Today's specialty steels are manufactured using complicated processes like melting, forging, and scraping, but we believe a switch to the use of metal 3D printers has significant potential for future cost benefits with ultra-small-lot components like

aircraft parts. We also believe there may be similar benefits with metal 3D printers in the automotive sector for parts where strength is not a particular requirement. These predictions would have been conventionally seen as a threat to Hitachi Metals, but if we can achieve technological innovation, these could become major opportunities.

In this way, we will approach the field of metal 3D printers, a technology that is changing *monozukuri* in significant ways, by looking beyond existing products including stainless steel, nickel-based alloys, and aluminum alloys, and developing various new materials using the special features of additive manufacturing. GRIT does not simply make materials; it uses CAE* analysis technology, which we have accumulated, to simulate the properties and deformations of metals in advance, and conduct repeated verification to develop recipes for each material. One of these successes has been the joint development with Hitachi, Ltd.'s R&D group of metal powder for metal additive manufacturing. This has made it possible to manufacture with high-entropy alloys.

We are accelerating our research and development using CAE analysis technology to optimize materials, and we plan to make major advances in developing light, strong, new materials for the automotive, aircraft, and energy-related segments. In addition to new materials, we also intend to apply this to product development for special, single-batch production. Going forward, although iron will remain our main material, we will look to develop compound metals using combinations of a wide range of materials with various functions, including superalloys, aluminum, carbon nanotubes, and ceramics.

Another of GRIT's R&D themes is to develop products together with customers. In the development of magnets for EV motors, for example, the amount of valuable heavy rare earth metals used has a major impact on productivity and costs. We are therefore working with customers to make heavy rare-earth-free and less-rare-earth magnets higher performance.

Medium- to long-term R&D themes taking into account threats and opportunities (examples)

| Company | Current products | Development theme based on perceived threats |
|-----------------------|---|--|
| Specialty Steel | Mold materials | Additive manufacturing |
| | Aircraft- and energy-related materials (ultra heat-resistant steel) | Composite materials |
| Magnetic Materials | Neodymium magnets | New magnets |
| Functional Components | Cast iron (NM) | Composite materials and multiple materials |
| Cable Materials | Copper wire | Aluminum conductors and compound conductors |

Open innovation and future outlook

Resolving social issues through open innovation and human resource development

The pursuit of open innovation is one of GRIT's important missions. We are already engaged in open innovation, working closely with Hitachi, Ltd., as well as with universities, companies, and other third-party institutions.

In July 2016, we opened the NIMS-Hitachi Metals Next-Generation Materials Development Center jointly with the National Institute for Materials Science (NIMS) and began researching practical uses for next-generation ultra heat-resistant alloys. The use of this research in metal materials for aircraft engines and gas turbines is contributing to reductions in CO₂ emissions and resource conservation.

GRIT is also playing an important role as a center for human resource development. Previously, most researchers hired as new university graduates were assigned to the research lab of one of the internal companies, but we are increasing the portion assigned to GRIT to give them more opportunities to understand the businesses of the entire Hitachi Metals Group immediately after joining the company. GRIT is also teaching technological skills needed by technical service staff, and dispatching them to customers' locations around the world to understand their various needs firsthand. When they return to GRIT, they are able to use that expertise in their research and development. In addition, we are considering using GRIT for the training of coaching staff for local sales staff in places like China, which is expected to be the main battleground for EVs going forward, and holding training programs at GRIT for local sales staff.



GRIT's mission is to conduct research and development that creates discontinuous innovation and to take the lead in bringing that innovation to commercialization. We are also planning to open an overseas center in roughly five years, to be able to identify global trends as quickly as possible. As a venue for finding research partners and business proposals, and for deepening interaction and cooperation with overseas researchers and outside institutions, GRIT is proactively making use of and training regional human resources. Looking ahead, GRIT's research and development contributing to the resolution of social issues as well as the Hitachi Metals Group's sustainable growth can be expected.

* CAE: Computer Aided Engineering. The use of computer simulations to determine whether designed items can perform the functions required prior to actually producing the item.

Success in manufacturing with high-entropy alloys using a metal 3D printer

Together with Hitachi, Ltd.'s R&D group, GRIT has developed metal powder for metal additive manufacturing (metal 3D printers), and by identifying process requirements that use this development, successfully developed manufacturing technology with the high-entropy alloy "HiPEACE®*."

High-entropy alloys are defined as alloys that include at least five chemical elements in roughly equal amounts and feature no main element. These alloys are superior in terms of strength and corrosion resistance, but are also difficult to cast and process. GRIT verified properties and deformations in high-entropy alloy by using its CAE analysis technology, which we have accumulated, and has succeeded in optimizing high-entropy alloys for additive manufacturing.

We have confirmed that these high-entropy alloys are strong, malleable, and corrosion-resistant, and can be used in harsher environments than nickel-based alloys. We will pursue further verification testing going forward, with the aim of practical applications.

* HiPEACE® (Hitachi Printable Extreme Alloy for Corrosive Environment) is a registered trademark of Hitachi, Ltd.



"HiPEACE®" high-entropy alloy

Solutions

Bringing together “strong individuality” for rapid growth of the aircraft business

The Hitachi Metals Group’s Medium-Term Management Plan designates aircraft/energy-related materials business as an area of high growth, and we are proactively making large investments in this business. This has included the 840-ton ring mill at the Okegawa Works, which commenced operations in November 2015, where we have pursued innovative technologies from certification to mass production of aircraft engine materials. This has resulted in orders for and mass production of combustor case materials for aircraft engines. In the spirit of *wa sureba tsuyoshi*, solutions that bring together strong individual elements are leading to major breakthroughs.



Solutions

Solution Case Study

Beginning development for aircraft engine-use combustor case materials

The Specialty Steel Company’s Okegawa Works installed and started operating an 840-ton ring mill, with pressure capability that ranks among the world’s largest, in November 2015 to expand our business in the aircraft/energy-related market, which is earmarked as a future growth driver. This has made it possible to manufacture combustor case materials for medium-sized to large engines.

Hitachi Metals America, Ltd. (HMA) is our contact point in North America for a major aircraft engine manufacturer. In addition to the record of accomplishment in manufacturing many types of aircraft/energy-related materials established at the Okegawa and Yasugi works, HMA proactively presented our robust equipment capabilities. Interest shown by the major U.S. aircraft engine manufacturer led to our decision to develop aircraft engine-use combustor case materials.

Bringing together technological capabilities and sales capabilities for undisputed “strong individuality”

Passenger jet aircraft are entrusted with the lives of many people and require an exacting degree of safety, and international systems operate independently for the certification of strict quality management systems and special process operations for aircraft parts. Therefore, in addition to advanced technological capabilities, materials manufacturers require production structures and certifications that meet strict quality requirements.

The rolling of aircraft engine materials encompasses a great challenge from the unique degree of difficulty in processing the nickel alloy used for mass production. The Okegawa Works is applying its expertise from a 350-ton ring mill, which was



(From left) Hiroki Yanase and Jun Osone of the Specialty Steel Company’s Okegawa Works, Shiyoji Samori of the Okegawa Works who cooperated with development, and Toshiyuki Mitsuji of the Aerospace & Energy Materials Business Unit



the main piece of equipment used, to acquire expertise in the use of an 840-ton ring mill, and working with engineers at the Yasugi Works was able to achieve required settings for metal forming and heat treatment processes. This enabled the development of aircraft engine-use combustor case materials in 2016, and the mass production of combustor case materials for new types of engines that will be used in next-generation passenger jet aircraft.

The Hitachi Metals Group was able to succeed with this project by using the Okegawa Works’ superior manufacturing technology combined with the expertise and sales capabilities of the Aerospace & Energy Materials Business Unit, and through cooperation with HMA, which has connections with the major aircraft engine manufacturer. This embodies the spirit of our *wa sureba tsuyoshi* (“strength through harmony”) Corporate Philosophy by bringing together the “strong individuality” represented by the enthusiasm of all involved, including technological expertise and sales.

Technological breakthroughs in orders and mass production

Processing of the material WASPALOY®*1 was the key to orders and mass production of aircraft engine-use combustor case materials. WASPALOY® is a nickel-based alloy that has good strength at high temperatures and excellent high-temperature corrosion and sulfidation resistance. The other main ultra heat-resistant nickel-based alloy is Alloy 718*2. WASPALOY®

has a superior strength than Alloy 718 at high temperatures, but is also more difficult to form. Following a series of highly detailed studies to derive the optimal operation conditions, the Okegawa Works acquired technological expertise and created proprietary forming technologies of WASPALOY®. This was an important technological breakthrough.

Currently, the Okegawa Works is the only facility in Japan that is able to mass produce combustor case materials for medium-sized and large aircraft engines with WASPALOY®. We have already received inquiries from other aircraft engine manufacturers and started several new projects. Going forward, the Hitachi Metals Group will continue to strengthen its aircraft/energy-related materials business through combinations of “strong individuality.” We are aiming for sales

of more than ¥60 billion as one of the world’s top four companies in the area by fiscal 2025.

*1 Registered trademark of United Technologies Corporation. An ultra heat-resistant nickel-based alloy that is stronger than Alloy 718 in high-temperature ranges.
*2 An ultra heat-resistant nickel-based alloy with superior strength at high temperatures.

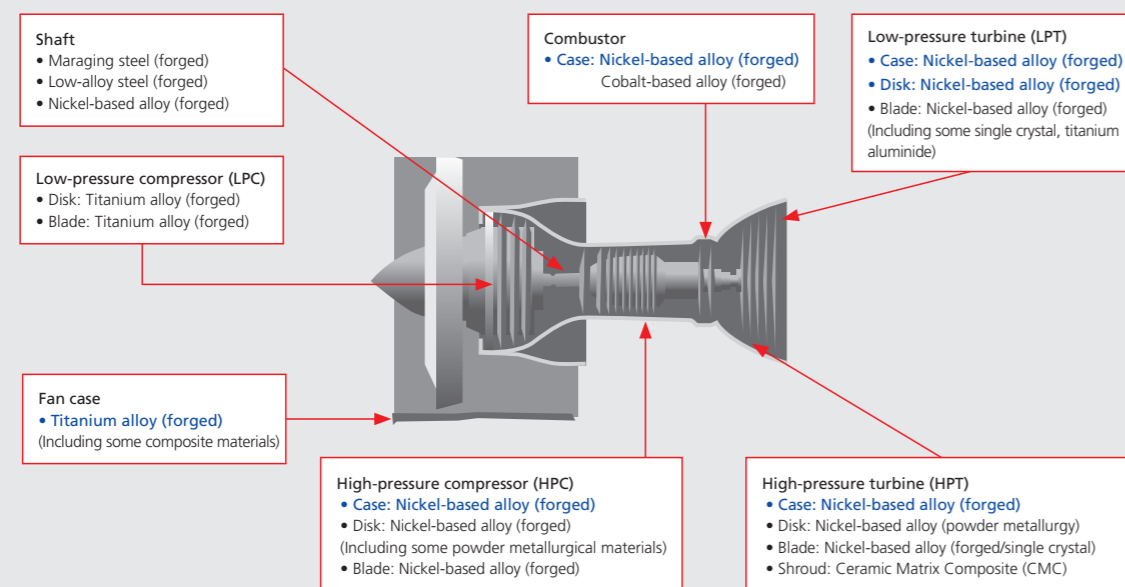


Operating Segments

Special properties of nickel-based alloys and target products for aircraft engines

Jet aircraft engines use the energy from combustion gas to turn fans that propel the aircraft. Temperatures inside the engine can reach as high as 1,600 degrees Celsius, and enhancing heat resistance is the key to achieving efficiency. Therefore, nickel-based alloys, which are heat resistant and strong at high temperatures, are the main material used especially for the so-called hot section—the area within the engine through which pressurized, combusted air passes. The high heat resistance of nickel-based alloys is what makes them difficult to form, and limits the appropriate temperature range at which forming can be done. By bringing together our experience, knowledge, and technological expertise in ring mills, the Hitachi Metals Group has achieved optimization of production processes and operation conditions to satisfy our customers’ requirements. With the Hitachi Metals Group’s innovative nickel-based alloy processing technologies and 840-ton ring mill, we anticipate increased sales of a variety of products in addition to combustor cases.

Cross-section view of an aircraft engine and most-used materials



Note: Blue lettering indicates products for which increased sales are anticipated following installation of 840-ton ring mill.

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Specialty Steel Company



Koji Sato
President of the Specialty Steel Company

Basic policy of Medium-Term Management Plan

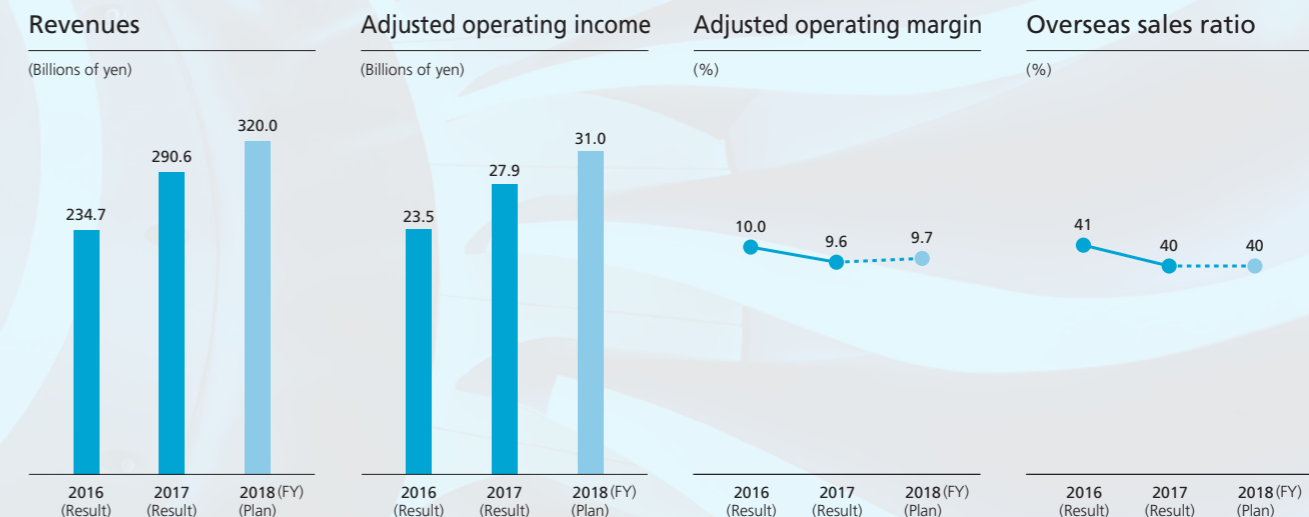
Achieve growth internationally by focusing on "special" steel

Monozukuri: Carry out "eye-opening" manufacturing

Sales capabilities: Further enhance strength

- Reap the benefits of major investments

Progress vis-à-vis numerical targets



Business progress relative to Medium-Term Management Plan

Market environment and business overview

With tighter environmental regulations and increased demand for energy conservation, demand for environmentally conscious products is growing, and significant growth is forecast going forward.

Against this backdrop, both sales and profit grew in fiscal 2017, primarily on increased demand for molds and tool steel, materials for industrial equipment, and electronic materials. Results were at record levels, even excluding the effect of the business reorganization. In particular, there was large growth in demand for lead frame materials, organic EL-related components and materials, and cladding materials. In addition, flexibility in production structures that allowed us to shift from molds and tool steel to materials for industrial equipment and electronic materials enabled us to maximize total marginal profit at the Yasugi Works.

Going forward, we will pursue global growth by focusing on "special steel," strengthening *monozukuri* and sales capabilities, and making large-scale capital expenditures under the slogan "Transforming changes into opportunities!"

Individual businesses Molds and tool steel

To achieve global growth, we are building heat-treatment and processing service structures at country and regional levels, and developing and increasing sales of new products. A 10,000-ton forging press has begun operating at the Yasugi Works, strengthening our capability to handle larger aluminum die-cast molds. We are also increasing our production volumes for new types of steel including SLD-[®] cold-worked die steel.

Materials for industrial equipment

Even with the accelerating shift to EVs, we expect internal combustion engine-related demand to grow. Sales of high-performance internal combustion engine-related components and materials, including piston ring materials, CVT belt materials, and turbine wheels grew in fiscal 2017. We intend to increase sales of these high-performance internal combustion engine-related components and materials going forward, while also working to develop new products and markets to increase sales of non-internal-combustion engine-related components and materials, for growth in all industrial sectors.

Electronic materials

The merger of SH Copper Products Co., Ltd., and Hitachi Metals Neomaterial, Ltd. was completed in April 2018, strengthening our supply and sales structure for battery-related materials, organic EL-related components and materials, smartphone components and materials, and semiconductor components and materials. We are also investing ¥20 billion to increase production capacity, in stages to be completed in the first half of fiscal 2019. Through these initiatives, we are working for growth through increased sales for a variety of applications for high-performance electronic materials, including organic EL-related components and materials that are growing rapidly.

Aircraft/energy-related materials

We have made large-scale investments to increase production capability of aircraft/energy-related materials at three locations: a 24-ton vacuum induction melting and casting (VIM) furnace and a high-speed radial forging machine at the

Yasugi Works; an 840-ton ring mill at the Okegawa Works (established in April 2018 through the merger with Hitachi Metals MMC Superalloy, Ltd.), and a 50,000-ton die forging press at Japan Aeroforge, Ltd. By realizing synergies of three locations, we will obtain certification and proceed to mass production. We are aiming to generate sales of ¥60 billion by fiscal 2025 through leveraging our innovative technologies at a global level.

Soft magnetic components and materials

To address rapid market growth, we are transitioning to become a power electronics materials innovator. Specifically, we established a new Power Electronics Business Promotion Office in April 2018 to generate combined growth in soft magnetic components and materials and the ceramics business. Keeping up with the speed of market needs, we are addressing trends toward increased energy efficiency and more advanced telecommunications.

