



2016

**Integrated Report** 

FY Ended December 31, 2016

# 2016

# Nabtesco Value Report

Contents

# PART

# Value Creation of Nabtesco Group

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# **Value Creation of Nabtesco Group**

Fully aware of the social issues we are expected to solve through our corporate activities as well as the corporate social responsibilities we should fulfill, the Nabtesco Group is committed to providing expanded and enhanced value to our stakeholders. This section provides an overall picture of the Group's sustainable value creation process and describes its management strategy and business performance as well as measures for more effective governance.

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### **Management Basis for Value Creation**

The basis for the Nabtesco Group's value creation lies in various types of capital, including "relationship capital," which represents relationships of trust with our stakeholders. This section looks at the strengths of the different types of capital that underpin the Group's sustainable value creation and the measures and strategies used to enhance it.

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# **About the Integrated Report**

Believing it important to establish trust with its stakeholders through dialogue for ensuring management transparency, the Nabtesco Group is focused on sharing an overview of its approach to value creation with its stakeholders.

The Group has published the Nabtesco Integrated Report, which covers both financial and non-financial information, since FY2014. For the 2016 edition, the Report is divided into two parts. In Part 1, the Nabtesco Group's value creation activities based on The Nabtesco Way are described through the presentation of relevant information in a way that is easy to understand. Special features detail factors differentiating the different types of capital that underpin value creation and measures to reinforce such capital. Part 2 reports on the Group's wide-ranging value creation activities in detail and elucidates each activity's concept, policy, measures, targets and results with the help of specific data.

In preparing this report, the Integrated Reporting Framework, the Intangibles Reporting Framework and various other guidelines on sustainability were used as references to ensure objectivity and transparency. To reduce paper use and thus protect the environment, this report is published only in an electronic (PDF) format on Nabtesco's corporate website (https://www.nabtesco.com/en/).

# **Action Declaration**

# By implementing these promises, we will

# The Nabtesco Way

# Aiming to become an *Shinse* (honorable company) established in the 21 century while evolving together with society

Nabtesco has formulated The Nabtesco Way, which comprises Corporate Philosophy, Our Promises, Action Guidelines, and Action Declaration. We encourage each of our management and employees to comply with the Nabtesco Way to pursue the realization of "All Stakeholders' Dreams" as specified in our Action Declaration.

When all our employees share a commitment to The Nabtesco Way and individually act in line with it, we enhance our unity while simultaneously making the most out of our diversity. Nabtesco will fully utilize its unique motion control technology and supply highly reliable products and services. Thus, we pursue our mission to contribute to the creation of a safe and comfortable society that gives people a sense of security.

# Background to the establishment of The Nabtesco Way

The Nabtesco Group established Corporate Philosophy and Our Promises in 2005, soon after its founding, with a view to making our society safer, more secure and comfortable by manufacturing products embedded with technology to control all kinds of motion.

Subsequently, Nabtesco has developed its business globally in the motion control field and has expanded its business domains and regions as well as its corporate size. Then, the Company established Action Guidelines and Action Declaration in 2012 to encourage

all Group employees, both in Japan and abroad, to share Nabtesco's values and cultivate a sense of unity and solidarity as members of the Nabtesco Group.

Action Guidelines clarify the specific actions and attitudes to be taken by individual employees to fulfill Corporate Philosophy and Our Promises, while Action Declaration expresses the commitment of all employees to follow the Guidelines. We collectively refer to these in-house norms as "The Nabtesco Way."

# realize "All Stakeholders' Dreams."

CORPORATE PHILOSOPHY

Reason for corporate existence and value

The Nabtesco Group, with our unique motion control technology, will provide safety, comfort and a sense of security in daily lives as well as any form of transportation.

- 1 Value close communications with our customers worldwide
- 2 Value each individual's spirit of challenge and innovation
- 3 Continue to expand our business and profit
- 4 Continue to reinforce our sense of ethics and highly transparen business activities
- 5 Value the environment and promote harmony with local communities and cultures

# **OUR PROMISES**

What we value in implementing the Corporate Philosophy

# **Action Guidelines**

Specific actions and attitudes to be taken to fulfill Our Promises

# [Action Guidelines for Top Management]

Based on these guidelines, top executives will manage the Nabtesco Group by focusing on the four important points to ensure its sustainable growth as a global corporate group.

- Communicate the Present Situation and Future Vision of the Company (Organization) to Employees.
- Encourage Active Discussions and Align All Members to a Common Direction.
- Ensure Succession.
- Manage in a Manner that Increases the Nabtesco Brand and Corporate Value.

# [Action Guidelines for All Group Members]

As a common set of principles applying to all employees in the performance of their duties and decision-making, these guidelines clearl indicate the appropriate directions of individual actions and decisions and clarify important corporate values and unique strengths.

# Activities to Increase Employees' Awareness of The Nabtesco Way ▶ P101

Nabtesco is conducting various activities to inculcate in its employees an appreciation for The Nabtesco Way, including by promoting The Nabtesco Way Month and workshops on priority issues, to help each employee develop empathy for the principles and put them into action.





# Taking on the challenge of solving various social issues through moving and stopping technologies







Safety, comfort and a sense of security in the area of transportation

moving it. Stopping it.







Hvdraulic equipment

> Precision reduction

Drive units for wind turbine generators

# Manufacturing, urban development and renewable energy

- Contribute to the establishment of industrials infrastructure in emerging economies
- Support automated, high-precision processing and conveyance at factories
- Promote labor- and energy-saving at manufacturing sites
- Spread the use of renewable energy







Drive units for wind turbine generators

The Nabtesco Group is committed to solving various social issues together with its customers by offering products and services that support safety, comfort and a sense of security in the areas of "transportation of people and goods," "manufacturing, urban development and renewable energy," "daily lives and welfare" and "production of daily commodities."

Platform screen doors



Automatic doors f



Automatic doors for multipurpose toilets

# Daily lives and welfare

- Improve the safety comfort of public spaces
- Provide support for the elderly and people with disabilities
- Contribute to the creation of a barrier-free society

Platform doors

Automatic doors

Welfare equipment



Rollator with a speed control system "CONPAL"



"Assist Wheel"



Intelligent prosthetic knee joints "ALLUX"

Motion control technology

Safety, comfort and a sense of security in the areas of daily lives

Stereolithography systems

Packaging machines





Glove boxes with gas circulation purifying devices



Automatic pre-pouch



Stereolithography systems (3D printer)

# Production of daily commodities

- Ensure the safety of food and daily consumables
- Reduce the use of packaging materials for food and daily consumables
- Contribute to product research and development

# Accelerating business growth in global markets



IT related product

Automobile and mo-

torcycle parts busi-

ness: maintenance

related business for

textile machinery, etc.

business

Divestiture of commercial vehicle equip-

ment business (Nabtesco Automotive

• Restructuring of production bases in the

hydraulic equipment business in China

New Energy Business Development

Co., Ltd. established)

Division was abolished

gear business

Hydraulic equip-

ment business

Packaging machine

business

business

Aircraft equipment

business

business

ment business

Marine vessel equipment

Commercial vehicle equip-

Automatic door business

Hydraulic equipment business

# Nabtesco Corporation was formed in 2003 through the merger of Teijin Seiki Co., Ltd. and NABCO Ltd. Since then, the company has steadily consolidated its management bases and established production facilities outside Japan. Each time when market conditions drastically changed, the company promptly and decisively reorganized its business portfolio to ensure disciplined portfolio management. Since 2011, Nabtesco has accelerated global business expansion through M&As in and outside Japan. In 2017, it launched the new Medium-term Management Plan. Nabtesco will work toward accelerating business growth in global markets. Changed the accounting closing manth from March to December to adopt the same accounting period as overseas consolidated subsidiaries Started to apply voluntarily the International Financial Reporting Staniards Long-term Vision, "Global Partner with Best Solution - Enjoy the Challenge -" and Progress to the higher stage -"

2015/3

 Formulated The Nabtesco Way Compliance Committee, CSR Committee Opened the Nabtesco Digital Engineering and Risk Management Committee were Center established Announced participation in and signed CSR Basic Policy was formulated. the UN Global Compact Nabtesco Group Code of Ethics was Formulated the Nabtesco Group established CSR-Oriented Procurement Policy Marine vessel equipment: Shanghai, Precision reduction gears: Changzhou, China China Automatic doors: NABCO DOOR Ltd. Hydraulic equipment: Hyest Corporation Railroad vehicle equipment: OCLAP Commercial vehicle equipment: ITG Se-S.R.L. (Italy) rienfertigung Fahrzeugteile GmbH and ITG Kompressoren GmbH (Germany) Automatic doors: NABCO SYSTEMS Co., Ltd.

2014/3

# Topics on acceleration of growth

2020/12

(Reference\*3)

- Transition to the new management team
- Started the new Medium-term Management Plan
- Acquisition of OVALO GmbH and adcos GmbH

# Current portfolio (main businesses)

# Component Solutions (CMP)

- Precision reduction gears
- Hydraulic equipment

2011/3

2012/3

2013/3

New energy equipment

# Transport Solutions (TRS)

- Railroad vehicle equipment
- Aircraft equipment
- Commercial vehicle equipment
- Marine vessel equipment

### Accessibility Solutions (ACB)

Automatic doors

2015/12

(Reference\*1)

2016/12

2017/12\*2

### Manufacturing Solutions (MFR)

Packaging machines

- \*1: Due to the change in the accounting closing date, the figures have been estimated for the 12-month period to make a comparison under the same conditions.
- \*2: The plan announced as of February 17, 2017
- \*3: Reference values for the final year of the Medium-term Management Plan

# We strive to ensure management transparency and to provide safety, comfort and a sense of security.

We at the Nabtesco Group are committed to fulfilling our corporate social responsibility through our CSR management. To this end, we will seriously take on the challenge of pursuing economic rationality while also addressing ESG (environmental, social and governance) issues, based on our belief that this kind of business management will give us a competitive edge that will underpin our sustainable corporate growth.

In August 2016, we launched the CSR Committee as an organization that supervises all CSR activity and reports directly to the CEO, thereby establishing a framework for more systematic CSR management. Subsequently, in December of the same year, we reexamined the material CSR issues (materiality) of the Nabtesco Group and formulated the CSR Basic Policy.

### **Process of Materiality reexamination**

STEP 1

# Listing issues

We identified the issues faced by the Nabtesco Group, and grasped what our stakeholders needed based on our customer CSR questionnaire results, various guidelines on sustainability1, and information provided by ESG research organizations2. We then listed the issues that need to be tackled for the Nabtesco Group's sustainable growth.

- \*1 ISO 26000 (Guidance on organizations' social responsibility)/international Integrated Reporting Council (IIRC) International Integrated Reporting Framework/
  Sustainability Accounting Standards Board (SASB) SASB Standard/Global
  Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines/Sustainable
  Development Goals (SDGs)
- \*2 RobecoSAM/FTSE4Good/Sustainalytics/VigeoEiris

STEP 2

Deciding on the materiality of each issue Next, we assessed the materiality of the issues identified in Step 1 from the perspectives of "importance for stakeholders" (vertical axis) and "importance for our company" (horizontal axis) and specified those assessed as particularly material to be included among our material CSR issues. Regarding "importance for stakeholders," we referred to the evaluation made by ESG research organizations, while for "importance for our company" we decided on priorities based on relevance to business plans of our operating and corporate departments and divisions.

STEP 3

Selection of material CSR issues

Based on the opinions given by external experts, we reexamined the issues deemed important in Step 2. Then, finally, the Board of Directors selected the material CSR issues through discussion.





# SDGs:

A document titled *Transforming our world: the 2030 Agenda for Sustainable Development* was adopted at the UN Sustainable Development Summit in 2015. The agenda sets out a declaration and goals as an action plan for the prosperity of humankind and the earth. Known as Sustainable Development Goals (SDGs), the goals consist of 17 goals and 169 associated targets and position the action plan to be achieved by 2030 by all countries, both developed and developing.



# Capital That Unde

# Nabtesco Group's CSR Basic Policy

By practicing The Nabtesco Way, the Nabtesco Group strives to ensure management transparency, provide safety, comfort and a sense of security, and fulfill its corporate social responsibilities, thereby contributing to solving environmental and social issues and seeking to enhance corporate value on a sustainable basis.

The CSR Basic Policy clearly states that the Nabtesco Group will fulfill its corporate social responsibilities, thereby meeting the expectations and requests of its stakeholders. The policy to "Ensure management transparency" and "Provide safety, comfort and a sense of security" upheld under the abovementioned CSR Basic Policy represents the Group's material issues. By incorporating the concept of materiality into the CSR Basic Policy, we are strategically tackling CSR issues that are important to the Group as well as to its stakeholders.

### Materiality (Material CSR Issues)

General Category	ESG Category	Materiality (Material CSR Issues)	Major SDGs of Relevance
Ensure management transparency	Governance (G)	Strengthen corporate governance	40 PEACE JUSTICE 47 PARTINESSIAPS
		Promote risk management and compliance behavior	16 PAGE. RISTIDE AND STRONG INSTITUTIONS  TO THE GOALS  TO THE GOALS
		Ensure proactive dialogue with stakeholders	
Provide safety, comfort and a sense of security	Society (S)	Enhance customer satisfaction, ensure quality and safety	3 GOOD HEALTH 5 GENDER EQUALITY
		Develop human capital and promote workplace diversity Provide safe and comfortable workplaces	8 DECENT WORK AND 9 PRINSITY PROVATION OF SCHOOL CROWTH 19 AND WEAR STREETING
		Respect human rights Prevent corruption	O ECONOMIC GROWTH S AND NEXTRUCTURE
		Fair, proper and transparent procurement activities	10 REDUCED 12 RESPONSIBLE CONSIMPTION AND PRODUCTION
		Local community development	
	Environment (E)	Countermeasures for climate change	6 CLEANWATER 7 AFFORDABLE AND CLEANENERRY
		Environmentally friendly manufacturing	<b>\overline{\overline{\pi}}</b>
		Reduction of environmental impact through products and services	11 SUSTAINABLECTIES 13 CLIMATE  ### ### ### ########################
		Recycling, reuse and remanufacture of products	

Through the reexamination process, we have classified Nabtesco's material CSR issues in relation to the 17 SDGs as per the table above. Impacts of each issue on our corporate activities are described in "Nabtesco Group's Approach to CSR" in Part 2. While giving due consideration to potential impacts of each issue, we will invest resources efficiently and effectively to address wide-ranging ESG issues and will systematically promote specific activities with a view to contributing to achieving the SDGs. We are aware

that stakeholders have high expectations for our activities in terms of fulfilling our corporate social responsibilities across a wider scope and at a higher level. Thus, we will review our materiality on a regular basis to build up trust with our stakeholders.

Nabtesco Group's Approach to CSR please see ▶ P79

# Value Creation Process of Nabtesco Group

The Nabtesco Group is focused on sharing the overall picture of its value creation with stakeholders. Promoting a better understanding of our efforts to fulfill our social responsibilities as a company and our endeavor to achieve sustainable growth is vital in ensuring the transparency of our management. We will continue to pursue the expansion and enhancement of our value proposition in order to sincerely meet the expectations of our stakeholders going forward.



# We will realize "all stakeholders' dreams"

P.3 Nabtesco Way

# **External Environment and Growth Opportunities**

### Market trends

- Domestic and developed markets: stable, mature markets
- Emerging markets: volatile growth markets

### Technological trends

- Engineering innovation in the manufacturing industry with the arrival of an IoT society and the evolution of AI
- Increased needs for mechatronics technologies and systematization of machinery-related components

# Social issues related to management transparency

- Increased demand for developing the governance system to promote corporate value enhancement
- Expansion of the scope of risk management and compliance as a result of globalization

### Social issues related to business activities

- Increased needs for the enhancement of safety and comfort of vehicles
- Rise in demand for automation and energy conservation at manufacturing sites in line with the tight labor market and increase in labor costs
- Growing needs for increased safety and comfort in public spaces
- Increase in demand for products that can mitigate environmental impacts
- Rising social demand for realizing sound working

# Values Offered to Stakeholders

OP9 Materiality P.79

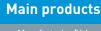
Ensure management transparency Provide safety, comfort and a sense of security

Shareholders and investors: Sustainable growth with profitability and stable and flexible

Customers: High value-added products and services to respond to QCD demand from customers\*1 Employees: Safe and pleasant workplace/growth opportunities through human resources development

Suppliers: Mutual growth through transactions and fulfillment of social responsibilities Local communities and global environment: Realization of flourishing and vibrant local communities/development of sustainable society

\*1 Quality, cost and delivery demanded by customers



evelopment/Renewable Energy

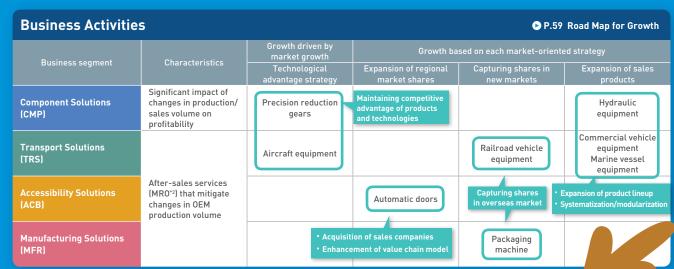
- Precision Reduction Gears Hydraulic Equipment
- New Energy Equipment

- Railroad Vehicle Equipment Aircraft Equipment

and Goods

- Commercial Vehicle Equipment
- Marine Vessel Equipment





Long-Term Vision

Status on FY 2020

Global Partner with

Best Solutions

Enjoy the Challenge"

In order to adequately capture growth opportunities and address issues for the realization of sustainable growth, the Nabtesco Group will take aggressive steps to allocate resources toward the acceleration of growth by establishing the below as a pillar of our management strategy.

Through such efforts, we will further expand the scope of value creation and pursue the ideal embodied in our Long-Term Vision.



# **Management Strategy and Performance**

P.13 Message from the CEO P.17 Financial/Non-Financial Highlights

# Medium-Term Management Plan

(FY2017/12-2020/12)

Market Creation

Obtain new markets

Technology Innovation

Create new solutions

Operational Excellence

Raise profitability and reinforce operational bases

### **Our commitments**

**ROE: 15%** 

Consolidated payout ratio:

Focus on solving ESG issues



Toward accelerating and maintaining growth

Issues to Be Addressed for the Realization of Sustainable Growth

P.137 Risk Management

### Internal factors

- Incubation of new products and acceleration of overseas expansion
- Improvement of capital efficiency
- Systematization of CSR activities

### External factors

- Changes in demand in respective product markets
- New players and competitors catching up with our technologies

# Capital That Underpins Value Creation

P.35 Capital That Underpins Value Creation

# Relationships of trust with customers, shareholders and investors (relationship capital)

- Customer base developed through the provision of products and services over many years
- Relationship of trust with long-term shareholders and investors through ongoing dialogue



# Financial capital

- Strong balance sheet
- Capability to generate stable cash flow

# **Human capital**

- Human resources who implement The Nabtesco Way
- Human resources who sincerely seek ways to satisfy customer needs
- Human resources who value product safety and quality

# Technology and manufacturing capital

- Motion control technology that realizes development requests from customers
- Intellectual property activities on a global basis
- Local production and local consumption system to fulfill responsibility to realize stable supply

# Organizational capital

- Corporate governance with a focus on longterm shareholders and investors
- Unique PDCA cycle aimed at continuously addressing safety and environmental response

# Turning "All Stakeholder's Dreams" into Reality



13

# Our commitments

01 ROE: 15%

O2 Consolidated payout ratio: 35% or over

Focus on solving ESG issues

\* ESG: Environment, society and governance

# Inaugural message

I am Katsuhiro Teramoto. In my capacity, as of March 28, 2017, as the new president and CEO of the company, I would like to express my heartfelt gratitude to our stakeholders for the kind support they have heretofore given to Nabtesco.

I joined Nabtesco 10 years ago in 2007, after gaining experience in both corporate planning and sales at my former workplace. For my first two years at Nabtesco I was engaged in the precision reduction gear business and for the next four years in the automatic door business, specifically, in overseas sales and business planning activities. During that period, I was also involved in the process of M&A and integration targeting foreign companies, which taught me the importance of respecting diversity and increasing the speed of business management.

I became the General Manager of the Corporate Planning Department in 2013 and the General Manager of the Corporate Planning Division in 2015, and in these positions I supported the former CEO in making decisions for the company. During the same period, I was also engaged in the formulation of two medium-term management plans and then pressed forward with the creation of the new medium-term management plan based on the results of the former plans. Now, I am leading the Nabtesco Group's business management as its CEO.

I am determined to fulfill my huge responsibility as CEO. While it will take some time for me to produce excellent results, I will work to shorten the time required. I would ask for the continued support of all stakeholders toward the Group.

# **Commitment to Growth**

I believe that if each member of an organization makes a sincere effort to fulfill his or her respective roles, it will increase the value of the entire organization. A company can also achieve growth if its employees, each of whom has his or her own unique qualities, cooperate and share their roles with one another.

In the process of fulfilling their roles, each member of the organization needs to listen to and respect the opinions of other members playing different roles in different positions. This will help individual members to achieve their own growth.

As corporate citizens, companies are expected to provide their stakeholders with value. This is one of their roles. In the Action Declaration, which together with Corporate Philosophy, Our Promises, and the Action Guidelines comprises The Nabtesco Way, it is stated that "By implementing these promises, we will realize 'All Stakeholders' Dreams.'" I think it is necessary for Nabtesco to fulfill its social responsibility on a continual basis while listening to the opinions of its stakeholders, which include its customers, shareholders, investors, business partners, employees, local communities and also the global environment. As a result of fulfilling this role, Nabtesco will be able to achieve profitable growth and meet the long-term expectations of its stakeholders and help them turn their dreams into reality.

So what roles should I fulfill as the CEO of the Nabtesco Group? I think one of my important roles is to make managerial decisions. While providing stakeholders with continuous value, I hope to make management decisions that achieve total optimization for all stakeholders, rather than optimizing individual issues, and, as the CEO, will sincerely meet accountability expectations.

Another important task I have as CEO is to demonstrate leadership. In the new medium-term management plan, which I will detail later, we state three management commitments: "ROE: 15%," "Consolidated payout ratio: 35% or over," and "Focus on solving ESG issues." I will lead the Group so that it will gain speed in implementing the ongoing measures and undertake challenges and reforms to fulfill these commitments.

Please be sure to keep an eye on our progress as we provide people across the globe with safety, comfort and a sense of security while at the same time ensuring management transparency to become a "Global Partner with Best Solutions"

# Summary of the results of the former medium-term management plan

Unfortunately, we were unable to attain the consolidated performance targets set in the former plan, including "Net sales of 280 billion yen  $\pm$  5%" and "Operating income of 34 billion yen," mainly due to the sharp downturn of the Chinese machinery market, which we had expected to expand.

Looking back on the measures implemented for the targeted three years, I think we achieved fantastic results regarding "Financial Strategy," which focused on internal measures and was one of the three management themes set for the period, along with Market Creation and Technology Innovation. Another fruit of implementing the plan was the fact that the dividend payout ratio was kept at 30% or higher and we were able to continue paying stable dividends to shareholders with no decrease.

The Market Creation measures helped us to approach a new market for actuators (products made by combining precision reduction gears and servomotors in an optimal manner), and the Technology Innovation measures fostered production reforms at our plants. From now on, we will take on the challenge of fostering cross-organizational cooperation in manufacturing in order to gain new markets and create new products.

The former medium-term management plan was positioned as the second step to attain our long-term vision toward FY2020, which is to become a "Global Partner with Best Solutions." This vision initially included the targets of "Net sales of 400 billion yen" and "Operating income of 60 billion yen" for consolidated business performance for FY2020, but we now need to reexamine the assumptions made for these targets in light of the dramatic changes that hit our business environment after the plan was formulated.

Changes will continue to occur in our business environment. Based on this recognition, we have made commitments in lieu of performance targets in the new medium-term management plan launched in FY2017.

New medium-term management plan: "Move forward! Challenge the future! Create 'New Value 2020'"

The new medium-term management plan targets the four-year period from FY2017 to FY2020. In line with the basic policy of the plan, "Move forward! Challenge the future! Create 'New Value 2020," we will work to become a "Global Partner with Best Solutions" while pursuing profitable growth on a continual basis.

There will be no major changes to our management strategy and we will continue to implement measures for "Market Creation" and "Technology Innovation," but we will shift from "Financial Strategy" to "Operational Excellence" under the new management plan to enhance our operational basis by reforming our production systems, organizations and business operations in addition to implementing the financial strategies. To this end, we will introduce a new internal management indicator (return on invested capital: ROIC) to increase the profitability and capital efficiency of our business departments. At the same time it will be necessary for us to establish a system to respond flexibly to changes in the business environment, in particular in our Market Creation activities.

In the plan, as mentioned above, the management team made three commitments (ROE: 15%; Consolidated payout ratio: 35% or over; and Focus on solving ESG issues), which we can control, unlike performance targets that are subject to environmental changes.

Our commitments in the New Medium-term Management Plan

**ROE: 15%** 

Consolidated payout ratio: 35% or over

Focus on solving ESG issues

Basic Policy of the New Medium-term Management Plan

**Basic Policy** 

# Move forward! Challenge the future!

~Create "New Value 2020"~

"Promote and enhance the existing measures"





Key Strategies **Obtain new markets** 

**Market Creation** 

Obtain new markets by accelerating overseas business and developing new domains

Key Strategies
Create new solutions

Technology Innovation

Create new solutions through transition from components to systems and services

As for "ROE: 15%," which is not a target for the final year of the plan, we will achieve it as early as possible and maintain the percentage going forward. ROE is an indicator that combines other indicators for profitability, capital efficiency and financial leverage (effective use of debt). Accordingly, we will pursue the improvement of these three indicators

In the former medium-term management plan, we set the policy of keeping the consolidated payout ratio in the range of 30 to 40% but have changed the target to "35% or over" in the current plan. We are thus committed to continuously increasing the dividend amount provided we can continue to maintain a sound balance sheet.

For "Focus on solving ESG issues," it is indeed the most important theme for the Group to achieve long-term growth and to survive as a going concern that is highly evaluated by society. In order to enhance the CSR promotion system and further increase our corporate value, we established the CSR Committee in 2016. We will continue to invest certain amounts to implement the relevant measures in order to provide our stakeholders with value in a sustainable manner.

In particular, for environmental issues, we promote the introduction of solar power generation systems and various other energy-saving devices to our existing plants in addition to building new environment-friendly plants. For  $\rm CO_2$  emissions, we will work to reduce emissions per unit of global sales while increasing our production volumes with sales expansion, thereby maintaining our total  $\rm CO_2$  emissions in Japan on par with the FY2015 level.

Regarding social issues, we place importance on human resource development and the provision of comfortable workplaces. The management team will put out the call to foster internal communication toward work style and

personnel system reforms, with a view to making Nabtesco a company where all employees are motivated to work and demonstrate their talents.

As for governance issues, the Compliance Committee and the Risk Management Committee, which were established in 2016, will lead the measures to promote compliance behavior and risk management in order to enhance the management basis for speedier business expansion outside Japan. In March 2017, we increased the number of members of our Nomination Committee, which nominates directors, from three to five to increase its diverse and objective perspective. We will also enhance the development program for the next generation of management leaders.

By implementing the new medium-term management plan, we aim to achieve net sales of 330 billion yen, operating income of 42 billion yen, and net income of 30 billion yen in FY2020 as reference values for consolidated business performance, on the premise that there will be no major changes to the economic environment. For the first year of the period targeted for the plan, we expect net sales of 260 billion yen, operating income of 26 billion yen, and net income attributable to owners of the parent of 19.7 billion yen. For the first two years of the period, the transport solutions-related market will be stagnant and we will cover the expected loss by expanding other businesses.

In order to achieve the reference value (net sales of 330 billion yen) in FY2020, we need to increase sales by 8% annually. The Nabtesco Group will attain this by achieving organic growth in the existing businesses and also by gaining new markets, creating new products, and making effective use of M&A projects.

Finally, once again, I would ask for the further support of our shareholders toward the Nabtesco Group, which has taken a new step for growth in FY2020 and beyond.

# Long-term vision: Status on FY2020 Global Partner with Best Solution

~ Enjoy The Challenge ~

"New challenges and reforms"



New Value 2020



# **Key Strategies**

# Improve profitability and efficiency

### Operational Excellence

Improve corporate value by raising profitability through production reforms and operational reforms as well as by seeking better capital efficiency.

# New Mid-Term Management Plan (Referential)

(JPY billion)	2016/12 Result (Reference for IFRS) <sup>*3</sup>	2017/12 Plan (IFRS)	2020/12 Reference (IFRS)
Sales	244.6	260.0	330.0
Core Operating profit*1	25.1	26.0	42.0
Operating Profit	26.9	26.0	42.0
Net Profit*2	19.4	19.7	30.0

- \*1 Core operating profit: Calculated the sum of operating income year ended December 2016(JGAAP), goodwill amortization and others.
- \*2 Net Profit: Net profit attributable to owners of the parent
- \*3 Actual figures for FY2016/12 (IFRS) represent referential values prepared for the purpose of comparison with the forecast for FY2017/12. Therefore, they are subject to change after auditing.

# Financial/Non-Financial Highlights

# Financial Highlights

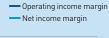
### ROE



### Message from General Manager of Corporate Planning Division and General Administration & Human Resources Division Page 25

Nabtesco is focused on continuously securing a capital efficiency level that can meet the expectations of our shareholders and investors, and management has made a commitment in the new Medium-term Management Plan to achieve an ROE of 15%. Except for fiscal year 2015/12, which was an irregular accounting period due to a change in closing date, our policy is to raise ROE, which has recently remained around 12%, to 15%, as early as possible and maintain it. In FY2017, Nabtesco introduced ROIC (Return on Invested Capital) as a new internal management indicator to ensure improvement in capital efficiency. While paying attention to capital cost, we strive to achieve growth in terms of absolute amount of profits and to improve the following elements, thereby realizing our Commitments.

# Operating Income Margin / Net Income Margin\*2





### Message from General Manager of Corporate Planning Division and General Administration & Human Resources Division Page 25

Nabtesco deems it critical to secure a sound level of profitability as a prerequisite for business growth, and endeavors to improve operating income margin. To improve net income margin through an increase in operating income margin, we will pursue improvement in operating income margin, which was recorded at the 8–10% level in the past few years. We will promote cross-organizational measures to increase sales in business sectors offering MRO\* services, while aiming at enhancing added value through the development of mechatronic products and systems. Also, in the precision reduction gear business, in which brisk demand is expected, to achieve greater profitability, we will grow profits by increasing sales to a level that can absorb a depreciation cost increase from the enhancement of production capability.

\*MRO: Maintenance, repair and overhaul

### **Total Assets Turnover**

### 1.0 0.9 0.9 0.9 N 9 0.9 8.0 nα 0.7 0.6 0.5 2013/3 2014/3 2015/3 2015/12\*1 2016/12

### Message from General Manager of Corporate Planning Division and General Administration & Human Resources Division Page 25

It is indispensable to efficiently use management resources in order to improve total assets turnover. In the past five years, total assets turnover has been roughly 0.9, and we are working to improve this level. At present, Nabtesco is fostering group-wide manufacturing innovation to enhance our production capability, procurement ability and production management ability. To make effective use of business assets, we are also promoting the introduction of smart production management by the use of Al and IoT and implementing logistics reforms. By using the ROIC tree, we will boost our competitiveness in manufacturing and improve the rate of utilization of business assets.

### Financial Leverage



### Message from General Manager of Corporate Planning Division and General Administration & Human Resources Division Page 25

Nabtesco upholds a policy of maintaining an A credit rating in order to secure balance sheet soundness as a prerequisite for long-term value creation. As we have recorded steady earnings every year, equity capital is increasing. With a view to further improving capital efficiency, we will implement control of the balance of cash on hand and explore the use of financial leverage as necessary. Moreover, to make efficient use of internal reserves, we will drive growth investment including in capital expenditure, R&D and M&A. At the same time, we will practice the type of financial management that enables stable and flexible shareholder returns.

<sup>\*1</sup> Due to the change of the accounting closing date of fiscal year since FY2015/12, the results for FY2015 is calculated on a basis of 9 months for Nabtesco Corporation and the other consolidated subsidiaries in Japan, and 12 months for the overseas consolidated subsidiaries.

 $<sup>^{*}</sup>$ 2 Net income attributable to owners of the parent

# Non-Financial Highlights

# Affirmative Vote Rate of Selected Directors and Audit & Supervisory Roard Members

	<ul> <li>Nabtesco — Average of the rates for listed companies in Japa</li> </ul>			mpanies in Japan	
100.0			99.29 <u></u>	99.42	
98.0	97.55	97.95			98.57
96.0					
94.0	95.3	95.2	95.4	95.3	 95.1
92.0					
90.0					
(%)	2013/3	2014/3	2015/3	2015/12*3	2016/12

Note: The affirmative vote rate of selected directors and audit & supervisory board member represents the average of rates for which the agenda regarding selection of directors and audit & supervisory board member was approved at ordinary general meetings of shareholders for a given fiscal year. Averaged data were calculated by Nabtesco based on "Koporeito Gabanansu no Genjo Bunseki" (Analysis on Actual Corporate Governance Practice) by Shojihomu Co., Ltd.

### Lost-Work time Injuries Frequency Rate\*4



\* Data for the all industries average and the manufacturing industry average in Japan are from the 2016 Survey on Industrial Accidents, Ministry of Health, Labour and Welfare.

# CO<sub>2</sub> Emissions per Unit of Sales [Global] (Amount of CO<sub>2</sub> emissions/sales)



Note: Refer to the notes on page 107 for the aggregation policy and standards referenced.

# Rate of Those who Resigned for Personal Reasons\*5



- \*3 Period covered for Non-financial data: January 1, 2015 to December 31, 2015
- \*4 The calculation scope includes Nabtesco Corporation and domestic Group Companies.
- \*5 The culculation scope covers only Nabtesco Corporation.

### Dialogue on Governance Page 29

Nabtesco values relations of trust with its shareholders to enhance its business management for sustainable value creation, and defines an affirmative vote rate for selected directors and audit & supervisory board member at the general meeting of shareholders as an indicator of confidence in management. The affirmative rate has been over 97% for the past five years, exceeding the average for listed companies in Japan. At the general meeting of shareholders held in March 2017, Nabtesco received a 98.57% rate of approval for its transition to the new directorship. We will continue to reinforce our approach to corporate governance to ensure management transparency and improve corporate value to meet the expectations of our shareholders.

### Management of Occupational Safety Page 43

As a manufacturer, Nabtesco views securing safety as a basis for its business activities, and eliminating industrial accidents as a key to protecting the livelihood of employees and achieving sustainable value creation. Although Nabtesco's lost-work time injuries frequency rate has always been lower than the all-industries average and the manufacturing average in Japan for the past five years, we have not achieved the Group's target of zero industrial injuries, including commuting-related injuries. We recognize that it is necessary to alter safety awareness in the organization as well as implement ongoing measures against individual risk factors in order to achieve the target and maintain this level. Accordingly, we are working to nurture a culture of safety across the Group.

### Striving to Protect the Environment Page 45

Recognizing combating climate change as one of its material CSR issues, Nabtesco is working to reduce  $CO_2$  emissions. Our  $CO_2$  emissions per unit sale on a global basis have been decreasing, and Nabtesco achieved an additional reduction of 14% in FY2016 compared to the target (0.277). To achieve business growth while reducing  $CO_2$  emissions, we set a medium-term target\* in FY2016 to achieve a reduction of at least 9% from the base year. Moreover, we established long-term targets\* to reduce  $CO_2$  emissions by 30% in FY2030 and by 80% in FY2050. We are committed to achieving the medium- and long-term targets through stepping up our efforts to save and create energy.

\* The medium- and long-term targets are expressed as percentages of reduction from actual CO₂ emissions in FY2015.

### Retention of the Workforce Page 98

Nabtesco sees its employees as human assets, as they constitute the human capital that underpins the Group's sustainable value creation. Retention of the workforce is essential to maintain and enhance competitiveness in the long run. At Nabtesco, the rate of employees who resigned for personal reasons has remained around 1%, which shows that Nabtesco provides its employees with a good work environment.

We are currently promoting measures for work style reform and endeavoring to revitalize the organization through workplace diversity. We will continue activities to develop human assets that drive global business operations and to increase employees' awareness of The Nabtesco Way, while encouraging them to fulfill their own goals and foster a sense of unity across the Group.

# CEO's Tripartite Talk



# **Toward Sustainable Value Creation**

Katsuhiro Teramoto, the new CEO of Nabtesco, met with two investors who have been analyzing the Company for many years. They talked about the financial and non-financial measures to be implemented by the Company under the new medium-term management plan launched in FY2017. The CEO and the two investors exchanged frank opinions regarding the future challenges and expectations for the Company. (Held in a Company conference room in March 2017)

# Takuya Furutani

Fund manager Schroder Investment Management

# Katsuhiro Teramoto

Representative Director, President and CEO

# Ario Kishida

Senior analyst Lazard Japan Asset Management

(Hereinafter their names will be listed without the titles.)

# Evaluation of the new mediumterm management plan

Furutani: I would like to ask you to detail the background to the replacement of the numerical targets set for each business segment in the previous plan with "commitments" in the new plan.

**Teramoto:** We wanted to show the targets that we could really attain in the form of "commitments" to all

stakeholders in an intelligible manner. Nabtesco is a manufacturer of machine components and subject to changes in the market environment. It is therefore difficult for the Company to make commitments on performance targets such as sales. Instead, in the new plan, we show "reference values" for the business performance that we aim to achieve.

The Board of Directors talked a lot about the details of the new

medium-term management plan, and I would like to ask you to give your frank opinions about our shift from "numerical targets" to "commitments" in your capacity as investors.

Kishida: In light of the fact that it seems impossible for the Company to achieve the sales target of 400 billion yen as stated in the long-term vision, I can understand that you have stated sales of 330 billion yen as a reference value in the new plan, and you have

given a realistic and strong message to your stakeholders by showing the targets that you can control more easily as "commitments" in the plan. I have high hopes that you will fulfill all of the three commitments, including the two financial ones.

Furutani: To be honest, I had been thinking that the numerical targets set in the previous medium-term management plan were difficult for the Company to attain. What is aimed at in the new plan will not be easily attained either, but it is appropriate to show the numerical figures as "reference values." I think that the word "commitments" is used to show the management team's strong determination to attain the targets by all means.

However, it will be really difficult for the Company to implement the business plan, and I am worried that irrational managerial decisions made in order to attain the numerical figures could lead the Company in the wrong direction. In the new plan, the figures are shown clearly as "reference values," which I think is commendable.

# Toward the top-line (sales) growth

Kishida: The top-line growth rate of Nabtesco has been around 5% during the past 10 years and the target of achieving a growth rate of 8% is indeed challenging. To accelerate growth, what changes do you plan to make to the Company as the new CEO?

Teramoto: In order to attain the goal of 8%, we have shifted from "Financial Strategy," which we focused on in the previous plan, to "Operational Excellence" in the new plan. Specifically, under the new plan, we will enhance our operational basis by introducing a new management indicator, return on invested capital (ROIC), to the Company for higher capital efficiency. We will increase our operational efficiency and reform production in addition to imple-

menting financial measures, which differentiates the new plan from the previous one substantially.

I expect that this will encourage each business department to attribute importance to capital efficiency when setting their own targets. In addition to fostering organic growth through market expansion, we will also promote internal reforms through awareness-raising among employees while externally implementing Market Creation and Technology Innovation measures. We will thereby accelerate our sales growth to attain the 8% target and also enhance the business foundation for the long-term sustainable growth of the Company.

# Introduction of ROIC and steady use of the indicator

**Kishida:** Do you think that the introduction of ROIC will change the mindset of employees?

Teramoto: I think it will and it should. We have already been checking indicators such as the turnover of accounts receivable, but have not provided deeper insights into their implications beyond simply checking the actual results. By introducing ROIC as an indicator, I aim to urge employees to share ideas about how to generate cash, which executives have already been sharing.

**Furutani:** Do you plan to use ROIC as a criterion to decide on the compensation to be paid to employees with a view to permeating the concept of ROIC throughout the Company?

**Teramoto:** The introduction of ROIC has already changed the evaluation criteria for employees, managers and top executives from those based on absolute values to those based on year-on-year growth rates.

Furutani: Will you use ROIC as an indicator to make managerial decisions, for example, to change the portfolio of a business in which you cannot record a surplus on ROIC?

Teramoto: To be honest, I do not plan to use it in such a manner, at

least for now. In fact, we need to have a certain return on weighted average cost of capital (WACC) in a business to make it sustainable, but I would like to make decisions by considering the features of each business and other matters comprehensively.

When changing the business portfolio, the management team needs to give consideration to the run-on changes to employees' lives and motivation. However, as a member of the management team, I strongly recognize that investors are greatly interested in the capital efficiency of each of our businesses. Even when there seems to be no improvements made after implementing various measures in one of our businesses, we need to think hard about which options will be the best for all our stakeholders to make an appropriate decision about the business.

# About the "ROE: 15%" commitment

Kishida: As for the "ROE: 15%" commitment, I regard this as a strong message from the Company that it will achieve ROE of 15% by all means necessary, even if the market environment deteriorates. I believe Nabtesco is a company that can achieve even more growth, and hope that it will not only achieve the commitment regarding ROE temporarily but also will return profits to shareholders in a well-balanced manner by allocating its capital to growth investments and then to the payment of dividends if there is any surplus. Teramoto: ROE is composed of three elements: profit margin on sales, capital turnover and financial leverage. Profit margin depends largely on the market environment but the management team can control the other two elements to a certain degree. We will achieve ROE of 15% earlier during the targeted period and continue to maintain this percentage for growth investment and for the return of profits to shareholders.



"We will achieve ROE of 15% earlier during the targeted period and continue to maintain this percentage for growth investment and for the return of profits to shareholders."

### M&A

**Furutani:** You can quickly expand the amount of sales by M&A for corporate growth. Do you have any rules on M&A?

**Teramoto:** We allocate 30 billion yen to M&A in the medium-term management plan. Of that budget, we have

already invested 10 billion yen, but we still have 20 billion yen left. However, we will not set a specific upper limit on the cost of M&A. We will not simply try to expand in terms of size. On the other hand, we will boldly implement an M&A project beyond the budget framework if we know it will help us accelerate the growth of our business.

Kishida: I have the impression that Nabtesco has not invested enough in capital expenditure or M&A and so the Company could increase its sales by making such investments. I think the Company needs to implement M&A projects more proactively for further growth.

Teramoto: I agree with you 100%. Since we purchased a Swiss-based automatic door manufacturer in 2011, we have had no internal objections to M&A, and we will proactively make necessary investments. Under the growth strategies set for each business, we are making investments based on clear ideas about the businesses. For example, for the precision reduction gear business, we are making capital expenditure to increase production capacity rather than fostering M&A, while for the automatic door business we are promoting M&A to expand our sales channels.

I also want to focus on M&A to generate synergies across the board. For M&A projects that would be useful across our businesses, the corporate staff will lead the projects for each business department to harvest the crop, as in the project in which we completed the acquisition of Germany-based OVALO's shares in March 2017. The German company has the ability to develop products that integrate motor and control units and by using this ability we will foster the manufacture of systems and mechatronic products. I want to continue fostering these kinds of M&A projects to acquire technologies that can be used across our businesses.

During the period from 2011 to last year, which could be called our "first M&A period," we focused on M&A projects to improve our organizational system. In the future, we will foster M&A to gain new technologies and markets, expand production capacity, and shorten the lead time, and for various other purposes. Kishida: Could you describe the purpose of M&A regarding the OVALO case and how your business departments will utilize this company? Teramoto: OVALO has strengths mainly in chassis and engine systems and is highly evaluated for its technologies as a Tier 1 supplier to German automakers. To manufacture mechatronic products, it is essential to use electronic control technologies, which OVALO certainly has. The technologies will help us prompt the manufacture of mechatronic products. Further, adcos, one of OVALO's subsidiaries, specializes in software and has know-how for model base development. I expect that we will be able to use this know-how for systematization across our business departments.

Moreover, OVALO is located in Germany and we will be able to use the company in a comprehensive manner as our production and development base in Europe. The M&A was thus really meaningful for Market Creation and Technology Innovation.

### Technological superiority

**Kishida:** Let me ask about Nabtesco's existing technology strate-

# Budget set for growth investments in the medium-term management plan

(Unit: billions of yen)	Cumulative total over the three- year period of the previous medi- um-term management plan (FY2015/3 -FY2016/12)	Cumulative total over the four- year period of the new medi- um-term management plan [FY2017/12—FY2020/12]
Capital Expenditure	31.0	77.0
R&D cost	20.0	40.0
M&A and others	10.0	30.0

<sup>\*</sup> Nabtesco has changed the accounting closing date of fiscal year from March 31 to December 31 since FY2015. The results for FY2015 is calculated on a basis of 9 months for Nabtesco Corporation and the other consolidated subsidiaries in Japan, and 12 months for the overseas consolidated subsidiaries.



gies. For example, in the precision reduction gear business, you have established a robust market position, which no competitor across the globe can match. However, there is no proof that you will be able to maintain such a strong position going forward. What strategies will you implement to keep and protect your technological advantages?

Teramoto: At present, I am not worried about the possibility that competitors will catch up with us in terms of technologies soon, but we are focusing on measures to protect our intellectual property as part of our efforts to keep ahead of competitors. For example, at the Chinese plant launched for the precision reduction gear business in the previous fiscal year, we are working to protect the outflow of know-how or technologies.

However, sooner or later, our competitors will catch up with us in regard to our existing technologies, and to prepare against this we are speeding up the measures for innovation with a sense of urgency so that we can always provide customers with even more advanced products.

# Investments and return of profits

Kishida: In the new medium-term management plan, you are planning to make relatively large capital expenditure. I have had the impression that Nabtesco was not making enough investment to achieve growth as expected, and am now expecting that the capital expenditure will bring about great results. However, such investments will impose more depreciation costs on each of your business departments and also

create ROIC-related hurdles for the departments. These concerns could make the Company move toward a so-called "diminishing equilibrium," and I would like to ask how you will demonstrate leadership for the growth of the Company as its CEO.

Teramoto: In the plan, we have allocated a total of 77 billion yen to equipment investment, of which one-third will be spent on the expansion of production, in particular, on higher production capacity in the precision reduction gear business.

In the past, we once found ourselves in a difficult situation, with a sharp drop in demand immediately after making equipment investments, but in the precision reduction gear business we can expect a substantial increase in demand, being driven by an increase in demand for industrial robots. We will steadily make capital expenditure to achieve a production capacity that is about 10% larger than what is actually required to meet demand from our customers. As for an increase in the depreciation cost, I think we will be able to fully cover it by an increase in sales and profit.

In addition, we will make large capital expenditure to reduce our  $CO_2$  emissions. We are committed to "Focus on solving ESG issues" and have set high environmental targets, which cannot be attained without making substantial reforms, including the modernization of our plants.

Also, as a manufacturer of machine components, we receive emphatic requests for price reductions from customers, and to ready for such requests, we will continue to make investments to increase the production efficiency of our equipment.

We will thus make equipment investments for various purposes, and deem all of these investments critical to the sustainable growth of the Company.

# Commitment: "Consolidated payout ratio: 35% or over"

Teramoto: I would like to ask your opinions about our second commitment, "Consolidated payout ratio: 35% or over (with no upper limit)."

Furutani: You have not set an upper limit because you want to keep paying dividends in an amount on par with that of the previous year, even if the business environment deteriorates, rather than decreasing the amount in line with a predefined upper limit. Is it right?

Teramoto: We have not set a limit because we want to expand our profit and increase our dividend amount consistently, and also to maintain the stable payment of dividends even if we face an unexpected situation. Kishida: When taking into consideration its debt capacity ratio, I think Nabtesco has sufficient capacity to ensure the payment of dividends at a certain level and to make growth investments including M&A and capital expenditure. We want the Company to raise its top-line growth rate by making growth investments proactively rather than increasing the dividend payout ratio, and in this sense the payout ratio of 35% is a well-balanced figure that is acceptable to us inves-

Teramoto: As for investment priorities, I give first priority to growth investments. We will make investments toward long-term growth, will expand our business on a continual basis, and will return the profits to shareholders in proportion to the growth achieved. Based on this precondition, we want to examine the usage of cash, including using it to pay dividends and to acquire our own shares, so that we can do more than just meaninglessly reserve cash internally.



I believe Nabtesco can achieve more growth. I would ask you to make efforts to enable the Company to receive a higher evaluation in the stock market.

Kishida: You mean that you might pay more dividends or acquire your own shares rather than investing in M&A and equipment if the market environment makes you refrain from such investments, don't you?

Teramoto: We deem it one of our management priorities to respond in

management priorities to respond in a flexible way in order to continuously increase the value of our shares, for which we need to make the best use of our capital.

Kishida: In the event that your stock price drops, you could acquire your own shares to send a message as the management team that the appropriate stock price of your company is much higher than the current price. What do you think about this idea?

Teramoto: We once acquired our own shares with a view to returning profits to our shareholders during the

period of the previous medium-term management plan. Within the level that will not cause any hindrance to growth investments, we might include the acquisition of our own shares as one of the options that we can take when our stock price is lower than what we expect.

# Commitment: "Focus on solving ESG issues"

Teramoto: The third commitment we have made in the plan is "Focus on solving ESG issues." I believe all companies, not limited to ours, must implement long-term measures for ESG issues based on the recognition that companies that do not fulfill their CSR will not be allowed to exist. Last year, we established the CSR Committee to set up a more systematic CSR management promotion system. In the process, we reexamined our material CSR issues to clarify what Nabtesco should tackle to fulfill its CSR.

As for "E," or environmental issues, I think we must implement intensive measures to reduce our CO<sub>2</sub> emissions. We are now building a new aircraft equipment plant in Gifu, which will become a facility that consumes only half the amount of energy compared with conventional plants. We will also foster the modernization of our existing plants.

Furutani: As for "E," do you think Nabtesco will uncover more business opportunities as public awareness about environmental issues increases?

Teramoto: Yes, I do think so. For example, in the marine vessel equipment business, the environmental regulations on fuels will be enhanced across the world in 2020, and we will have more demand from customers who need to obey the stricter regulations. Also, in other businesses, customers might need to make repairs and develop new products to become more environmentally friendly companies, and this trend might provide us with new business opportunities.

In addition to catching up with customers' trends, we would like to make proposals to customers through the MRO\* business in our effort to lead them to reduce their own CO<sub>2</sub> emissions.

As for "S," or social issues, we will implement a variety of measures, including those for work style reforms. The media are focusing our attention on overtime through recent reports about work styles, but I think we need to do more than just shorten work hours. We should search for the causes of overtime, which perhaps include the productivity of the administrative departments, and make improvements targeting the identified problems.

\* MRO: Maintenance, repair and overhaul

Kishida: Social issues include those related to the promotion of diversity and, in the case of Japan, women's full participation in society is also a challenge to be met. Some companies include the number of female directors and the percentage of female managers in their KPIs. What measures is your Company taking regarding this issue?

Teramoto: We set the target of increasing the rate of employment of non-Japanese and women to 30% and 20%, respectively, for our annual employment of new graduates. The current percentage of female managers is not high and we would like to increase it, which is something that takes time, however. For human resources, we give first priority to employees' ability to do the job, regardless of gender, and would not promote female employees who are not yet qualified to become managers to that position just to raise the percentage of female managers.

For diversity, we already have some non-Japanese employees, and are examining measures to promote diversity, including establishing a job rotation system under which employees of overseas subsidiaries will work at Nabtesco in Japan.

Kishida: With regard to governance, do you have any ideas about transforming the Board of Directors into a Board that can improve Nabtesco's performance even more, for example, by increasing the number of outside directors?

Teramoto: We self-evaluate the effectiveness of the Board of Directors and disclose the results, and I think that the effectiveness has been increased year on year. Some say that the Board of Directors needs to spend more time in discussions from the medium- to long-term perspective, and I would like to foster such discussions while fulfilling my accountability to the Board of Directors in my capacity as CEO.

As for the number of outside directors, three of the 10 directors are outside directors and three of the five are outside audit & supervisory board member. In total, we thus have six outsiders among 15 members. I think that we have already established a system to fully incorporate the opinions of outsiders, and we will not change this system unless we find it necessary to gain more wisdom and inspiration from outside the Company, for example, to deal with the increasing complexity of the market environment.

# Management approach

Kishida: Former CEO Kazuaki Kotani seemed to entrust the management of Nabtesco to each of the business departments. What approach will you take to the management of the Company as the new CEO?

Teramoto: The former CEO respected the autonomy of each business department and responded flexibly if any of the departments faced a decline in performance due to changes made to the business environment. I think this way of management is appropriate.

Each of us has our respective roles, which are composed of responsibilities and authorities. I think

I must show patience once I empower the business departments. I would like to talk with the heads of the departments in consideration of their personal characteristics and the market environment. I am still thinking about what my management approach will be. For the time being, I will follow the method used by the former CEO but will boldly change my approach as necessary, with a focus on speed.

# **Expectations for Nabtesco**

Furutani: I expect that Nabtesco will achieve growth in line with the medium-term management plan, while increasing its capital efficiency and stock price. If the CEO of the Company continues to share his message about the corporate growth measures toward the future, it will help investors make their decisions.

I believe Nabtesco can achieve more growth. The Company has an almost perfect business portfolio and the management team is expected to lead the growth of the entire Company. I think it is good for both employees and shareholders for the stock price to rise, and would ask you to make efforts to enable the Company to receive a higher evaluation in the stock market.