External risks

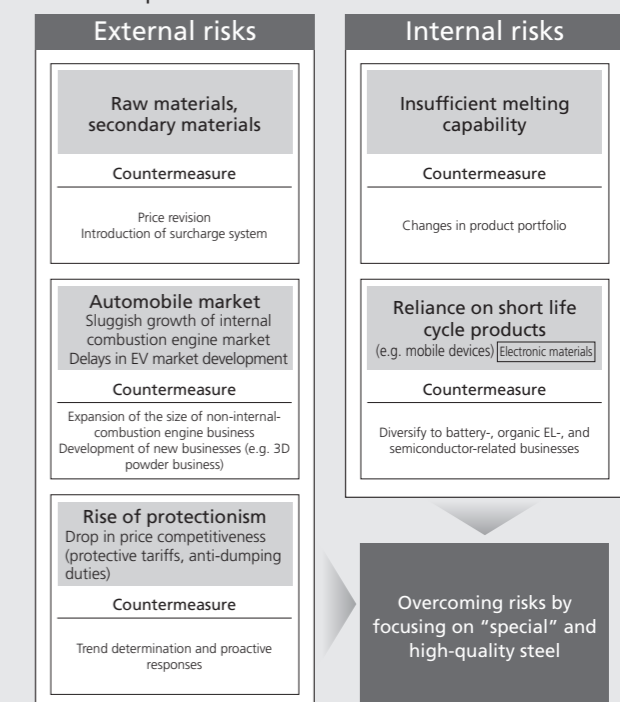
We have begun applying a surcharge system, which includes secondary materials, to address the jump in prices for raw materials and secondary materials. With the automobile market experiencing slower growth in the internal combustion engine market and delays in the development of the EV market, we are expanding the scope of our non-internal-combustion engine-related business and cultivating new businesses including powders for 3D printers.

Internal risks

With regard to insufficient melting capacity, we are verifying

trends in demand and considering increasing capacity, including through changes in our product portfolio. We also plan to diversify to reduce the risks related to our reliance on products like electronic materials with short life cycles.

Implementing a global growth strategy for sustainable business expansion



Magnetic Materials Company



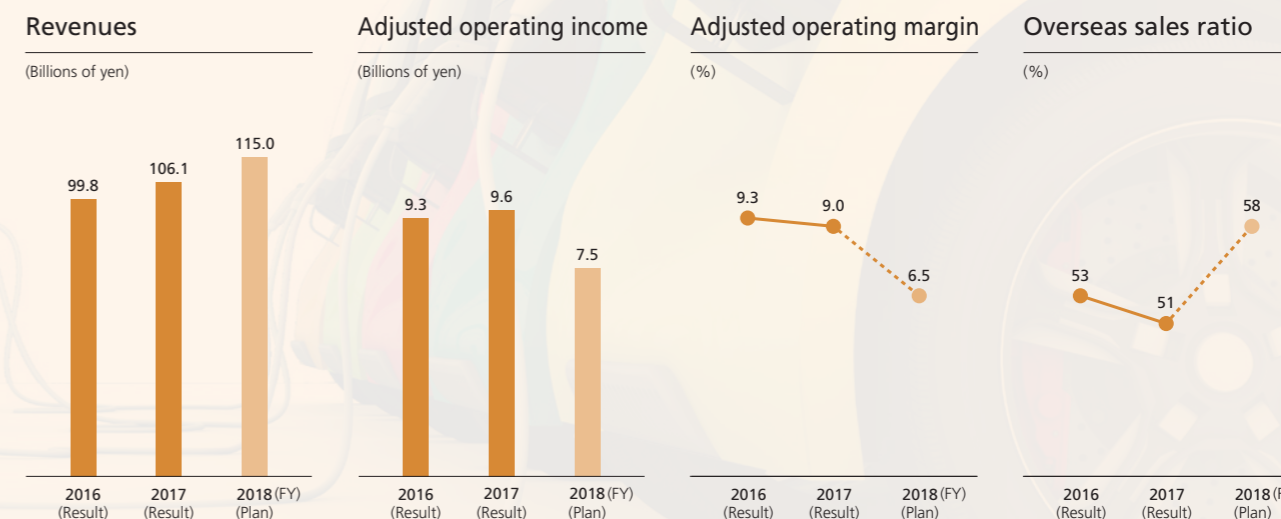
Ryouji Akada
President of the Magnetic Materials Company

Basic policy of Medium-Term Management Plan

Innovate *monozukuri* to pave the way for growth

- Strengthen global production system
- Build innovative production lines

Progress vis-à-vis numerical targets



Business progress relative to Medium-Term Management Plan

Market environment

Demand for neodymium magnets and other high-performance magnets is expected to increase significantly on global growth in EV demand and the automation of production equipment. The Magnetic Materials Company is building a structure to address this demand as per the Medium-Term Management Plan.

Strengthening global production system

To strengthen our global production system, we established Hitachi Metals San Huan Magnetic Materials (Nantong) Co., Ltd. in April 2017. This put in place a structure for a neodymium magnet business in China, from raw materials procurement to manufacturing and sales, and mass production commenced from 2018.

Building innovative production lines

In Japan, we have introduced new, innovative production lines in the Kumagaya district for neodymium magnets and ferrite magnets. Thoroughly automated and using the Internet of Things, these lines pursue enhanced quality and maximum productivity.

Strengthening the business base

We made Santoku Corporation a subsidiary in April 2018 to establish an integrated production system from raw materials to finished magnet products. We are strengthening our business base by maximizing synergy effects through initiatives including reducing procurement costs for raw materials,

concentrating alloy manufacturing and recycling to increase production volumes, and creating an integrated development structure to accelerate product sophistication.

“Mother plant” in the Kumagaya district

We are integrating our Magnetic Materials Research Laboratory with the Kumagaya Works to create a “mother plant.” This is accelerating technological development that meets customer needs.

Building innovative production lines

Carry out *monozukuri* innovations: Innovative production lines

Improve quality and maximize productivity through thorough automation and use of IoT

Neodymium magnets

- Adopt a new heavy rare earth diffusion process
- Production line specializing in mass production
- Further line expansion planned



NEOMAX[®] neodymium magnets



Mass production in 2H FY2018

Ferrite magnets

- Enhance production lines to address small and thin shapes
- Quality and trend management using IoT technology
- Further line expansion planned



NMF[™] ferrite magnets



Mass production in April 2018

Medium- to long-term vision

The Magnetic Materials Company is expanding the scope of its business to increase its share in growth markets, with the aim of ¥200 billion in revenues by fiscal 2025. We recognize that this will require a greater than 150% increase in production capacity by fiscal 2025 relative to fiscal 2015. In addition to increasing productivity and production capacity, going forward, we plan to handle raw materials processing internally and accelerate the evolution of heavy rare earth-

saving technologies, and to drive the market by focusing on high-performance neodymium magnets. By fiscal 2025, we also expect the automotive-related portion of sales to grow to 70%, and the overseas portion of sales to reach 55% on the growth of the Chinese, European, and American markets.

Strengthening the business base

Synergies from the acquisition of Santoku Corporation as a subsidiary

| | |
|---------------------------|---|
| Procurement | Reduction of procurement cost by consolidating procurement of raw materials |
| Process management | Reduction of work-in-progress due to reduced lead time through unified management |
| Production | Increased production volume due to concentration of alloy manufacturing/recycling Reduction of processing cost due to enhancement of recycling process |
| Technology | Acceleration of product sophistication due to an integrated development system |

Strengthen business platform by handling the raw materials processing internally

Medium- to Long-Term Vision

Increase share in growth markets to expand business scale

FY2025 revenues target: ¥200.0 billion

(FY2016 result: ¥99.8 billion ⇒ FY2018 plan: ¥115.0 billion)

Lead the market with the top performance neodymium magnets

Increase in productivity and production capacity
(Target: More than 150% vs. FY2015)

In-house raw materials processing

Evolution of heavy rare earth-saving technologies

Functional Components Company

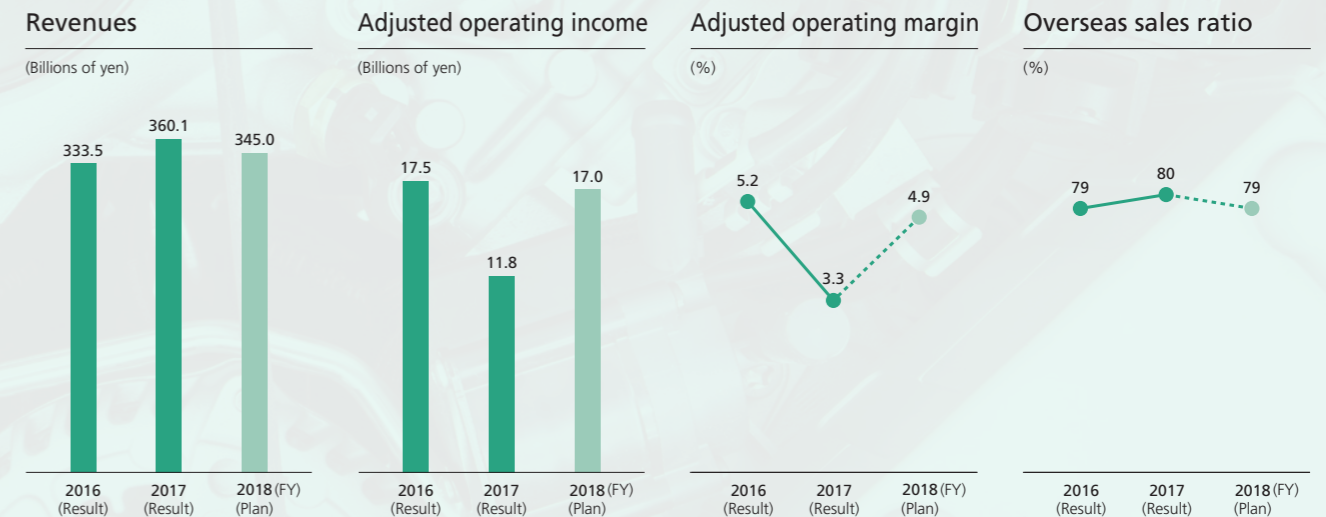


Hiroshi Watanabe
President of the Functional Components Company

Basic policy of Medium-Term Management Plan

Accept the challenge of creating new value by improving the foundation of *monozukuri* to achieve global growth

Progress vis-à-vis numerical targets



Business progress relative to Medium-Term Management Plan

Business overview

The Functional Components Company is pursuing four business areas—cast iron, heat-resistant cast steel, aluminum, and piping components—under the Medium-Term Management Plan’s basic policy of “accept the challenge of creating new value by improving the foundation of *monozukuri* to achieve global growth.”

We have recently been addressing the important issues of improving business results in the heat-resistant cast steel and aluminum businesses. In the heat-resistant cast steel business, an increasing degree of difficulty in manufacturing has led to lower productivity and created issues in areas including pricing, resulting in the business recording a loss in fiscal 2017. We have realigned prices and improved productivity, however, by optimizing casting conditions and improving processing efficiency, and in March 2018, the business

returned to profitability on a single-month basis. We aim to achieve full-year profitability for fiscal 2018. The aluminum business has also seen productivity decline and recorded a loss, on excessive fixed cost reductions and an increasing degree of difficulty in manufacturing aluminum wheels. We continue to work to improve productivity, and are also reorganizing our management structure at U.S. locations to stabilize the business.

Market trends and strategies

The Functional Components Company’s main products are cast metal automobile components, products for which higher performance and lighter weights are sought to enhance their environmental performance. Turbo components used in internal combustion engines require heat resistance and the ability to be formed into increasingly difficult shapes. For EVs,

new requirements include motor and inverter cases. At the same time, stability of supply and large casting are sought in components for commercial vehicles, as market needs diversify.

The Functional Components Company views this diversification of market needs as an opportunity, and aims to transform itself by integrating cast iron and aluminum to become the No. 1 supplier. As a step toward achieving this, we have integrated the three automotive-related business units to create a structure that is able to provide optimal solutions. In addition to our technological capabilities, we provide value to customers through our diverse product lineup and our planning and proposal skills.

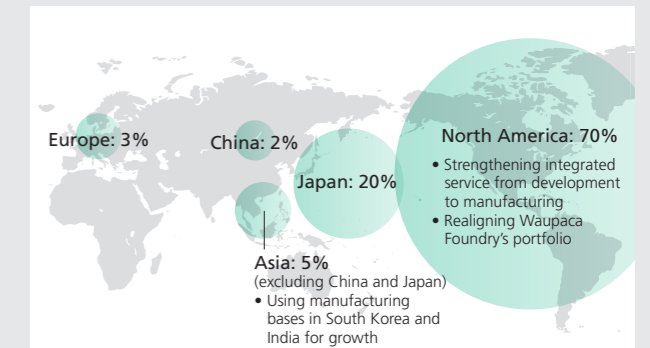
Strengthening our global supply structure

Overseas sales account for approximately 80% of the Functional Component Company’s sales. Going forward, we intend to strengthen our global supply and service structures further. In the automotive sector, we plan to strengthen our integrated services from design and development to manufacturing of lighter weight products in North America; and in Asia, to use our manufacturing bases in South Korea and India to expand our business in developing markets.

Realigning Waupaca Foundry’s portfolio

Waupaca Foundry, Inc. is North America’s No. 1 manufacturer of cast iron products, with an overwhelming presence from its economies of scale and strong cooperative relationships with leading customers. Going forward, we will look beyond passenger vehicles and strengthen our earnings base by expanding our product lineup to meet needs for high added value in the heavy duty sector.

Sales by region and major initiatives



Piping components business

In addition to the growth of existing businesses and the strengthening of its *monozukuri* capabilities, the piping components business is pursuing growth by developing and enhancing a solutions business as a new business.

Along with investing management resources in growth businesses like mass flow controllers and flexible piping systems, we intend to strengthen our *monozukuri* capabilities through capital expenditures that will bring innovation to processes at domestic manufacturing bases.

We are also launching a new solutions business that will be able to contribute to the resolution of social needs in areas including energy conservation, labor shortages, and achieving a safe, peaceful society.

Market trends and strategies

| Mechanism | Required needs | Response | | Our product | |
|------------------------|--|---|---|--|---|
| | | Existing business | Enhancement domain | | |
| Passenger vehicles | Combustion system | High mileage/Low cost | Conformity to heat-resistance requirements Design, casting, processing/Response ability of locations | Diverse heat-resistant components technology Strengthen design & evaluation, processing | Heat-resistant cast steel Heat-resistant cast iron |
| | | Small gasoline/Turbo | | | |
| | EV | Diversified specifications Multifunctional | Form, size, materials Combine light weight and heat dissipation | Accommodate gravity casting, LPD*1, HPD*2 methods Develop new materials and methods | Battery cases Motor/inverter cases |
| Non-passenger vehicles | Chassis (Structural components) (Suspension components) | Low cost Light weight Quantitative response ability | Optimization of materials x strength design Response ability of locations | Develop new materials Japan, U.S.A., South Korea, India | Aluminum wheels Suspension components |
| | | Load bearing Low cost Accommodate large size | Stable supply Large casting | Waupaca Foundry, Inc. Horizontal casting technology | Ductile and gray iron Large ductile cast iron |

*1 LPD: Low-pressure die-cast; *2 HPD: High-pressure die-cast

Cable Materials Company



Kazuya Murakami
President of the Cable Materials Company

Basic policy of Medium-Term Management Plan

Change to a high-profit structure by expanding growth areas

Progress vis-à-vis numerical targets

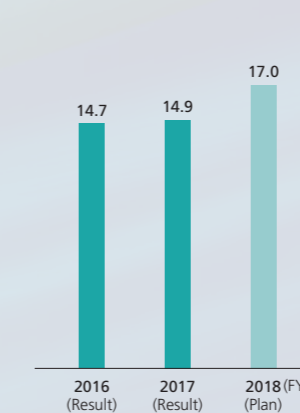
Revenues

(Billions of yen)



Adjusted operating income

(Billions of yen)



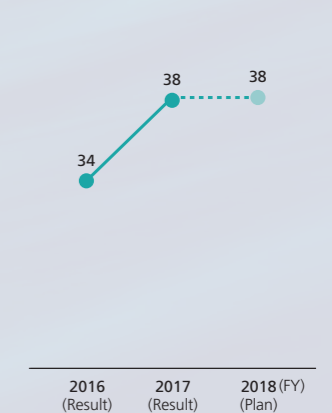
Adjusted operating margin

(%)



Overseas sales ratio

(%)



Business progress relative to Medium-Term Management Plan

Market environment and business overview

We are expanding growth areas and implementing a change to a high-profit structure. During fiscal 2017, the rolling stock segment expanded its production capacity at the Chinese base and achieved customer growth in Europe. The medical devices segment worked to develop integrated catheter/cable products and increased its probe cable production capacity. The automotive electronic components segment made progress in increasing the production capacity of global bases and in developing new products. In addition, we worked to strengthen our core products by increasing production volume

for electronics-use wires and cables in the rapidly growing area of factory automation and robots, installed an innovative production line for EV magnet wires, and developed HiFC™ rectangular wire. Furthermore, the installation of a new continuous casting and rolling line was completed in April 2018, enhancing the competitiveness of our core products and creating a mass-production structure for HiFC™. In addition to the three existing growth segments of rolling stock, medical devices, and automotive electronic components, we have designated factory automation and robot-use wires and cables, and magnet wires as two new

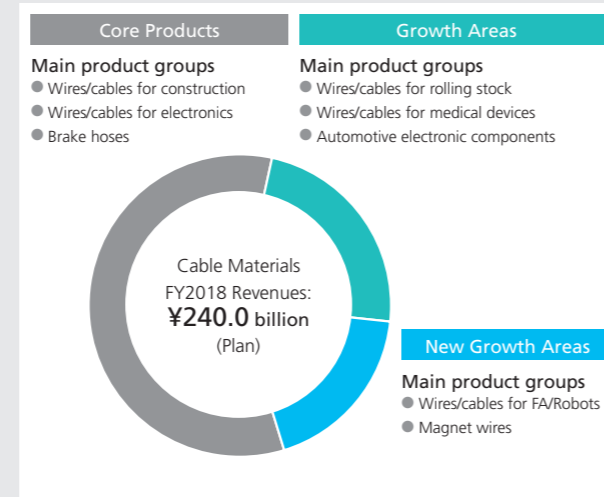
growth segments. Together, these five growth segments account for roughly 40% of Cable Materials Company sales. Going forward, we intend to change to a high-profit structure by raising this percentage to above 50%.

growing number of car models for which these products are used. With regard to semirigid wiring for EV motors, we have made assembly easier by automating connection to motors, and we are stepping up mass production.