Kishida: I think Nabtesco is above average among Japanese companies in terms of profit margin, portfolio growth potential, and return of profits to shareholders. I also think that the Company could soar to new heights if it chooses an appropriate method to attain this. I expect that Nabtesco will transform itself to this end and increase its sustainability as a company.

Some say that the average life span of a company is 30 years, and companies will experience various economic cycles throughout their lifetimes. But I believe that Nabtesco will continue to exist for longer than this. By achieving sustainable growth, the Company will make more contributions to society in a wider sense and thereby increase its corporate value. Nabtesco will thus build win-win relationships with its own employees and investors, including ourselves, in an optimal manner. I sincerely hope that Nabtesco will become such a company.

**Teramoto:** Thank you very much for providing me with this important opportunity to talk with you.

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# Message from General Manager of Corporate Planning Division and General Administration & Human Resources Division

# Toward Realizing "Operational Excellence"

### Daisuke Hakoda

Director
Managing Executive Officer
General Manager of Corporate Planning Division and
General Administration & Human Resources Division



For the new Medium-Term Management Plan, we have set "Operational Excellence" as a new pillar to replace "Financial Strategy," which was a management theme under the previous Medium-Term Management Plan. With the aim of reinforcing the operation bases through production reforms and operational reforms in addition to financial strategizing, we will strive to improve capital efficiency and expand our management bases by pursuing "Operational Excellence," thereby tackling three commitments under the new Medium-Term Management Plan.

# Improving capital efficiency to achieve ROE of 15%

We have set the achievement of ROE of 15% as one of our commitments under the new Medium-Term Management Plan. It is our intention to achieve the 15% goal as early as possible and maintain the level going forward. For that purpose, it is mandatory for us to further improve capital efficiency through effective use of our operating assets and disciplined balance sheet management. We will strive to enhance the profit margin on sales and total assets turnover as elements comprising ROE while considering how to utilize the financial leverage as necessary.

In terms of the profit margin on sales, we will firstly aim to achieve improvement of the operating income ratio as well as the growth of net sales. While our business, with its focus on mechanical components, is more susceptible to changes in the market environment and production volume at our customers' end, a certain degree of improvement has been seen, mainly in the Transport Solutions segment, as a result of our efforts to expand the MRO\* business continued from the period of the previous Medium-Term Management Plan, which has contributed to mitigating the impact on our performance due to environmental changes. In the railroad vehicle equipment business, it is anticipated that MRO demand for high-speed railway and subway trains in China will continue, and we have newly established an MRO site in Thailand targeting railway operators in Southeast Asia, where railroad infrastructure

is expected to grow in the future. Meanwhile, the aircraft equipment business is likely to benefit from an increase in MRO demand for the B777X in the 2020s, in addition to MRO demand for the B737 MAX, for which the effect of mass production will contribute to our performance during the period of the current Medium-Term Management Plan. We will endeavor to further expand the MRO business by promoting cross-divisional efforts in other segments with MRO elements.

While the impact of changes in production and sales volume on profitability is relatively large for the Component Solutions segment, we will also seek to improve its profitability. In the precision reduction gear business, demand for industrial robots and automation facilities is expected to grow from a medium- to long-term perspective on the back of an expansion of needs for labor saving and automation. It is our policy to steadily increase production capacity to ensure stable supply, thus offsetting an increase in depreciation by increased profit in line with an increase in net sales. In the hydraulic equipment business, the effects of structural reforms of the production system in China implemented during FY2015 have become apparent. We will aim to expand the scope of value creation for customers by promoting the modularization and systematization of products.

It is essential to utilize the assets of each business effectively in order to improve total assets turnover. In FY2017, we introduced ROIC (return on invested capital) as

an internal management indicator with broader awareness on cost of capital to improve profitability and raise capital efficiency across the Group. By adding the "ROIC improvement ratio" as a performance evaluation incentive for each business segment and combining it with other indicators such as "sales growth ratio" and "operating profit improvement ratio," we will further promote the effective use of our operating assets based on growth as an evaluation indicator while reflecting our investors' perspectives on business operations.

In the administrative departments, we will allocate capital generated from the business departments to growth investment and engage in financial management including control of the balance of cash on hand, adequate liability management, and stable and flexible shareholder returns. \*MRO: Maintenance, Repair, Overhaul

# Promoting ROIC improvement in manufacturing bases

As a measure to improve ROIC, we will use the "ROIC tree" and expand the effective utilization of management resources at each business site. For instance, while the improvement of operating assets turnover, one of the key elements of ROIC improvement, can be divided into themes such as improvement of fixed assets turnover, inventory turnover, etc., individual themes are closely related to the

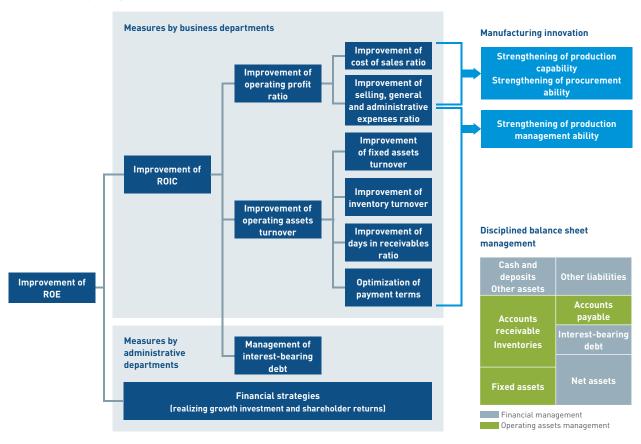
improvement of the operating efficiency of each business. By using the ROIC tree, we will share the understanding with our employees that accumulated on-site efforts are directly connected with the generation of cash, thereby instilling awareness on cash generation.

We are currently pushing forward cross-divisional activities toward fostering "manufacturing innovation" including the enhancement of our production capability, procurement ability and production management ability. These activities constitute the practical implementation of improvements described in the ROIC tree at manufacturing bases. We will seek to realize ROIC improvement while pursuing the reinforcement of our competitiveness in terms of manufacturing capabilities.

# Promoting financial management to realize growth investment and shareholder returns

In the new Medium-Term Management Plan, we have made a commitment to achieving a consolidated payout ratio at 35% or over in terms of shareholder returns. With the aim of maintaining a sound balance sheet and continuously increasing cash dividends in accordance with profit growth, the cash dividend for the fiscal year ending December 31, 2017 is expected to be 56 yen per share, an increase of 6 yen from the previous fiscal year, in accordance with the initial plan. The Company recognized 2.8 billion yen of eq-

### Measures for improving capital efficiency



uity in earnings of affiliates in the first three months of the fiscal year ending December 31, 2017 due to gain on step acquisitions of an equity-method affiliate. For this reason, the Company upwardly revised profit forecasts for "income before tax" and other items as of April 28, 2017. While the Company has not changed the forecasted amount of cash dividends from its initial plan as the aforementioned increase in equity in earnings of affiliates is valuation gain without cash flow, the payout ratio is expected to be maintained at 35% in real terms.

The Company has generated stable cash flows, utilizing them for growth investment and shareholder returns. Looking at the balance sheet as of December 31, 2016, it is possible to lower the equity ratio to 45% on the precondition that we continue to receive a credit rating of A. It is estimated that we can potentially procure debt of about 75 billion yen in theory. As just described, our strong balance sheet and ability to generate stable cash flows serve as a cornerstone of our financial capital, which underpins growth investment and shareholder returns.

During the fiscal year ended December 31, 2015, we repurchased treasury stock amounting to about 10.0 billion yen as part of measures to return profits to shareholders and subsequently cancelled all of the acquired shares. It is also apparent that we have gradually increased cash dividends in line with profit growth. We will continue to pursue the improvement of capital efficiency by promoting financial management to realize aggressive growth investment and stable and flexible shareholder returns toward achieving sustainable profit growth in the future.

# Focus on solving ESG issues for achieving sustainable value creation

The 2030 Agenda for Sustainable Development was adopt-

ed by the United Nations in 2015, and the Paris Agreement, an international treaty on global warming countermeasures, came into effect in 2016. Under such circumstances, the scope of expectations of stakeholders for corporate social responsibilities is expanding with increased sophistication. Our commitment to "Focus on solving ESG issues" clearly represents our management's determination for achieving sustainable value creation by promoting CSR-oriented management and thus continuing to meet such expectations.

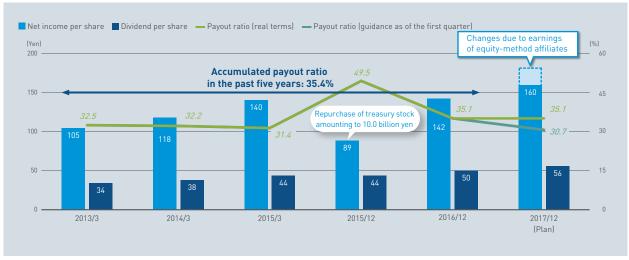
We provide our customers with products and services that support daily life and social infrastructure in the B-to-B domain. Our customers in each business segment also fulfill their social responsibilities at a high level. We believe that contributing to solving various social issues related to ESG through our businesses will lead to the accumulation of trust with our stakeholders, including customers.

# Promoting systematic efforts to tackle ESG issues

In FY2016, we launched the CSR Committee as an organization that supervises all CSR activities and reports directly to the CEO in an effort to further strengthen our CSR promotion framework. The committee oversees overall CSR activities by reporting directly to the CEO and provides advice and suggestions to the Board of Directors through the formulation, review, etc. of policies related to CSR activities. The chairman and members of the committee are selected from among officers and appointed by the CEO. I currently serve as chairman of the committee.

The committee firstly reexamined the material CSR issues (materiality) and formulated the CSR Basic Policy in FY2016 to summarize the selected material issues as

### Change in Shareholder Returns



<sup>\*</sup> Nabtesco has changed the accounting closing date of fiscal year from March 31 to December 31 since FY2015. In this report, the results for FY2015 is calculated on a basis of 9 months for Nabtesco Corporation and the other consolidated subsidiaries in Japan, and 12 months for the overseas consolidated subsidiaries.

well as to ensure management transparency and provide safety, comfort and a sense of security. Through the reexamination process, we indicated the relevance between the 17 Sustainable Development Goals (SDGs) set out by the United Nations and the material CSR issues. We will continue to contribute to achieving SDGs through the systematic promotion of individual activities while allocating our resources to a broad range of ESG issues in an efficient and effective manner.

# Major initiative to tackle materiality

With regards to the "E" (environment) in ESG, we are focused on countermeasures against climate change and have set long-term targets for reducing  $\text{CO}_2$  emissions. We aim to reduce  $\text{CO}_2$  emissions per unit of sales by 30% in FY2030 and by 80% in FY2050 compared to the level in FY2015.

To achieve the targets, we will promote multiple initiatives including investment. In FY2017, we will incorporate the environment contribution achievement ratio into the performance evaluation of business departments in order to achieve sustainable enhancement of environmental management. Moreover, we will strive to improve production efficiency and environmental performance by approving the construction of new plants on the precondition that energy consumption at each new plant is reduced by 50% compared to our conventional production facilities and making investment in existing plants for the modernization of outdated equipment and buildings.

As for "S" (society), we are currently accelerating our initiatives on themes around human resources. One of such themes is an initiative related to human rights. Since signing the United Nations Global Compact in FY2014, Nabtesco has been comprehensively fostering a corporate culture

that is respectful of human rights. Aligning with the globalization of our businesses and supply chains, however, we recognized the need to address various issues related to business and human rights more systematically and, in FY2017, established the Human Rights Promotion Special Committee as a subcommittee of the CSR Committee. This committee serves as a key body in promoting our initiatives such as the formulation of human rights policy and human rights due diligence.

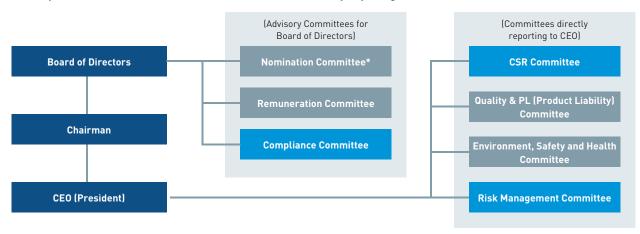
Another theme is work style reform. In order to enhance productivity while maintaining the long-term motivation of employees by developing a more pleasant work environment, we are accelerating our discussions on specific measures at the Work-Life Balance Committee, which is staffed by representatives of both labor and management.

In terms of "G" (governance), we promote risk management and compliance behavior in line with the globalization of our businesses. The Compliance Committee and the Risk Management Committee established in FY2016 plays a key role in enhancing our initiatives across the Group.

In addition, we will make continuous efforts to further develop the governance system to enhance corporate value. In March 2017, we increased the number of members of the Nomination Committee from three to five. We will continue to leverage versatile perspectives for the selection of directors while enhancing personnel development programs for the next generation of management candidates.

We will thus realize sustainable growth by pursuing "Operational Excellence" through in-house innovations based on a wide range of financial and non-financial initiatives as well as external engagement through "Technology Innovation" and "Market Creation."

### Advisory Committees for Board of Directors and Committees Directly Reporting to the CEO



Committees newly established in FY2016

<sup>\*</sup> Committee members increased from 3 to 5 in FY2017



Norio Uchida

Outside Director

Kazuaki Kotani

Chairman of the Board

(without titles in the following text)

# Looking back on the tenure of CEO

Uchida: As Chairman, how do you look back on the years you spent as CEO?

Kotani: In the six years I served as CEO, we made achievements to some extent in terms of numerical growth.

However, I do think that some results were not satisfactory in comparison with the then business targets, for example, sales results and operating profit margins, which I find disappointing.

**Uchida:** It was an era characterized by a rapidly changing market environ-

ment. Although the Company failed to reach its high targets, Chairman Kotani led the Company to achieve sustainable growth in profits, which I, as an outsider director, highly appreciate and consider an outstanding result.

Kotani: Before assuming the position of CEO, I prepared the Medium-term Management Plan as the Director and General Manager of the Corporate Planning Division. While the performance targets were achieved in the first year,

we failed to meet the targets for the second and third years due to the delayed emergence of the new energy equipment market, reduced demand for construction machinery in China and other factors. In the period of the next Medium-term Management Plan, although the first-year targets were reached, the second- and third-year results were not as good as we had expected due to a change in the market environment. We described these years as an "opaque

period" but now it has become more and more difficult to predict business performance and I now describe the situation as an "uncertain period."

In the latest Medium-term Management Plan, we set out 'commitments', instead of performance targets, taking uncertainties into account. Establishing 'commitments' that we promise our shareholders to fulfill is one of the lessons I learned during my six years as CEO. In addition, due to an increase in the ratio of overseas sales, in 2015 we changed the closing month of the fiscal year from March to December. Furthermore, since fiscal 2017, we have adopted the International Financial Reporting Standards (IFRS). These efforts should have made it easier for overseas investors to understand the latest Medium-term Management Plan.

As of the end of March 2015, foreign shareholders accounted for about 60% of our shareholders. I think what we gained through dialogues with overseas investors has significantly affected our business. Our highest priority is to satisfy customers, of course. At the same time, we have always placed emphasis on reflecting the opinions and views of shareholders and investors who invest in our Company. While I was serving as CEO, Mr. Uchida was appointed to serve

as an outsider director and, in my final few years as CEO, we discussed this issue at Board of Directors' meetings. Uchida: While you were CEO, you reorganized the New Energy Business Development Division.

Kotani: The final impetus was a discussion held in a Board of Directors' meeting. As a new energy equipment business project, we received an order for solar tracking equipment for a solar thermal power plant in the United States in 2012. In response, in 2013 we established the New Energy Business Development Division by integrating the new energy equipment component of the precision reduction gear business with the drive units for wind turbines component of the hydraulic equipment business. Initially, this integration's object was to pursue synergistic effects generated by combining the two different components, which had the common technical platform called RV reduction gears. However, the construction of the solar thermal power plant in the United States was delayed, resulting in a significant delay in the emergence of the new-type solar thermal power generation-related market. For this reason, we received no further orders for the solar tracking equipment for solar thermal power

plants. Under these circumstances, we were discussing how long we should continue our investment and, because there were many opaque factors, we decided to reorganize the New Energy Business Development Division as of February 2016. The solar tracking equipment, which had been developed under the New Energy Business Development Division, was transferred to the Technology and R&D Division, which is ready to respond to customers' demand. The drive units for wind turbines have been transferred to the Power Control Company, which is responsible for operating the hydraulic equipment business.

Uchida: I have closely watched a series of processes involved in the operation of the new energy equipment business. There might have been a chance that the market would emerge in the future but the Company needed to make the decision at some point. I think it was the best timing, in that sense.

Kotani: Looking back now on my tenure as CEO, I think that, as a result of it, a significant change was made to corporate governance. When I assumed the position of CEO, there had already been a variety of outside auditors. I was surprised to learn that we were provided with so many opinions from outside au-

# History of Governance to Enhance Corporate Value

	Initiatives prior to June 2011		Initiatives after June 2011
Corporate Philosophy and Basic Policies	<ul> <li>Formulated Corporate Philosophy and Long-Term Vision</li> </ul>	<b>&gt;</b>	<ul> <li>Formulated the Nabtesco Way</li> <li>Formulated the Corporate Governance Basic Policy</li> </ul>
Remuneration system for directors	<ul> <li>Abolished the retirement allowance system for directors</li> <li>Adopted the stock option scheme as a remuneration system for directors</li> </ul>	•	<ul> <li>Changed the remuneration system for directors from the stock option scheme to the Board Benefit Trust (BBT) framework</li> </ul>
Composition of the Board of Directors	<ul> <li>Majority of Audit &amp; Supervisory Board Members were outside members</li> <li>Chairman of the Board of Directors did not hold the right of representation</li> </ul>	<b>&gt;</b>	<ul> <li>Increased the number of outside directors (from 1 to 3)</li> <li>Established standards concerning independency of outside directors</li> </ul>
Establishment of Advisory Committees for Board of Directors	• Established the Remuneration Committee	•	<ul><li>Established the Nomination Committee</li><li>Established the Compliance Committee</li></ul>
Fiscal-year period and accounting standards	_	•	<ul> <li>Changed the fiscal year end to December 31</li> <li>Adopted the International Financial Reporting Standards (IFRS)</li> </ul>



The Nomination
Committee had a
robust discussion
while maintaining its
independence. This
was an excellent
experience. I think this
process can be applied
again next time.

ditors at Board of Directors' meetings. Nabtesco is an integrated company. I'm sure that the top management of the two companies who decided the merger intended to create a corporate culture where those involved could express their opinions freely. I think the foundation of Nabtesco's corporate governance and other principles was established when the Company was founded. While I was CEO, the Company celebrated its 10th anniversary. On that occasion, we developed The Nabtesco Way. We also considered renewing Corporate Phi-

losophy. After conducting a review, we found that the wording in the principles was not at all obsolete and decided it was not necessary to make any changes to Corporate Philosophy.

Uchida: Many companies face difficulties after a business merger. In that sense, Nabtesco has achieved a successful business integration, which I believe was made possible by the outstanding efforts of the management team.

Kotani: The foundation for our corporate governance was already present at the time when the Company was estab-

lished. In preparing The Nabtesco Way, we fleshed out the existing basic principles while we were operating the integrated company. Japanese companies tend to focus too much effort on making everything perfect, which requires too much time. This is a bad habit of Japanese companies, because it prevents them from matching the speed of companies in emerging markets. We therefore need to think on the run. If you then find anything inappropriate in the original idea, you should remove it and add what is needed so that you can eventually make it perfect. I'm afraid that Japanese corporate culture lacks this mindset. Uchida: Speed is very important in this

Kotani: With regard to the composition of the Board of Directors, issues related to the use of outside directors were raised in dialogues with overseas investors. In response, we, for the first time, appointed two outside directors in 2012. Then, in 2016, the number was increased to three. There had already been three outside corporate auditors. Now we have three outside directors and three outside corporate auditors among the 10 directors and five auditors. We have thus successfully established an excellent governance system consisting of six outside directors and auditors with deep insights and expertise as well as outstanding personalities.

# Appointment process for the new CEO

— Could you tell me why you established the Nomination Committee?

Kotani: In the year following the year I assumed the position of CEO, Mr. Yamanaka, who was appointed to the position of outside director in 2012, asked my opinion about the nomination of my successor. In response, I gave each of my candidates in turn an opportunity to gain relevant experience. In 2015, through discussions at the Remuneration Committee, which was created

in 2014, the Nomination Committee was established. I strongly felt that a system to reflect objective opinions on appointing future board members and CEOs should be established.

— What was the specific process for appointing the new CEO?

Kotani: I made a list of candidates and provided their profiles, without presenting my opinions, to Outside Director Uchida and Outside Corporate Auditor

Katayama, who were outside members of the Nomination Committee. I also asked them to assess the candidates by taking opportunities when the candidates expressed their opinions at Board of Directors' meetings though some of the candidates were not directors, as well as by asking the candidates questions from various aspects when they made a presentation on a project at a meeting other than a Board of Directors' meeting. I knew these were quite difficult requests for them to fulfill.

Uchida: The Nomination Committee placed importance on "fairness of the process" and "transparency, independence and objectivity." Outside Corporate Auditor Katayama and I have experience serving as the president of a company and I think outside members of the Nomination Committee had experience and knowledge in selecting a CEO.

We considered it is important to set the right requirements for the new leader of Nabtesco, so, taking into account the economic environment and the actual situation of the Company, We defined the tentative requirements for a suitable CEO as follows: a person who can lead the Company to achieve profitable, sustainable growth, a person who

can perfectly understand customer needs, a person who can play a leadership role and have a global perspective, a person who can create a scenario for growth, and a person who has experience with uncontrolled, unmanageable situations. We recommended candidates who met these requirements and exchanged our opinions on them openly and freely. Until the last moment of the appointment process, we were not told who Chairman Kotani's recommended candidate was. In a nutshell, the final candidates were recommended by outside Committee members and, after a discussion, the new CEO was selected from among them. I think this was a transparent process. The Nomination Committee had a robust discussion while maintaining its independence. This was an excellent experience. I think this process can be applied again next time. Kotani: In addition to the appointment of the new CEO, it was also important to assign the appropriate members who can express their candid opinions to the new CEO while supporting him. Our Company is engaged in diverse business projects and it is not possible for the CEO alone to pay careful attention to the details of every project. Uchida: To be honest, it was extremely difficult to narrow it down to the final candidate. In other words, there were many outstanding candidates. I therefore think that there is already a solid system to support the new CFO.

# What we expect from the new CEO

What kind of person is Mr.
 Teramoto, the new CEO?

Kotani: He can make drastic determinations in a speedy manner.

Uchida: We can see that he has the ability to make resolutions and act decisively. He served as the Director and General Manager of the Corporate Planning Division, which tells us

that he is a highly logical person.

— What do you expect from him?

Kotani: Nabtesco is engaged in a diverse range of business projects. To aim to achieve profitable, sustainable growth, he should pay careful attention to changes in the business environment, share his vision with

others and delegate authority.

Uchida: I'm sure various business risks will emerge in the future as in the past. I hope he will not avoid or hide such risks. Business risks affect the survival of the Company. Therefore, in risk management efforts, business risks should not be concealed and should be made public, if appropriate.

# Further improvement of governance

 How do you assess the current effectiveness of the Board of Directors?

**Uchida:** One of the strengths of Nabtesco is the transparency of its business operations. The quality of information is high and the level of risk assessment is also high. In these points of view, I think that the decision-making process of the Board of Directors is significantly superior to that of other companies. Being an

outside director, I will continue to supervise the business management from a third-party perspective. I appreciate the high level of effectiveness maintained by the current Board of Directors.

The change in the composition of the Board of Directors, the latest increase in the number of outside directors in Nomination Committee, and the newly adopted remuneration system for directors show that corporate governance has been evolving favorably. In the

latest Medium-term Management Plan, the Company commits itself to achieve ROE of 15% and a payout ratio of at least 35%. The Company is active in disclosing information through its investor relations (IR) activities. These efforts indicate its shareholder-oriented management. The Board of Directors holds frequent and in-depth discussions on management policies and the Medium-term Management Plan. I think consensus on the direction of its business has been main-

tained well, if not perfectly. The attitude of all the directors toward governance is very positive, including their commitment to addressing ESG issues.

Kotani: I'm grateful to receive positive comments from those outside the Company, including Outside Director Uchida, saying that we are heading in the right level. Internal directors do not know the situation of other companies but I appreciate Nabtesco's culture, where its directors always seek better governance. In self-assessment regarding the effectiveness of the Board of Directors, they identify what should be improved. If they try to improve these identified problems, I'm sure governance can be made better.

The Corporate Governance Code encourages the Company to have outside directors, which I can understand very well. All companies believe that the way they are operating their business is the best but, without third-party opinions, it is difficult for them to identify the best of the best. This Company has three outside auditors who have assumed the position since its foundation. We have received valuable opinions from them. It is very significant for us that there are outside directors. Most of them are involved in operating a business or have taken a leadership role in different areas. We therefore can receive a variety of opinions, which helps us to keep evolving our governance.

Kotani: My goals into the future are to ensure the appropriate operation of the Board of Directors and to help the new CEO execute his duties smoothly. Our Company makes it a rule that the Chairman does not have the right of representation and his/her role is limited to serving as the chair of the Board of Directors. Due to the diversity of our business, it is very difficult to adjust the CEO's schedule to attend official events. I will be pleased to support him in this regard but a diarchy must be avoided. Now that we have selected and appointed him as CEO, he must take responsibility for all execution duties that are expected of the CEO.

As Chairman, I will contribute in line with the direction in which the Company is

heading, such as the improvement of employee morale. While I was CEO, my busy schedule prevented me from participating in various events, such as explanatory sessions for individual investors. I would like to now participate in such events and be involved in many other events.

— Would you share your views on the development and appointment of the next generation of executives?

Kotani: We appointed Outside Director Yamazaki to the Nomination Committee. in addition to CEO Teramoto. As a result, the number of Nomination Committee members was increased from three to five. The aim is to reflect the female perspective in the nomination of directors. We will take into account more diversified viewpoints in nominating directors. Kotani: I'm sure that, by setting the requirements for CEO nomination through discussion by the Nomination Committee, we can ensure more transparent management succession. Another important issue that should be discussed by the Nomination Committee is leadership development for the next generation of executives.

The view that I share with Outside Director Uchida is that those who show promise as future executives should be given an opportunity to play a responsible role overseas while they are young. Managers overseas are supposed to make decisions on their own on anything from relationships with customers to financing. They can learn from and make use of these challenging experiences in management. It would be most desirable if they can team up with local executives in the country to which they are assigned.

However, if we visualize too clearly what kind of experiences they should have as an overseas manager, a gap will emerge between those who meet predetermined requirements and those who don't. I will therefore be flexible in this matter and maintain a careful approach to the training of the next generation of executives.

— With regard to the remuneration system for directors, you changed the standards for remuneration and adopted the Board Benefit Trust (BBT) framework. Would you explain the background to this change?