Overview of Initiatives in FY2017

| Measures to accelerate growth areas | |
|---|--|
| Rolling stock | Increased production capacity of Chinese base; Expanded the European customer base |
| Medical devices | Developed integrated catheter/cable products; Enhanced probe cable production capacity |
| Automotive electronic components | Enhanced production capacity of global bases; Developed new products |
| Measures to strengthen core products | |
| Wires/cables for electronics | Increased production volume for the rapidly growing FA/Robot segment |
| Magnet wires | Introduced innovative production line for EV magnet wires, of which growth is expected; developed HiFC™ rectangular wire |
| New continuous casting and rolling line | Completed in April 2018 ⇒ Strengthens competitiveness of core products; addresses HiFC™ mass production |
| Turn wires and cables for FA/Robots and magnet wires for EV into new growth drivers | |

Business overview



Action plan for five growth segments

Rolling stock

China continues to build railway infrastructure at a rapid pace, and rolling stock production is at a high level. Using our rolling stock-use wire and cable technology accumulated in Japan, we are increasing our market share by introducing products like terminals for new extra-high voltage cables in the Chinese market. We aim to expand our harness business in Europe by continuing to propose solutions and increase production capacity.

Medical devices

Hitachi Metals possesses advanced technologies related to high-precision, small diameter tube manufacturing, ultra-small diameter coaxial cables, and microscopic terminal connections. We are fusing these technologies to develop a disposable catheter product for internal diagnosis, and mass producing and increasing sales of integrated catheter/cable products. We will also shift to mass production and increase our production capacity for a new probe cable product.

Automotive electronic components

We are implementing our global growth strategy for the continuous strengthening of our business expansion. Electric parking brake harnesses integrated with ABS and various sensors experienced robust demand in fiscal 2017. We are working to increase our production capacity to meet the

Magnet wires

We are using HiFC™ and an innovative production line to expand our business to meet robust EV-related demand. Compared with ordinary copper, HiFC™ is superior in terms of conductivity, flexibility, recovery of conductivity after winding, and weldability, making a significant contribution to higher motor performance.

Factory automation and robot-use wires and cables

We are developing and mass-producing products based on our flex-resistant cable technology developed for automotive sensor cables. We anticipate annual growth of roughly 20% to 2020 for this segment, and are making capital expenditures totaling ¥3 billion in Japan, China, and Vietnam.

Foundation Supporting Value Creation

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Corporate Governance

Message from the Chairperson of the Board



Toshikazu Nishino

Chairperson of the Board

The Hitachi Metals Group has pursued its business under the Corporate Creed of “contributing to society by being the best enterprise.” The foundation for realizing this Corporate Creed is corporate governance, which we recognize as an important management issue.

The primary commitment of the Board of Directors is to provide supervision and advice regarding business execution by Executive Officers and others, from the perspective of medium- to long-term value creation. I assumed the position of Chairperson of the Board in June 2018, and believe that I can utilize my experience as a corporate manager at Hitachi, Ltd. and its group companies, along with my knowledge of cutting-edge technology development and business planning to deepen collaboration with both Inside and Outside Directors and help make discussions at the Board of Directors more vigorous and constructive.

Recently, we conducted a survey and individual interviews with Directors regarding the effectiveness of the Board of Directors, and evaluated its effectiveness in fiscal 2017 at the Board of Directors meeting in June 2018. As a result, it was deemed that the effectiveness of the Board of Directors has been ensured, that Directors have expanded opportunities to acquire the information necessary to fulfill their roles, and that discussions regarding business strategies are actively carried out. Conversely, although this evaluation recognized that the effectiveness of the Board of Directors had been further improved since March 2018, as a result of substantial discussions focused on key matters such as the decision process for high-priority management strategies, the supervisory process for the execution of management strategies, and risk management, it was also deemed that these measures were needed to be further accelerated and enhanced. We will make use of these results in the operations of the Board of Directors to further enhance its effectiveness in the future.

In addition, the Corporate Governance Code was revised in June 2018. In accordance with the aims of the Code, we will disclose high-quality information to all of our stakeholders in a timely manner and reflect in our corporate activities the objective evaluation and perspectives regarding our management that we receive through constructive dialogue, in an effort to achieve sustainable growth and continuously increase our corporate value.

Corporate Governance

Basic Views on Corporate Governance

The underlying basis for corporate governance at the Company is to ensure transparent, sound, and efficient management, meet the needs of our stakeholders, and increase corporate value. We believe increasing corporate value to be one of our most important management challenges. Accordingly, it is imperative that we create an organizational structure in which management oversight and business operations function effectively and in balance. We also believe that timely, high-quality information disclosure contributes to the improvement of corporate governance. In pursuit of this philosophy, we go

beyond simple financial disclosure, regularly publishing the details of individual business segments and medium-term management plans. We acknowledge that compliance is the linchpin of corporate governance. Nonetheless, our corporate activities go beyond mere compliance with laws and internal regulations, extending to the role we must fulfill as a member of society, based on respect for social ethics and morality.

The Company established the Hitachi Metals Group Code of Conduct for actions that describe the above details as specific standards of conduct for its executives and employees.

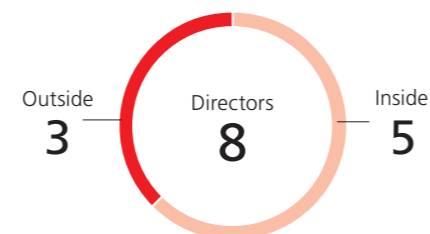
Overview of the Governance Structure

| Organization System | |
|---|--|
| A Company with a nominating committee, etc. | |
| Directors | |
| Number of Directors stipulated in the Articles of Incorporation | 10 |
| Term of office of Directors stipulated in the Articles of Incorporation | One year |
| Chair of the Board of Directors | Chairperson of the Board (except when concurrently serving as President) |
| Number of Directors | Eight |
| Outside Directors | |
| Number of Outside Directors | Three |
| Number of Outside Directors designated as Independent Directors | Three |
| Committees | |
| Composition of Committees | The Nominating Committee, Audit Committee, and Compensation Committee |
| Number of Committee members | Four members each on the Nominating Committee, Audit Committee, and Compensation Committee |
| Executive Officers | |
| Number of Executive Officers | 15 |
| Independent Directors | |
| Number of Independent Directors | Three |

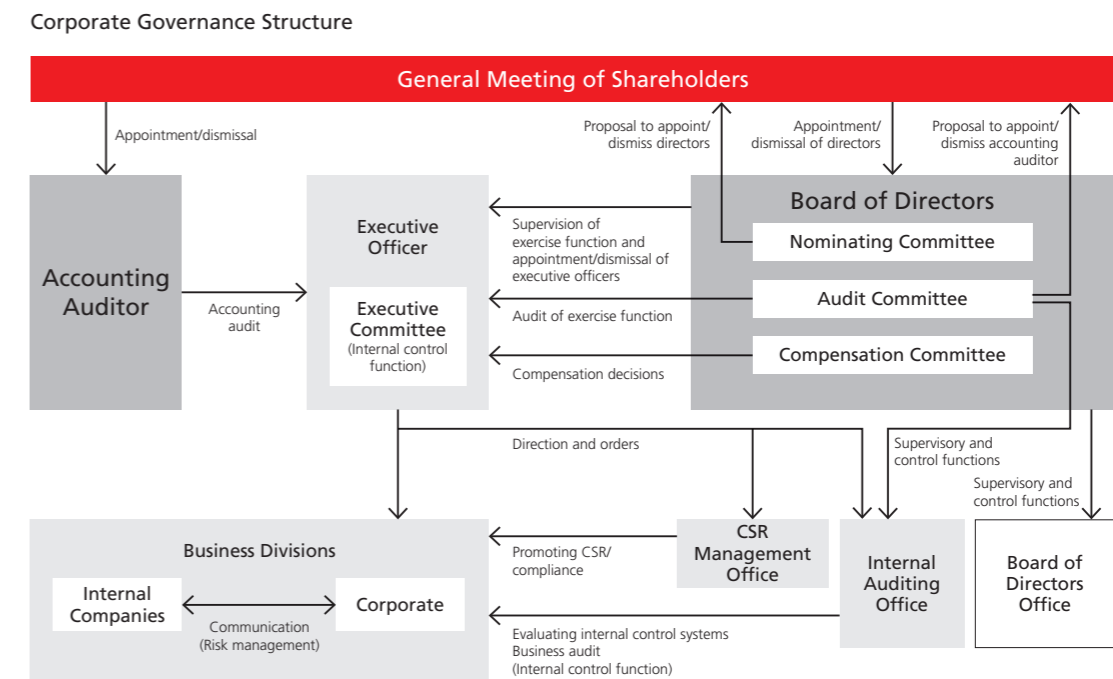
Measures aimed at the enhancement of corporate governance

- Transition to a "company with a committee, etc.," as defined in the Commercial Code (June 2003)
- Increase in the number of Outside Directors serving as Independent Directors from two to three (June 2016)

Ratio of Inside Directors and Outside Directors



Corporate Control System, etc., of the Company



Membership composition of each committee and affiliations of chairs

| Position | Name | Nominating Committee | Audit Committee | Compensation Committee |
|--------------------------|--------------------|----------------------|-----------------|------------------------|
| Chairperson of the Board | Toshikazu Nishino | ◎ | | |
| Outside Director | Masaru Igarashi | ○ | ○ | ○ |
| Outside Director | Toshiko Oka | ○ | ○ | ○ |
| Outside Director | Takashi Shimada | ○ | ○ | ○ |
| Director | Katsuro Sasaka | | | |
| Director | Toyoaki Nakamura | | | |
| Director | Toshitake Hasunuma | | ◎ | |
| Director | Akitoshi Hiraki | | | ◎ |

Note: ◎ Chair ○ Committee member

The Company has adopted the system of a company with a nominating committee, etc. Under this system, the Company elects eight Directors (one of whom is a woman) including three Outside Directors, and has established the Nominating Committee, Audit Committee, and Compensation Committee, in accordance with the provisions of the Companies Act. The Nominating Committee, the Audit Committee, and the Compensation Committee each comprise four members (three of whom are Outside Directors). The Company has established a system in which one Director who does not concurrently serve as an Executive Officer assists the Audit Committee in the execution of its duties. Each committee member is appointed by resolution of the Board of Directors.

The Nominating Committee is the body with the authority to determine the contents of proposals for the General Meeting of Shareholders regarding the appointment and dismissal of Directors.

The Audit Committee audits the execution of duties by Directors and Executive Officers, and has the authority to determine the content of proposals for the General Meeting of Shareholders regarding the appointment of the Accounting Auditor, as well as the dismissal or non-reappointment of the Accounting Auditor, and the authority to dismiss a relevant Accounting Auditor in the event that it has breached an obligation pertaining to its duties, neglected its duties, or engaged in misconduct that is unsuitable for such an auditor.

The Compensation Committee has the authority to formulate policies to determine the content of compensation for Directors and Executive Officers, as well as the content of individual compensation based on policies.

In addition, the Board of Directors Office has been established to assist the Board of Directors and the committees in executing their duties, at which persons in charge of the Board of Directors and committees have been placed.

Corporate Governance

The Audit Committee as an Audit Organization

The Audit Committee is composed of four committee members. It is in charge of auditing violations of laws and regulations or the Articles of Incorporation by Directors or Executive Officers, the appropriateness of management's judgments, the adequacy of internal control systems, and auditing accounting. The execution of duties by the Audit Committee is assisted by a Director who is appointed to provide support for the Audit Committee in the execution of its duties, as well as a person in charge of the Audit Committee at the Board of Directors Office. To ensure independence from

Executive Officers, these persons do not concurrently serve in any position at any other business operating division. The Audit Committee formulates annual audit implementation plans and auditing policies, and performs audits based on said plans and policies by hearing reports on important items and having Audit Committee members visit each office, etc., and each Group Company to conduct audits as regular audits. In addition, special audits are conducted when any likelihood exists of violations of laws and regulations or the Articles of Incorporation by Directors or Executive Officers.

Accounting Auditor

The certified public accountants named in the table below conducted accounting audits for the Company in fiscal 2017. Under the direction of said certified public accountants, as necessary, certified public accountants, certified public accountant

assistants, and other personnel from Ernst & Young ShinNihon LLC assisted with the execution of accounting audit duties. Seven certified public accountants and 25 other personnel assisted with the Company's accounting audit duties.

| Name of certified public accountant, etc. | Auditing firm of certified public accountant |
|---|--|
| Takashi Ouchida, Engagement partner | Ernst & Young ShinNihon LLC |
| Seiji Kuzunuki, Engagement partner | Ernst & Young ShinNihon LLC |

Matters Relating to Directors and Executive Officers

Functions and Roles of Directors

The items to be resolved by the Board of Directors are defined by the Board of Directors Rules. They consist of items that are solely to be decided by the Board of Directors under the Companies Act (decisions regarding basic management policies, basic policies related to the maintenance of internal control systems and other policies, appointment and dismissal of Executive Officers, appointment and dismissal of the

Representative Executive Officer, etc.), as well as items concerning dividends from surplus, issuance of new shares and subscription rights to shares, the acquisition, loan, and disposal of assets in excess of a specified amount, debt guarantees, reorganization, etc. Decisions on items other than those mentioned above have been delegated to the President and Chief Executive Officer.

Outside Directors' Functions, Roles, and Their Relationship with the Company

Outside Directors act as members of the Board of Directors and members of the Nominating Committee, Audit Committee, and Compensation Committee. They possess extensive experience and advanced knowledge, are well versed in the general norms of society, and use their broad perspectives to contribute to the enhancement of decision-making and auditing functions, and efficiency of the Company's management.

The Company considers each Outside Director to be fully independent from the Company, and has registered all of these Directors with the Tokyo Stock Exchange as Independent Directors.

The Company has business dealings with Bridgestone

Corporation and Suzuki Motor Corporation, the companies for which Mr. Masaru Igarashi has formerly worked. However, the transaction amounts with these companies during fiscal 2017 are substantially less than 1% of the consolidated revenues of the Company and each of those. Therefore, Mr. Masaru Igarashi's former employment status is deemed to have no impact on his independence as an Outside Director.

There are no items of note regarding Outside Directors Toshiko Oka and Takashi Shimada.

With respect to relationships between each Outside Director and the Company, the independence of each Outside Director is judged according to the Criteria for Independence of Outside Directors, mentioned below.

The Criteria for Independence of Outside Directors are provided in Article 15, Criteria for Independence of Outside Directors of the Corporate Governance Guidelines of Hitachi Metals, Ltd. The guidelines are posted on our corporate website (<https://www.hitachi-metals.co.jp/e/ir-csr.html>).

Career and Meeting Attendance of Directors (as of June 19, 2018)

Note: Information regarding attendance at meetings held between April 2017 and March 2018 is provided.



Toshikazu Nishino
Chairperson of the Board

Attendance at meetings
Board of Directors: —
Nominating Committee: —
(Appointed in June 2018)

Apr 1980 Joined Hitachi, Ltd.
Apr 2002 General Manager of Central Research Laboratory of Hitachi, Ltd.
Apr 2005 General Manager of Corporate Technology Office, Hitachi Group Headquarters, Deputy General Manager of Management Planning Office of Hitachi, Ltd.
Sep 2005 Director, Vice President of Hitachi Displays, Ltd. (current name: Japan Display Inc.)
Oct 2008 Managing Director of Hitachi, Ltd.
Apr 2009 Director of Renesas Technology Corporation (current name: Renesas Electronics Corporation)
Apr 2011 Vice President and Executive Officer of Hitachi, Ltd.
Jun 2012 Outside Director of Hitachi Metals, Ltd. (retired from the position in June 2015)
Apr 2013 Senior Vice President and Executive Officer of Hitachi, Ltd.
Apr 2015 Representative Executive Officer, Executive Vice President and Executive Officer of Hitachi, Ltd. (current position)
Jun 2018 Chairperson of the Board of Hitachi Metals, Ltd. (current position)

Reasons for appointment

The Company determined that Mr. Toshikazu Nishino will contribute to the strengthening of the decision-making and monitoring functions of the Board of Directors and enhancing their effectiveness, by reflecting his abundant experience as a corporate manager at Hitachi, Ltd. and its group companies as well as a high level of expertise in advanced technology developments and business planning in the business of the Company, and working to build closer ties with other Hitachi Group companies; therefore, the Company appointed him as a Director.



Masaru Igarashi
Outside Director

Attendance at meetings
Board of Directors:
16 out of 16 meetings
Nominating Committee:
2 out of 2 meetings
Audit Committee:
16 out of 16 meetings
Compensation Committee:
4 out of 4 meetings

Apr 1973 Joined Bridgestone Tire Co., Ltd. (current name: Bridgestone Corporation)
Sep 1981 Visiting Assistant Professor at the University of Utah
Aug 1982 Joined Suzuki Motor Co., Ltd. (current name: Suzuki Motor Corporation)
Apr 2003 General Manager, Automobile Engineering Administration Division II of Suzuki Motor Corporation
Jun 2003 Director of Suzuki Motor Corporation
Dec 2008 Director of Asanuma Giken Co, Ltd.
Feb 2009 Corporate Advisor of KPIT Cummins Infosystems Ltd. (current name: KPIT Technologies Ltd.) (current position)
Jul 2010 Representative of Global Dynamics Research Lab. (current position)
Oct 2010 Director of KPIT Infosystems Inc. (current position)
Jun 2016 Outside Director of Hitachi Metals, Ltd. (current position)

Reasons for appointment

The Company determined that Mr. Masaru Igarashi will contribute to the management of the Company as well as the strengthening of the decision-making and monitoring functions of the Board of Directors and enhancing their effectiveness, by reflecting his abundant experience and in-depth knowledge obtained as a corporate manager of an international manufacturing company from a more objective standpoint as Independent Director; therefore, the Company appointed him as an Outside Director.