Kotani: The Remuneration Committee has discussed for the last two years a desirable incentive system, with reference to the systems of other companies.

Our Company's first effort was made in 2009, when we abolished the retirement allowance system for directors. Instead, we introduced long-term performance-linked stock compensation-type stock options, which I believe was a great success.

In terms of financial performance, our net income increased from 4.4 billion yen for the fiscal year ending March 2008 to 17.5 billion yen for the fiscal year ending December 2016. In terms of share price, the average share price was about 1,000 yen as of June 2009, which increased to about 3,000 yen as of March 2017. As these results indicate, the objective of the adoption of the aforementioned system, which was to increase the corporate value, has been somewhat achieved. Nonetheless, the stock compensation-type stock options system had a shortcoming. Under this system, the amount based on the achievement level of the performance targets is fixed for each job title and a certain number of shares are given according to the Black-Scholes model.

As a result, the number of shares to be given decreases as the share price increases, which gave rise to some concern that this may have an adverse incentive effect.

The newly adopted BBT is a stock compensation plan that is the same as the conventional one in that directors and shareholders share the risk of stock price fluctuations. Meanwhile, unlike the conventional system, there is no concern over a decrease in the number of shares to be given due to an increase in the stock price because, under this system, shares are acquired from the market in advance and a fixed number of shares are allocated to directors according to the achievement level of the performance targets and their

job title. I believe that the new remuneration system fulfills the objective of matching the incentives of shareholders and our business management through aiming at profitable growth and increasing the corporate value.

Uchida: I regard this new system as superior in terms of governance because the incentive is defined more clearly. Kotani: This time, we raised the upper limit of the monetary amount of performance-linked remuneration. I believe that attractive remuneration benefits are needed in order to secure excellent human resources both from internal and external sources. In Japan, people tend to avoid talking about money. I think an attractive remuneration system for directors will motivate employees to aim higher. Employees are also our stakeholders. As I care about employees just as much as I care about shareholders, I hope you understand my intention.

More efforts will
be made to help
stakeholders
understand that every
one of the executives
has a strong will to
"further improve
Nabtesco's value."



# Issues that need to be addressed by Nabtesco in the future

 Lastly, what do you think are the issues that need to be addressed by Nabtesco?

Kotani: One of the issues is the work style reform. Companies can achieve sustainable strong growth only if employees and executives are moving in the same direction. The theme of the current execution system is to establish a system that helps employees maintain their motivation over a long period of time to allow for sustainable growth.

**Uchida:** Diversity is necessary, such as the female perspective mentioned earlier. Other issues include global expansion of marketing and development efforts.

Kotani: While Nabtesco has good customers, its weakness lies in marketing. We determined the motto of the previous Medium-term Management Plan as "Think Global! Act Local!" to focus our efforts on accel-

erating global development. I believe this was a good theme for us.

Uchida: Yes, it was. But it is very difficult to put the motto into practice. I'm ready to cooperate with Nabtesco in its global development by making effective use of my overseas experience and insights and through discussion on risk management and the business direction.

Kotani: More efforts will be made to help stakeholders understand that each management personnel, including outside directors, has a strong will to "further improve Nabtesco's value." We place importance on the attitude of constantly taking on challenges in order to achieve excellence. I don't say that the current situation is unsatisfactory, but we should not be satisfied with it. There are many companies that take action faster than we do. "Our life tomorrow will be better than today. We will be able to better achieve what we dream

of," said an overseas Chinese person living in Indonesia while I was stationed there. Japanese people tend to hope that tomorrow will be the same as today. Our Company is in a good condition now. It is all the more important then to evolve governance and other organizational matters by continuing to run fast enough so that we are not overtaken by companies that are coming up behind us and running twice as fast.

Kotani: Thank you for coming today.
Uchida: Thank you.

# We will be committed to provide appropriate capital resources in order to create value for long term.

In the area of B-to-B business, Nabtesco manufactures, sells and provides after-sale services for mechanical component-related products. The management capital that supports this business includes relationship capital, financial capital, technology and manufacturing capital, human capital and organizational capital. The most important capital among these is relationship capital, which is based on relations of trust with customers or relations of trust with shareholders and investors. We strive to deepen our solid relationships of trust with customers, who themselves fulfill important social responsibilities, by continuing to respond to their high-level expectations. With shareholders and investors, meanwhile, we aim to develop lasting relationships through appropriate disclosure of corporate information and constructive

dialogues. We will continue to take measures to invest in each type capital and appropriately allocate resources toward providing value to stakeholders in a sustainable manner.





Customer base developed through the provision of products and services over many years

Business portfolio with a high market share



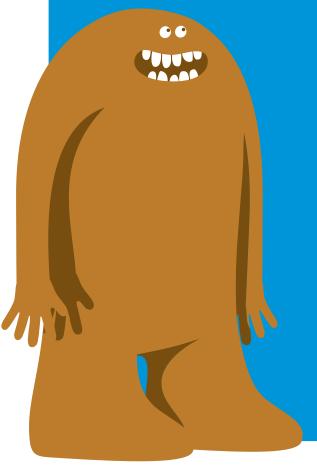
Ongoing measures to respond to QCD (quality, cost and delivery) demands from customers

Relationship of trust with long-term shareholders and investors through ongoing dialogue

Average approval rate for the election of officers over the past five years: 98.55%



Proactive dialogues through global IR activities



### Financial capital



#### Strong balance sheet

Equity ratio: 58.0% (as of December 31, 2016)

#### Capability to generate stable cash flow

Average operating cash flow over the past five years: About 19.0 billion yen



Financial management to realize both growth investment and shareholder returns

# Technology and manufacturing capital



# Motion control technology that realizes development requests from customers

Comprehensive initiatives toward strengthening technological platform (e.g.: Reinforcement of synergy among businesses through cross-divisional expansion of state-of-the-art technologies, acceleration of development speed through M&A aimed at complementing technologies)



Innovation initiatives towards incubating new products





Intellectual property activities on a global basis



# Local production and local consumption system to fulfill responsibility to realize stable supply

Flexible increase/decrease of production capacity in accordance with the change in product demand

(Examples of areas subject to production capacity increase: precision reduction equipment, aircraft equipment; Example of areas subject to production capacity decrease: hydraulic equipment)



Manufacturing innovation to win the global competition



### Human capital



Human resources who implement The Nabtesco Way



Ongoing activities aimed at the penetration of The Nabtesco Way

Human resources who sincerely seek ways to satisfy customer needs



Systematic curriculum for human resource development

Human resources who value product safety and quality



Original curriculum to nurture a culture of quality



### Organizational capital



Corporate governance with a focus on long-term shareholders and investors



Autonomous initiatives to enhance corporate governance

# Unique PDCA cycle aimed at continuously addressing safety and environmental response

Lost-work time injury frequency rate below the average of the manufacturing industry



Activities to cultivate a safetyoriented culture to eliminate lost-work time injuries



High recognition for initiatives to mitigate environmental impact (e.g.: Nabtesco is on the CDP (Carbon Disclosure Project)'s "Climate Change A-List," which is the highest recognition for actions against climate change.)



Activities to mitigate environmental impact in response to demand from stakeholders





Based on the theme of Technology Innovation, Nabtesco has been working to create new products and services, including updating existing products into mechatronic products and systems, with an eye to meeting customer needs, which are becoming more diversified and sophisticated.

To this end, it is crucial that the business departments incorporate a range of technologies in their development processes, including the electric and electronic control technologies that provide the basis for mechatronic products and systems, IoT- and Al-based sensing technologies, and big data analysis technologies. At Nabtesco, the Technology and R&D Division is leading the cross-organizational use of leading-edge technologies and know-how, and is implementing strategic M&A for technological supplementation to drive innovation for the creation of new products.

# Promoting Comprehensive Measures to Produce Innovations

Nabtesco has been achieving further growth by accumulating technologies and know-how in the process of developing high-precision and high-quality mechanical components to provide safety, comfort and a sense of security. We have made this achievement with each of our business departments supporting customers in developing their products based on our motion control technology for stopping and moving with precision.

Recently, in response to the diversification and sophistication of customer needs, we have been focusing more on developing and proposing mechatronic products and systems with a view to increasing our growth opportunities, in addition to supplying single components and services for which we have competitive advantages. Further, we are now expected to supply products and services that provide a preventive function through monitoring, in addition to the "stopping and moving" functions.

To meet these needs, the Nabtesco Group is accelerating measures to provide customers with a broader variety of value under the leadership of the Technology and R&D Division, and is fostering comprehensive measures to produce innovations.

#### Fostering the Sharing of Advanced Technologies and Know-how across the Business Departments

One of the missions of the Technology and R&D Division is to technically support each business department in implementing measures for sustainable growth. To this end, the Division is working to acquire advanced development methodologies, element technologies and know-how ahead of competitors and to share them with the business departments across a range of fields for product development progress.

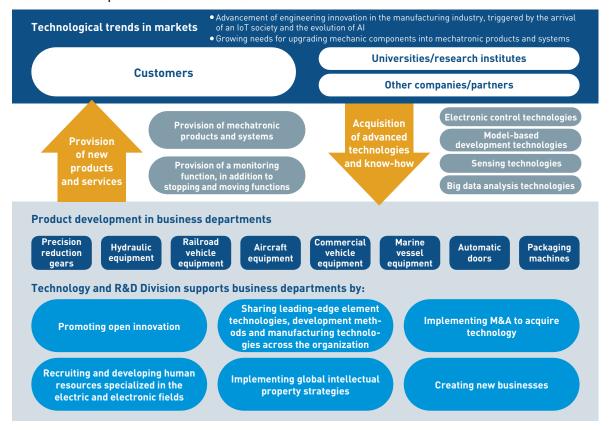
Nabtesco has been making proactive use of computer-aided engineering (CAE) and additive manufacturing (AM) as IT-based development and design tools. Specifically, in the initial stage of product development, we have accumulated know-how on structural analysis, simulation and pre-verification, while also accumulating stereolithography and metal additive manufacturing technologies for more efficient development and manufacturing processes.

In the CAE field, the Division is making fluid analysis to analyze the flows of air and oil, and is also making advanced analysis by combining structural analysis on strength and heat resistance with flow analysis. In addition, the Division is simulating manufacturing processes and sharing advanced analysis technologies widely with the business departments to make their development and manufacturing processes more efficient. In the AM field, we are making use of the know-how of CMET Inc. This Nabtesco Group company provides customers with 3D printers that use resin-based high-speed stereolithography technology. We are thus pressing forward with the development of metal additive manufacturing technology including peripheral element technologies and using these innovative technologies for manufacturing innovation in the aircraft equipment business. (See page 42, TOPIC on additive manufacturing technology to lead manufacturing innovation.)

Furthermore, in response to the rapid advancement of IoT and AI, we are enhancing our sensing technologies. Combining the monitoring of products by sensors with the analysis of big data makes the diagnosis of failures possible. This helps us add the monitoring function to the stopping and moving functions provided by our products, allowing us to provide high value-added products and expand the maintenance, repair and overhaul (MRO) business.

The Technology and R&D Division is focusing on the development of various sensors to enhance the monitoring function of Nabtesco products. Such function is provided by sensors such as the lubricant oil monitoring sensor. The

#### Measures to Develop New Products and Services



sensor quantitatively monitors changes in color caused by contamination (by impurities) and the degradation of lubricant oil used in products in real time. This product technology enables the appropriate management of lubricant oil, which is indispensable for precision components used in machines. We will foster the use of this technology across a range of industrial fields.

#### Increasing R&D Efficiency and Promoting Human Capital Development through Proactive Open Innovation

Nabtesco is fostering open innovation. We will efficiently expand our technology and product lineups and search for new business opportunities by jointly developing technologies with companies and research institutes in and outside Japan.

The Nabtesco Digital Engineering Center (NDEC) serves as an important base for open innovation. Having been moved to the Kyoto Research Park (KRP) for enhancement and expansion in 2015, the NDEC will make use of this innovation hub, which houses 400 companies engaged in various fields, to foster R&D while proactively cooperating with both domestic and foreign companies and universities.

In FY2017, the organizations of the Technology and R&D

Division located at the Kobe Plant will be consolidated into the NDEC to enhance its role as an R&D center for integrated R&D management. Of our eight major production bases in Japan, six are located within a 100 km radius of Kyoto. By further consolidating our R&D resources to Kyoto, we will foster cooperation between the NDEC and the business departments. Moreover, taking advantage of the various universities and research institutes also located in Kyoto, we will recruit locally to develop a workforce familiar with technological trends and with development know-how in the electric and electronic fields. Such expertise is essential for us to develop mechatronic products and systems.

We are also working to build theories for power electronics and develop prototypes in partnership with ETH of Switzerland while fostering the application of analysis technologies for wind power generation together with the Technical University of Denmark (DTU). Through such cooperation with both domestic and foreign research institutes, we are aiming to achieve results in R&D in leading-edge technological fields while also developing personnel versed in global technological trends.

# Implementing M&A to Acquire Technologies to Make Mechatronic Products and Systems

In order to make mechatronic products and systems, it is imperative to adopt foundational electric and electronic control technologies and deal with complex systems to meet the need for increased performance.

Accordingly we acquired OVALO GmbH, which has relevant technologies, in March 2017.

The acquisition of this German company based in Limburg was the first M&A project implemented under the leadership of the Technology and R&D Division. One of the purposes of the acquisition was to accelerate the manufacture of mechatronic products and systems by the use of OVALO's ability to develop motor-control unit integrated products, thereby making technological innovations in the advanced mobility field and developing next-generation businesses.

Another purpose of the acquisition was to obtain the technology developed by adcos, a subsidiary of OVALO, which is now one of Nabtesco's consolidated subsidiaries. By dealing with leading automakers and suppliers in and outside Germany, the software company has obtained model-based development technology, which provides the basis for the development of mechatronic products to be used in automobiles. The technology makes it possible to simulate and check the behaviors of software and hardware using computers, which helps dramatically increase development efficiency and quality.

The acquisition is also important in terms of allowing Nabtesco to secure a base in the European market, which is an important market for the company. Having a base for technological development and production in Germany, a leading country in the EU, gives us a great advantage in obtaining information about the European market and technological trends, and the base is expected to contribute to the expansion of Nabtesco's business in the region.

We will make use of the proven advanced technologies owned by OVALO and adcos in the autonomous driving project in which we are participating in the commercial vehicle equipment business and to foster mechatronics in the precision reduction gear business. We are confident that the acquisition will help us take a big step toward making more mechatronic products and systems. We will also foster close cooperation with Nabtesco Europe GmbH, which was established in May 2017 to enhance our operational basis in Europe, aiming to generate more synergy effects across the Nabtesco Group.

#### **Promoting Technology Innovation**

In our business environment, we are faced with fiercer competition in technological development on a global scale, not only from traditional rivals but also from companies in emerging markets. For sustainable growth, we must therefore have a system to continuously develop engineers who can become leaders in their field. To this

#### **OVALO's products**





e-motor

Active roll stabilizer

#### adcos's products







ECU for RCP\*

\* RCP: Rapid Control Prototyping is a software development method. Software reproduced through model-based development is downloaded into prototype hardware for test operation and improvement. RCP enables developers to verify software before an actual device is designed and manufactured, thereby improving development efficiency and quality.

ECU (Electric Control Unit) for RCP: Hardware used exclusively for development using RCP, before a device intended for production is designed and manufactured.

end, Nabtesco Corporation has developed unique training curriculums, including those for CAE and improvement of software design quality and for basic education, to foster the creation of ideas.

We also regard intellectual property as the basis for enhancing our own and also our customers' and partners' sustainable growth and business competitiveness, and are implementing intellectual property strategies across the Group with a focus on the enhancement of core value for higher competitiveness. In FY2017, we included the creation of intellectual property in the performance indicators for the business departments and systematized the implementation of intellectual property strategies to enhance their core value.

At Nabtesco, the Technology and R&D Division thus supports the business departments that are developing products in close cooperation with customers by providing leading-edge development methods as well as element technologies and know-how. The Division is also supporting the departments in human resource development while implementing intellectual property strategies across the Group. Moreover, we are promoting open innovation in cooperation with both domestic and foreign research institutes and implementing strategic M&A for technological supplementation as well as various other measures in a comprehensive manner for Technology Innovation. The whole of the Group will continue to work for the creation of new solutions.



Special Feature 2

# Intellectual Property Strategy to Enhance Core Business Value for the Future

Against the backdrop of intensifying global competition and the progress of information technology, corporate management and manufacturing strategies are changing. In response, companies are reforming their approach to intellectual property. Specifically, they are shifting from the protection of rights related to their own proprietary ideas and know-how to the implementation of intellectual property strategies to enhance their competitive advantage and realize business strategies through technology marketing and business competitiveness analysis using patent information.

The Nabtesco Group deems its intellectual property as the base that will support the sustainable growth and enhance the business competitiveness of the Group, its customers and partners, and is implementing intellectual property strategies in its business management activities with a focus on the creation and enhancement of core value to enhance its corporate value.

# Analyzing Core Value and Implementing Measures to Enhance That Value

In its intellectual property strategies, the Nabtesco Group focuses on finding and enhancing technological elements for the future development of the Group in addition to protecting the existing businesses and profits.

The business departments analyze the core value that serves as a source of competitiveness and are implementing measures to enhance that value for the future. This core value includes technologies and ideas for products, design and manufacturing know-how, sales information, and longstanding relationships of trust with customers, as well as various other tangible and intangible intellectual properties. We are identifying these sources of value, sorting them into properties to be protected as confidential information and those to be protected in the form of patents and other rights, and are making strategic use of these properties based on appropriate management.

# Newly Including the Creation of Intellectual Property in the Performance Indicators

In FY2017, we newly included the creation of intellectual property in the performance indicators for the in-house companies and Group companies. In the new medium-term management plans set for each of the in-house companies, the companies are required to formulate and implement annual action plans to implement intellectual property strategies for the enhancement of their core value.

In the action plans, numerical targets will be set to encourage employees to make inventions, hit upon new technological ideas, and create know-how and new business plans. The achievement levels of the annual targets will be reported and evaluated at the firm-wide meeting on intellectual property strategies held with the participation of the CEO, Division heads and presidents of the in-house companies.

Actual performance has yet to be evaluated, but the number of new ideas reported to the Company is expected to increase sixfold in 2017 relative to 2013.

The Intellectual Property Department of the head office centrally manages information related to intellectual property, including original ideas and know-how, information about patents owned by customers and competitors, and information on technological contracts. The department will build an intellectual property strategy database, which will be accessible across the Group. Also, the intellectual property promotion committee will serve as a conduit for members of the Group to share intellectual properties for the growth of the entire Group as well as provide opportunities to discuss strategies aimed at making better use of intellectual properties.

Also, in FY2016, we established the Nabtesco Brilliant Inventor (NBI) system to give commendations to inventions and inventors that have contributed to increasing the Nabtesco Group's value.

# Protecting Customers' Business and Products toward the Future

Through these new measures we are speeding up innovation by increasing the creativity of individual employees, aiming to enhance the Nabtesco Group's technological capabilities and corporate value as a whole.

The Nabtesco Group has been expanding business across a range of fields based on the trust earned from its corporate customers, who are leading companies in their respective industries. For the Group, intellectual property strategies also mean strategies to protect the businesses and products of customers and to increase their business value toward the future. The Nabtesco Group will continue to advance its intellectual property activities for sustainable growth.



Nabtesco has introduced ROIC as a management indicator to increase its capital efficiency across its businesses toward the commitment of "ROE: 15%," as upheld in its medium-term management plan. As an initiative to improve operating income margin and asset turnover based on the "ROIC tree," we are fostering unique manufacturing innovation to enhance our production capability, production management ability and procurement ability. To continue winning the increasingly intense global competition, in expanding our business overseas we will pursue overwhelmingly strong competitiveness in manufacturing.

#### "Manufacturing Solutions" Promoted by the **Production Innovation Division**

Under the leadership of the Production Innovation Division, Nabtesco is now formulating the long-term manufacturing vision that will enable it to continue winning the global competition. Our aim is to achieve the modernization of our plants and innovation of our production technologies, to respond to the electronization and electrification of products, and to make strategic growth investments that can contribute to environmental protection during the medium-term management plan period. At the same time, we are building "manufacturing solutions" to make ourselves more competitive by enhancing our production capability, production management ability, and procurement ability. Major initiatives include the promotion of advanced automation to enhance our productivity, development of innovative production technologies such as metal 3D printers, innovation of production management systems, and the reform of our procurement system.

#### **Analyzing Production Capacity to Identify** Strengths and Weaknesses

Nabtesco has analyzed its production capability in order to identify the strengths and weaknesses of each in-house company with the aim of enhancing overall capacity. Specifically, we identified the technologies and skills owned by the in-house companies in machine processing, assembly, testing and special processes, and ranked the companies in terms of technologies and skills to identify their strengths while also examining the technologies under development and those not owned by them to clarify any weaknesses to be addressed. Based on the findings, we are implementing measures efficiently across the in-house companies to enhance their production capacity in a cross-organizational manner.

#### The Key to Improvement is the Advanced Automation of Machine Processing, Assembly and Testing

Our analysis of production capacity has revealed the challenges to be met, of which the biggest is more advanced automation. With regard to machine processing, we will develop advanced automation processing lines and introduce industrial robots and automatic measuring instruments while fostering flexibility for complex processing, downsizing and higher environmental performance as well as developing innovative technologies, such as metal 3D printers.

For assembly, we will jointly develop automatic assembly systems with assembly system manufacturers who have advanced technologies for the purpose, and will also foster standardization at our manufacturing facilities to eliminate variations in our product quality and cut the time required for their manufacture while also improving the workplace environment. Further, for testing, we will develop measurement systems for automatic and higher-quality testing.

#### **Building a Comprehensive Production System** through Smart Production Management and **Logistics Reform**

We also identified the strengths and weaknesses of the inhouse companies with regard to production management ability. At Nabtesco, the production and management systems largely differ by in-house company, but we have set some quantified key performance indicators (KPIs) for the in-house companies, including those related to production lead time and inventory turnover period. We also examined whether the production instructions and logistic activities were appropriate at the manufacturing facilities.

In accordance with the results, we will optimize "Make & Buy" and visualize our production information by using IoT devices based on Nabtesco's unique system shared across the Group. In the future, we will utilize AI for production instructions and scheduling for the management of equipment operation, including quality management and shortening of downtime, toward smart production management. Furthermore, on a medium-term basis we will rebuild our plants and optimize their layouts for smoother logistic activities and comprehensive production.

#### **Building Manufacturing Solutions**

ROIC improvement measures	Major improvement theme	Manufacturing Innovation	Examples at our manufacturing sites
	Higher productivity	Stronger production capability	<ul> <li>More advanced automation</li> <li>On-site improvement/standardization</li> <li>Development of innovative production technologies (such as metal 3D printers)</li> </ul>
Higher operating income margin	Lower procurement cost	Stronger procurement ability	<ul> <li>Optimization of "Make &amp; Buy"</li> <li>Cross-organizational procurement</li> <li>Procurement &amp; logistics reform</li> <li>Development of experts in procurement</li> </ul>
	Lower indirect expenses		Smart production management (by the use of
Higher asset turnover	Shorter production lead time Shorter inventory turnover period	Stronger production management ability	Al and IoT)  Logistics reform

#### Enhancing Procurement Ability to Become Overwhelmingly Competitive in the Market

For procurement, we will optimize "Make & Buy" by fostering the domestic manufacture of components, while reducing the direct cost by implementing a cross-organizational procurement scheme beyond the framework of the in-house companies. Moreover, we will find suppliers who can provide high performance in terms of quality, cost and delivery (QCD) and promote CSR-oriented procurement

while developing procurement personnel who are knowledgeable about manufacturing.

Nabtesco will thus enhance automation, flexibility and environmental performance to gain higher production capability and production management/procurement abilities to build "manufacturing solutions" in order to become overwhelmingly competitive in the market, thereby accelerating innovations for total optimization and ROIC improvement.

#### Innovation by Additive Manufacturing

Additive manufacturing (AM) has recently been attracting a lot of attention as a production technology for manufacturing innovation. We will foster this 3D print-



Metal 3D printer

er-based technology for rapid and high-precision manufacturing by adding metal 3D printing for mass production to the resin-based rapid prototyping (RP) technology provided by Nabtesco Group company CMET Inc.

Already in the West, metal 3D printers have begun to be used in the medical, dental and aerospace industries. These printers enable the manufacture of metal components with complex shapes that are difficult to make by traditional methods, such as casting and cutting, which makes it possible to produce a variety of products in small quantities and to customize products. Furthermore, substantial cost reduction, short-

ening of the work period, and direct transmission of product data from CAD to a device will foster seamless design and production, allowing users to conduct manufacturing activities anywhere in the world, including locations remote from design bases.

Nabtesco has long been paying attention to metal 3D printing and developing peripheral element technologies.

We are focusing particularly on the prototyping of components with complex shapes made from materials that are lightweight, strong and expensive, such as titanium and aluminum, for use in aircraft engines and on the development of the manufacturing processes and materials. At present, the Technology and R&D Division's AM Engineering Department is conducting joint research with metal 3D printer manufacturers and universities and using the know-how gained through the research across the Company.

We will also make use of the CAE-based simulation technology to downsize and reduce the weight of our products for product optimization and innovative manufacturing.



# Focusing on nurturing a safety culture to achieve the goal of zero work-related accidents

Safety is an essential factor in enabling people to live rich and full lives and promoting the further development of society. Thanks to technological progress, nowadays the safety of various devices and products is much enhanced. A single incident, however, can still have a broad impact on society beyond the direct damage caused. Companies are therefore required to refine their safety awareness to an even greater level and to contribute broadly to the safety and security of society.

The Nabtesco Group is committed to raising the safety awareness of individual employees, including both plant workers and managerial personnel, in addition to implementing traditional safety measures. We will nurture a unique "safety culture" by continuing to provide safety education and will verify the results with an eye to achieving no work-related accidents or incidents.

# Ensure Safety by a Three-Pronged Approach, Giving First Priority to Protecting People



For manufacturers like the Nabtesco Group, "safety" means: (1) manufacturing products in a safe manner; (2) making safe products; and (3) ensuring the safety of products during use. These three requirements should be met together, as we cannot deliver safe products to customers without ensuring the safety of our manufacturing facilities and providing necessary maintenance, service and safety functions

Manufacturing safe products and ensuring the safety of products during use help our customers ensure the safety of their products and their end users, while ensuring the safety of our manufacturing facilities and providing even safer maintenance and service functions help protect the health and well-being of our employees and their families and reduce social losses. Based on this recognition, the Nabtesco Group is taking a three-pronged approach to safety, with first priority given to protecting people over cost reduction and profit-making.

# Centrally Fostering Environmental, Safety and Health Management

We have been implementing multifaceted measures to increase the safety of our manufacturing facilities toward achieving the goal of zero work-related accidents or serious incidents, including the "ESH audits" carried out as the core of these measures.