Toshiko Oka
Outside Director

Attendance at meetings
Board of Directors:
16 out of 16 meetings
Nominating Committee:
2 out of 2 meetings
Audit Committee:
15 out of 16 meetings
Compensation Committee:
4 out of 4 meetings

Apr 1986 Joined Tohatsu Touche Ross Consulting (current name: ABeam Consulting Ltd.)
Jul 2000 Joined Asahi Arthur Andersen Ltd.
Jul 2002 Joined Deloitte Tohatsu Consulting Co., Ltd. (current name: ABeam Consulting Ltd.)
Sep 2002 Principal of Deloitte Tohatsu Consulting Co., Ltd.
Apr 2005 President and Representative Director of ABeam M&A Consulting Ltd.
Jun 2008 Outside Director of Netyear Group Corporation
Jun 2014 Outside Audit & Supervisory Board Member of Astellas Pharma Inc.
Jun 2015 Outside Audit & Supervisory Board Member of HAPPINET CORPORATION (current position)
Apr 2016 Partner of PwC Advisory LLC
Jun 2016 CEO of Oka & Company Ltd. (current position)
Outside Director of Hitachi Metals, Ltd. (current position)
Outside Director of Mitsubishi Corporation (current position)
Jun 2018 Outside Director of Sony Corporation (current position)

Reasons for appointment

The Company determined that Ms. Toshiko Oka will contribute to the management of the Company as well as the strengthening of the decision-making and monitoring functions of the Board of Directors and enhancing their effectiveness, by reflecting her abundant experience and in-depth knowledge obtained as a corporate manager of major consulting firms from a more objective standpoint as Independent Director; therefore, the Company appointed her as an Outside Director.



Takashi Shimada
Outside Director

Attendance at meetings
Board of Directors:
16 out of 16 meetings
Nominating Committee:
2 out of 2 meetings
Audit Committee:
16 out of 16 meetings
Compensation Committee:
4 out of 4 meetings

Apr 1976 Joined The Boston Consulting Group
Oct 1987 Vice President of The Boston Consulting Group
Jan 1994 Vice President of Hilti Japan
Nov 1996 President of Walt Disney Television International Japan
Jul 1998 Vice President of A.T. Kearney
Oct 2005 Vice President of Medtronic, Inc. (current name: Medtronic plc)
Vice President of Medtronic Japan Co., Ltd.
May 2008 President of Medtronic Japan Co., Ltd.
President of Medtronic Sofamor Danek, Co., Ltd.
May 2015 President of Covidien Japan Inc.
President of Nippon Covidien Inc.
Jun 2015 Outside Director of Hitachi Metals, Ltd. (current position)
Jun 2017 Senior Advisor of Medtronic Japan Co., Ltd.

Reasons for appointment

The Company determined that Mr. Takashi Shimada will contribute to the management of the Company as well as the strengthening of the decision-making and monitoring functions of the Board of Directors and enhancing their effectiveness, by reflecting his abundant experience and in-depth knowledge gained as a corporate manager at international companies from a more objective standpoint as Independent Director; therefore, the Company appointed him as an Outside Director.

Corporate Governance



Katsuro Sasaka
Director

Attendance at meetings
Board of Directors: —
(Appointed in June 2018)

Apr 1980 Joined Hitachi Metals, Ltd.
Apr 2013 General Manager of Finance Dept. of Finance Center
May 2013 Deputy General Manager of Yasugi Works
Jun 2013 Deputy General Manager of Yasugi Works and President of HMY, Ltd.
Apr 2015 Director and President of Hitachi Metals (China), Ltd.
Apr 2017 Executive Officer, Deputy General Manager of Corporate Management Planning Division, and General Manager of Group Company Auditing Office of Hitachi Metals, Ltd.
Apr 2018 Associate of Hitachi Metals, Ltd.
Jun 2018 Director of Hitachi Metals, Ltd. (current position)

Reasons for appointment

The Company determined that Mr. Katsuro Sasaka will contribute to the strengthening of the decision-making and monitoring functions of the Board of Directors and enhancing their effectiveness as a board member, by leveraging his abundant experience and in-depth knowledge gained as a senior management of the Company's finance and business planning operations as well as his thorough knowledge in the Group's operations gained as Director and President of a subsidiary controlling overseas business operations in China; therefore, the Company appointed him as a Director.



Toyoaki Nakamura
Director

Attendance at meetings
Board of Directors:
16 out of 16 meetings

Apr 1975 Joined Hitachi, Ltd.
Jan 2006 General Manager of Finance Department I of Hitachi, Ltd.
Apr 2007 Representative Executive Officer, Senior Vice President and Executive Officer of Hitachi, Ltd.
Jun 2007 Representative Executive Officer, Senior Vice President and Executive Officer, and Director of Hitachi, Ltd.
Jun 2009 Representative Executive Officer, Senior Vice President and Executive Officer of Hitachi, Ltd.
Jun 2010 Outside Director of Hitachi Metals, Ltd. (resigned in June 2012)
Jun 2011 Director of Hitachi High-Technologies Corporation (Outside Director until June 2016) (current position)*
Apr 2012 Representative Executive Officer, Executive Vice President and Executive Officer of Hitachi, Ltd.
Jun 2012 Outside Audit & Supervisory Board Member of Sompo Japan Insurance Inc. (current name: Sompo Japan Nipponkoa Insurance Inc.)
Apr 2013 Director of Hitachi Consumer Electronics Co., Ltd.
Director of Hitachi Appliances, Inc.
May 2013 Director of Hitachi Consumer Marketing, Inc.
Jun 2015 Director of Hitachi Metals, Ltd. (Outside Director until June 2016) (current position)
Dec 2015 Board Director, Chairperson of Hitachi Metals, Ltd.
Apr 2016 Associate of Hitachi, Ltd.
Jun 2016 Director of Hitachi, Ltd. (current position), Chairperson of the Board of Hitachi Metals, Ltd.

*Mr. Toyoaki Nakamura resigned as Director of Hitachi High-Technologies Corporation as of June 22, 2018.

Reasons for appointment

The Company determined that Mr. Toyoaki Nakamura will contribute to the management of the Company as well as the strengthening of the decision-making and monitoring functions of the Board of Directors and enhancement of their effectiveness, by reflecting his abundant experience and in-depth knowledge obtained as a corporate manager at Hitachi, Ltd. and its group companies, and working to build closer ties with other Hitachi Group companies; therefore, the Company appointed him as a Director.



Toshitake Hasunuma
Director

Attendance at meetings
Board of Directors:
16 out of 16 meetings
Audit Committee:
16 out of 16 meetings

Apr 1977 Joined Hitachi, Ltd.
Apr 2004 General Manager of Finance Division of Information & Telecommunication Group of Hitachi, Ltd.
Jul 2006 Executive Audit Manager of Internal Auditing Office of Hitachi, Ltd.
Apr 2010 General Manager of Internal Auditing Office of Hitachi, Ltd.
Apr 2016 Corporate Chief Manager of Internal Auditing Office of Hitachi, Ltd.
Jun 2016 Director of Hitachi Metals, Ltd. (current position)

Reasons for appointment

The Company determined that Mr. Toshitake Hasunuma will contribute to the strengthening of the decision-making and monitoring functions of the Board of Directors and enhancing their effectiveness as a Board member, by reflecting his conversance and in-depth knowledge obtained through his experience in the finance operations of Hitachi Ltd. over the years as well as the experience as a head of the Internal Auditing Office; therefore, the Company appointed him as a Director.



Akitoshi Hiraki
Director

Attendance at meetings
Board of Directors:
16 out of 16 meetings
Compensation Committee:
3 out of 3 meetings

Apr 1985 Joined Hitachi Metals, Ltd.
Jun 2008 President and Director of Hitachi Setsubi Engineering Co., Ltd.
Apr 2010 Managing Officer, President of Specialty Steel Company, Deputy General Manager of Corporate Export Regulation Office of Hitachi Metals, Ltd.
Apr 2012 Vice President and Managing Officer, President of High-Grade Metals Company, General Manager of Specialty Steel Division, and Deputy General Manager of Corporate Export Regulation Office of Hitachi Metals, Ltd.
Apr 2015 Vice President and Representative Executive Officer, President of High-Grade Metals Company, and Deputy General Manager of Corporate Export Regulation Office of Hitachi Metals, Ltd.
Jun 2015 Vice President and Representative Executive Officer, President of High-Grade Metals Company, Deputy General Manager of Corporate Export Regulation Office, and Director of Hitachi Metals, Ltd.
Jan 2016 Vice President and Representative Executive Officer, General Manager of Technology, Research & Development Division, General Manager of Corporate Quality Assurance Division, and Director of Hitachi Metals, Ltd.
Apr 2017 Representative Executive Officer, President and Chief Executive Officer, Director of Hitachi Metals, Ltd. (current position)

Reasons for appointment

The Company determined that Mr. Akitoshi Hiraki will contribute to the strengthening of the decision-making functions of the Board of Directors and enhancing their effectiveness, by sharing the information of business execution divisions at the Board of Directors as a Board member and reflecting his abundant experience and in-depth knowledge obtained as a president of Hitachi Group companies and General Manager of the Company's business divisions, and since April 2017, as President and Chief Executive Officer responsible for the management of the Company; therefore, the Company appointed him as a Director.

Analysis and Evaluation of the Effectiveness of the Board of Directors

The Company conducted a survey and individual interviews with Directors regarding the effectiveness of the Board of Directors in fiscal 2017. The main items on the survey included the composition of the Board, decision-making process, level of contributions, and operation and support systems. The Board of Directors held discussions at its meeting in May 2018 and carried out an evaluation at its meeting in June of that year, based on the assessments and opinions of individual Directors obtained from the survey and interviews. As a result, it was deemed that the effectiveness of the Board of Directors has been ensured, that Directors have expanded opportunities to acquire the information necessary to fulfill their roles, and that discussions regarding business strategies are actively carried out. However, it was also deemed that although the effectiveness of the Board has increased since March 2018 as a result of holding substantive discussions focused on key matters including the decision-making process for high-priority management strategies, the supervisory process for the

execution of management strategies, and risk management, it was necessary for these changes to be further accelerated and enhanced.

The Company also recognized that there was room for additional improvement with regard to discussion of the following points.

1. Analysis, including market analysis, which provides the assumptions that underlie strategies, measures for strategy implementation, and progress follow-up
2. Verification that the Company's long-term vision is widely understood among employees
3. Reinforcement of governance and risk management across the entire Group
4. Evaluation of the process of nurturing successors

Going forward, we will make use of these results in the operations of the Board of Directors, in order to further enhance its effectiveness in the future.

Main Items Discussed by the Board of Directors in Fiscal 2017

- Large-scale forging press installed at the Yasugi Works
- Introduction of a manufacturing line for cladding materials
- Report on the current status of the cast iron business in India
- Performance improvement plan for the HERCUNITE™ business
- Acquisition of subsidiary in the magnetic materials business
- Liquidation of subsidiary in the cable business
- Establishment of the Power Electronics Materials Business Promotion Office
- Report on our medium- to long-term business strategy
- Companywide IT policies
- Response to the Corporate Governance Code
- Reexamination of evaluation of the effectiveness of the Board of Directors
- Project to reinforce the "Basics and Ethics"
- Progress report on sharing of our Corporate Creed

Business Execution System

Regarding business execution, the Board of Directors delegates a great deal of decision-making authority concerning business execution to Executive Officers to achieve prompt decision-making. Executive Officers organize the Executive Committee to ensure that Executive Officers execute their duties efficiently, and in compliance with laws and regulations and the Articles of Incorporation. This committee holds discussions on certain

important management matters that impact the Company or the Group, and makes decisions regarding these matters. The Company has adopted an internal company system based on the decision that such a system is a good fit for the particular nature of the Company, which engages in multiple businesses with diverse products and markets.

Executive Officers (As of April 1, 2018)

| | | | |
|---|--|--|--|
| <p>Akitoshi Hiraki Representative Executive Officer President and Chief Executive Officer Overall Operations General Management</p> | <p>Koji Sato Vice President and Executive Officer In charge of Business and Technology President of Specialty Steel Company General Manager of Technology, Research & Development Division Deputy General Manager of Corporate Export Regulation Office</p> | <p>Masahiro Otsuka Executive Officer In charge of Business Chairperson and President of Hitachi Metals (China), Ltd.</p> | <p>Tomoyuki Hatano Executive Officer In charge of Business Director, President & CEO of Hitachi Metals America, Ltd.</p> |
| <p>Kenichi Nishiie Representative Executive Officer Senior Vice President and Executive Officer In charge of Corporate Administration General Manager of Corporate Management Planning Division General Manager of Group Company Auditing Office</p> | <p>Naohiko Tamiya Vice President and Executive Officer In charge of Corporate Administration General Manager of Human Resources & General Administration Division Chief Compliance Officer</p> | <p>Eiichiro Shoji Executive Officer In charge of Sales General Manager of Business Activity & Marketing Division</p> | <p>Kenji Hirano Executive Officer In charge of Business Vice President of Specialty Steel Company General Manager of Yasugi Works</p> |
| <p>Hiroaki Nishioka Representative Executive Officer Vice President and Executive Officer In charge of Corporate Administration Chief Financial Officer General Manager of Finance Division</p> | <p>Ryouji Akada Executive Officer In charge of Business President of Magnetic Materials Company Deputy General Manager of Corporate Export Regulation Office</p> | <p>Shigekazu Suwabe Executive Officer In charge of Corporate Administration General Manager of Information Systems Division General Manager of Kumagaya Works</p> | <p>Kazuya Murakami Executive Officer In charge of Business President of Cable Materials Company Deputy General Manager of Corporate Export Regulation Office</p> |
| | <p>Norio Uemura Executive Officer In charge of Business General Manager of Power Electronics Materials Business Promotion Office</p> | <p>Masato Hasegawa Executive Officer In charge of Technology General Manager of Corporate Quality Assurance Division</p> | <p>Hiroshi Watanabe Executive Officer In charge of Business President of Functional Components Company Deputy General Manager of Corporate Export Regulation Office</p> |

Corporate Governance

Compensation for Directors and Executive Officers, etc.

The Policies Concerning the Determination of Compensation, etc., for Directors and Executive Officers state that “(1) Directors and Executive Officers assuming the management of the Company are compensated for executing management that enhances the Company’s corporate value and benefits stakeholders such as shareholders by determining management policies from a long-term perspective, and formulating and executing medium-term management plans and annual business budgets; (2) To motivate Directors and Executive Officers to exercise their respective management capabilities, know-how, and skills to achieve satisfactory results, the compensation system shall reflect the Company’s short-term and medium- to long-term business performance and appropriate compensation shall be paid for outstanding achievements; (3) Compensation paid by the Company consists of base compensation and a term-end bonus; and (4) To share interests with shareholders by holding treasury stock and thereby promote sustainable growth and the enhanced corporate value of the Company over the medium to long term, Directors and Executive Officers shall, as a general rule, contribute part of their compensation to the officers’ shareholding

association and acquire treasury stock until such stock reaches a certain number. The acquired stock shall be held continuously during the terms of office of Directors and Executive Officers and, as a general rule, one year after retiring from their posts.” The policy on base compensation is that it is to be “Determined individually in consideration of the degree of responsibility for Company management as a Director and/or Executive Officer and for the performance of duties utilizing their extensive experience, knowledge, insight, and specialized management skills, etc., acquired from past experience. To secure appropriate human resources for the positions of Director and Executive Officer, compensation levels should be comparable to those of other companies.” The policy on a term-end bonus is that it is to be “Linked to the business performance of the Company,” and the percentage of such is being increased.

The total amount of compensation, etc., for each category of Director or Executive Officer, the total amount of compensation, etc., by type, and the number of Directors and Executive Officers who received compensation, etc., during fiscal 2017 are as indicated in the table below.

Compensation, etc., for Directors and Executive Officers

| Director/Executive Officer category | Total amount of compensation, etc. (millions of yen) | Total amount of compensation, etc., by type (millions of yen) | | Number of Directors and Executive Officers who received compensation, etc. |
|---|--|---|----------------|--|
| | | Base compensation | Term-end bonus | |
| Directors (excluding Outside Directors) | 132 | 119 | 13 | 4 |
| Executive Officers | 458 | 333 | 125 | 15 |
| Outside Directors and Officers | 52 | 45 | 7 | 3 |

Note: Directors with concurrent post as Executive Officers are compensated as Executive Officers but not as Directors.

Relationship with the Parent Company

In principle, the business operations and transactions of the Company are conducted on an autonomous basis and are independent of Hitachi, Ltd., the parent company, and its group companies. In the implementation of its business operations, however, and as a member of the Hitachi Group, the Company has a close collaborative relationship with Hitachi, Ltd. and its group companies through joint research and development and other initiatives. Based on the effective use of shared management resources, the Company aims to provide high-quality products and services.

As for personnel relationships with Hitachi, Ltd., one Director and one Executive Officer of that company also serves as Directors of the Company. By expressing opinions and voting at meetings of the Company’s Board of Directors, Hitachi, Ltd. could influence management policies and other aspects of the Company. Nevertheless, the Company perceives that it is in a

position to make independent management judgments, because it has appointed three Outside Directors who are designated as Independent Directors, based on the stipulations of the stock exchange on which the Company is listed, so that a wide variety of opinions can be reflected in the discussions of the Company’s Board of Directors. No Executive Officers of the Company who perform executive duties are also Directors or Executive Officers of Hitachi, Ltd.

The Company also conducts a range of transactions with Hitachi, Ltd. based on the Hitachi Group’s pooling system. These include borrowing and lending as well as other activities. The Company remains convinced, however, that its business activities are not significantly dependent on transactions with Hitachi, Ltd. The Company has adopted a policy that regulates transactions with Hitachi, Ltd. so that they are carried out in a fair manner, based on market prices.