ESH stands for "environment, safety and health," which are important elements that support the Nabtesco Group's business activities. Our Group Environment, Safety & Health (ESH) Committee, which reports directly to the president, centrally fosters the management of ESH across the Group, including by promoting the reduction of environmental impacts as well as ensuring the safety and health of employees.

The Group ESH Committee centrally collects, analyzes and evaluates important ESH-related information and discusses necessary measures. In addition, the committee members annually visit each of the Group's sites to carry out ESH audits to check on-site activities and give instructions as necessary. Specifically for safety, the members examine whether the site is appropriately implementing incident risk countermeasures and if any risks remain. At the end of each fiscal year, the Group's management team reviews the ESH management system based on the ESH audit results as well as on the reports made on the ESH activity results, including the follow-up reports for the audits. We have thus been executing the Plan, Do, Check and Act (PDCA) cycle to steadily increase the safety of our manufacturing facilities.

# Achievement of No Work-Related Accidents by Some Bases through Steady and Multifaceted Activities

The second core part of the aforementioned measures is the "analysis of past work-related accidents and imple-

mentation of intensive measures based on the results." All incidents, including minor ones, are required to be reported across the Group for information-sharing purposes. In particular, for a serious incident, we conduct an on-site examination to analyze the cause, decide on the items to be focused on, and implement measures based on the results.

In addition, in order to enhance safety patrols and improve the risk sensitivity of employees, we have conducted Risk Detection Training encouraged "near miss" incident reporting, and promoted awareness-raising activities.

As a result of these efforts, the frequency of work-related accidents including commuting-related injuries dropped in FY2016 from the previous year, while the lost-work time injuries frequency rate\*2 has been below the industry's average for the most recent five years. There have been no fatalities among our employees, including irregular workers, within the last over five years.

Looking at the results by site, the Yamagata Plant of Nabtesco Automotive Corporation (commercial vehicle equipment) achieved zero work-related accidents, including commuting-related injuries, in FY2016. In response, the Group ESH Committee established a safety commendation system during the fiscal year and the Yamagata Plant became the first to receive the commendation. Also, the Kobe Plant (railroad vehicle equipment) of Nabtesco Corporation achieved zero work-related accidents in FY2016.

# Starting New Activities to Nurture a Safety Culture

We have thus achieved certain results by implementing traditional safety measures, but in order to achieve zero work-related accidents/serious incidents across the Group, we need to take measures on a higher level.

The proximate causes of workplace accidents are the use of production equipment and the behaviors of workers, but the fundamental causes lie in the attitude and culture of the organization. In order to improve workplace safety, it is therefore necessary to nurture a safety culture and ensure that the entire organization adopts a more safety-oriented attitude in addition to implementing measures against individual risk factors, as in the past.

To this end, we started new activities in 2017, including the STOP3 activity to enhance measures to prevent cuts/ abrasions, getting caught, and falls, which account for large percentages of previous work-related accidents that have happened within the Group, as the three priorities.

# Fostering a Range of Activities to Nurture a Safety Culture

To eliminate organizational factors that could lead to incidents, we are working to establish a stratified safety education system and to designate "safety model workplaces." The stratified safety education system is intended to raise the safety awareness of managers. By educating managers on safety in addition to providing on-site workers

with safety education as in the past, we aim to make all members of a workplace aware of safety and to eliminate differences in the level of awareness among workplaces and departments.

To establish "safety model workplaces," in its first year, we will select one plant and one office to serve as model workplaces, where safety education and measures will be enhanced. Subsequently, we will analyze the effects of the initiative and make improvements as required while increasing the number of model workplaces gradually.

In FY2017 and onwards, we will hold environmental safety forums internally. We will organize seminars by inviting experts and hold meetings to report the results achieved at the safety model workplaces to further enhance employees' safety awareness.

In order to achieve zero work-related accidents and serious incidents across the board, the Nabtesco Group will continue to focus on nurturing a safety culture.

- \*1 Near miss: An event that could have resulted in injury or other incidents
- \*2 Please see page 18, Financial/Non-Financial Highlights.

# About the Fire at Nabtesco's Gifu Plant

At 1:46 a.m. on March 13, 2017, a fire broke out at Nabtesco's Gifu Plant, which is a production base for the aircraft equipment business. We sincerely apologize for any concerns or problems caused to our neighbors, customers, shareholders and related organizations.

The assembly and test room mainly used for products to be supplied to the Japanese Ministry of Defense caught fire, and some of the production facilities and products were burned or affected by fire extinguishing agents within an area of about 180 m<sup>2</sup>. However, there was no damage caused to people or to other production facilities.

The manufacture of the products was continued immediately following the incident by using other areas of the Plant, but following the full recovery of the damaged building, operation in that building resumed in May. The affected production systems have also been repaired or replaced in succession, and all production facilities will be fully restored by the fall of 2017. Accordingly, the Plant will be able to return to its ordinary production status within the year, and the incident will have only a minor impact on business performance.

With a view to ensuring the stable supply of our products, we will enhance the inspection, monitoring and protection functions of our plants and foster the use of inflammable materials, thereby managing fire risks more thoroughly to prevent fires and to minimize the impact if a fire does break out at one of our plants.



# Fostering measures to combat climate change by setting long-term targets

To ensure the sustainability of our lifestyles, our economic activities and the global environment, the United Nations adopted the 2030 Agenda for Sustainable Development in 2015. Subsequently, in 2016, the Paris Agreement came into effect as an international treaty to combat climate change. In line with these movements, global companies are increasingly expected to fulfill their corporate social responsibility.

To meet the requests of its stakeholders, Nabtesco has been focusing on reducing its environmental impact in accordance with the concept of materiality (material CSR issues) by setting a long-term greenhouse gas emissions reduction target for FY2050. We are thus accelerating measures to combat climate change.

#### **Environmental Management System** Implemented by the Group ESH Committee

Nabtesco has been implementing a variety of environmental measures for a sustainable society, aiming to reduce the environmental impact caused by its manufacturing activities.

The Group ESH Committee (see page 103), which reports directly to the president on issues related to the environment, safety and health, is in charge of promoting environmental management. Since its establishment in 2003, the Company has positioned environmental measures as one of its strategic priorities, and a series of discussions have been held at meetings of the committee, in which the heads of the in-house companies and Group companies have participated. Our environmental strategies, including medium- to long-term targets, have thus been decided and implemented in a top-down manner.

#### Speeding up the Execution of the PDCA Cycle through the Nabtesco Energy Management System (NEMS)

As part of our major environmental initiatives, we formulated our Environmental Philosophy and Environmental Action Plan in 2005. Since then we have been working to raise awareness of these principles across Group companies while making use of the ISO 14001 international standard as an effective tool for environmental management, utilizing it in the building and operation of our environmental management system. All Nabtesco Corporation plants and five major Group companies are already certified under ISO 14001 and we are fostering environmental measures across the Group.

For energy conservation, we established the Nabtesco Energy Management System (NEMS) for the continuous execution of the PDCA cycle and have been fully operating the system since 2015.

As specific measures, we formulated energy conservation guidelines for capital expenditure to foster energy conservation ideas, while introducing the Eco Track environmental information management tool to collect environmental information from each of our sites and analyze the obtained data. Furthermore, we installed monitoring system in six Nabtesco Corporation plants for real-time measurement of the energy consumed by the devices we use. We are also raising awareness of energy conservation among employees by establishing an energy saving committee at each of our plants and setting detailed individual targets for the plants in consideration of their actual situations, thereby powerfully driving energy conservation across the board.

#### Reducing CO<sub>2</sub> Emissions Based on a Long-**Term Target**

The most important challenge to be met in our environmental management initiatives is the reduction of CO<sub>2</sub> emissions to combat climate change.

As the medium-term targets for FY2020, we are upholding a reduction in our greenhouse gas emissions in Japan relative to FY2015 levels, and a 9% or more reduction in our CO<sub>2</sub> emissions per units of sales (global) including our sites outside Japan (relative to FY2015 levels). Furthermore, we have set reduction targets of 30% for FY2030 and 80% for FY2050 (relative to FY2015 levels).

These targets are in line with the 2 degrees Celsius target\*1 set as an international benchmark for climate change countermeasures to be implemented in and after 2020 under the Paris Agreement\*2, which came into effect in 2016. Our long-term target for Nabtesco Corporation's CO<sub>2</sub> emissions also qualifies as a Science Based Target (SBT)\*3.

In order to attain the long-term target, we introduced our energy-saving product certification system and energy-saving activity commendation system in FY2012 in our effort to make more effective use of energy resources across the Group. In addition, in FY2017, we incorporated the indicator of environmental objective (reduction of CO2 emissions) achievement ratio into the performance evaluation of business departments for further improvement of our environmental management.

#### Measures to Climate Change Issues

Category	~2010	20	11	2012	2013	2014	2015	2016~
Activity to in- crease employ- ees' awareness of environmen- tal philosophy	2005: Formulate Environmental P phy and Environ Action Plan	hiloso-		•Introduced the ene	nment-related ince	ity commendation pro	Achievemer tive environ contribution	mental pany evaluation index
Environmental Management	2003: Six plants by major Group onies, have becon 14001 certified	compa-		2015:	EcoTrack Started reporting to Officers Committee		NEMS (Nabtesco I Energy conserva Energy monitorin	
Expansion of target scope	2004: Started ca of Scope 1 and 2			arty verification e 1 and 2	Calculation of Scope 3 emissions	Third-party verifi	cation of calculation	of Scope 3 emissions
Cooperation with suppliers and customers								s efficiency using Scope 3 data ental SAQ (Self Assessment Questionnaire)

Going forward, we will further foster energy conservation by updating our equipment and rebuilding our plants while promoting the use of renewable energy and introducing private hybrid power generation equipment using hydrogen. We will thus gain speed in the implementation of measures with an eye to promoting energy creation and to attaining our long-term target.

Moreover, we are proactively calculating our environmental data and disclosing the results. In FY2013, we launched a "Scope 3" initiative to calculate and disclose our greenhouse gas emissions, targeting the entire supply chain. ("Scope 1" targets direct emissions and "Scope 2" indirect emissions such as those from the use of electricity.) In addition to this, we are disclosing the multifaceted environmental measures that we take for zero emissions, the reduced use of hazardous substances, and the protection of water resources to contribute to the conservation of the global environment, thereby ensuring the transparency of our activities.

# Earning More Trust from Stakeholders through Environmental Management

The Group was internationally recognized for its environmental measures and disclosure of its activities, as demonstrated by the inclusion of Nabtesco in both the CDP's Climate A List and its Supplier Climate A List, which means that the Company has received the highest evaluation from the international NGO. The CDP, through cooperation among institutional investors, urges the world's leading companies in terms of market capitalization to disclose information about their climate change combat strategies and  $\text{CO}_2$  emissions, and annually selects companies that demonstrate excellence in relevant measures based on evaluation scores, which are publicly disclosed.





Furthermore, in April 2017, Nabtesco received the 2016 Boeing Supplier of the Year Award in the environmental category.

We will continue to make steady and strenuous efforts to achieve our medium- to long-term targets, thereby meeting the expectations of our customers and investors.

- \*1 The Paris Agreement is a multilateral international agreement to curb climate change in and after 2020 and was adopted on December 12, 2015 at the 21st Conference of the Parties to the UN Framework Convention on Climate Change (COP21)
- \*2 The 2 degrees Celsius target is an international target set in the Paris
  Agreement to keep the average rise in global temperature to below 2 degrees
  Celsius
- \*3 The SBTs are intended to urge companies to set their medium- to long-term targets (for the period from five to 15 years from now) in a manner that allows the international community to achieve the 2°C target. Companies are certified if they pass the SBT Initiative's examination.

# Received Environment Award as a 2016 Boeing Supplier of the Year



Nabtesco Corporation has been recognized as 2016 Supplier of the Year in the (Environment) category by The Boeing Company. We are honored

to receive the Supplier of the Year award for the third time in four years, followed by 2013 (Alliance) and 2015 (Collaboration).

Nabtesco has built a great partnership with Boeing over the years since 1976, supporting Flight Control Actuation Systems and Hydraulic Equipment for the Roeing 737, 747, 747, 777, 737MAX, and the latest 777X

This award comes as recognition of Nabtesco's long years of business contribution and the high level of our environmental initiatives. We will continue to work diligently to live up to this honor and further contribute to safe, reliable, and comfortable air travel for our worldwide customers based on our solid business vision in anticipation of the future society.



# Continuing to Develop Human Resources Devoted to Promoting a **Culture of High-Quality Manufacturing**

Manufacturers cannot satisfy their customers without ensuring quality. Here, "quality" means not only quality related to specifications and performance but also across-the-board manufacturing quality that creates value for customers, including through design and production. In line with our corporate culture, which is established through long-term education, training and organizational management, employees are expected to ensure quality as their individual responsibility.

To nurture an advanced culture of high-quality manufacturing, the Nabtesco Group is providing employees with unique systematic education on quality, including via the "Quality University" courses. The Company has, since day one, been sophisticating its core design and manufacturing technologies. In order to enhance them further, all employees must work to solidify the foundation that supports quality manufacturing. Our unique educational activities, which have been steadily continued for years, will help accelerate the Technology Innovation referred to in the medium-term management plan and will also increase the quality of our manufacturing facilities and help develop human resources able to deliver high-quality and safe products.

#### Creating a Culture of Quality Manufacturing for **All Products**

The Nabtesco Group has customers active in a range of sectors, including transportation, industry, energy and infrastructure. By continuing to meet the strict demands for quality, reliability and safety of these customers, who are themselves fulfilling crucial social and economic functions, we have been earning their long-term trust while also fulfilling our own corporate social responsibility.

Thanks to the commitment to quality exhibited by individual employees, we have been receiving high marks from customers. However, the Nabtesco Group provides a variety of systems and product lineups, and cannot increase the quality of all these products by drawing upon a limited stock of technologies and methods. We are therefore introducing IT and other advanced technologies to our quality management, while attributing special importance to the creation of a culture of quality manufacturing for all our products.

Such a culture can be created as a result of long-term education, training and organizational management. We believe that helping employees gain meaningful experience that allows them to think and act in line with core principles and rules to make really effective use of available technologies will, in turn, help the entire Company improve its manufacturing quality on a long-term basis. Based on this belief, we have been providing employees with unique education, including via the "Quality University" courses.

#### **Building up a Basis for Preventing Errors and Failures**

We founded the Quality University courses in FY2007, with 16 design engineers becoming the first students. We added a course for managers in FY2009, and selected employees were trained via the University courses until FY2011.

The first graduates of the courses are now working as key members of the technology and quality management departments, spreading the culture of quality manufacturing throughout the entire Group. In addition to this, the first and second round of graduates have been leading the promotion of quality engineering to make high quality and high productivity compatible.

In FY2012, we established the mandatory Quality University basic course for Group employees in their third year of employment. Every year about 30 to 40 young employees

participate in this six-month course to learn about quality management both theoretically and practically to increase their quality awareness. The number of employees who have completed the Quality University courses totals about 300 over 10 years.





Group photo of past students of the Quality University courses (Jan. 2010)



Directors receiving training on quality engineering in Jul. 2009

One of the fundamental contributors to lower quality is human error, which is caused by a lack of knowledge/experience, habituation, preconceived notions/misunderstandings and various other psychological factors. Even a minor error can lead to the manufacture of defective products or to a serious incident if a combination of negative factors is at play.

Recurring problems can be prevented, however, by understanding how and why human error occurs. Nabtesco established the Quality University courses to provide employees with opportunities to learn from failure, understand how errors that lead to failures arise, and share their know-how to prevent the recurrence of similar errors, aiming to develop a widespread corporate culture of error and failure prevention.

The Quality Promotion Department prepares all course curriculums so that participants can share knowledge of past failures experienced by Group companies across various industries while also learning about advanced quality assurance methods. Because the Nabtesco Group is engaged in a broad spectrum of industries as a manufacturer, it can provide employees with unique training to prime them to become "quality aware." In the process, the training methods are also being sophisticated, allowing the Group to establish a culture of quality manufacturing for the provision of safety, comfort and a sense of security.

# Attributing Importance to "Knowing Why" in Business Operations

Due to the recent digitization of design and manufacturing technologies, it is now possible to conduct design and other activities without a deep background understanding of technological principles. At the same time, however, this has given rise to increasing concerns about errors caused by lack of knowledge. In response, we started the Knowwhy Nabtesco activity in FY2015.

This activity is designed to encourage employees to ask "Why?" when they do not understand some aspect of their business operations and to search for the reason, principle, purpose or objective. In the activity, employee questions about their own business operations are collected, and those that appear repeatedly or are deemed important are

picked up to be solved at meetings held in the respective workplaces. The details of the meetings are shared by related employees to improve work quality and pass on their knowledge, wisdom and technological know-how to the next generation.

In particular, seeking to "Know-why" about products can directly lead to the identification of core value that cannot be discovered by reverse engineering. Such value should be protected as "black box" value and also as a source for the creation of new value. The "Know-why Nabtesco" activity thus has additional significance in that it helps us to recognize and pass on core value.

# Substantially Reducing Loss Caused by Quality Defects

In addition to the aforementioned two activities, we are working to enhance the basis for our design and manufacturing quality through Group-wide training initiatives, including giving intensive basic education on quality to new employees and instructing employees at plants in Japan, bases outside the country and at suppliers about 5S\* improvements as well as providing technical training on product liability and safety, training on risk assessment, training to enlighten workers on manufacturers' ethics, and training for mid-career hires.

As a result of us continuing the activities to develop quality-aware human resources from a long-term perspective, loss caused by quality defects steadily declined by more than half in FY2016 relative to FY2006, or before the launch of the Quality University courses. The education activities have thus contributed to the improvement of the corporate structure.

It may be possible to copy the shapes and specifications of products, but quality that satisfies customers and a corporate culture that supports such quality cannot easily be reproduced. It is this kind of quality and culture that subtly differentiates one company from another. Based on this recognition, we will continue to steadily educate the next generation of young engineers using our original training programs on quality, thereby cementing our unique culture of quality manufacturing and securing a workforce able to provide customers with greater value.

<sup>\*</sup> The 5Ss are *seiri* (sort), *seiton* (set in order), *seiso* (shine), *seiketsu* (standardize) and *shitsuke* (sustain).

### Major Financial Indicators

	2007/3	2008/3	2009/3	
Net sales	161,445	174,254	158,171	
Cost of sales	123,640	132,642	124,041	
Selling, general and administrative expenses (SG&A)	21,378	22,183	22,118	
Operating income	16,427	19,429	12,012	
Income before income taxes and minority interests	16,691	18,433	7,932	
Income taxes	6,216	6,370	2,778	
Minority interests *1	691	1,038	728	
Net income *2	9,784	11,025	4,426	• • • • • • • • • • • • • • • • • • • •
At year-end				
Current assets	95,625	99,237	84,306	
Tangible fixed assets	43,610	43,346	45,207	
Total assets	163,223	163,317	144,685	
Current liabilities	57,098	58,183	41,209	
Interest-bearing debt	26,927	23,115	19,160	
Net assets	77,110	82,492	81,716	
Retained earnings	38,304	47,412	49,669	
Cash flows				
Cash flow from operating activities	8,293	18,249	14,055	
Cash flow from investing activities	-6,941	-8,969	-9,329	
Cash flow from financing activities	6,135	-5,748	-6,189	
Per share of common stock (Yen)				
Net income per share	77.10	86.77	34.82	
Net assets per share	575.19	609.08	601.75	
Cash dividends per share	14.00	16.00	13.00	• • • • • • • • • • • • •
Ratio (%)				
Operating income margin	10.2	11.2	7.6	
Return on assets (ROA)	6.3	6.8	2.9	
Return on equity (ROE)	14.3	14.7	5.8	
Payout ratio	18.2	18.4	37.3	
Equity ratio	44.8	47.4	52.9	

<sup>\*1</sup> Net income or net loss attributable to non-controlling interests

<sup>\*2</sup> Net income attributable to shareholders of the parent company

\*3 Due to the change of the accounting closing date of fiscal year since FY2015/12, the results for FY2015 is calculated on a basis of 9 months for Nabtesco Corporation and the other consolidated subsidiaries in Japan, and 12 months for the overseas consolidated subsidiaries.

							(Million	
2010/3	2011/3	2012/3	2013/3	2014/3	2015/3	2015/12*3	2016/12	
126,249	169,304	198,527	179,543	202,292	219,657	187,000	244,618	
 97,817	127,712	148,184	134,859	148,321	158,693	136,576	175,379	
 20,467	21,380	27,484	29,670	33,877	37,347	35,129	45,767	
 7,965	20,212	22,859	15,013	20,092	23,615	15,294	23,471	
 8,012	21,954	24,848	18,997	23,522	27,026	15,358	26,122	
 3,272	7,485	8,874	5,598	8,140	9,254	5,731	8,219	
 723	1,081	1,217	129	404	25	-1,432	317	
4,017	13,388	14,757	13,269	14,978	17,746	11,059	17,584	
89,893	119,003	123,929	112,048	134,159	139,321	128,575	145,991	
 44,102	44,442	51,509	54,475	55,225	56,877	55,916	67,822	
 149,481	180,729	208,093	203,056	233,984	245,992	233,381	258,946	
 43,611	74,892	70,897	52,322	73,161	64,830	73,000	74,802	
 19,920	20,158	31,695	26,389	26,203	16,659	15,332	16,995	
 85,168	96,531	107,467	120,857	139,471	158,664	148,924		
 52,662	64,263	74,816	83,606	94,225	107,554	107,487	119,345	
 14,892	27,997	15,104	12,952	27,597	19,949	8,746	27,729	
 -6,156	-4,420	-27,464	-13,693	-8,064	-7,880	-4,886	-14,989	
-684	-1,850	6,036	-10,090	-8,175	-15,888	-19,090	-4,808	
31.70	105.91	116.74	104.57	117.95	140.24	88.85	142.37	
 628.29	713.77	784.12	894.86	1,035.68	1,184.17	1,150.41	1,215.31	
9.00	25.00	34.00	34.00	38.00	44.00	44.00	50.00	
6.3	11.9	11.5	8.4	9.9	10.8	8.2	9.6	
 2.7	8.1	7.6	6.5	6.9	7.4	4.6	7.1	
 5.2	15.8	15.6	12.5	12.2	12.6	7.6	12.0	
 28.4	23.6	29.1	32.5	32.2	31.4	49.5	35.′	
 53.1	49.9	47.6	56.2	56.0	60.9	60.9	58.0	

# Operating Results for the Fiscal Year Ended December 31, 2016

During the fiscal year ended December 31, 2016, the global economy remained rather sluggish as a whole in the absence of significant engines of economic growth, as observed in Europe and the United States, where a sense of uncertainty about the future persisted on the back of the decision by the United Kingdom to leave the European Union and the US presidential election. Furthermore, there was economic deceleration in emerging countries as observed in the slower growth of the Chinese economy as well as the stagnant economies of the Southeast Asian countries. The Japanese economy witnessed renewed sluggishness as indicated in the slowdown of personal consumption as well as the fluctuations of foreign exchange rates, and the deceleration of economies in emerging markets, despite signs of improvement in the employment situation.

Under these circumstances, the consolidated operating results of the Group for the period under review recorded net sales of ¥244.6 billion, operating income of ¥23.4 billion, and net income attributable to owners of the parent of ¥17.5 billion, mostly reflecting the robust demand for industrial robots and the conversion of a domestic sales company of automatic doors into a consolidated subsidiary, despite sluggish shipping and shipbuilding markets. As a result, both sales and income for the period under review increased from the fiscal year ended December 31, 2015 (reference)\*.

\* Please note that the estimates for FY2015/12 (Reference) were calculated for the period of 12 months to make comparisons with the plan for FY2016/12 under the same conditions.

#### Analysis of Factors Behind Year-on-Year Changes in Operating Income for the Fiscal Year Ended December 31, 2016

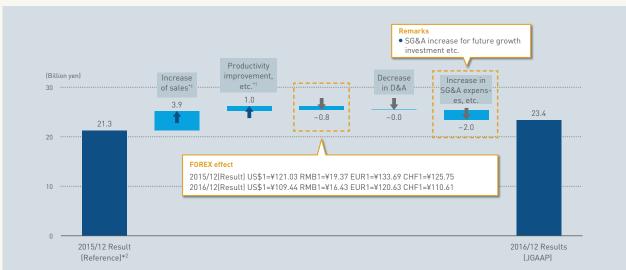
Operating income for the fiscal year ended December 31, 2016 increased ¥2.1 billion from the fiscal year ended December 31, 2015 (reference) to ¥23.4 billion. Key positive contributing factors included ¥3.9 billion increase due to an increase in sales and a ¥1.0 billion increase due to improvement of productivity, etc.

Higher profits due to an increase in sales were primarily attributable to the growth of the precision reduction gear business, hydraulic equipment business, railroad vehicle equipment business, commercial vehicle equipment business and automatic door business. In the precision reduction gear business, demand for industrial robots remained robust, reflecting mostly the demand for automation investment in the automobile industry. Meanwhile, the hydraulic equipment business achieved profitability due to the effects of structural reforms of Chinese bases in 2015 and the growth of demand in Chinese markets in 2016. In the railroad vehicle equipment business, profit was boosted on the back of strong demand for after-sale services both in Japan and overseas while the commercial vehicle equipment business witnessed robust replacement demand for trucks in the Japanese market. In the automatic door business, the Company converted its domestic sales company into a consolidated subsidiary with the aim of expanding the sales network in Japan.

Higher profits due to improvement of productivity, etc. were mainly the result of efforts by each plant to promote automation and shorten lead time.

Meanwhile, primary negative contributing factors behind

#### Analysis of Factors Behind Year-on-Year Changes in Operating Income for the Fiscal Year Ended December 31, 2016



<sup>\*1</sup> Fluctuations in operating profit owing to the increase of sales and SG&A expenses are based on the calculation without FOREX effect.

<sup>\*2</sup> Please note that the estimates for FY2015/12 (Reference) were calculated for the period of 12 months to make comparisons with the plan for FY2016/12 under the same conditions.

a decrease in operating income included a ¥0.8 billion decrease due to the impact of foreign exchange fluctuations and a ¥2.0 billion decrease reflecting the impact of an increase in selling, general and administrative expenses in line with growth investment, etc.

Regarding the impact of foreign exchange fluctuations, while the overall impact was not relatively large as most of the Company's businesses engage in transactions denominated in yen, some businesses such as the aircraft equipment business, which has dollar-denominated businesses, were affected by foreign exchange fluctuations. The increase in selling, general and administrative expenses was primarily attributable to the conversion of a domestic sales company of automatic doors into a consolidated subsidiary.

# Projection for the Consolidated Fiscal Year Ending December 31, 2017

While the prospects for the world economy as a whole are expected to remain uncertain for the foreseeable future, the Group expects robust demand for precision reduction gears for industrial robots, and favorable effects in the automatic door business of the conversion of a domestic sales company into a consolidated subsidiary, which was implemented in April 2016. In summary, the Company forecasts net sales and operating income will reach ¥260.0 billion and ¥26.0 billion, respectively, for the consolidated fiscal year ending December 31, 2017.

The Company has decided to apply International Financial Reporting Standards (IFRS) on a voluntary basis from the consolidated fiscal year ending December 31, 2017 to enhance the comparability of financial information in the

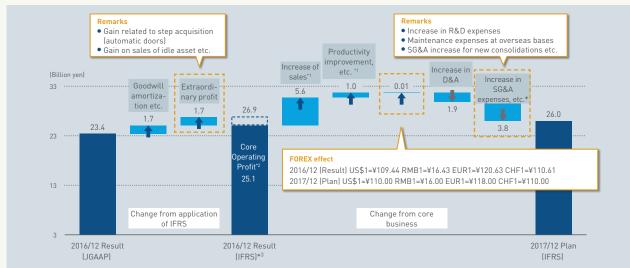
capital markets on a global basis, as well as improve the accuracy of management administration within the Group by unifying the accounting standards. As a result, the forecasts for the consolidated operating results have been computed based on IFRS.

#### Analysis of Factors Behind Year-on-Year Changes in Operating Income (Plan) for the Fiscal Year Ending December 31, 2017

As mentioned above, the Company has provided reference values in order to compare operating income for the fiscal year ended December 31, 2016 on the IFRS basis in line with the voluntary application of IFRS. While operating income for the fiscal year ended December 31, 2016 under Japanese GAAP was ¥23.4 billion, operating income for the same period on the IFRS basis was ¥26.9 billion. Positive contributing factors included an approximately ¥1.7 billion increase due mainly to the absence of amortization of goodwill in the automatic door business and hydraulic equipment business as well as an approximately ¥1.7 billion increase in extraordinary income under the Japanese GAAP including gain on sales of unused land and gain on step acquisitions as a result of the acquisition of an automatic door subsidiary.

The Company discloses "core operating profit" with the aim of clearly showing the actual growth of businesses. Against core operating profit of ¥25.1 billion for the fiscal year ended December 31, 2016, which has been computed by excluding extraordinary income and loss factors based on the voluntary application of IFRS, operating income for the fiscal year ending December 31, 2017 is forecast to increase ¥0.9 billion from the previous fiscal year to ¥26.0 billion.

#### Analysis of Factors Behind Year-on-Year Changes in Operating Income (Plan) for the Fiscal Year Ending December 31, 2017



- \*1 Fluctuations in operating profit owing to the increase of sales and SG&A expenses are based on the calculation without FOREX effect.
- \*2 Core operating profit: Calculated the sum of operating income year ended December 2016(JGAAP), goodwill amortization and others.
- \*3 Actual figures for FY2016 (IFRS) represent referential values prepared for the purpose of comparison with the forecast for FY2017. Therefore, they are subject to change after auditing

#### Financial Information

The Company forecasts key positive contributing factors including a \$5.6 billion increase due to an increase in sales, a \$1.0 billion increase due to improvement of productivity, etc., and a \$10 million increase due to foreign exchange fluctuations.

In terms of drivers for higher profits due to an increase in sales, the Company expects the growth of the precision reduction gear business, hydraulic equipment business, automatic door business and packaging machine business. In the precision reduction gear business, demand for precision reduction gears for industrial robots will continue to grow on the back of a rise in demand for automation investment in the automobile industry while sales of the hydraulic equipment business are anticipated to expand, reflecting robust demand for construction machinery in China and emerging markets. In the automatic door business, sales are expected to increase due to the subsidiary that was consolidated in April 2016 contributing to earnings on a full-year basis. For the packaging machine business, the Company anticipates growth primarily in overseas markets.

The Company forecasts that the impact of foreign exchange fluctuations will be immaterial as significant foreign exchange fluctuations are not anticipated in 2016 and 2017.

Meanwhile, primary negative contributing factors behind a decrease in operating income will be a ¥1.9 billion increase in depreciation and amortization and a ¥3.8 billion increase in selling, general and administrative expenses.

Depreciation and amortization is expected to increase as a result of growth investment such as capital expenditure related to new programs for civil aircraft in the aircraft equipment business in addition to the expenses related to increased production in line with the growth of demand for industrial robots in the precision reduction gear business.

Selling, general and administrative expenses are expected to increase, reflecting an increase in R&D costs related to the development of system products, etc. as well as an increase in expenses for upgrading overseas bases including OVALO GmbH in Germany, which was acquired in March 2017, among other factors.

#### Status of Assets, Liabilities and Net Assets

#### [Assets]

Total assets as of December 31, 2016 were  $\pm 258.9$  billion, an increase of  $\pm 25.5$  billion from December 31, 2015, consisting of  $\pm 145.9$  billion in current assets and  $\pm 112.9$  billion in fixed assets.

Key positive contributing factors included increases of ¥7.8 billion in cash and time deposits due mainly to the conversion of a domestic sales company of automatic doors into a consolidated subsidiary, ¥5.9 billion in notes and accounts receivable, ¥2.7 billion in products in progress and ¥11.9 billion in tangible fixed assets.

Meanwhile, the primary negative contributing factors were decreases of ¥2.3 billion in goodwill for the automatic door business and the hydraulic equipment business,

and  $\pm 2.3$  billion in investment securities as a result of the conversion of an equity-method affiliate into a consolidated subsidiary in the automatic door business.

#### [Liabilities]

Total liabilities as of December 31, 2016 were  $\pm$ 100.4 billion, an increase of  $\pm$ 15.9 billion from December 31, 2015, reflecting  $\pm$ 74.8 billion in current liabilities and  $\pm$ 25.6 billion in long-term liabilities. The main positive contributing factors were a rise of  $\pm$ 4.3 billion in income taxes payable and of  $\pm$ 2.0 billion in liabilities associated with retirement benefits due to the conversion of a domestic sales company of automatic doors into a consolidated subsidiary.

#### [Net assets]

Total net assets as of December 31, 2016 stood at ¥158.5 billion, an increase of ¥9.5 billion from December 31, 2015. Shareholders' equity amounted to ¥150.1 billion, an increase of ¥8.0 billion from December 31, 2015. The key positive contributing factor was growth in earned surplus arising from net income attributable to owners of the parent of ¥17.5 billion. Meanwhile, primary negative contributing factors included a ¥5.7 billion decrease in earned surplus due to dividend payments, and a decrease of ¥3.0 billion in translation adjustments due to changes in foreign exchange at overseas subsidiaries. As a result, the shareholders' equity ratio stood at 58.0% and net assets per share amounted to ¥1,215.31.

#### **Status of Cash Flows**

Cash and cash equivalents (hereinafter, "capital") as of December 31, 2016 stood at ¥41.7 billion, an increase of ¥7.0 billion from December 31, 2015, reflecting ¥27.7 billion in capital generated from operating activities, which was mainly used for capital expenditure and dividend payments. Meanwhile, free cash flow (total amount of cash flow from operating activities and cash flow from investing activities) totaled ¥12.7 billion, an increase of ¥8.8 billion from December 31, 2015.

#### [Cash flow from operating activities]

Net cash generated from operating activities for the fiscal year ended December 31, 2016 totaled ¥27.7 billion. Principal positive factors included increases in income before income taxes. Meanwhile, the main negative factors included the decrease in income taxes paid.

#### [Cash flow from investing activities]

Net cash used in investing activities for the fiscal year ended December 31, 2016 amounted to ¥14.9 billion, mainly due to the acquisition of tangible fixed assets.

#### [Cash flow from financing activities]

Net cash used in financing activities for the fiscal year ended December 31, 2016 totaled ¥4.8 billion, primarily reflecting dividend payments.

# Status of Capital Expenditure, R&D and Depreciation and Amortization

Capital expenditure for the fiscal year ended December 31, 2016 was ¥14.5 billion. The main purpose of capital expenditure was for increased production. In the precision reduction gear business, the Company installed equipment for a new plant in China launched in January 2016, reflecting increased demand for industrial robots. Meanwhile, in the aircraft equipment business, the Company made capital expenditure such as capacity expansion for the Gifu Plant upon the receipt of an order for a new program for civil aircraft.

Capital expenditure for the fiscal year ending December 31, 2017 will be ¥21.8 billion. In the precision reduction gear business, for which an increase in demand is anticipated to continue, the Company will maintain the introduction of new machinery and equipment with the aim of establishing a manufacturing system at the new plant in China while making aggressive investments aimed at enhancing the productivity of the Tsu Plant in Japan as a mother plant. In the aircraft equipment business, the Company will continue to make investments to boost production toward the launch of an actuator plant complex in 2018, following the surface treatment plant complex and the EHSV plant complex completed in 2016.

The Production Innovation Division is currently working on production reforms, including the promotion of automation, renewal of production management systems, procurement

reforms and environmental initiatives, with the aim of supporting initiatives by each in-house company across the Group and promoting "production innovation" to generate competitive advantage. In addition, the Company will also make aggressive capital expenditure that will contribute to the modernization of outdated equipment, plants, etc. as well as innovation of production technologies.

R&D costs for the fiscal year ended December 31, 2016 amounted to ¥7.3 billion. Although the focus was on R&D in existing businesses, the Company aims to move forward to become a system manufacturer that provides system products by shifting from a business model focused on the provision of component products in light of changes in the market environment. The Company will continue to focus on the development of system products and make necessary investments in the future.

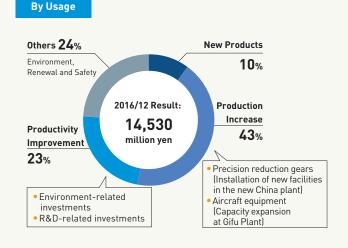
Depreciation and amortization for the fiscal year ended December 31, 2016 stood at ¥7.4 billion. Depreciation and amortization increased from the fiscal year ended December 31, 2015 as a result of the equipment installation for the new plant in China in precision reduction gear business, capacity expansion for the Gifu Plant in the aircraft equipment business, etc. However, the increase in depreciation and amortization turned out to be limited compared to the increase in capital expenditure due to the reforms of production systems in China for the hydraulic equipment business, which were conducted in 2015, as well as the recording of impairment losses.

#### Status of Capital Expenditure, R&D and Depreciation and Amortization

			(Billion yen)
	2015/12 Result (Reference)	2016/12 Result	2017/12 Plan
Capital Expenditure	10.2	14.5	21.8
R&D	7.2	7.3	8.7
Depreciation	7.3	7.4	9.3

Note: Please note that the estimates for FY2015/12 (Reference) were calculated for the period of 12 months to make comparisons with the plan for FY2016/12 under the same conditions.

#### **Breakdown in Capital Expenditure**





#### **Operating Results by Business Segment**

#### Segment Change

Starting from the fiscal year ending December 31, 2017, the Company has changed its classification of reportable business segments from the former "classification based on the similarity of the application technologies" to "classification based on the similarity of business models" in order to promote synergies between the businesses and to improve the efficiency of management.

The precision reduction gear business and the hydraulic equipment business, which are the main businesses in the Component Solution segment, are focused on OEM manufacturing. As these businesses have a relatively large impact on profitability in line with changes in production and sales, synergy effects can be expected within the segment through joint purchasing in material procurement and the exchange of manufacturing personnel.

As all of the railroad vehicle equipment business, aircraft equipment business, commercial vehicle equipment business and marine vessel equipment business in the Transportation Solution segment engage in the maintenance, repair and overhaul (MRO) business, or after-sale services, synergy effects can be expected through the sharing of MRO bases and know-how.

The automatic door business is the only business in the Accessibility Solution segment. The automatic door business has adopted a business model in which improvement in profitability is pursued by expanding sales and service networks through M&A as well as promoting the integration of manufacturing and sales through the expansion of the value chain (manufacturing, sales, door installation, maintenance and management services).

The packaging machine business is the main business

under the Manufacturing Solution segment.

Through the shift to the new business segment system, the Company will take aggressive measures to generate synergies among businesses.

# Forecasts for operating results for the fiscal year ending December 31, 2017

#### (1) Component Solution segment (CMP)

Net sales and core operating profit in this segment for the fiscal year ending December 31, 2017 are expected to amount to ¥89.0 billion and ¥13.7 billion, respectively.

Net sales in the precision reduction gear business will increase from the previous fiscal year, reflecting robust demand for industrial robots.

The hydraulic equipment business is also expected to record an increase in sales driven by a continued rise in demand for construction machinery in the Chinese market since the previous fiscal year.

Core operating profit in this segment is expected to increase from the previous fiscal year on account of a rise in profits reflecting increased sales of precision reduction gears and hydraulic equipment.

#### (2) Transport Solution Segment (TRS)

Net sales and core operating profit in this segment will be ¥82.2 billion and ¥11.5 billion, respectively.

Sales of the railroad vehicle equipment business will decrease due to the effects of the specific models of high-speed railroad vehicles developed in China for the Chinese high-speed railway.

The aircraft equipment business is likely to face a decline in sales from the previous fiscal year due to the negative impact of reduced production of the B777.

Sales of the commercial vehicle equipment business will in-

#### Segmentation Change

**Previous Segmentation** 

#### Precision Reduction Precision **Equipment** New Energy Equipment Railroad Vehicle Equipment **Transport** Commercial Vehicle Equipment Equipment Marine Vessel Equipment Aircraft & Aircraft Equipment Hydraulic Hydraulic Equipment Equipment **Automatic Doors** Industrial Equipment Packaging Machines

#### **New Segmentation**

	Segment	Main business			
		Precision Reduction Gears			
$\rightarrow$	Component Solutions	New Energy Equipment			
		Hydraulic Equipment			
		Railroad Vehicle Equipment			
		Aircraft Equipment			
$\rightarrow$	Transport Solutions	Equipment Aircraft Equipment			
		Marine Vessel Equipment			
	Accessibility Solutions Automatic Door				
	Manufacturing Solutions (Others)	Packaging Machines			

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crease from the previous fiscal year due to the favorable effects of consolidation of a compressor manufacturer for commercial vehicles, which was acquired by the Company in April 2016.

The marine vessel equipment will suffer a decrease in sales from the previous fiscal year due to the sluggish marine transport and shipbuilding markets.

Core operating profit in this segment is expected to decrease from the previous fiscal year mainly due to the effects of the decrease for the Chinese high-speed railway.

#### (3) Accessibility Solution Segment (ACB)

Net sales and core operating profit in this segment will reach ¥71.1 billion and ¥5.8 billion, respectively.

Sales of the automatic door business are expected to increase from the previous fiscal year, reflecting the effects of the conversion of a domestic sales company into a consolidated subsidiary, which was conducted in April 2016.

Core operating profit in this segment is expected to increase from the previous fiscal year as one-time expenses related to the integration of North American sites were eliminated in 2016 through the structural reforms currently being implemented.

#### (4) Manufacturing Solution Segment (MFR)

Net sales and core operating profit in this segment will be  $\pm 17.7$  billion and  $\pm 1.6$  billion, respectively.

The packaging machine business will record increased sales from the previous fiscal year on the back of sales expansion in overseas markets.

Core operating profit in this segment is expected to remain unchanged from the previous fiscal year as enhancement expenses are anticipated for overseas bases in the packaging machine business.

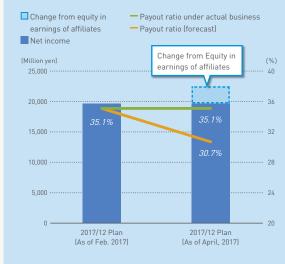
#### Other income

The Company recognized ¥2.8 billion of equity in earnings of affiliates in the first three months of the fiscal year ending December 31, 2017 due to gain on step acquisitions of an equity-method affiliate. For this reason, the Company upwardly revised profit forecasts for income before tax and other items as of April 28, 2017.

As the aforementioned increase in equity in earnings of affiliates is valuation gain without cash flow, the Company has not changed the cash payout forecast made at the beginning of the term. The payout ratio, however, has been maintained at 35% or higher in real terms.

#### FY2017 Payout Ratio Forecast

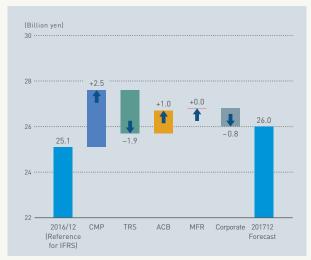
(As of April, 2017)



#### Sales



#### Core Operating Profit\*1



- \* Actual figures for FY2016 (IFRS) represent referential values prepared for the purpose of comparison with the forecast for FY2017. Therefore, they are subject to change after auditing.
- \*1 Core operating profit: Calculated the sum of operating income year ended December 2016(JGAAP), goodwill amortization and others.

#### **Result for Sales by Business**

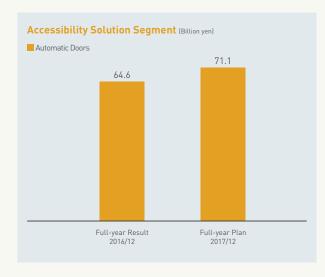
#### Sales (Previous segmentation, JGAAP)



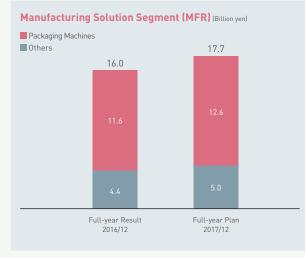
<sup>\*</sup> Please note that the estimates for FY2015/12 (Reference) were calculated for the period of 12 months to make comparisons with the result for FY2016/12 under the same conditions.

#### Sales (New Segmentation, IFRS)

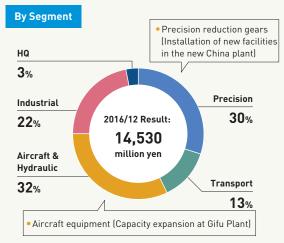


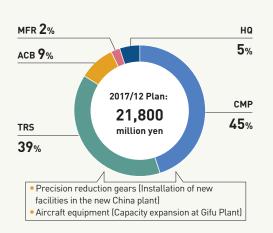






#### Breakdown in Capital Expenditure









To ensure the medium- to long-term growth of the Precision Reduction Gear Business, we will further enhance our stable supply systems established at our Japanese and Chinese plants to steadily meet the increased needs for automation in the automotive and general machinery industries, thereby helping manufacturers save labor and increase productivity at their sites.

Managing Executive Officer, President, Precision Equipment Company Shinji Jyuman

#### **Sources of Strength**

#### Motion Control Technology, Ability to Develop Applications and Technologies

The compact and lightweight Precision Reduction Gear RV, which boasts excellent durability and high positioning accuracy, serves as the source of Nabtesco's competitiveness. The high product performance is supported by the competencies the company has accumulated in responding to customer needs.

#### **Relations of Trust with Customers**

Nabtesco launched its first precision reduction gears on the market in 1986, and since then its global market share of precision reduction gears for industrial robots has grown to about 60%. Although the basic patents possessed by the company for the products expired in 2006, the high market share has been maintained as a result of conducting business with the greatest importance placed on customer satisfaction and building relations of trust with our customers.

#### Stable Supply System

In anticipation of a high demand for precision reduction gears, Nabtesco has increased the production capacity of its domestic plants and has launched new production sites in China to ensure the stability of its supply system. We have also been implementing measures for increasingly higher quality and faster delivery on a continual basis, and are able to make flexible responses to changes in demand, which adds another competitive edge to Nabtesco.

#### **Business Environment (Opportunities and Risks)**

According to the forecast made by the International Federation of Robotics, in the medium term, the global market of industrial robots (including small-, medium-, and large-sized robots) will grow at the annual rate of 15%. In light of the fact that the growth rate of the market for small robots is relatively high with demand beginning to increase, the annual growth rate of the market for medium and large robots is expected to be 5 to 10%. By region, the growth rate will be around 25% in China, where the need for unmanned, automated operations has seen a remarkable increase. In fields other than industrial robots, we are promoting sales of precision reduction gears for general industries and new-type actuators that integrate precision reduction gears and servomotors in China, Europe and other regions.



Operating Results by

#### **MAIN PRODUCTS**



#### **Precision Reduction Gears: RV Component**

The Precision Reduction Gear RV are compact and lightweight with outstanding rigidity and overload resistance. With these features, the reduction gears serve to provide excellent accelerating capabilities, smooth motion, low backlash, and accurate positioning precision, leading to enhanced robot controllability

Meanwhile, demand for industrial robots is influenced by changes in capital expenditure. Therefore, the Group is subject to the risk that we might face drastic changes in demand depending on end customers' capital investment policies. We also regard competitors' catch-up in technology as a potential risk.

### Worldwide Annual Shipment of Industrial Robots



Source: International Federation of Robotics (IFR)

- \*1 APAC=Asia /Australia (Total)-China-Japan-Korea
- \*2 Total=Total-North America-Asia/Australia (Total)-Europe (Total)

# The Number of Multipurpose Industrial Robots per 10,000 Persons Employed in Automotive Industry



Source: International Federation of Robotics (IFR)

#### Measures for Medium- to Long-Term Growth

For the medium- to long-term growth of the company, we will further deepen relations of trust with our existing customers by responding to any new needs they have. At the same time, we will strive to find new customers, work for higher quality and faster delivery so that we will not miss any opportunities that come as a result of the increased demand for industrial robots. Moreover, we are enhancing our production capacity and increasing our productivity with automation and labor saving at our manufacturing facilities in Japan while improving the production facilities in China for the maintenance and improvement of our stable supply system to meet demand that is expected to expand on a medium- to long-term basis. Furthermore, in the fields other than industrial robots, we are going to utilize our long-established technological expertise to promote the sales of new products and to develop new markets.

## >

#### **Major customers**

FANUC, YASKAWA Electric, Kawasaki Heavy Industries, KUKA Roboter, ABB Robotics and others **Production base** (as of the end of December 2016)

Tsu City, Mie Prefecture, Japan / Jiangsu Prefecture, China

#### Market share

Joints of industrial robots: Approx. 60% global market share Machine tools ATC (Automatic Tool Changer): Approx. 60% domestic market share

#### History of business development

In 1976, Teijin Seiki began selling reduction gear-equipped hydraulic motors for use in construction machineries. Subsequently, following the maturation of this market, the company began to focus its attention on industrial robots, which would provide a new growth market where the company could make use of its unique reduction gear technology. The company then proceeded with the development of reduction gears for robot joints and began selling precision reduction gears for industrial robots in 1986. We now have a 60% share of the world precision reduction gear market and our products are widely used in a range of fields in addition to industrial robots. In 2014, we achieved a cumulative production of 5 million units in the business. In 2015, we commenced building a new production base for precision reduction gears in China, which now offers the world's largest industrial robot market. This base will start production at the beginning of 2016.

1986 Commenced launch of the Precision Reduction Gear RV Series.

1991 Built the Tsu Plant for the manufacture of precision reduction gears.

2014 Total cumulative production of precision reduction gears reached 5 million units.

**2015** Began the construction of a production base in China (to start production in early 2016



#### Gear Head Type "RD Series"

This is a gear head product based on the Precision Reduction Gear RV with the emphasis on ease of use. The product is easily installed on servomotors and features airtight grease sealing.



### Gear Head Type (Table Type) "RS Series"

This table-type series is designed for accurate positioning. The low-profile products with large and hollow shafts are easy to use and are therefore widely adopted for index tables as well as for pivots of various devices.



### Compact Actuator "AF Series"

This new product possesses the features of high accuracy, rigidity and reliability, which have been inherited from Precision Reduction Gear RV. Directly connected to servomotors, it serves to provide a compact drive part and usability by eliminating the need for embedding the servomotors into reduction gears.







We will make progress with technological innovations to meet the need for ICT in construction machinery, which supports infrastructure development, while honing our global competitiveness and hydraulic system technologies in our pursuit of sustainable growth.

Executive Officer, President, Power Control Company Kazumasa Kimura

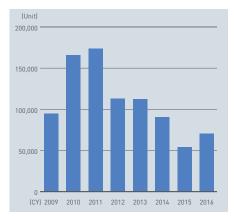
#### Sources of Strength

Nabtesco's traveling units "GM Series" for crawlers, which integrate a hydraulic motor, a reduction gear, a parking brake and other components in one unit, feature excellence in durability and reliability in addition to great power generation efficiently, while remaining compact. Since the start of mass production in 1977, the GM series, one of the major products, have been highly appraised by customers, helping us to enhance the Nabtesco brand. With the improvement of machine processing technologies, the Tarui Plant has achieved a high level of automation during the manufacturing process, which contributes to the continuous generation of competitiveness.

#### **Business Environment (Opportunities and Risks)**

China, the world's largest construction machinery market, has been gradually recovering from sluggish demand condition, which has driven favorable sales of products used in hydraulic excavators. In the construction machinery market, a new trend towards value creation, such as the incorporation of hybrid systems and ICT, will also help us find new business growth opportunities. Nonetheless, if the growth rate of public investments, which support the demand for construction machinery in China, drops and leads to the excessive supply of hydraulic excavators, or if it takes longer than expected for us to realize a synergistic effect with Hyest Corporation, which we acquired in 2015, there is a higher chance of failing to meet our targets on time.

#### Sales of Excavator in China



Source: China Construction Machinery Association

#### Measures for Medium- to Long-Term Growth

In the Hydraulic Equipment Business, we completed the restructuring of our production bases in China in FY2015. To further enhance our global production system, we will optimize production at our bases in Japan, China and Thailand to respond flexibly to changes in demand in the construction machinery market. Further, we will develop new markets where we can fully utilize our strengths, while advancing technological innovations in response to

#### REFFERENCE

Operating Results by Business Segment (1) Component Solution segment (CMP)

Page 5

#### MAIN PRODUCTS



### Traveling Unit for Crawlers

This series is used as a traveling unit for crawlers and the wheels of excavators, crawler drills, cranes, and aerial work platforms.

the incorporation of ICT in construction machinery. Also, based on the product lines expanded through the acquisition of Hyest Corporation, we will foster a shift from selling components to cross-selling of hydraulic equipment and further proposals of optimal hydraulic systems and generate greater added value.