Policies Concerning Holding Shares of Other Companies as Cross-Shareholdings

In principle, the Company shall not hold the shares of other companies as cross-shareholdings. The exception is if the Company believes these holdings contribute to the Company’s corporate value. The Company would comprehensively take into consideration objectives of such holdings such as maintenance and strengthening of business relations, capital tie-ups, business alliances and joint development as well as associated returns and risks.

The Company conducts an annual review of such

shareholdings and responds appropriately with regard to stocks whose holding has little significance by selling them, or through other measures, taking into account market trends and other factors.

When exercising voting rights involving cross-shareholdings, the Company shall determine its response by comprehensively taking into consideration the situation of the company issuing the relevant shares and if the proposal will hurt shareholder value.

Internal Controls

Internal Audit Organization

The Company has an Internal Auditing Office (with 10 dedicated staff members) that is in charge of internal audits. This office formulates annual audit implementation plans and audit policies, and regularly conducts audits regarding the status of business execution and management of each office and Group Company based on said plans and policies. Furthermore, it may conduct special audits when necessary, and issues recommendations for

improving operations, etc. It also notifies the President and Chief Executive Officer and the Audit Committee of audit implementation plans in advance, and reports the audit results to them. If necessary, it also carries out audits in collaboration with individual divisions in charge of the environment, safety, and systems within the Company.

Coordination among the Audit Committee, Accounting Auditor, and Internal Audit Division

The Audit Committee (1) receives explanations from the Accounting Auditor regarding audit implementation plans, and engages in consultation and adjustments when necessary; (2) receives audit result reports and engages in an exchange of opinions; and (3) in the event that the Accounting Auditor, during the course of executing its duties, discovers misconduct or material facts in violation of laws and regulations or the Articles of Incorporation regarding the execution of duties by Executive Officers, receives reports on these matters. The Audit Committee receives reports from the Internal Audit division on its audit implementation plans and regularly examines reports. Furthermore, to promote collaboration between the Internal Audit division and the Audit Committee in auditing, the committee can instruct the Internal Audit division to (1) conduct a special audit of certain divisions deemed to be required by the Audit Committee, and (2) decide on critical audit items in audits conducted by the Internal Audit division. The Internal Auditing Office is also in charge of evaluating internal controls, and reports the status of such to the Audit Committee. Corporate divisions, etc., other than the Internal Audit division, in charge of finances, compliance, risk, and other areas also play a certain

role in the Company’s internal controls, and report the status of the execution of their duties to the Audit Committee.

Moreover, the Company considers the promotion of tripartite audit function to be its primary theme regarding audit and supervisory functions. The Company, therefore, goes a step beyond one-way evaluation of the Accounting Auditor from the Company’s side, based on the evaluation standards for an accounting auditor, and promotes mutual checks and evaluation. In particular, the Company considers the risk detection function of the Accounting Auditor, which is an external institution, as an important aspect of overall risk detection for the Group. In order to reinforce that function, the Company is expanding mutual evaluations between the Accounting Auditor and the Company’s finance divisions, the Internal Audit division, and the Audit Committee, respectively. Specifically, these bodies evaluate each other in terms of communication, coordination, organizational structure, etc., and convey the results to their counterparts, thus leading to reinforcement of the risk detection function. The Company is also starting mutual evaluations between the Accounting Auditor and the finance divisions at its business offices and subsidiaries.

Risk Management

With respect to risk management, each Executive Officer identifies and analyzes business risks including changes in political, economic, and social situations, currency fluctuations, rapid technological innovations, as well as changes in customer needs, examines measures against such risks, and reviews these measures whenever necessary through discussions at the Board of Directors, the Audit Committee, the Executive Committee, and other meeting bodies. In addition, each of the Group’s sites has built a system to promptly share information that has become known regarding risks relating to compliance, antisocial forces, finance, procurement, the environment, disasters, quality, information security, export control, legal affairs, etc., with each business division. Meanwhile, each corporate business division has prepared internal rules, guidelines, etc.; conducts education and enlightenment activities, preliminary checks, audits on business operations, etc.; and cooperates with the relevant internal company’s business divisions to avoid, prevent, and manage risks. Furthermore, with regard to business continuity plans (BCPs), the Company has not only prepared the plans but also implements business continuity management (BCM) that periodically and continually improves BCPs in response to changes in the business structure or risks. During the fiscal year under review, the Company reviewed its BCP, formulated in anticipation of a major earthquake at the Group’s domestic locations, and updated the plan. In addition, the Company is

implementing a companywide expansion of its system to confirm the safety of all employees during times of disaster.

The main risks that could possibly impact the management performance and financial status of the Hitachi Metals Group are as follows:

- Risks involving economic circumstances in the market, related to product demand
- Risks involving fluctuations in raw material prices
- Risks involving financing
- Risks involving fluctuations in exchange rates
- Risks involving fluctuations in securities prices
- Risks involving business expansion outside Japan
- Risks involving competitive advantage and the development and commercialization of new technologies and products
- Risks involving intellectual property rights
- Risks involving environmental regulations, etc.
- Risks involving product flaws and defects
- Risks involving legal and official regulations
- Risks involving earthquakes and other natural disasters, etc.
- Risks involving information security
- Risks involving pension payment liabilities
- Risks involving relations with the parent company
- Risks involving M&A
- Risks involving securing appropriate human resources

Promotion of Diverse Human Resources

With the Corporate Creed of “contributing to society by being the best enterprise,” the Hitachi Metals Group positions diversity and inclusion as important management strategies, and is pursuing various measures to grow as a global company, based on the belief that “creating an innovative corporate culture will increase corporate value.”

Global Human Resources Strategy with Human Resources as the Source of Competitiveness

The Hitachi Metals Group, which is moving ahead with global business expansion, is striving to enhance and strengthen its human resource development programs in order to “develop people of action with global perceptions at Hitachi Metals,” based on the recognition of human resources as the source of competitiveness.

We have established the following four themes for our human resource strategy, under the Fiscal Year 2018 Medium-term Management Plan: “management reform aimed at instilling a globally shared ‘philosophy’ (the basic values to be held by all Group employees) and changing our corporate culture”; “diversity and inclusion that promote participation of diverse human resources and ‘workstyle reform’”; “realization of safe and healthy workplaces”; and “promotion of global human resources management.”

Human Resources Development Programs

Our communications symbol, “Materials Mag!c,” incorporates the determination of each and every employee to be a key driver of growth. The Hitachi Metals Group is striving to enhance and strengthen its human resource development programs linking OJT and OFF-JT, so that employees can develop their expertise enabling them to actively seek out challenges and take actions to achieve success or solve problems, and to become shining examples for the Company.

▶ Nurturing the next generation of human resources

We identify at an early stage the human resources who will take responsibility for management in the next generation and enhance training programs for them. We complete systematic personnel rotations and tough assignments, as well as training such as OFF-JT.

▶ Global recruitment and development of human resources

As our business rapidly globalizes, we are accelerating efforts at global regional headquarters in Europe, the U.S., China, and the rest of Asia, to employ and cultivate human resources who will be future executive candidates. We are also pushing ahead with the early cultivation of future executive candidates who can play active roles globally, through overseas business training and global training for employees in Japan, active hiring of foreign nationals, including international students, and promotion of locally-hired staff at Group companies outside Japan into positions of responsibility.

Promoting Diversity and Inclusion

In order to create an innovative corporate culture based on diversity, it is vital to cultivate a structure and environment in which all human resources can broaden their potential and play active roles. We are working to strengthen our human resource base by securing diverse employees, assigning them strategically, and encouraging their active participation. We

have also established the Hitachi Group Diversity Promotion Council, headed by the President, in order to promote diversity and inclusion by sharing policies and issues related to activities throughout the Group.

Furthermore, we have appointed one female Outside Director, and regularly receive her advice on diversity. In particular, we are making efforts to promote the participation and advancement of women in the workplace, based on the following policies.

▶ Policy on promoting the participation and advancement of women in the workplace

1. Ratio of women among newly hired graduates (career-track positions)

Achieved targets Technical positions: 10% or more
Administrative positions: 40% or more

2. Support for retention

Career support to eliminate concerns
Awareness-raising for those in management-level positions
Support for balancing work with childcare and nursing care, including Hitachi Group training
Promotion of diverse work styles through workstyle reform

3. Promotion measures

Achieved the target ratio for women in management-level positions: 1.2% in fiscal 2017, 1.5% in fiscal 2018
Carried out individual development plans and training for selected employees

Main initiatives

- Survey of actual conditions for women in career-track positions
- Three-party discussions by the President, officer in charge of human resources, and experts
- Held a networking event for women in career-track positions at Hitachi Metals
- Manager training and diversity training
- Survey and analysis of participation by women in the Hitachi Group
- Dispatched employees to Hitachi Group career training, and to seminars for support before maternity leave and upon returning to work

Furthermore, we support exchanges among our diverse employees and the realization of diverse careers through human resource exchanges both inside and outside of the Hitachi Group and the proactive hiring of experienced personnel, in addition to the utilization of the “My Challenge” internal free agent system, which allows employees who have a desire to expand their potential to transfer across internal companies or job categories, and the introduction of leave to allow employees to accompany spouses on overseas assignments.

▶ Endorsed the “Declaration on Action by a Group of Male Leaders Who Will Create a Society in Which Women Shine”

In August 2017, Hitachi Metals President and Chief Executive Officer Akitoshi Hiraki endorsed the “Declaration on Action by a Group of Male Leaders Who Will Create a Society in Which Women Shine,” an initiative supported by the Cabinet Office



of Japan. President Hiraki expressed his commitment to personally take the lead in promoting the further active participation of women.

Selected as a Fiscal 2017 “Nadeshiko Brand”

On March 22, 2018, Hitachi Metals, Ltd. was selected as a fiscal 2017 “Nadeshiko Brand” (Steel Industry category), a designation granted by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange to companies that are outstanding in terms of encouraging the success of women in the workplace. In July 2017, the Company was also included as a component stock on an ESG investment index, the “MSCI Japan Empowering Women Index (WIN)*,” which we consider to be a high evaluation of our gender diversity.

*An index comprising companies from various industries selected for attaining high scores on gender diversity.



“Workstyle Reform”

The Hitachi Metals Group believes that it is indispensable to create an environment where diverse employees can pursue highly productive work styles and approaches to their jobs, while sharing different values and ideas, and realizing a sense of fulfillment and personal growth in their work. In order to accomplish this, in fiscal 2016, we launched a “workstyle reform” project. Positioning fiscal 2016 as the “awareness-raising” phase, fiscal 2017 as the “implementation” phase, and fiscal 2018 as the “instilling” phase, we aim to reduce the total annual actual working hours to less than 2,000 by fiscal 2018.

In fiscal 2017, the “implementation” year, we emphasized

“operational reform” while pressing ahead with the further reinforcement of existing measures and the active introduction of new ones. Our target for the “instilling” phase in fiscal 2018 is to make highly productive work styles that assume diversity to be the standard in back-office departments companywide.

▶ “Workstyle reform” efforts in fiscal 2017

In fiscal 2017, we worked actively to introduce new measures based on operational reform. Having established “stop, reduce, and change” as our basic concept for operational reform, we carried out comprehensive discussions to optimize all meeting bodies, including determining whether the meetings were necessary. We created an environment, and established and reinforced a support system to realize more flexible work styles, including minimizing the man-hours required for meetings and preparation of materials.

Outline of Fiscal 2017 “Workstyle Reform” Activities

| | |
|--|--|
| Awareness-raising and education | Continuously communicated messages from top management, and conducted training for managers and professionals (manager level and above) |
| Operational reform | Reduced regular meetings by one-half and reduced materials used, reinforced adherence to meeting and email rules, implemented workplace working groups, invited amendment suggestions on rules and practices, and promoted use of IT |
| Work environment enhancement | Effectively used telecommuting, and took advantage of satellite and mobile offices |
| Strengthening of work hours management | Formulated and thoroughly implemented a departmental work hours policy, improved the system for managing work hours, and thoroughly implemented daily recording and approval of work hours management |

Composition of Employees (Non-consolidated)

| | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 |
|---|--------|--------|--------|--------|--------|
| Number of employees | 6,362 | 6,306 | 5,966 | 5,858 | 6,315 |
| Male | 5,720 | 5,660 | 5,339 | 5,241 | 5,654 |
| Female | 642 | 646 | 627 | 617 | 661 |
| Ratio of female employees | 10.1 | 10.2 | 10.5 | 10.5 | 11.7 |
| Average age (years) | 42.1 | 43.0 | 43.5 | 43.9 | 43.6 |
| Average service (years) | 19.2 | 20.0 | 20.6 | 21.0 | 21.0 |
| Number of female managers | 10 | 10 | 11 | 12 | 16 |
| Employment ratio of people with disabilities* | 2.11 | 2.24 | 2.34 | 2.40 | 2.31 |

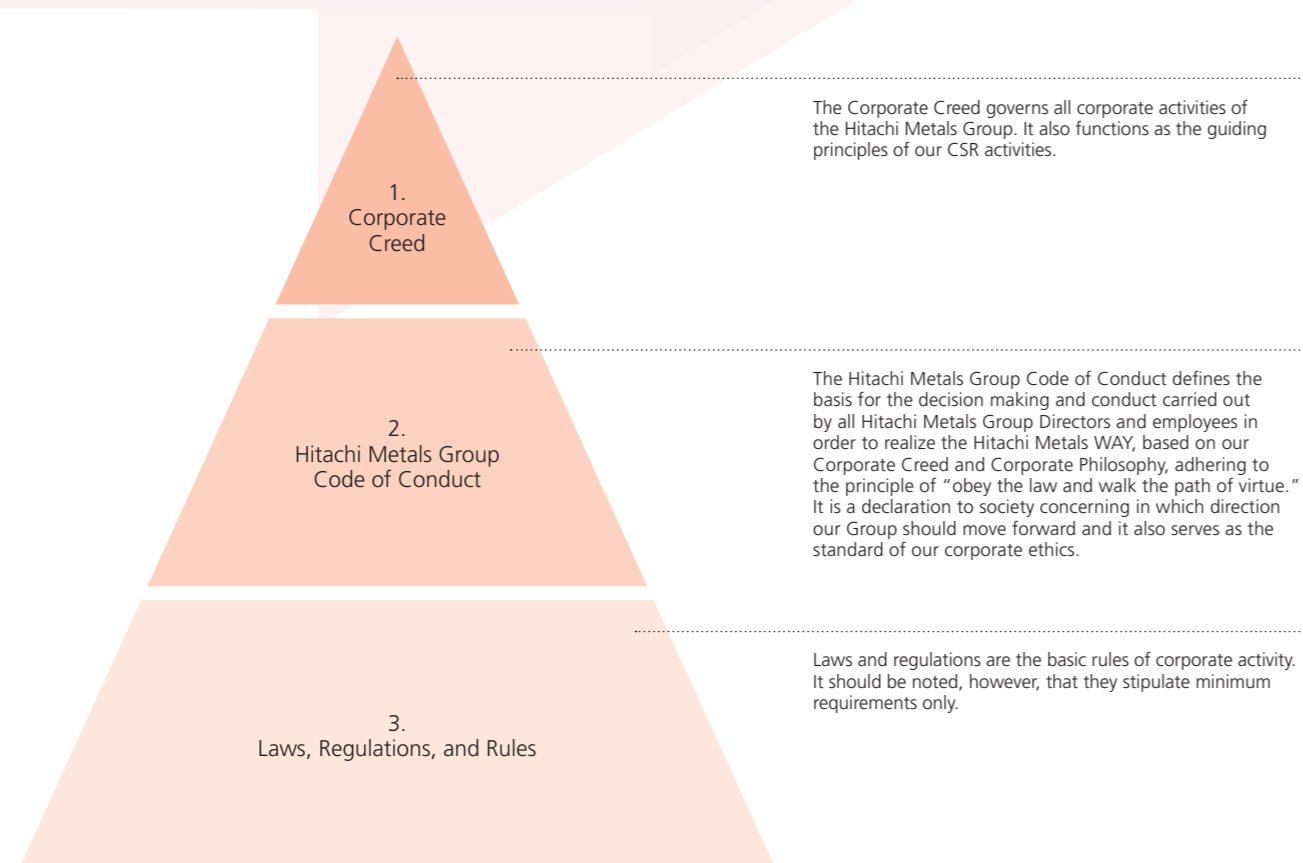
*Including special subsidiaries

CSR Basic Policy

The Hitachi Metals Group aims to carry out its social responsibility and realize its Corporate Creed through the observance and implementation of laws and regulations, as well as the Hitachi Metals Group Code of Conduct, by all Directors and employees in their daily duties. Furthermore, the Company promotes CSR activities with the aim of contributing to society through its business operations, based on its belief of calling on corporations not only to pursue profitability but also to meet stakeholders' expectations and contribute to the development of society.

Guidelines for CSR Activities

The Hitachi Metals Group systematically established guidelines for CSR activities as follows:



The Hitachi Metals Group aims to carry out its social responsibility and realize its Corporate Creed through the observance and implementation of laws and regulations, as well as the Hitachi Metals Group Code of Conduct, by all Directors and employees in their daily duties.

Outside Assessment
Hitachi Metals has been added to the world's leading social responsibility investment indices. The FTSE4Good Index Series is calculated by the FTSE Group, which is owned by the London Stock Exchange. An important gauge providing criteria for investment choices, the FTSE4Good Index Series selects stocks according to five ESG (environmental, social, and governance) themes: environmental management, mitigating climate change, human rights and workers' rights, supply chain labor standards, and the prevention of bribery.

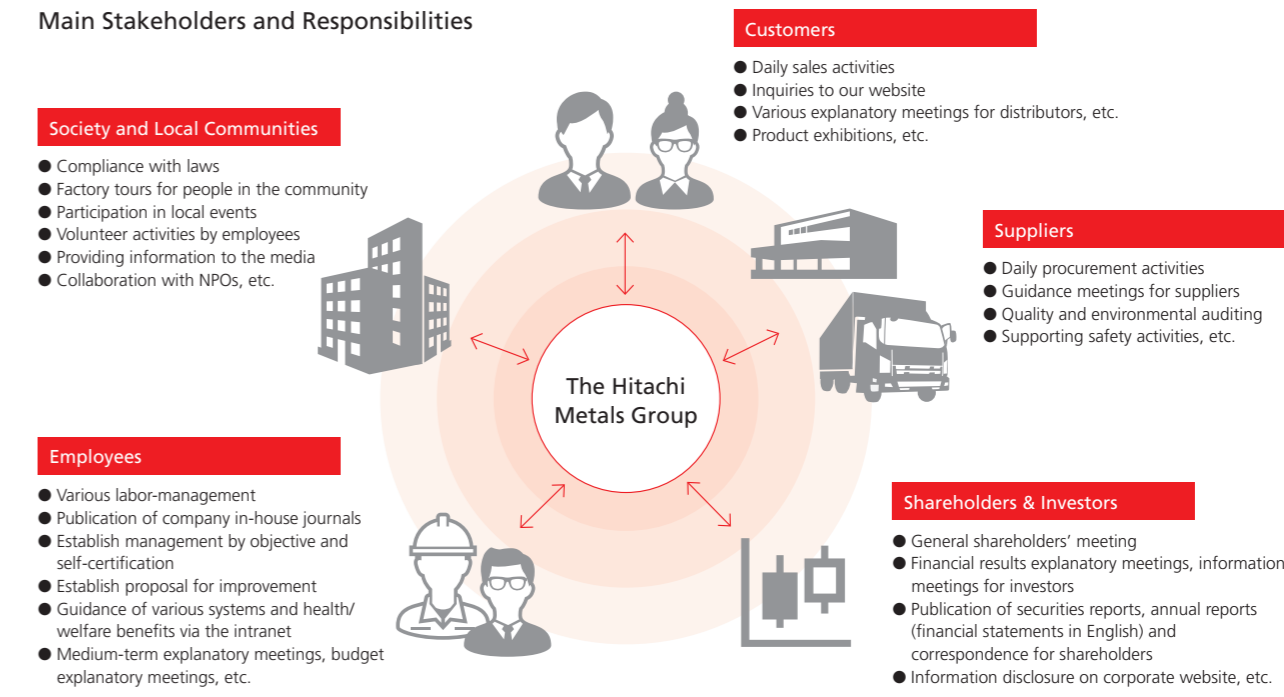
Hitachi Metals has also been included in all three ESG investment indices newly selected by the Government Pension Investment Fund (GPIF), namely, the MSCI Japan ESG Select Leaders Index, the MSCI Japan Empowering Women Index (WIN), and the FTSE Blossom Japan Index. Hitachi Metals has also been selected as an outstanding company by the Ministry of Economy, Trade, and Industry and the Tokyo Stock Exchange, through selection as a FY2017 Nadeshiko Brand for promoting the participation of women, as well as for the SNAM Sustainability Index, which invests in companies with high ESG evaluations.



Hitachi Metals Group Stakeholders

The business of the Hitachi Metals Group is materialized through engagement with stakeholders. The Hitachi Metals Group considers stakeholders strongly associated with its business activities as "customers," "shareholders" and

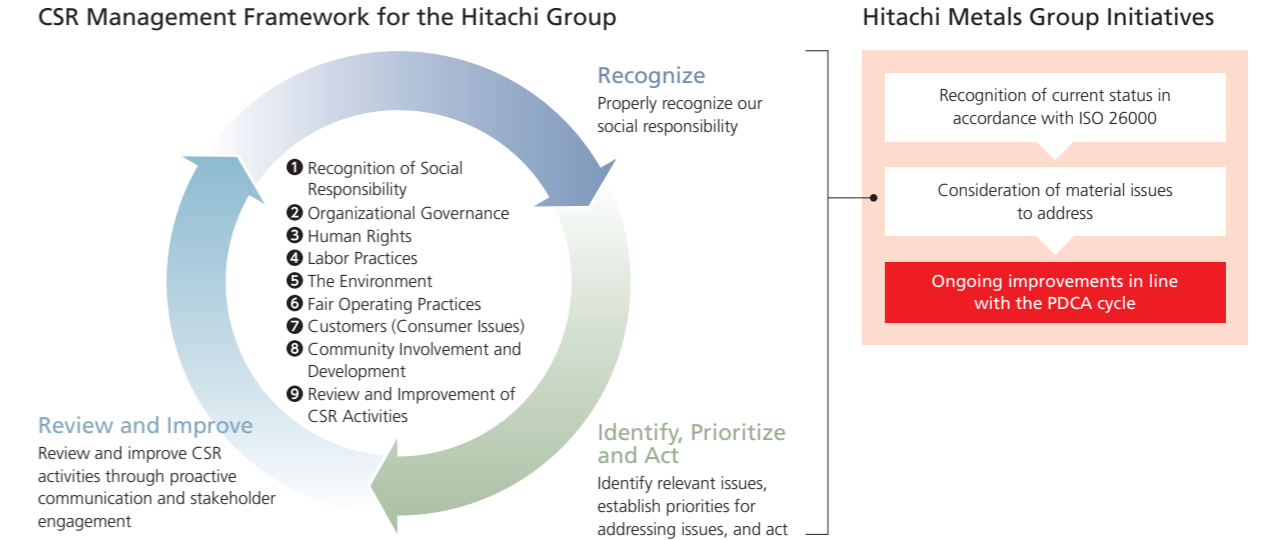
investors," "suppliers," "employees," and "society and local communities," and develops its CSR activities by responding to requests and expectations from those stakeholders and contributing to society's sustainability.



Framework for CSR Activities

The Hitachi Metals Group is continuously enhancing its management quality based on a framework in accordance with international standards. Every year since fiscal 2015, the Hitachi Metals Group has evaluated its activity results, set targets and measures for the upcoming fiscal year, and integrated the evaluation results into

a road map in accordance with the Hitachi Group CSR Policy formulated and based on ISO 26000, the global standard for corporate social responsibility. By repeating this cycle of road map setting and implementation, the Group is continuously enhancing the quality of management.



CSR Initiative Results and Plans

The Hitachi Group has defined the Hitachi Group CSR Policy, based on ISO 26000, the global standard for corporate social responsibility, with the aim of furthering the integration of management and CSR. In accordance with this policy, the Company uses the PDCA cycle to further reinforce its activities, by steadily implementing CSR activities and continually improving its management quality.

CSR Initiative Results and Plans

★★★ Achieved ★★ 90% Achieved ★ Not Achieved

| FY2017 Measures (Planned) | FY2017 Measures (Results) | Self-assessment | Measures Planned for FY2018 |
|---|--|-----------------|---|
| 1. Recognition of Social Responsibility | | | |
| • Seek advice on/assessment of the Company's CSR activities from outside experts (ongoing) | • Received advice on/assessment of the Company's CSR activities from a professor in Hosei University's Faculty of Sustainability Studies | ★★★ | • Seek advice on/assessment of the Company's CSR activities from outside experts (ongoing) |
| 2. Organizational Governance | | | |
| • Hold compliance management meetings semiannually to analyze matters related to compliance and risks involving our businesses, formulate preventative measures, and share information (ongoing) | • Continuously followed up on the execution and results of preventative measures and shared information regarding the status of compliance activities and incidents | ★★★ | • Hold regular meetings regarding compliance, formulate preventative measures, and share information (ongoing) |
| • Conduct CSR and compliance training at the Company and subsidiaries in Japan and overseas (ongoing) | • Conducted CSR and compliance training (150 times at the Company and subsidiaries in Japan and overseas) | ★★★ | • Conduct compliance training at the Company and subsidiaries in Japan and overseas (ongoing) |
| • Conduct environmental education at the Head Office and each company (ongoing) | • Conducted environmental e-learning (100% of employees) and environmental auditor development training (3 times) | ★★★ | • Conduct environmental e-learning (100% of employees) and environmental auditor development training (once) |
| • Ongoing implementation of Hitachi Insights, the Hitachi Group employee satisfaction survey targeting all back-office workers | • Conducted Hitachi Insights, the Hitachi Group employee satisfaction survey targeting all back-office workers in September (6,468 employees responded on a consolidated basis) | ★★★ | • Ongoing implementation of Hitachi Insights, the Hitachi Group employee satisfaction survey targeting all back-office workers |
| 3. Human Rights | | | |
| • All employees receive human rights training every three years, based on the Hitachi Metals Group Human Rights Policy, according to Hitachi Group policies | • Systematically conducted human rights training throughout the entire Hitachi Metals Group (5,416 employees in total) | ★★★ | • Conduct human rights training systematically throughout the entire Hitachi Metals Group (ongoing) |
| 4. Labor Practices | | | |
| • Set KPIs and work to achieve them through the project "work style reform" (reduction in total annual back-office working hours), the foundation of the Company's diverse human resources | • Launched the companywide "work style reform" project in May 2016, set KPIs, implemented measures to reduce total annual working hours companywide and improve productivity, etc. | ★★★ | • Further promote "work style reform" through awareness-raising for those in management positions, measures to improve operational efficiency (reduce paperwork and meetings, etc.), a reduction in total annual working hours, and providing support through systems |
| • Set a diversity employment target rate (the Company's own indicator) of 50% or more and actively hire diverse human resources | • Achieved the diversity employment target rate of 60% | ★★★ | • Continue to set a target rate of 50% or more for diversity employment |
| • Establish an intranet dedicated to diversity promotion | • Set up a dedicated website for diversity management on the intranet | ★★★ | • Set the ratio of women in career-track positions (4%) |
| • Formulate an action plan integrating the Act for Measures to Support the Development of the Next Generation and the Act on Promotion of Women's Participation and Advancement in the Workplace, and announce the plan to the public. Also, disclose related figures | • Formulated an integrated action plan and announced it to the public. Related figures were also disclosed as widely as possible | ★★★ | • Formulate an action plan integrating the Act for Measures to Support the Development of the Next Generation and the Act on Promotion of Women's Participation and Advancement in the Workplace, and proactively disclose related figures to the public |
| • Create opportunities for coordination and information exchange for women in career-track positions | • Held a networking event targeting all women in career-track positions | ★★★ | • Increase the ratio of women in management positions |
| • Exceed the legal employment rate of employees with disabilities | • The actual figure for FY2017 was 2.43%, achieving the target | ★★★ | • Continue to create opportunities for information exchange between women in career-track positions and strengthen coordination among them |
| • Confirm activities regarding Hitachi Metals Group's key health and safety measures, as well as the state of legal compliance through health and safety audits of business offices, and implement health and safety training for supervisors | • Conducted health and safety audits at 15 domestic business offices. These audits were carried out at one overseas business office (China) | ★★ | • Exceed the legal employment rate of 2.2% |
| • Conduct stress checks throughout the Hitachi Metals Group | • Conducted stress checks throughout the Hitachi Metals Group | ★★ | • Confirm activities regarding Hitachi Metals Group's key health and safety measures, as well as the state of legal compliance through health and safety audits of business offices, and implement health and safety training for supervisors |
| • Formulate a human resources development plan for employees representing the next generation and conduct systematic personnel rotation and training programs | • Identified outstanding human resources at the manager level and conducted training programs to develop global leaders | ★★★ | • Conduct stress checks throughout the Hitachi Metals Group |
| | • Focused on securing human resources through midcareer hiring to revitalize systematic personnel rotation | ★★★ | • Carry out a health and safety diagnostic program as part of Hitachi Group's safety activities |
| 5. The Environment | | | |
| • Increase the sales ratio of key environmentally conscious products*1 (19% or more) | • Increased the sales ratio of key environmentally conscious products (20.7%) | ★★★ | • Examine and implement a selective development program for management candidates, targeting human resources at the general manager level |
| • Reduce active mass per production unit of energy consumption (11.5% compared to base year FY2005) | • Reduced active mass per production unit of energy consumption (6.6% compared to base year FY2005) | ★ | • In addition to securing a certain number of human resources by hiring new graduates, continue to conduct midcareer hiring in the interest of personnel rotation and to adjust the age composition |
| • Reduce active mass per production unit of waste/valuables generation (7.5% compared to base year FY2005) | • Reduced active mass per production unit of waste/valuables generation (11% compared to base year FY2005) | ★★★ | • Increase the sales ratio of key environmentally conscious products (21%) |
| • Increase the recycling rate (72%) | • Increased the recycling rate (79%) | ★★★ | • Reduce the ratio of waste generation per production unit (8% compared to base year) |
| • Reduce chemical substance emissions per production unit (32% compared to base year FY2006) | • Reduced chemical substance emissions per production unit (19% compared to base year FY2006) | ★ | • Increase the recycling rate (74%) |

| FY2017 Measures (Planned) | FY2017 Measures (Results) | Self-assessment | Measures Planned for FY2018 |
|---|---|-----------------|---|
| 6. Fair Operating Practices | | | |
| • Conduct extraordinary compliance (Anti-Monopoly Act) audit (ongoing) | • Conducted extraordinary compliance (Anti-Monopoly Act) audit (document review, hearing with sales department managers) | ★★★ | • Continue to conduct audits related to compliance (including compliance with the Anti-Monopoly Act) |
| • Survey the status of CSR efforts by the Company's suppliers based on the Hitachi Group's CSR procurement guidelines | • Distributed the Hitachi Metals Group Supply Chain CSR Procurement Guidelines, collected CSR Procurement Checksheets, and confirmed the status of CSR promotion by suppliers | ★★★ | • Provide feedback on the results of the CSR Procurement Checksheet survey to suppliers, and share issues |
| • Conduct Corporate Ethics Month in October (ongoing) | • Carried out various measures to ensure thorough legal compliance and ethical behavior, such as the lectures of management executives by external instructors, during Corporate Ethics Month in October | ★★★ | • Conduct Corporate Ethics Month in October (ongoing) |
| • Audit the compliance status of compliance-related laws and regulations (ongoing) | • Confirmed the compliance status of compliance-related laws and regulations during an internal audit | ★★★ | • Audit the compliance status of compliance-related laws and regulations (ongoing) |
| • Conduct information security education (ongoing) | • Conducted a risk survey of major overseas Group companies, identified risks, and developed countermeasures | ★★ | • Conduct information security education (ongoing) |
| • Conduct information security self-audits (ongoing) | • Conducted information security education | ★★ | • Conduct information security self-audits (ongoing) |
| • Confirm that business information has been erased from privately owned computers (ongoing) | • Confirmed that business information had been erased from privately owned computers | ★★ | • Make an online pledge not to retain business information on privately-owned computers |
| • Conduct targeted e-mail attack simulations (ongoing) | • Conducted targeted e-mail attack simulations | ★★ | • Conduct targeted e-mail attack simulations (ongoing) |
| • Conduct a survey and analysis of the status of virus elimination and disclose the information | • Conducted a survey and analysis of the status of virus elimination and disclose the information | ★★ | • Implement measures against missent e-mails and expand said measures throughout the Group |
| 7. Customers (Consumer Issues) | | | |
| • Conduct gleaning meetings*2 at consolidated companies (ongoing) | • Conducted gleaning meetings at consolidated companies as planned | ★★★ | • Comply with EU General Data Protection Regulation (GDPR) |
| • Expand company-sponsored mini gleaning meetings at business offices in Japan and overseas (ongoing) | • Held company-sponsored mini gleaning meetings at eight business offices in Japan and overseas | ★★★ | • Conduct gleaning meetings at consolidated companies (ongoing) |
| • Implement tasks for the creation of new business (ongoing) | • Implemented tasks for the creation of new business (16 themes; promotion ongoing) | ★★ | • Expand company-sponsored mini gleaning meetings at business offices in Japan and overseas (ongoing) |
| • Expand new product sales ratio (new product sales ratio: 30% or higher) | • Expanded new product sales ratio and developed strategic new products (new product sales ratio: 29%) | ★★ | • Implement tasks for the creation of new business and select ongoing themes |
| • Promote cooperation and collaboration with customers and research institutions in Japan and overseas (carry out open innovation) | • Promoted cooperation and collaboration with customers and research institutions in Japan and overseas: Opened the "3DAM Open Laboratory" | ★★ | • Process research (develop industrial technologies using AI and robotics) |
| 8. Community Involvement and Development | | | |
| • Consider social contribution activities enabling a closer relationship with regional citizens and culture (ongoing) | • Conducted regional contribution activities mainly in regions where offices and factories are located (social contributions amounting to 250 million yen) | ★★★ | • Promote cooperation and collaboration with customers and research institutions in Japan and overseas (expand open innovation) |
| • Contribute to material science technical research through support of Hitachi Metals-Materials Science Foundation (ongoing) | • Contributed to material science technical research through support of Hitachi Metals-Materials Science Foundation (4 million yen) | ★★★ | • Consider social contribution activities enabling a closer relationship with regional citizens and culture (ongoing) |
| • Support <i>tatara</i> method of iron manufacture (ongoing) | • Supported <i>tatara</i> method of iron manufacture (operations and personnel) conducted by the Society for Preservation of Japanese Art Swords at <i>Nittoho Tatara</i> in Okuizumo, Shimane Prefecture | ★★★ | • Contribute to material science technical research through support of Hitachi Metals-Materials Science Foundation (ongoing) |
| 9. Review and Improvement of CSR Activities | | | |
| • Improve management quality using CSR research (ongoing) | • Provided feedback from the CSR research results to relevant divisions. Implemented measures to improve management quality in each division based on these results | ★★★ | • Support <i>tatara</i> method of iron manufacture (ongoing) |
| • Develop activities conforming to international standards for CSR and requests from various research and assessment institutions (ongoing) | • Applied the PDCA cycle to CSR activity issues based on ISO 26000, social responsibility guidance of the International Standard for Organization (ISO) | ★★★ | • Improve management quality using CSR research (ongoing) |
| • Improve responses to the Carbon Disclosure Project (CDP)*3 | • Improved scope of disclosure in accordance with sustainability reporting international guideline GRI-G4 | ★★★ | • Develop activities conforming to international standards for CSR and requests from various research and assessment institutions (ongoing) |
| | • Provided responses to the Carbon Disclosure Project (CDP) | ★★★ | • Improve responses to the Carbon Disclosure Project (CDP) (ongoing) |

*1 Products targeted for growth based on a management strategy that makes a significant contribution to resolving environmental issues such as climate change and resource recycling

*2 Meetings conducted from the customers' perspective to determine the primary causes of product accidents and deliberate preventative measures

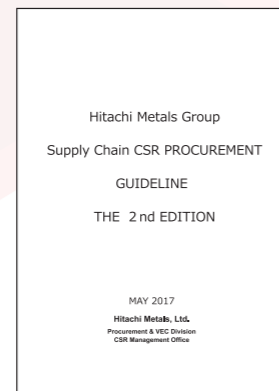
*3 Project in which institutional investors request information about climate change from major corporations

CSR-Conscious Procurement

The Hitachi Metals Group procures materials from suppliers in countries and regions around the world. Conscious of social responsibility and its impact, we have formulated our procurement policy with the aim of practicing fair and impartial procurement activities and, with the cooperation of many suppliers, engage in procurement that considers CSR.