#### Growth Matrix of Hydraulic Equipment Business of Nabtesco

New Market	[Market Development]  • Develop new applications other than excavators for a wide range of product lines  → Cranes (traveling, swing and winch units, etc.)	[Diversification]  • Challenge for one of the diversified hydraulic machinery manufacturer through further development of application and hydraulic systems
<b>Existing Market</b>	[Market Penetration]  • Enhance flexible response to demand fluctuation  → Lead-time reduction and automatic manufacturing  • Improve cost competitiveness through maximizing utilization of overseas bases and promoting "local production for local consumption"	<ul> <li>[Product Development]</li> <li>• Expand product lineups for package deal and hydraulic systems</li> <li>→ Expansion of product lineups through M&amp;A</li> </ul>
	Existing Products	New Products

#### Amplification of Product Lineups for Excavators through M&A

	Mini Excavators				Medium- to Large-Sized Excavators  Traveling units Swing units Pumps Valve		rs	
	Traveling units	Swing units	Pumps	Valves	Traveling units	Swing units	Pumps	Valves
Nabtesco	•			•	•			
Hyest Corp.						•		



#### **Major customers**

Komatsu, Kobelco Construction Machinery, Hitachi Construction Machinery, Sumitomo Construction Machinery, Kubota, YANMAR, Volvo, JCB, Sany, Xugong Excavator, Liu Gong and others

#### **Production bases** (as of the end of December 2016)

Tarui-cho, Fuwa-gun, Gifu Prefecture, Japan / Kobe city, Hyogo Prefecture, Japan / Shanghai, China / Chonburi, Thailand

#### Market share

Traveling units for hydraulic excavators: Approx.30% global market share

#### History of business development

Both Teijin Seiki and NABCO were engaged in the Hydraulic Equipment Business. NABCO began conducting such business back in the 1930s, offering a range of products, not only for construction machines and special vehicles, but also for general industrial equipment. The company also developed small, multiple-spool control valves for use in road sweepers produced in Japan, and these valves have been developed into our present control valve products.

Teijin Seiki began conducting business by establishing the Tarui Plant in 1961. Its hydraulic motors were not highly competitive despite being core products, and the company worked to develop a new product independently. The traveling units "GM Series" that was thus developed provided the four functions necessary for the driving unit of hydraulic excavators (i.e. hydraulic motor, reduction gear, valve and parking brake functions), and was also compact enough relative to the width of an excavator crawler shoe. The company then successfully commenced mass production of this innovative product. Further, the reduction gear technology developed for hydraulic motors led to the development of Precision Reduction Gear RV to control the joints of industrial robots.

Subsequently, we established a production base in China in 1996 and another in Thailand in 2008, and have resulted in fostering overseas business expansion and increasing our global market share in the business of traveling units for hydraulic excavators to 30%. In 2015, we acquired Hyest Corporation, the hydraulic equipment division of TOSHIBA MACHINE, with a view to further expanding our product lines and developing new hydraulic systems.

- 1937 Manufactured hydraulic pumps for airplanes in the national defense field.
- 1949 Commenced manufacture and sales of hydraulic equipment.
- 1961 Opened the Tarui Plant for the manufacture of hydraulic equipment and start the Hydraulic Equipment Business.
- 1970 Opened the Nishi Kobe Plant (presently Seishin Plant) for the manufacture of hydraulic and pneumatic equipment.
- 1977 Commenced mass production of the "GM-series" traveling units. By using the reduction gears technology, developed the Precision Reduction Gear RV series for use in industrial robots.
- 1996 Established a joint venture named Shanghai Teijin Seiki Co., Ltd. (presently Shanghai Plant).
- 2008 Established Nabtesco Power Control Co., Ltd. in Thailand.
- 2015 Acquired Hyest Corporation, the Hydraulic Equipment Business division of TOSHIBA MACHINE CO., LTD.
- 2016 Fully Absorbed Hyest Corporation



### Control Valve for Mini Excavators

This product is a sectional type multi-control valve developed specially for mini excavators, and is ideal for various needs such as action control of excavators. The series is popular for its compact size, versatility, and wide ranging product lines. It has captured a large share in Japan.



#### Swing Unit for Hydraulic Excavator

The swing unit used in hydraulic excavators consists of a high-speed motor and planetary reduction gear unit. Its compact design allows the unit to have fewer components and to excel in quietness. In addition to units for hydraulic excavators, swing units are also used in small-sized cranes and winch motors for aerial working platforms.



#### **Yaw Drive**

This drive unit has high rigidity and high load performance based on the Rotor Vector (RV) reduction gear technology. It can be used under severe natural conditions, for example, in both low- and high-temperature areas as well as areas prone to salt damage. The low backlash feature helps prolong the field life of wind turbines.







We will contribute to building safer and more convenient railroad transportation through provision of highly reliable brake control and door operating systems. These are the core components of railroad vehicles that require high safety. We will also pursue sustainable growth by proactively conducting business not only in Japan but also in overseas railroad vehicle markets.

Managing Executive Officer, President, Railroad Products Company Yukihiro Imuta

#### Sources of Strength

Since receiving the first order for our air brake equipment from the former Japanese Ministry of Railways in 1925, we have been accumulating technologies through the provision of highly reliable brake systems, and have contributed to, for example, space-saving by developing brake units comprising multiple brake mechanisms. Railroad vehicle equipment, a foundational piece of social infrastructure, needs to be highly reliable and safe. We have been working to increase customer satisfaction over many years and we have built solid relationships of trust with our customers. This is one of our strengths and it aids our ability to provide customers with continuous MRO (maintenance, repair and overhaul) services.

#### **Business Environment (Opportunities and Risks)**

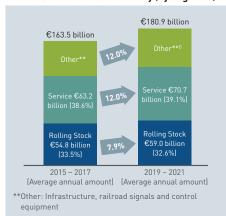
In the Japanese market, we expect that demand will continue to be stable mainly due to the need to replace old railroad vehicles with newer models. In China, demand in the high speed train market is expected to stabilize as the market matures, while demand in the subway train market will continue to expand due to the need to improve convenience in people's daily lives and for mitigation of environmental pollution. If a technology development of high-speed trains progresses in China, however, it will pose a risk to us. In Europe, we expect that demand will continue to grow steadily, while in the Southeast Asian market, Japanese railroad vehicle manufacturers will bolster their activities to obtain more orders, which will provide us with new business opportunities.

#### Market Size of Railroad Industry (by Region)



Source: UNIFE

#### Market Size of Railroad Industry (by Segment)



#### REFFERENCE

Operating Results by Business Segment (2) Transport Solution segment (TRS)

Page 5

#### **MAIN PRODUCTS**



#### **Unit Brakes**

The unit brake incorporates the integral functions of a conventional foundation brake rigging and a built-in automatic slack adjusting mechanism. Compared to existing foundation brake units, the product offers reduced size and weight, simplified maintenance, greater noise protection, and heightened consistency of braking efficiency.



### Brake Operating Units for Railroad Vehicles

This system is configured as a unit with a brake operating device that plays the core role in the electric commanding air brake system and the air brake valves that provide the brake cylinder pressure output for service and emergency braking.

#### Measures for Medium- to Long-Term Growth

In order to conduct business in an effective and efficient manner in highly promising markets identified around the world, we will expand our business system in an all-encompassing manner, fostering the optimization of our development, procurement and production activities in the three regions of Japan, China and Europe. Particularly in the world's largest railroad market of Europe, we will work to obtain new orders and certifications through our local bases, aiming to expand the business in the region during the period of the Medium-term Management Plan.

We will also promote sales of products targeting subway trains in China by making use of our local sales network as well as results and technologies accumulated in Japan. In addition we will continue focusing on increasing customer satisfaction and expand the MRO business both in Japan and China based on our relations of trust with our customers. Moreover, in the second-hand vehicle market in Southeast Asia, we will continue our efforts to secure more orders in the MRO business, while extending technological support and supplying maintenance parts to railroad companies through a newly established after-sale service base, thereby contributing to the local establishment of railroad infrastructures.



#### **Major customers**

Japan Railway (JR) companies, private railway companies, Kawasaki Heavy Industries, Hitachi, Ltd., railway related companies in China and others

Production bases (as of the end of December 2016)

Kobe City, Hyogo Prefecture, Japan / Jiangsu Prefecture, China / Piedmont, Italy

#### Market share

Brake systems: Approx. 50% domestic market share Approx. 40% high-speed railways market share in China

Door opening systems: Approx. 70% domestic market share.

#### History of business development

In 1925, we received an order for its air brake systems from the Ministry of Railways, and this marked the beginning of our Railroad Vehicle Equipment Business.

In the 1960s, Shinkansen bullet trains began running in time for the Olympic Games in Tokyo, and the urban railway networks were increasingly improved for transportation at higher speeds and in greater quantity. In response, we developed highly reliable automatic train control systems to ensure safety even during high-speed operations, as well as electric command air brake systems. We continued to expand the business as subway systems were successively constructed to mitigate traffic congestion in urban areas.

We also changed our business model from the development of hardware products to making proposals to individual customers in order to expand our business.

In and after the 2000s, we expanded our market share in Chinese and Taiwanese high speed train and subway businesses. Further, in 2013, we acquired an Italian railroad vehicle door manufacturer (presently Nabtesco Oclap S.r.l) to spearhead business in Europe and around the globe.

- 1925 Received the first order for air brake equipment from the former Japanese Ministry of Railways. Commenced manufacturing and sales of air brake systems for railroad vehicles.
- 1998 Relocated and opened the Kobe Plant for the manufacture of railroad vehicle equipment.
- 2011 Established Jiangsu Nabtesco KTK Railroad Products Co., Ltd.
- 2012 Acquired International Railroad Industry Standard (IRIS) Certification.
- 2013 Acquired OCLAP, an Italian railroad equipment manufacturer, and established Nabtesco
  - Received an order for pneumatic door systems for train cars under the Intercity Express Programme (IEP) implemented in the United Kingdom.
- 2014 Became the first Japanese company to be certified as a global supplier of doors for train driving cabs and cars by Bombardier Transportation.
- 2015 Received an order for passenger doors for the Rennes subway line in France from Siemens AG.
- 2017 Established Nabtesco Service Southeast Asia Co., Ltd., in Thailand as a base for after-sales service to customers in Southeast Asia.



#### Door Operators for Railroad Vehicles

Offering a tremendous variety of door operating units, our product lineups comprises door operators that meet the demands of a wide diversity of applications from high-speed trains including the Shinkansen to commuter trains and ultra-low-floor light rail vehicles (LRVs).



Railroad Vehicle Equip-

https://www.nabtesco. com/en/products/railway html





In the civil aircraft market, where growth is continuing, we will steadily supply products that support safe flights, thereby achieving the sustainable growth of the business. We will pursue innovation in production, technologies and after-sale services to reduce the environmental impact of our operations. Also, by expanding our business, we will contribute to the development of the Japanese aircraft industry and our local communities.

Deputy Chief Executive Officer, President, Aerospace Company and in charege of Production nnovation **Nobutaka Osada** 

#### **Sources of Strength**

#### Motion Control Technology and Technological Development Ability

We have long accumulated know-how and technologies by meeting the needs of customers in both private and national defense sectors, which are sources of strength for Nabtesco. We have developed the world's highest-level production technologies and expertise in the aircraft market, which prioritizes safety, and using these technologies, we are developing a highly reliable flight control actuation system (FCAS).

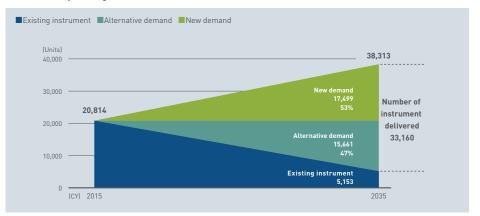
#### **Relations of Trust with Customers**

We have been providing the world's aircraft manufacturers with the best solutions for nearly 40 years, always taking the viewpoint of customers and a proactive attitude. The close relations of trust we have built with customers provides us with the strength to establish ourselves as the world's first-class supplier of FCAS.

#### **Manufacturing System**

We have been continuously taking measures to attain higher quality and productivity at two plants—one in Japan and the other in the United States.

#### Forecast for passenger aircraft demand



Source: Japan Aircraft Development Corporation

#### **REFFERENCE**

Operating Results by Business Segment (2) Transport Solution segment (TRS)

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#### MAIN PRODUCTS



#### Flight Control Actuation System

Nabtesco is the leading Japanese manufacturer of this system, which controls the aircraft's attitude. This system is used to move the surface such as the ailerons on the main wings and elevators on the tail surface. Nabtesco has a solid reputation as a global leader in the commercial aircraft market.

#### **Business Environment (Opportunities and Risks)**

In the private sector, the number of operating airplanes will double over the next twenty years. The budget for national defense will be at a stable level, although it might slightly increase. On the other hand, risks exist caused by stagnant growth of the world economy and political changes.

#### Measures for Medium- to Long-Term Growth

By communicating closely with customers based on our relations of trust, we will analyze their "needs and wants" and propose highly competitive and high-quality solutions by concentrating our resources appropriately. We will also improve our technological development ability to deliver more value to customers and expand the capacity of our manufacturing facilities in Japan and the United States to grasp the business opportunities provided by demand in the aircraft market, which will rapidly expand following the start of new mass production programs by aircraft manufacturers in and after 2017.

Moreover, we will undertake actions while considering the provision of value across the value chain, and enhance measures in the after-sale market, while keeping the importance of achieving "profitable growth" in mind.



#### High Voltage Electric Power Distribution Unit

This product has been newly developed for Boeing 787 aircraft requiring more electric power than other existing aircraft, and is equipped with an efficient liquid cooling system for motor controllers and transformers. This product contributes to not only aircraft weight reduction but also improvement of aircraft maintenance by reducing electric wires in the aircraft significantly.



#### Aircraft Equipment

https://www.nabtesco. com/en/products/aircraft. html

#### Major customers

Boeing, Mitsubishi Aircraft Corporation, Kawasaki Heavy Industries, Mitsubishi Heavy Industries, IHI, the Japanese Ministry of Defense, airline companies and others

#### Production bases (as of the end of December 2016)

Tarui-cho, Fuwa-gun, Gifu Prefecture, Japan / State of Washington, the United States

#### Market share

FCAS: Approx.100% Market share for domestically-produced aircraft

#### History of business development

The history of our Aircraft Equipment Business dates back to the period during the war, when we began manufacturing landing gear for airplanes. After the end of the war, we introduced overseas technologies and adopted a range of element technologies. We also acquired the know-how necessary for the design, development, and production of aircraft equipment.

We subsequently worked to enter the overseas civil aircraft market, and began dealing with Boeing in 1976. In 1990 we secured a contract to supply flight control actuators (FCAs) to Boeing for use in the B777, thereby receiving the world's first order for FCA systems for use in civil aircraft. This success helped us to improve our position in the global market and also promote a growth afterward.

Since 2014, we were awarded Boeing Supplier of the Year Awards for the third time in four years, acclaimed for our performance improvement of QCDS (Quality, Cost, Delivery and Service). We have continued to steadily receive orders and supply FCAS and services for various airplanes and expand the business.

1944 Commenced production in Japan for airplanes in the national defense field.

#### Latter half of the 1970s

Received orders for products including landing gear hydraulic actuators for the B737 Clas**sic.** 

- 1976 Established Teijin Seiki America, Inc. (presently Nabtesco Aerospace, Inc.) in the State of Washington.
- 1979 Received orders for spoiler actuators for the B767 and for aileron actuators for the B757.
- 1990 Received an order for FCAS for the B777.
- 2006 Received an order for high-voltage electric power distribution unit for the B787.
- 2006 Received an order for aileron actuators/spoiler actuators for the B747-8.
- 2008 Received an order for the FCAS for the MRJ (Mitsubishi Regional Jet).
- 2012 Total cumulative delivery of FCAS for the B777 reached 1,000 units.
- 2013 Received an order for spoiler actuators for the 737MAX, the latest model in the B737 family.
- 2014 Received 2013 Boeing Supplier of the Year Award.
- 2015 Received an order for FCAS for the B777X, the B777 next-generation model.
- 2016 Received 2015 Boeing Supplier of the Year Award.
  Expanded the Gifu Plant by adding the buildings for the manufacture of EHSVs and for surface treatment.
- 2017 Received the 2016 Boeing Supplier of the Year Award.



Granted the 2016 Boeing Supplier of the Year n the (Environment) category. We are honored to receive the Supplier of the Year award for the third time in four years.





As Japan's No. 1 manufacturer of air brake systems for commercial vehicles, we will help meet the need for safe, environment-friendly, labor-saving transportation by truck, which is increasing in line with the expansion of transportation amounts over long times.

President, Nabtesco Automotive Corporation Michio Ogawa

#### Sources of Strength

The technologies and brand power developed to meet demand for high quality products by Japanese automakers are Nabtesco's strengths. Nabtesco became the first company to develop an air dryer in Japan, and our air dryers, which are highly safe and environment-friendly, are now one of the best known products in our Commercial Vehicle Equipment Business. We conduct business globally by making use of our production bases outside of Japan, and that is also a source of our strength.

#### **Business Environment (Opportunities and Risks)**

In Japan, the volume of freight movement is increasing, driven by the government's economic measures and growing e-commerce business. In addition, the environmental law enforced ten years ago stimulated a replacement cycle for trucks. This cycle has supported and will likely support the continuous and steady demand for new trucks. In emerging countries, the demand is anticipated to grow by around 5% annually over the medium-term. Nonetheless, in ASEAN market where Japanese truck manufacturers hold a large share, the price competition between European automakers and those of emerging countries is intensifying and considered a risk that can affect the Group.

#### Measures for Medium- to Long-Term Growth

By creating added value and enhancing the quality management system for higher competitiveness, we will continuously seek to increase customer satisfaction, thereby maintaining our share in the Japanese market. Also, we will make more use of our bases in Japan and overseas, and foster local procurement with an eye to securing all opportunities provided by robust demand in the highly promising ASEAN market, while also receiving more orders in India through proactive marketing activities.

Furthermore, through acquisition of European compressor makers, we aim to not only achieve early commercialization of a high value-added system by combining an air dryer and compressor, both of which are our most popular products, but also generate sales synergy as we build stronger customer relationships in Europe.



Operating Results by Business Segment (2) Transport Solution segment (TRS)

Page 55

#### MAIN PRODUCTS



## Air Dryers for Commercial Vehicles

This product removes any water or oil in the compressed air to increase the durability and reliability of air control systems. It is used by major Japanese heavy-duty truck manufacturers.



### Wedge Brake Chambers for Commercial Vehicles

This product is mounted on the wheels of heavy-duty trucks: it uses air pressure to push the piston to apply the brakes.

#### >

#### **Major customers**

Hino Motors, Mitsubishi Fuso Truck and Bus, Isuzu Motors, UD Trucks, Nissan Motor and others **Production bases** (as of the end of December 2016)

Murayama City, Yamagata Prefecture, Japan / Samutprakarn, Thialand / Haryana, India / Saxony, Germany

#### **Market share**

Wedge brake chambers for commercial vehicles chambers: Approx.70% domestic market share Air dryers for commercial vehicles: Approx.85% domestic market share

#### History of business development

Nippon Air Brake became the first company to manufacture and sell automobile oil brakes in Japan in 1933. Subsequently, it also succeeded in producing commercial vehicle air brake systems in Japan and continued to develop safety-related technologies and peripheral devices, further expanding its business in line with the development of the automobile industry.

In 1972, the company became the first to succeed in the development of air dryers for commercial vehicles in Japan. The air dryers contributed to solving various problems, such as the rusting and freezing-up of valves, by removing water contained in air brake systems.

We established a new production base in Thailand in 2004 and spun off the growing Commercial Vehicle Equipment Business from Nabtesco Corporation, founding Nabtesco Automotive Corporation in 2009. Then, in 2013, we established Minda Nabtesco Private Limited in India as a joint venture to conduct business in the local truck market. We are thus further expanding our target market for this business.

- 1933 Became the first company to manufacture and sell oil brakes for commercial vehicles in Japan.
- 1937 Began manufacturing and selling air brake systems for commercial vehicles for the first time in Japan.
- 1972 Became the first company to succeed in developing air dryers for commercial vehicles in Japan.
- 1991 Opened the Yamagata Plant for the manufacture of commercial vehicle equipment.
- **2004** Established a joint venture to manufacture and sell automobile components (Nabtesco Automotive Products (Thailand) Co., Ltd).
- 2009 Began operations as Nabtesco Automotive Corporation.
- **2013** Established a joint venture to manufacture and sell commercial vehicle equipment in India (Minda Nabtesco Automotive Private Limited).
- 2016 Acquired a German air compressor maker and founded "Nabtesco ITG GmbH"



#### Hydraulic Clutch Master Cylinders for Passenger Vehicles

This product converts the clutch force from the clutch pedal of manual-transmission vehicles into hydraulic pressure and transmits the pressure to the clutch system. It is supplied to automotive manufacturers nationwide.



#### Commercial Vehicle Equipment

https://www.nabtesco. com/en/products/





We are contributing to the safe and efficient navigation of vessels through the provision of marine vessel engine control systems. We will expand the product lineup and promote the sales of products for electronically controlled diesel engines, which contribute to reducing environmental impact, and will enhance the service and support system for the products in anticipation of the global enforcement of environmental regulations on marine vessels.

Managing Executive Officer, President, Marine Control Systems Company Taizo Tsuri

#### Sources of Strength

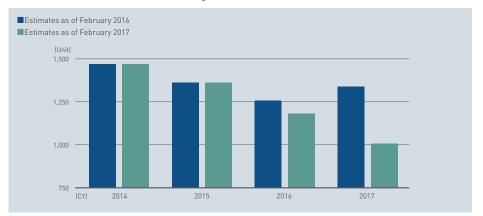
We are developing products to create new value, environmentally conscious products. In addition to conventional products, we have included new product in our product lines corresponding electronic engines for large-sized marine vessels in response to the enhancement of environmental regulations. This provides us with strength in the market. Moreover, we are implementing a substantial around-the-clock service support system, making use of our bases in Japan, Singapore, the Netherlands, China and South Korea.

# Operating Results by Business Segment (2) Transport Solution segment (TRS)

#### **Business Environment (Opportunities and Risks)**

The mainstream of engines for large marine vessels has been rapidly shifting to electronic products at a pace that has exceeded our expectations, and in our strategy for the business, we will focus on obtaining more orders as demand for electronic engine control devices increases. Although the Marine Vessel Equipment Business is cyclic and has a risk to be affected by economic changes, we believe expansion of the MRO business will bring stability to the business.

#### Global Production of 2-stroke Diesel Engines for Marine Vessels



Source: Nabtesco estimates

#### MAIN PRODUCTS



### Main Engine Remote Control System (M-800-V)

This system enables the remote control of the diesel engine in a vessel from the ship's bridge and/or control room, and has functions for outputting commands to control the engine speed (rpm) and for monitoring the engine status. Equipped with advanced network functions and a liquid crystal touch panel display, the system provides excellent operability and expandability.

#### Measures for Medium- to Long-Term Growth

We will respond flexibly to market needs and create new products to help customers solve their problems, focusing on demand for electronic devices and environment-friendly products. In addition, we will put the three-polar (Japan, China and South Korea) production system on track to make further improvements in QCD (quality, cost and delivery). Moreover, we will expand our service network to build up a system to provide services with additionally higher quality, thereby making proposals and satisfying customers' potential needs for preventive equipment maintenance service. To this end, we will develop not only product failure prediction functions but also new products that are capable of reducing maintenance lead time and costs. We will also establish a system to provide around-the-clock, seamless support service to customers to aid in their safe navigation.



#### **Major customers**

Kawasaki Heavy Industries, Mitsui Engineering & Shipbuilding, Mitsubishi Heavy Industries, Hitachi Zosen, Hyundai Heavy Industries, Doosan Engine, Shanghai Waigaoqiao Shipbuilding, Hudong Heavy Machinery, MAN Diesel and others

#### Production bases (as of the end of December 2016)

Kobe City, Hyogo Prefecture, Japan / Shanghai, China / Busan, South Korea

#### Market share

2-stroke main engine control systems: Approx.60% domestic market share (Approx. 40% world market share)

#### History of business development

Since it developed the pneumatic valve in 1943, NABCO had been improving its pneumatic control technology for industrial use, and manufactured remote control equipment consisting of a range of valves, such as starting air pipe control valves, to be used in diesel engines for power generators and marine vessels, as well as gas compressors for freezers.

Subsequently, NABCO had built the foundation for meeting the standards that had been set by the ship classification societies of each country, and developed a pneumatic remote control system for ship engines ahead of others in Japan in 1963. Within only eleven years following the end of the war, Japanese shipbuilders had ascended to the level of the world's top producers in terms of the number of new ships built and further expanded their business, driven by increased international trade. Also, in response to accelerated automation of devices of marine vessels, NABCO had dramatically boosted its market share for pneumatic remote control system used in large marine vessel engines in Japan.

Around 1975, as needs for advanced control systems using electronic technologies began to increase, NABCO decided to develop mechatronics technologies as well. In 1983, it developed a microcomputer-based main engine remote control system, which was later standardized. In 1987 the company launched a microcomputer-based electronic governor for marine vessel engines and established the position as a top engine control system manufacturer.

In addition, aiming to enhance service by making proposals to customers on preventive maintenance, we expanded our service network through establishing bases in the Netherlands and Singapore in the latter half of the 1990s.

- ${\bf 1950} \quad \hbox{Delivered gas compressors for freezers of marine vessels.}$
- 1963 Commenced manufacture and sales of marine vessel engine control equipment.
- 1983 Developed and commenced sales of microcomputer controllers for marine vessels.
- 1986 Commenced sales of M-800X, a mass production model of microcomputer controllers for marine vessels.
- 1987 Developed and commenced sales of microcomputer-based electronic governors for marine vessels.
- 1995 Established Nabmic B.V. in Netherlands.
- 1998 Established Nabtesco Marine Service Pte., Ltd. in Singapore.
- 2000 Established Nabtesco Marinetec Co., Ltd. in South Korea.
- 2006 Total cumulative shipment of marine vessel equipment reached 30,000 units.
- **2008** Commenced manufacture and sales of hydraulic control valves for electronic controlled engines.
- 2013 Established production facilities (Nabtesco Marine Machinery (Shanghai) Co., Ltd.) in China.
- 2014 Decided to participate in the R&D network of Maritime Innovation Japan Corporation.
  Total cumulative delivery of marine vessel electronic governor systems reached 7,000 units.
- 2016 Total cumulative shipment of marine vessel equipment reached 50,000 units.
  Total cumulative shipment of Electronically Controlled High-Speed Hydraulic Valves reached 10,000 units.



#### Electronically Controlled High-Speed Hydraulic Valves

Each Electronically Controlled diesel engine cylinder is equipped with one electronically controlled high-speed hydraulic valve, which electronically controls the timing and amount of fuel injection and the timing at which the exhaust valve opens and closes. The valve contributes to higher fuel economy and is attracting much attention as an environmentally friendly component.



### Electronically Controlled Diesel GAP Sensors

Sensors monitor the behavior of engine fuel injection pumps and exhaust valves. The sensor gives an alarm when an abnormality is detected, thereby increasing the reliability of electronic diesel engine control systems.



Marine Vessel Equipment

https://www.nabtesco. com/en/products/ship.html





The "Pedestrian Flow Solution" is a business concept designed to provide people with safety, security and comfort in transportation and in their living spaces. Under the concept and the brands of NABCO and GILGEN, we will expand our businesses in Japan and also overseas markets, primarily in Europe, North America and China to help create barrier-free transportation spaces and ensure that they are safe.

President, Accessibility Innovations Company Koji Kaminaka

#### **Sources of Strength**

#### **Global Business Development**

Since the first releasing Japan's first domestically produced automatic doors on the market in 1956, we have been engaged in the Automatic Door Business, and with roughly 50% and 20% shares in the domestic and global markets respectively, are now among the top market players. "NABCO" and "GILGEN" are two of our brands providing automatic door products in the four core markets: Japan, Europe, North America, and China, are the essential sources of our strength.