Issuance of Hitachi Metals Group Supply Chain CSR Procurement Guideline

Hitachi Metals revised the Hitachi Metals Group Supply Chain CSR Procurement Guideline in May 2017 and published the revised version on its website. The Guideline encompasses a wide range of CSR concepts recognized as a company's social responsibility, including respect for human rights, consideration of the environment, fair trading and ethics, occupational health and safety, product quality and safety, information security, and social contributions. We have shared our philosophy of carrying out social responsibility not only within the Company, but throughout our supply chain. In addition, when starting new business relationships, we communicate this policy, and at the same time conduct corporate surveys regarding bribery risks based on the Hitachi Metals Global Compliance Program (HMGCP) to promote the strengthening of supplier reviews.



Hitachi Metals Group
Supply Chain CSR Procurement Guideline
The 2nd Edition, May 2017
Hitachi Metals, Ltd.
Procurement & VEC Division
CSR Management Office

Response to Globalization

The Hitachi Metals Group strives to establish a global procurement network across Europe, North America, and Asia, while expanding its procurement base. We are working to support the optimization of procurement activities overall and reinforcement of *monozukuri*, while enhancing CSR risk management and increasing concentration and consolidation of purchasing across the Group. Furthermore, we are promoting local procurement activities by cultivating optimal suppliers in various parts of the world. Through the establishment of four Global Procurement Offices (GPOs), in Europe, the U.S., Asia, and China, we are finding excellent suppliers and providing various forms of support while exercising procurement governance within the regions.

The Hitachi Metals Group also practices responsible procurement with the aim of addressing the issue of conflict minerals. In order to make our supply chain transparent and practice responsible procurement, we conduct surveys of mineral-producing countries and our supply chain, using the Conflict Minerals Reporting Template developed by the Responsible Business Alliance (RBA) and the Global e-Sustainability Initiative (GeSI), which are organizations working on the issue of conflict minerals. At the same time, we continue to demand procurement from Conflict-Free Smelters (CFS)*.

* CFS (Conflict-Free Smelter): A smelter that is certified not to be involved in regional conflicts by the Responsible Minerals Initiative (RMI), established by RBA/GeSI.

Compliance

Believing that thorough obedience to laws, regulations, and social proprieties in our transactions with suppliers is essential, we call together our procurement specialists at business offices on a regular basis for education regarding laws and regulations. In addition, we have established and follow internal rules for self-regulation regarding compliance with the Act against Delay in Payment of Subcontract Proceeds, Etc., to Subcontractors, and conduct regular self-auditing with regard to legal compliance.

Green Procurement

In 1998, Hitachi Metals created its Green Procurement Guidelines in order to share our approach to environmental consciousness with our suppliers, including prevention of global warming, recycling of resources, and conservation of biodiversity and ecosystems. Since that time, we have revised these guidelines many times in response to the latest laws and chemical substance regulations. By sharing the latest information, we are working to reduce our environmental impact (conserving resources, saving energy, recycling, and appropriate management of chemical substances contained in products).

Procurement BCP Initiatives

We engage in procurement BCP activities as preparation against risks that could halt our business, including earthquakes, wind and flood damage, and other natural disasters, as well as new strains of influenza, fires, and power outages. We are working to minimize procurement risk by diversifying our sources of procurement, while asking our key suppliers to have their own BCP measures in place.

Respect for Human Rights

The Hitachi Metals Group stipulates respect for human rights in the Hitachi Metals Group Code of Conduct and the supplementary Hitachi Metals Group Human Rights Policy. Our basic stance is to respect and work to refrain from infringing on the rights of all persons involved in our business operations.

The Hitachi Metals Group Human Rights Policy in Practice

We formulated the Hitachi Metals Group Human Rights Policy in December 2013. This policy recognizes the human rights stated in the International Declaration of Human Rights and in the ILO (International Labour Organization) Declaration on Fundamental Principles and Rights at Work as the minimum levels of those rights. It clearly states that the Hitachi Metals Group pursues measures to observe the international principles of human rights. Specifically, we will implement human rights due diligence and appropriate education on the basis of the

UN Guiding Principles on Business and Human Rights, together with strictly observing the laws of the regions and countries in which we do business.

We put the Hitachi Metals Group Human Rights Policy in practice, and are continuously working on initiatives such as raising the awareness of Directors and employees, and establishing hotlines to promote the creation of a corporate culture in which human rights abuses do not occur.

Initiatives on Human Rights Due Diligence

Human rights due diligence refers to defining and assessing impacts on human rights, taking action to prevent and redress negative impacts, and continually validating the effects of that action. The Hitachi Metals Group will assess the actual and potential impact on human rights resulting from the business activities of the Company, our value chain, and develop countermeasures based on ranking human rights risks in terms

of "seriousness" and the "likelihood of occurring."

We participate in human rights due diligence centered on Hitachi, Ltd. We study priorities and countermeasures, including assessments by the procurement division regarding the impact on human rights in our supply chain, and assessments by the human resources division regarding the impact on human rights of employees.

Human Rights Educational Activities and Harassment Prevention Efforts

We regularly use e-learning to conduct human rights education and training for each level of employee to systematically raise awareness of human rights (with 6,031 employees, on a consolidated basis, receiving human rights-related training in fiscal 2017). In addition, we established various harassment hotlines to incorporate the Hitachi Metals Group Human Rights Policy into all of our activities.

As our business activities expand rapidly on a global basis, we will enhance human rights awareness and support measures to prevent abuses of human rights based on differences of religion or nationality, the presence or absence of disabilities, gender, or other factors.

Environmental Activity Report and Results

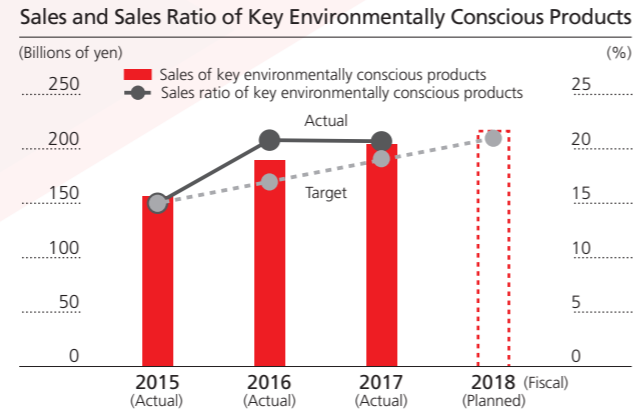
Recognizing the importance of protecting the environment, we will ensure effective and environmentally conscious utilization of limited natural resources in order to bestow a clean environment to the next generation. Through creation of new products and businesses that bring new value to society, we will base our sustainable growth on the provision of high quality products in harmony with the environment.

1 Key Environmentally Conscious Products

● **Increasing sales of key environmentally conscious products**
 “Key environmentally conscious products” are products targeted for growth based on management strategy. Those products contribute significantly to resolving environmental issues such as climate change and efficient use of resources.

In fiscal 2017, we succeeded in raising the actual sales ratio of key environmentally conscious products to 20.7%, well above the target ratio of 19%. This achievement is attributable to the expansion of applicable products along with sales growth.

We will continue to expand sales of these products in line with our management strategy, while seeking to contribute to the resolution of society's environmental issues.



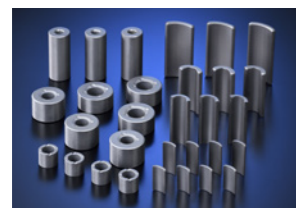
● **Introducing new products contributing to reduced environmental loads**



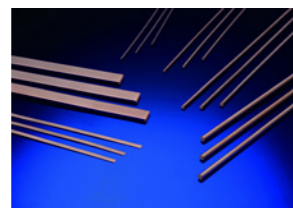
HINEX™ series of long-life High-Speed Steel (HSS) rolls
 Specialty Steel Company
 HINEX™ is an HSS roll made using a new production method, which displays superior resistance to abrasion and roughness. In addition, a roll designed to prevent damage during rolling has been developed and is currently being marketed.



High strength lightweight ductile cast iron OMEGA KNUCKLE®
 Functional Components Company
 OMEGA KNUCKLE® maintains strength and rigidity while realizing a light weight (17% lighter than our previous product) through a thin-walled, semi-hollow cross-sectional structure.



High-performance ferrite magnets (NMF™ -12J, 12K, 15G, 15J)
 Magnetic Materials Company
 Began mass production of the NMF™-15 series, featuring ferrite magnets with the world's best magnetic properties, as well as products with high coercive force (NMF™ -12J, 12K) for EVs, etc.



HiFC™ high-performance pure copper Cable Materials
 Cable Materials Company
 This material gets softer at low temperatures than oxygen-free copper, and machining strain can be removed with less annealing energy. Excellent electrical conductivity helps make devices more efficient and conserve energy (received the 21st Century Invention Prize of the FY2014 National Invention Awards)

2 Waste Reduction and Resource Recycling Measures

● **Reducing landfill waste and promoting recycling through sand recycling**

The United States-based Waupaca Foundry, Inc. (WFI) produces gray cast iron and ductile cast iron castings. In fiscal 2016, WFI introduced a sand recycling system at Plant 5, and in fiscal 2017 became capable of recycling 30% of foundry sand used in production. As a result, WFI as a whole reduced its waste generation by 23,000 tons from the previous fiscal year, contributing to a 33,000-ton reduction in final landfill waste. WFI improved its waste generation by approximately 12% in terms of dissolved weight per production unit, and by 3.8% in terms of recycling rate. Plant 5 is planning to promote the expanded use of recycled sand. One of its targets is to use 75% recycled sand in its core sand, which is equivalent to 55,000 tons of recycled foundry sand per year.

WFI will continue to promote the sustainable use of resources, such as reducing waste generation and final landfill waste, recycling and reusing foundry sand, and making effective use of slag.



Sand recycling system adopted by Plant 5

3 Consideration for the Preservation of Ecosystems

The Hitachi Metals Group promotes ecosystem preservation measures that include tree planting and forest conservation activities, cleanup activities in areas surrounding factories, and environmental education.

1. **Examples of major tree planting and forest conservation activities**

HMY, Ltd. participated in the “Harmony Forest” corporate participation forestation program in Shimane Prefecture, planting 460 sawtooth oak trees to reduce CO₂.

2. **Ecosystem preservation activities**

Hitachi Ferrite Electronics, Ltd. participated in group cleanup activities by removing trash at the Tottori Sand Dunes to protect the ecosystem of the Sea of Japan. In addition, Ibaraki Works of Hitachi Metals, Ltd. carried out cleanup activities along the Juo River, together with community residents. We will continue to work to protect the ecosystems in our local communities.



Participation in Harmony Forest activities
 Activities to reduce CO₂ in the corporate participation forestation program in Shimane Prefecture (HMY, Ltd.)



Participation in group cleanup activities at the Tottori Sand Dunes (Hitachi Ferrite Electronics, Ltd.)



Cleanup activities along the Juo River (Ibaraki Works, Hitachi Metals, Ltd.)

The Hitachi Group's Environmental Vision

The Hitachi Metals Group promotes a Low-Carbon Society, Resource Efficient Society, and Harmonized Society with Nature as the three key pillars of the Hitachi Group's Environmental Vision. We aim to realize both higher quality lifestyles and a sustainable society by resolving environmental issues through the social innovation business in collaboration with our stakeholders. In addition, we will fulfill our required role to achieve Hitachi's long-term environmental targets called Hitachi Environmental Innovation 2050.

URL for Hitachi Environmental Vision and Environmental Innovation 2050
<http://www.hitachi.com/environment/vision/index.html>



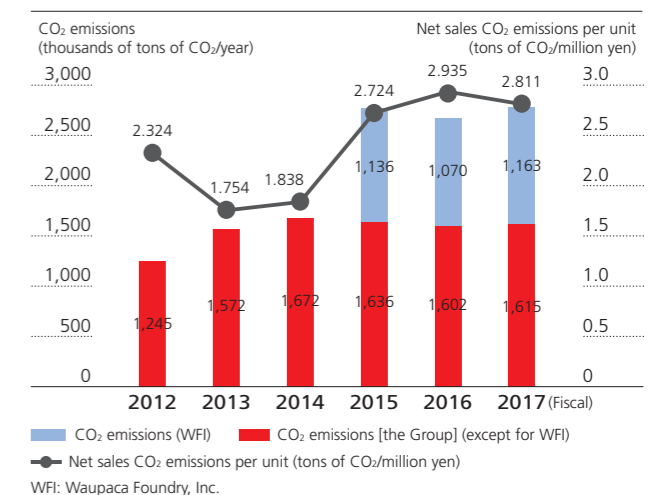
Prevention of Global Warming

In fiscal 2017, CO₂ emissions from the Hitachi Metals Group's business activities increased by 105 thousand tons year on year, to 2,778 thousand tons.* Meanwhile, net sales CO₂ emissions per unit improved by 4.2%.

The Hitachi Metals Group carries out energy-saving activities coordinated with its *monozukuri* to reduce CO₂ emissions. Specifically, these activities include omitting excess processes, improving efficiency, obtaining higher yield rates, and introducing energy-saving equipment.

*Electricity accounts for 62% of the Hitachi Metals Group's CO₂ emissions, followed by coke and town gas, respectively. In Japan, the power company CO₂ emissions coefficient is based on the “power supplier emissions coefficient” announced by the Ministry of the Environment; outside Japan, it is based on the 2010 IEA “country-specific conversion coefficient.”

Trends in CO₂ Emissions and CO₂ Emissions Per Unit

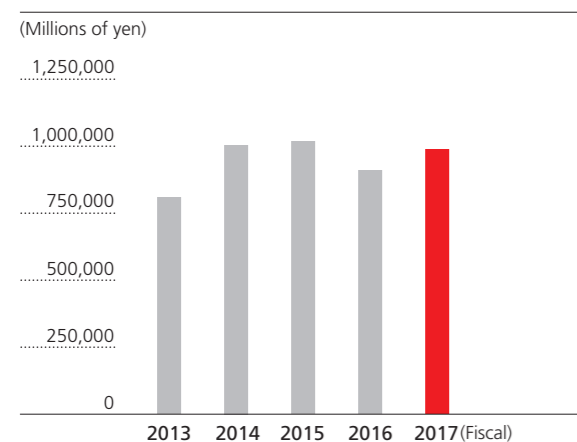


| Fiscal | Millions of yen | | | | | 1USD=¥106.24 | 1EUR=¥130.52 |
|---|-----------------|------------|------------|------------|----------|---------------------------|--------------------|
| | 2017 | 2016 | 2015 | 2014 | 2013 | Thousands of U.S. dollars | Thousands of Euros |
| For the period | | | | | | | |
| Operating results: | | | | | | | |
| Revenues | ¥ 988,303 | ¥ 910,486 | ¥1,017,584 | ¥1,004,373 | ¥807,794 | \$9,302,551 | € 7,572,043 |
| Cost of sales | 803,607 | 731,153 | 819,433 | 793,517 | 637,081 | 7,564,072 | 6,156,964 |
| Selling, general and administrative expenses | 119,566 | 113,350 | 122,090 | 126,446 | 106,851 | 1,125,433 | 916,074 |
| Adjusted operating income | 65,130 | 65,983 | 76,061 | 84,410 | — | 613,046 | 499,004 |
| Other income | 5,401 | 14,070 | 36,416 | 21,303 | 5,844 | 50,838 | 41,381 |
| Other expenses | 24,205 | 11,786 | 12,523 | 21,306 | 16,278 | 227,833 | 185,451 |
| Operating income | 46,326 | 68,267 | 99,954 | 84,407 | 53,428 | 436,050 | 354,934 |
| Income before income taxes | 46,985 | 66,016 | 96,233 | 86,391 | 55,820 | 442,253 | 359,983 |
| Net income attributable to owners of the parent company | 42,210 | 50,593 | 69,056 | 70,569 | 48,133 | 397,308 | 323,399 |
| Cash flows: | | | | | | | |
| Cash flows from operating activities | 39,133 | 89,391 | 115,742 | 108,983 | 99,171 | 368,345 | 299,824 |
| Free cash flows | (35,947) | 53,527 | 83,595 | (4,767) | 89,339 | (338,357) | (275,414) |
| Increase (decrease) in cash and cash equivalents | (84,499) | 19,111 | 41,271 | (7,443) | 61,765 | (795,360) | (647,403) |
| Capital expenditure | 91,786 | 63,843 | 59,602 | 51,474 | 31,987 | 863,950 | 703,233 |
| Depreciation and amortization | 46,138 | 43,039 | 42,927 | 39,917 | 33,762 | 434,281 | 353,494 |
| Research and development | 17,749 | 17,971 | 19,121 | 20,903 | 16,814 | 167,065 | 135,987 |
| At the end of the period: | | | | | | | |
| Total assets | ¥1,058,832 | ¥1,040,390 | ¥1,033,311 | ¥1,083,450 | ¥848,772 | \$9,966,416 | € 8,112,412 |
| Interest-bearing debt | 160,844 | 194,457 | 220,376 | 255,350 | 177,195 | 1,513,968 | 1,232,332 |
| Equity | 570,192 | 548,746 | 504,675 | 476,176 | 382,840 | 5,367,018 | 4,368,618 |
| Number of shares outstanding (thousands of shares) | 427,572 | 427,576 | 427,579 | 427,601 | 427,657 | — | — |
| Earnings per share (yen)*1 | ¥ 98.72 | ¥ 118.32 | ¥ 161.50 | ¥ 165.02 | ¥ 116.79 | \$ 0.93 | € 0.76 |
| Dividends per share (yen) | 26.00 | 26.00 | 26.00 | 23.00 | 17.00 | 0.24 | 0.20 |
| Net assets per share (yen)*2 | 1,316.08 | 1,254.89 | 1,159.70 | 1,090.64 | 870.36 | 12.39 | 10.08 |

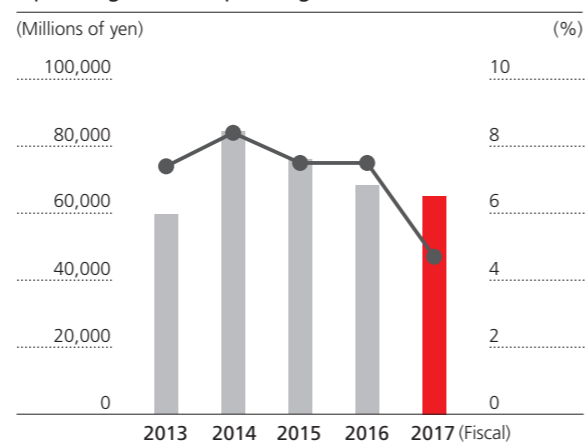
*1 Basic earnings per share
*2 Equity per share attributable to owners of the parent company

| Reference information: | Millions of yen | | | | | Thousands of U.S. dollars | Thousands of Euros |
|------------------------------|-----------------|----------|----------|----------|----------|---------------------------|--------------------|
| | 2017 | 2016 | 2015 | 2014 | 2013 | 2017 | 2017 |
| Total market value of stocks | ¥537,886 | ¥667,874 | ¥496,420 | ¥788,924 | ¥628,228 | \$5,062,931 | €4,121,099 |
| Enterprise value (EV) | 643,818 | 722,920 | 596,496 | 965,245 | 712,512 | 6,060,032 | 4,932,714 |
| EBITDA | 94,864 | 111,299 | 141,644 | 128,212 | 90,979 | 892,922 | 726,816 |
| EBITDA margin (%) | 9.6 | 12.2 | 13.9 | 12.8 | 11.3 | — | — |
| EV/EBITDA ratio (times) | 6.79 | 6.50 | 4.21 | 7.53 | 7.83 | — | — |

Revenues



Operating Income/Operating Income Ratio



■ Operating income ● Operating income ratio

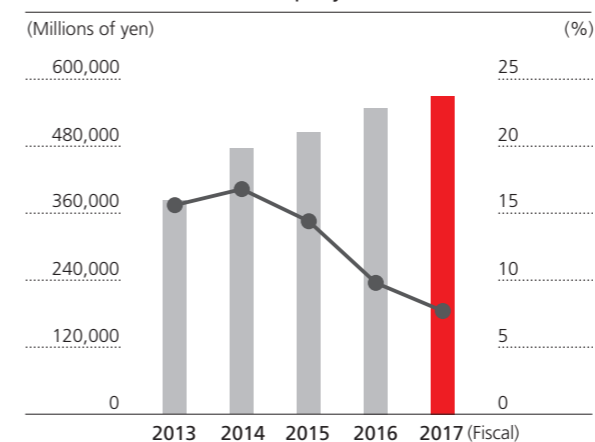
Note: Adjusted operating income is provided.

| Fiscal | 2017 | 2016 | 2015 | 2014 | 2013 |
|---|------|------|------|------|------|
| Key financial indicators: | | | | | |
| Operating income ratio (%) | 4.7 | 7.5 | 9.8 | 8.4 | 6.6 |
| Operating cash flow margin (%) | 4.0 | 9.8 | 11.4 | 10.9 | 12.3 |
| ROS (%) | 4.3 | 5.6 | 6.8 | 7.0 | 6.0 |
| ROA (%) | 4.5 | 6.4 | 9.1 | 8.9 | 8.0 |
| ROIC (%) | 4.4 | 6.5 | 9.3 | 8.0 | 6.8 |
| ROE (%) | 7.7 | 9.8 | 14.4 | 16.8 | 15.6 |
| Total assets turnover (times) | 0.93 | 0.88 | 0.98 | 0.93 | 0.95 |
| Equity attributable to owners of the parent company ratio (%) | 53.1 | 51.6 | 48.0 | 43.0 | 43.9 |
| D/E ratio (times) | 0.29 | 0.36 | 0.44 | 0.55 | 0.48 |
| Ratio of operating cash flow to debt (times) | 4.11 | 2.18 | 1.90 | 2.34 | 1.79 |

| Fiscal | 2017 | 2016 | 2015 | 2014 | 2013 |
|---|-----------|-----------|-----------|---------|---------|
| Non-financial information: | | | | | |
| Sales of key environmentally conscious products (million yen) | 204,236 | 189,573 | 156,213 | — | — |
| Sales ratio of key environmentally conscious products (%) | 20.7 | 20.8 | 15.0 | — | — |
| Energy consumption converted into crude oil (kl/year) | 1,121,565 | 1,077,309 | 1,091,936 | 705,808 | 707,640 |
| Net sales energy consumption ratio per production unit (kl/million yen) | 1.14 | 1.18 | 1.07 | 0.78 | 0.79 |
| CO ₂ emissions (thousands of tons of CO ₂ /year) | 2,778 | 2,672 | 2,771 | 1,672 | 1,572 |
| Net sales CO ₂ emissions per production unit (thousands of tons of CO ₂ /million yen) | 0.0028 | 0.0029 | 0.0027 | 0.0018 | 0.0018 |
| Number of employees | 30,390 | 28,754 | 29,157 | 30,278 | 26,850 |

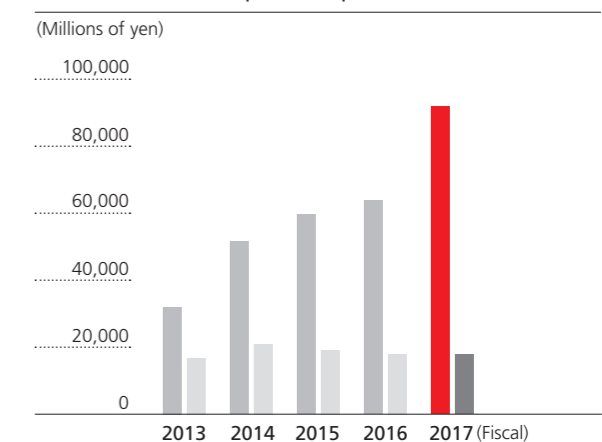
Notes: 1. The Company has adopted the International Financial Reporting Standards (IFRS) for the Consolidated Financial Statements in the Annual Securities Report since the fiscal year ended March 31, 2015.
2. The translation of Japanese yen amounts into U.S. dollars and euros for the year ended March 31, 2018, has been made at the rates of ¥106.24=\$1 and ¥130.52=€1, the approximate exchange rates as of March 31, 2018.
3. Diluted earnings per share is not provided as Hitachi Metals, Ltd. had no dilutive common stock outstanding.
4. Interest-bearing debt represents the total of short-term debt, long-term debt and corporate bonds.
5. Earnings per share is calculated by dividing net income attributable to owners of the parent company (net income) by the average number of shares issued during the term, and equity per share attributable to owners of the parent company is calculated by dividing equity, which is total equity minus non-controlling interests/minority interests, by the number of shares outstanding at the end of the period.
6. Enterprise value (EV) represents the sum of total market value of stocks and net interest-bearing debt.
7. Earnings before interest, taxes, depreciation and amortization (EBITDA) refers to income before income taxes before deducting interest charges, depreciation and amortization.
8. EBITDA margin refers to EBITDA divided by revenues.
9. Return on sales (ROS) refers to net income attributable to shareholders of the parent company divided by revenues.
10. Return on assets (ROA) is computed as the income before income taxes divided by the average total assets (the average of the beginning and ending balance of the year).
11. Return on invested capital (ROIC) is computed as the net operating income after tax divided by the sum of the average total equity attributable to owners of the parent company, the average total other comprehensive income and the average total interest-bearing debt (the average of the beginning and ending balance of the year).
12. Return on equity (ROE) is computed as the net income attributable to owners of the parent company divided by the average total equity excluding non-controlling interests/minority interests (the average of the beginning and ending balance of the year).
13. In Japan, the power company CO₂ emissions coefficient is based on the "power supplier emissions coefficient" announced by the Ministry of the Environment; outside Japan, it is based on the 2008 IEA "country-specific conversion coefficient."

Equity/Net Income Ratio to Equity Attributable to Owners of the Parent Company (ROE)



■ Equity ● Net income ratio to equity attributable to owners of the parent company (ROE)

Capital Expenditure/Research and Development Expenses



■ CAPEX ■ R&D

1 Financial Policy

Hitachi Metals makes growth investments and delivers appropriate returns of profits to shareholders over a long-term period to generate sustainable long-term growth. Management maintains a financial policy that aims to ensure a healthy and firm financial platform.

The Company thus builds on the reach of its diverse and distinctive businesses across various industries to invest strategically and flexibly, and to enhance investment and financial efficiency as well as profitability. At the same time, the Company accords top priority to accelerating the cash generation cycle to ensure a balanced financial position.

2 Shareholder Returns Policy

The Company's basic dividend policy is to determine profit distributions to shareholders and internal reserves by comprehensively assessing the business environment, future business developments, and business performance. Management's primary commitment is to generate robust growth over a medium- to long-term period, by strengthening international competitiveness and enhancing the corporate value of the Company, to deliver appropriate returns of profits to shareholders over a long-term period in a business environment with evolving customer needs, technology, and globalization.

The internal reserves are to be used for the development and commercialization of new materials, incubation of new businesses, and expansion and streamlining of competitive product lines by examining future business developments. The Company purchases treasury stock as appropriate to implement an agile capital policy in accordance with its needs, financial condition, stock price levels, and other factors.

Using this policy as a base, in fiscal 2017, we declared annual dividends of ¥26.00 per share (interim dividends of ¥13.00 per share and year-end dividends of ¥13.00 per share), taking our business performance and other factors into consideration.

Moreover, management currently plans to pay annual dividends of ¥34.00 per share (interim dividends of ¥17.00

per share and year-end dividends of ¥17.00 per share) in fiscal 2018.

In the years ahead, Hitachi Metals will endeavor to enhance earnings and profitability while deploying financial strategies to boost capital efficiency, thereby increasing shareholder value.

3 Funding

In principle, the Company covers funding for growth investments with operating cash flows generated during the normal course of business and liquid funds. For other financing on a larger scale, Hitachi Metals implements reliable and flexible methods to minimize opportunity losses for its growth, including accessing financial and capital markets.

In the fiscal year ended March 31, 2018, the funds generated by an increase in earnings or changes in working capital were primarily allocated to capital expenditure aimed at strengthening the platform to achieve further growth. During the fiscal year, the Company made certain repayments of long-term debt to ensure its funding stability.

4 Liquidity

Liquidity is a key component of Hitachi Metals' overall financial management policy. For short-term obligations that have maturities of 12 months or less, Hitachi Metals maintains sufficient liquidity to flexibly address unforeseen circumstances.

As of March 31, 2018, total liquid funds of the Company stood at ¥54.9 billion.

5 Interest-Bearing Debt

As of March 31, 2018, interest-bearing debt stood at ¥160.8 billion, a decrease of ¥33.6 billion from the previous year. Short-term interest-bearing debt was ¥54.6 billion, and long-term interest-bearing debt was ¥106.3 billion. The debt-to-equity ratio fell by 0.07 percentage point from the previous year, to 0.29 percentage point, as of March 31, 2018.

6 Ratings

Hitachi Metals recognizes that maintaining a high, stable credit rating is essential for its management goal of maintaining adequate liquidity and flexibility in its financing policies and to reduce financing costs. Each year, the Company acquires a credit rating for long-term corporate bonds from Rating and Investment Information, Inc., a major credit agency in Japan. As of March 31, 2018, the Company received the rating "A+" for its long-term corporate bonds and unsecured corporate bonds.

7 Cash Flows

Hitachi Metals aims to generate cash by increasing operating income, enhancing the profit rate, and reducing working capital.

With respect to net working capital (accounts receivable, inventories, accounts payable, and advances received), we have set the "working capital turnover period" as a performance indicator for enhancing capital efficiency, and we are striving to shorten it.

The Company pays particular attention to managing and reducing inventories. To that end, Hitachi Metals clarified responsibilities for each inventory category. While manufacturing departments and procurement divisions control materials, manufacturing departments and internal companies oversee manufactured products, including work-in-process and finished products. Domestic and overseas sales companies collaborate with internal companies to look after transit inventories. Thus, the Company maintains a structure to

optimally control and reduce inventories in consideration of future trends over the medium to long term. The Group strives to further cut back on inventories by properly and promptly managing inventories, based on accurate consolidated revenue forecasts, with the aim of reducing the number of working capital turnover days.

Hitachi Metals adopted a Group cash pooling system to help manage its own working capital and that of its subsidiaries. In principle, consolidated subsidiaries in Japan procure funds through this system, rather than taking on external debt. By consolidating surplus funds and debts across the Group, Hitachi Metals has better positioned itself to become more financially efficient. Group companies in the U.S. and China also use this cash pooling system, through which funds are centrally managed to enhance financial efficiency.

8 Investment Efficiency

Hitachi Metals invests flexibly in key businesses to drive sustainable growth. Activities include mergers and acquisitions, upgrading and streamlining of plants and equipment, increasing production capacity, establishing new bases, and investments in employee welfare benefits. In this context, Hitachi Metals differentiates between regular and strategic investments by taking investment decisions, returns, and other factors into account.

Hitachi Metals places emphasis on cash flow in formulating strategic investment proposals, making decisions by using the net present value (NPV) based on the discounted cash flow method, rate of return on investment capital, and payback period.

Stock Status

(As of March 31, 2018)

| | |
|-----------------------------------|---|
| Total number of shares issued | 428,904,352 |
| Total number of shares authorized | 500,000,000 |
| Number of shareholders | 29,148 (including holders of shares less than one unit) |

Shareholder Composition

(As of March 31, 2018)

| Segment | Number of shareholders | Number of shares held (hundreds of shares) | Percentage of shares held |
|--|------------------------|--|---------------------------|
| Financial institutions | 71 | 613,323 | 14.32 |
| Financial instruments business operators | 50 | 24,999 | 0.58 |
| Other domestic corporations | 545 | 2,344,927 | 54.75 |
| Foreign nationals | 513 | 947,748 | 22.13 |
| Individuals and others | 24,991 | 352,253 | 8.22 |

Notes: 1. Not including shares representing less than one unit.
2. Treasury shares (13,321 hundred shares) are included in "Individuals and others."

Major Shareholders

(As of March 31, 2018)

| Shareholders | Number of shares held (thousands of shares) | Percentage of shares held |
|--|---|---------------------------|
| Hitachi, Ltd. | 226,233 | 52.91 |
| Japan Trustee Services Bank, Ltd. (Trust Account) | 14,071 | 3.29 |
| JPMorgan Chase Bank 385632 | 13,912 | 3.25 |
| The Master Trust Bank of Japan, Ltd. (Trust Account) | 12,203 | 2.85 |
| Japan Trustee Services Bank, Ltd. (Trust Account 5) | 4,071 | 0.95 |
| State Street Bank West Client - Treaty 505234 | 4,011 | 0.94 |
| JPMCB Omnibus U.S. Pension Treaty Jasdag 380052 | 3,936 | 0.92 |
| Japan Trustee Services Bank, Ltd. (Trust Account 7) | 3,935 | 0.92 |
| JPMorgan Chase Bank 385078 | 3,916 | 0.92 |
| Japan Trustee Services Bank, Ltd. (Trust Account 1) | 3,042 | 0.71 |

Listed Stock Exchange

(As of March 31, 2018)

| |
|----------------------------------|
| Tokyo (First Section, Code 5486) |
|----------------------------------|

Credit Rating

(As of July 2018)

| | |
|---|----------------------|
| Rating and Investment Information, Inc. (R&I) | Long-term Debt A+ |
|---|----------------------|

Shareholders' Memo

- Fiscal year-end: March 31
- Record date for dividend: March 31 and September 30
- Method of public notices: Electronic public notice
- Number of shares per one unit: 100 shares
- Administrator of shareholder registry: Tokyo Securities Transfer Agent Co., Ltd. (Head Office)
NMF Takebashi Building 6F,
3-11 Kanda Nishikicho, Chiyoda-ku, Tokyo, Japan

Corporate Data

| | |
|-----------------------|---|
| Company name | Hitachi Metals, Ltd. |
| Head Office address | Shinagawa Season Terrace, 2-70, Konan 1-chome, Minato-ku Tokyo 108-8224, Japan |
| | Tel.: +81-3-6774-3001, Toll-free: 0800-500-5055 (in Japan) |
| Established | 1956 |
| Listed stock exchange | Tokyo (First Section) |
| Securities code | 5486 |
| URL | https://www.hitachi-metals.co.jp/e/ |

Stock Price Chart



Disclaimer regarding forward-looking statements

This report contains forward-looking statements about the Company and the Group, such as business plans, predictions, strategies, assumptions, and results forecasts. All such statements are based on analyses and judgments using information available when this report was prepared, and thus may include risks and uncertainties due to changing economic circumstances, market conditions, and the like. Please note the possibility that actual results may differ from the Company's forecasts. This report was compiled based on information deemed reliable by the Company. Accordingly, such information's accuracy and integrity cannot be guaranteed.

 **Hitachi Metals, Ltd.**