On a global scale, we conduct the value chain business focusing on automatic doors for buildings. We provide customers with a range of products and solutions, including installation, maintenance and management services in an integrated manner, which is also a source of strength for us. We are the only company in the world who sell automatic doors and platform doors in all of the four aforementioned markets, and thus occupy a unique position in the industry.

#### **Broad Product Lines with Focus on Automatic Doors**

We offer a wide spectrum of products to meet our customer needs as one of the world's top automatic door brands. We focus on automatic doors used for buildings but also special purposes and industrial use.

#### Sales and Installation Network

We have sales, installation and maintenance services supporting systems that covers all regions across Japan and helps us to maintain high market share. Similarly, we have worldclass shares in major overseas markets sustained by our well established network of sales, installation, and maintenance.

#### **Business Environment (Opportunities and Risks)**

In the European market, there is concern over the risk of sluggish demand for automatic door products due to rising political and economic uncertainty; however, the demand in the Swiss market is forecasted to remain steady. In the short-term the global market for automatic door products is expected to remain stable supported by the strong domestic demand driven by upcoming Tokyo 2020 Olympics and Paralympic Games. In the long-term, the declining birth rate and aging of Japanese population will increase the risk of domestic market shrinkage. In response, in order to offset these risks and secure consistent profitability, we will increase the business scale through acquisition of domestic and overseas distribution companies, and through expansion to markets in North America with its continuously growing population and South-East Asia whose social infrastructure is gradually maturing.



Operating Results by (3) Accessibility Solution

#### MAIN PRODUCTS



Westside Shopping and Leisure Centre in Switzerland

#### **Automatic Doors**

We provide high-quality, reliable automatic doors, based on state-of-the-art technology. These doors are used at a wide range of facilities, such as office buildings, hospitals, airports, and commercial and industrial facilities.

#### Measures for Medium- to Long-Term Growth

We will expand the size of our business through M&A and organic growth. In the mature markets, we will take advantage of our large market shares to provide a range of products including general-purpose automatic and custom-made doors and offer a variety of solutions from installation and maintenance to management services with an eye to enhancing profitability and customer satisfaction.

#### **Automatic Doors Market**



Source: HIS

#### >

#### **Major customers**

Automatic doors for buildings: Leading construction companies, sash manufacturers, commercial facilities, hospitals, public organizations, industrial facilities (factories) and so forth Platform doors: Railway companies in each country

#### Production bases (as of the end of December 2016)

Kobe City, Hyogo Prefecture, Japan / State of Wisconsin, the United States / Bern, Switzerland / Beijin, China

#### Market share

Automatic doors for buildings: Approx.50% domestic market share, Approx.20% world market

Platform screen doors: Approx.95% domestic market share (cumulative)

#### History of business development

NABCO, which is one of the former companies of Nabtesco, worked to launch a new business in addition to supplying transportation vehicle equipment, including brake systems for railroad vehicles and automobile oil brakes. In 1953, the company began manufacturing and selling automatic door systems for railroad vehicles and buildings. Then in 1956, it produced the first automatic door in Japan ahead of all others. The Olympic Games held in Tokyo caused an explosive increase in new building construction mainly in the city center, and skyscrapers were built one after the other, which also boosted the use of automatic doors. By establishing a sales network across Japan as well as a careful service system, the company established a robust market position in the country by the early 1960s. Subsequently, started by the export of products to Hong Kong, it proactively expanded its business to overseas markets and gained a foothold in the U.S. market in the 1990s.

In 2011, we acquired Gilgen Door Systems AG (the automatic door division of the Kaba Group) to enter the European market on a full scale and have been operating the business under multiple global brand names. In Japan, we have achieved two million units of total cumulative production of NABCO automatic doors and our products are increasingly adopted in famed commercial and public facilities. Building the brand of "NABCO" and "GILGEN", we are establishing the top-class position predominating the four largest markets (Japan, North America, Europe and China) in terms of automatic door and platform door businesses.

- 1956 Became the first company to manufacture automatic doors in Japan.
- 1957 Established Osaka Door Engines (presently NABCO DOOR).
- 1992 Acquired LANSON, an automatic door manufacturer in the United States (presently NABCO Entrances).
- 1995 Established CSCEC-NABCO Auto Door Co., Ltd. in China (presently NABCO Auto Door (Beijing) Co., Ltd.
- 2011 Acquired the Automatic Door Business Division from Kaba Group of Switzerland and established Gilgen Door Systems AG.
  - Building tetrapolar-system (Japan, North America, Europe and China) for automatic door and platform door businesses.
- ${\bf 2012}~{\rm Full}$  acquisition of NABCO DOOR as the result of stock swap
- 2013 Total cumulative production of NABCO automatic doors reached two million units.
- 2016 Converted NABCO SYSTEM into a consolidated subsidiary as the result of additional stock acquisition.



GILGEN
platform doors (bijou(R)): Paris
Metro Lines 1 and 13

#### **Automatic Platform Doors**

Automatic platform doors are now used worldwide to ensure passenger safety at railway stations. Demand for these doors is fast expanding over the world. Nabtesco has over 20% share of the global market and is successfully operating in European, Asian and Japanese markets.



NABCO
platform screen doors: Yurikamome
(Tokyo Waterfront New Transit Line)

#### **Platform Screen Doors**

Platform screen doors help ensure passenger safety on platforms. These doors also contribute to higher air conditioning efficiency, and enable unmanned operation of new transportation systems.







We will promote the development of next-generation high-speed packaging machines, the enhancement of our service system and the expansion of our business outside Japan, thereby meeting food processing company needs to save labor while ensuring food safety. We will also provide customers with a wide range of retort pouch packaging machines. Retort pouches have high transportation efficiency, which contributes to the reduction of CO<sub>2</sub> emissions in logistics.

President, Toyo Jidoki Co., Ltd. Akiyoshi Kitamura

#### Sources of Strength

#### Advanced Technologies and Abilities of Onsite Employees

Nabtesco's strengths include technological capabilities, which enabled us to become the world's first successful developer of a rotary packaging machine. The machine integrated a stream of involved steps in packaging into one line with a control technology that enabled high-speed, reliable, stable, and airtight packaging. The finely-tuned response abilities of onsite employees who support application of the technologies can also be considered as one of our competitive advantages.

#### Relations of Trust with Customers

We have earned trust from food manufacturers for our compact packaging machines, which provide high performance, require only limited space, and even seal packages with high air tightness to ensure the safety of food products contained therein.

#### **Business Environment (Opportunities and Risks)**

Japan has seen increased demand for prepared meals for consumption by individuals at home, and demand for food packaging in pouches from manufacturers of private brand has been robust. Also, in North America, foods packed in pouches are gradually being accepted in place of cans as the preferred form of preserved foods. Moreover, in China and other emerging economies, people are increasingly focusing on the safety and hygienic quality of food products, and the demand for our packaging machines that enable high-precision processing are on the rise. However, risks associated with foreign exchange rates are also increasing as the export of these machines expands leading to greater changes in conditions with regard to competition and business results.



Operating Results by Business Segment (4) Manufacturing Solution segment (MFR)

Page 5

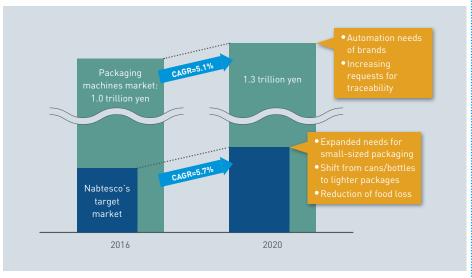
#### **MAIN PRODUCTS**



#### Super High-Speed Automatic Filler/Sealer

A high-speed automatic continuous motion filler/sealer that delivers high performance in a compact space. This equipment is not only used for retort pouch foods but also for soups, sauces, and other food products as well as for refills for liquid detergents. It contributes to reducing the costs of mass production.

#### Market Size and Growth Forecast for Packaging Machines



Source: Packaging machinery market: freedonia Nabtesco's target market: Nabtesco's assumption

#### Measures for Medium- to Long-Term Growth

We will strengthen our bases and official distributors outside of Japan to promote sales mainly in Europe, the United States, China and Southeast Asia. Also in line with the sophistication of customer needs, we will maintain and increase a competitive edge through the development of next generation high-speed machinery and enhancement of services in Japan and overseas.

#### >

#### **Major customers**

Sugar and salt manufacturers, food and beverage manufacturers, detergent manufacturers, hair-care and cosmetics manufacturers pet food manufacturers, beverage manufacturers in North America, food manufacturers in China and others

#### Production bases (as of the end of December 2016)

Iwakuni City, Yamaguchi Prefecture, Japan / Dalian, China

#### Market share

Packaging machines for retort pouch foods: Approx.85% domestic market share

#### History of business development

In line with Japan's economic growth, requirements for automation and energy conservation began to increase. In 1964, we started developing an automatic packaging machine, and thus entering the packaging machine market. In the middle of the 1960s, automatic packaging machines were rapidly adopted by sugar and salt manufacturers as well as by confectionery companies. In the 1970s, requirements for automatic food processing machines increased among frozen food manufacturers due to the spread of so-called fast food and the growth of the restaurant industry. In response, we began developing automatic food machines and became the first company to develop a curry cubes packaging machine in Japan. We also succeeded in developing a vacuum packaging machine.

Further, in 1994 we began supplying packaging machines for spout bags, and in 2011, established a production base in Dalian, China. Additionally, in 2013 we established a local corporation for sales promotion and service provision in the United States. We are thus favorably expanding the business.

- **1964** Developed an automatic packaging machine and started the packaging machines business.
- 1970 Delivered Japan's first retort pouch curry packaging machine.
- 1976 Began delivering vacuum packaging machines.
- 1994 Began delivering spout bag packaging machines.
- 2011 Established a subsidiary in Dalian, China.
- 2013 Established a local distribution company for packaging machines.



#### High-Speed Automatic Filler/Sealer

This ten-process rotary filler/ sealer can be used to pack a range of foods, including not only liquids but also products containing both liquid and solid substances. Moreover this machine allows the filling and sealing of two bags at the same time, which means that it has the production capacity equivalent to that of two conventional machines, while requiring the floor space and support equipment for one machine. Further, a range of test equipment can be mounted on the machine. The filler/sealer also supports deaeration using steam.



html

Packaging Machines
https://www.nabtesco.
com/en/products/packing.

#### Research & Development



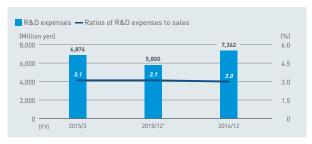
#### Nabtesco's Approach to R&D

Nabtesco has integrated its component and system technologies focusing on "motion control," and works to develop high-precision control devices and driving units. Based on the relations of trust we have built with customers, who are advanced companies themselves, we are shifting the focus of our business from the sales of component products to the provision of solutions, while identifying the sophisticated needs of customers and enhancing our existing technologies. To this end, we are working to create new products and businesses, including mechatronic products and systems.

To attain the aforementioned goal, Nabtesco is implementing a range of initiatives, including promoting joint research with overseas universities and research institutes, and fostering M&A. Moreover, we relocated the Nabtesco Digital Engineering Center (NDEC) to the Kyoto Research Park located in the city of Kyoto, around where the universities and the research institutes collect. At the NDEC, we

foster collaboration with external organizations such as companies and universities based on the concept of open innovation. Through these measures, we will further adopt diversified technologies, speed up our development process, and develop global human capital for R&D, thereby promoting the creation of new products and businesses.

#### R&D expenses and ratios of R&D expenses to sales



\* Covers 9 months for Nabtesco Corporation and its consolidated subsidiaries in Japan and 12 months for overseas consolidated subsidiaries.



#### **R&D System**

### Roles to Be Played by the Technology and R&D Division (1) Support for In-house Companies

The Technology and R&D Division makes recommendations and supports in-house companies to help meet their challenges and develop necessary human capital with the aim of eventually improving manufacturing quality to the industry's top level in each business field. The Division supports the development activities of the in-house companies by using IT-based technologies, including computer-aided engineering (CAE), digital engineering (DE), 3D printing technologies and its unique material technology. Through simulations made at the initial product development stage, the Division helps the in-house companies make prior verifications in a precise manner. In addition to this "front-loading type" of development support, it also supports in-house companies in human capital development and other development activities by providing electronics and sensor technologies. Moreover, it formulates and implements intellectual property strategies to increase the company's competitiveness and protect its intellectual rights and associated benefits in all business segments.

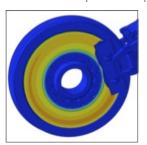
#### (2) Creating New Businesses

The Division searches for the seeds of business, including market needs and technological seeds and engages in various development projects. The Division conducts joint research with both domestic and overseas universities, research institutes, and companies on multiple development themes to develop high-level technologies in a timely manner. The NDEC works on the creation of new businesses through a wide range of intra-industry and industry-academia collaborations, taking an open innovation approach.

### (3) Enhance Base Technologies (Surface Treatment and Heat Treatment Technologies)

Recently, great progress has been made on a range of machines

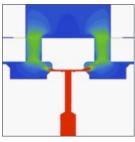
in terms of energy conservation and product life longevity, which is said to be attributable to the advancement of surface treatment and heat treatment technologies. The Division proactively introduces the most advanced of these base technologies and verifies their effectiveness in laboratories, discloses the results internally, and applies the technologies to individual products and components in cooperation with the in-house companies. As competitors in emerging countries are catching up with us technologically, we are enhancing the base technologies and transforming them into "black box" technologies so that it will be difficult to imitate them. We are thus making efforts to maintain and increase our product competitiveness.



Disc brake thermal analysis (example)



Robot motion simulation (example)



Fluid-structure coupled analysis for high-speed electromagnetic valve (example)

### 03

#### Major R&D Fields

### Acquisition of OVALO GmbH (to accelerate the manufacture of systems and mechatronic products)

In March 2017, Nabtesco acquired OVALO GmbH of Germany. The purpose of the acquisition is to make use of the company's ability to develop motor control unit integrated products, thereby accelerating the transformation of Nabtesco's products into systems and mechatronic products, which are indispensable to meeting the increasingly diversified and sophisticated needs of customers.

Also, adcos GmbH, which is a subsidiary of OVALO and is now one of Nabtesco's consolidated subsidiaries, has the model-based development technology that provides the basis for the development of mechatronic products. We will make effective use of this know-how to dramatically increase our development efficiency and quality.

The acquisition represents the first M&A project led by the Technology and R&D Division. We will utilize the advanced technologies owned by OVALO and adcos across business fields to generate maximum synergy effect within the Group to create new businesses.

### Additive Manufacturing (Making use of 3D printers to acquire new manufacturing technologies)

3D printer technology is advancing from the stage of rapid prototyping (RP) to that of additive manufacturing (AM). Nabtesco has made the NDEC a center for its 3D printer-er-related technologies, and has equipped the NDEC with a metal 3D printer as well as a resin 3D printer (stereolithography equipment) for which CMET, a Nabtesco Group company, has know-how. We are conducting R&D activities by using the printers as the innovative production technology that drives manufacturing innovation along with the use of peripheral element technologies. We also plan to input resources in the development of materials to support the base technologies.

#### Joint Research with Overseas Universities and Research

We conducted wind power generation-related analyses jointly with the Technical University of Denmark (DTU) and announced the results at EWEA 2014 (European Wind Energy Association).

In FY2015, as the first stage of the joint research we continued working on the application of analytical technologies in preparation for their commercialization.

In FY2017, in order to prove the necessity of a swing gear monitoring function, we are analyzing and examining the load balance of multiple devices and evaluating the practicality of state monitoring sensors by making practical use of them. Moreover, in collaborative R&D with Eidgenössische Technische Hochschule Zürich (ETH) in Switzerland on power electronics, we have made progress not only in theory-building, but also in prototype development and presented our results on environmental energy

generators with new methods as well as sensor technologies at several international symposiums. We also filed patent applications.

#### "Moving it, stopping it." + "Monitoring it."

Nabtesco has been shaping its motion control technology under the tag line "moving it. Stopping it." to provide customers with high-precision and high-efficiency products. In the future, we will enhance our sensor technology to expand the solutions that enable preventive maintenance by combining the use of functions to monitor products and their surrounding environments with big data analysis for the diagnosis of failures. We will thereby provide high value-added products while enhancing the maintenance, repair and overhaul (MRO) business.



Technical University of Denmark



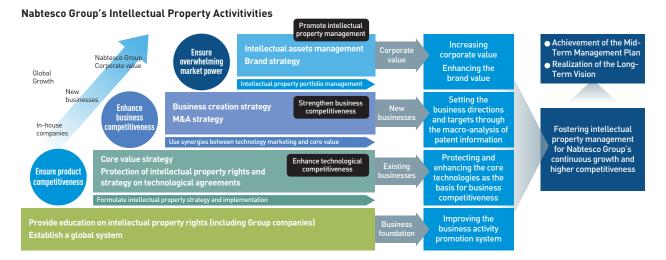
Meeting held at the ETH

### 01

#### Intellectual Property Activities to Achieve the Long-Term Vision

Nabtesco has been fostering intellectual property activities in line with the business strategy set for the achievement of the Long-Term Vision. In particular, for the businesses conducted by in-house companies, we have set the Intellectual Property Strategy Road Maps (RM) for each in-house company to enhance our core values (core competence) as the basis for our competitiveness as well as to protect our intellectual properties on a global level. We are steadily

conducting activities according to these RMs. Also, we are pursuing more effective technology marketing by researching and through macro-analysis of global patent information to identify our targets for the creation of new businesses and new markets. Moreover, we are protecting the rights related to our brand, which is a core of our corporate reliability, fostering the appropriate use of the brand and eliminating counterfeit products to increase our corporate value.



### 02

### Intellectual Property Intelligence —Formulation of Strategy to Enhance Competitiveness—

Nabtesco uses the Intellectual Property Intelligence to strengthen our competitiveness measures. Specifically, we analyze the core values of each business segment in terms of business operations and intellectual properties, focusing on how much extend we are able to meet customers' needs and comparative analysis with peers. We identify the gap between the current core values and the core value to be gained in the future, and formulate measures to enhance or gain the core value, thereby maintaining and increasing our business competitiveness.

The Intellectual Property Enhancement Committee, which is a cross-sectional entity in the company, introduces idea development methods and promotes the technology development policy to enhance the core value of each business division. Furthermore, the committee leads company on M&A opportunities and technological partnerships (technological agreements) and accelerates to acquire intellectual property, secure patent and to promote risk reduction in intellectual property-related risks by fostering legal work on technological issues.

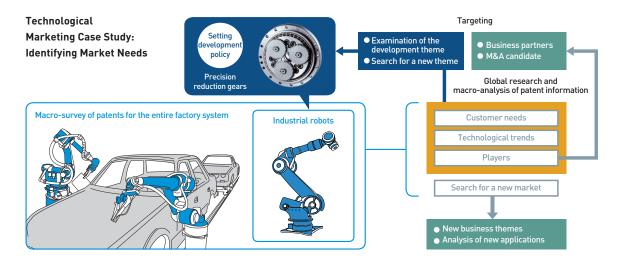
#### Intellectual Property Intelligence to Enhance Core Value Strategies on technological agreements Future core value Enhancing business competitiveness, expanding core value, and increasing intellectual assets Improvement technologies Expanding Application Company A M&A technology market product Company B Licensing Activities to identify and narrow the gap Technological marketing Technological development Market Company C Alliance development Intellectual Property Intelligence Intellectual Property Enhancement Committee (Intellectual property strategies, brands and trademarks, core technology management) Commissioned development Company E Road Maps (RM) for intellectual properties Joint development Core value in other business segments Company F Current core value Commissioned development Trust earned in the existing markets Trust earned in the existing markets Core technology

### 03

#### Creation of New Businesses through Technological Marketing (IP Landscape)

We are globally conducting patent surveys in relation to the equipment and systems in which our products are used. Based on the surveys, we make macro-analyses of the needs of customers and technological trends. We use the

analysis results to set our future business policies and foster collaboration with other companies, including searching for new business themes and markets, examining development themes, and finding new business partners.



### 04

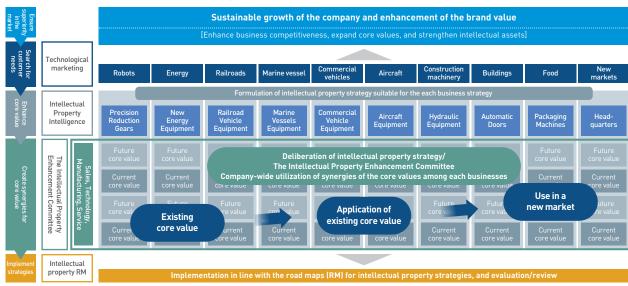
### Overall Picture of Intellectual Property Strategy —Measures to Enhance Our Core Value—

Nabtesco makes use of the results of technology marketing and formulates an intellectual property strategy for each segment by the Intellectual Property Intelligence. We implement the intellectual property strategies in line with the Intellectual Property Strategy Road Map (RM) as an action plan, and the results are evaluated and reviewed through the PDCA cycle.

We have established the Intellectual Property Enhancement Committee, a company-wide intellectual property en-

hancement organization, to examine and analyze the possibilities of lateral utilization across all business segments of the core values upheld by each of the segments. Through these strategic activities, we are promoting to create synergies of the core values between the business segments by searching for opportunities to apply or make commercial use of the intellectual properties in the individual markets.

#### Overall Picture of Intellectual Property Strategy



#### Materiality (Material CSR Issues)

We use the concept of materiality (identification of material CSR issues) to implement systematic CSR activities in fulfilling our corporate social responsibility. (For details on the process of reexamining materiality, see P.09.) The chart on the right summarizes the major impacts on our corporate activities from the identified issues. We will input resources to deal with a range of ESG-related issues in an efficient and effective manner by recognizing the potential impact of each issue.

#### **Support the External Initiatives**

### Participation in the United Nations Global Compact

The United Nations Global Compact (UNGC) is an international initiative that calls on companies and organizations to demonstrate responsible and creative leadership and take action as good corporate citizens for the achievement of sustainable growth. Signatories of the UNGC are required to comply with the "ten principles" set in the areas of human rights, labor standards, the environment, and anti-corruption, and implement voluntary measures with a strong commitment from their senior management.

Nabtesco signed the UNGC to show its support for the initiative in April 2014. Since then, the Company has been donating a certain amount of money every year to contribute to the implementation of the aforementioned ten principles including the protection of human rights. We have been proactively participating in symposiums and study groups organized by the Global Compact Network Japan. Namely, we have participated in the study groups on SRI/ESG, reporting, environmental management, disaster prevention and mitigation, supply chains, anti-corruption, and human rights due diligence. Building on the cooperation and dialogues with external initiatives that we have engaged in by participating in these events, we will continue to interact with other participating companies and learn from advanced examples how to better foster CSR-oriented management at our Company.

### Measures for SDGs (Sustainable Development Goals)

We have taken proactive measures for achieving the Sustainable Development Goals (SDGs). By setting targets associated with those goals among the 17 SDGs that have strong relevance to our material CSR issues, and thereby addressing materiality, we are striving to realize a more sustainable society. (For details on SDGs, see P.03.)

	Materiality			
General Category	ESG Category	Material CSR Issues		
Ensure management transparency	Governance (G	Strengthen corporate governance Dialogue on Governance P.29 Corporate Governance P.130  Promote risk management and compliance behavior Risk Management P.137 Compliance P.139		
ransparency	G)	Ensure proactive dialogue with stakeholders IR Activities ▶ P.146		
		Enhance customer satisfaction Ensure quality and safety Capital That Underpins Value Creation P.35 Road Map for Growth P.59 Research & Development P.75 Quality and PL Management P.81		
	Society (S)  Environment (E)	Develop human capital and promote workplace diversity Provide safe and comfortable workplaces Management of Occupational Health and Safety P.93 Fostering Workplace Diversity P.95 Human Capital Developmen P.99		
Provide safo		Respect human rights and prevent corruption Human Rights and Labor Practice P.91 Compliance P.139		
ety, comfort a		Fair, proper and transparent procurement activities  Promote CSR through Supply Chain P.117		
ınd a sense		Local community development  Consideration of Community and Society P.121		
of security		Countermeasures for climate change Combating Climate Change ▶ P.106		
		Environmentally friendly manufacturing Environmental Management P.101 Management of Waste and Other Emissions P.112		
	ent (E)	Reduction of environmental impact through products and services  Environmental Management P.101		
		Recycling, reuse and remanufacture of products  Message from General Manager of Corporate Planning Division and General Administration & Human Resources Division P25  Management of Waste and Other Emissions P.112		

Major Impacts o	Major SDGs of	
Negative Impact: Trust of stakeholders declines	Positive impact: Trust of stakeholders is gained	Relevance
As a result of functional deficiency of corporate governance,  • corporate value is damaged.	As a result of the enhancement of management supervision function, faster decision-making and ensuring of management transparency,  • corporate value can be maintained or improved.	
As a result of the realization of risks and breaches of compliance,  • business operations are interrupted or suspended; or • financial cost increases.	As a result of appropriate risk management,	16 PEACE, JUSTIDE AMD STRING INSTITUTIONS INSTITUTIONS
As a result of the decline in trust of stakeholders,  competitiveness decreases; or reputation is damaged.	As a result of cooperation with stakeholders and development of relationships of trust,  • business operations can be continued and business opportunities can be generated; or  • talented people can be secured; or  • reputation can be maintained or improved.	
As a result of the lack of meeting of customer and social needs,	As a result of the pursuit of customer needs,  • in-house technologies are enhanced, or human resources are developed.  As a result of the provision of products that provide safety, comfort and a sense of security,  • trust of customers is gained.  As a result of the contribution to solving social issues through business operations,  • competitiveness in the product market is improved.	
Due to the lack of ability to develop human resources and the lack of diversity,  organizational power and loyalty of employees decrease.  As a result of labor issues or labor accidents, productivity decline.	As a result of the acquisition and development of capable and versatile human resources,  organizational capabilities and loyalty of employees improve.  As a result of the realization of safe and pleasant working environments,  oproductivity is enhanced.	3 GOOD HEALTH AND WELL-SERING  TO SERVE EQUALITY  B DECENT WORK AND COMMONIC SCROWTH  7 AFFORMALE AND GEBAN HERRY
As a result of the realization of human rights and corruption risks,  • reputation is damaged; or • business operations are interrupted or suspended.  As a result of the strengthening of relevant laws and regulations, • financial cost increases.	As a result of preventing human rights and corruption risks,  • reputation is maintained and improved.	10 PRODUCED PRODUCTION AND PRODUCTION
As a result of the realization of procurement risks,  • supply of raw materials and components is suspended.  As a result of the interruption or suspension of business operations,  • financial cost increases.	As a result of controlling procurement risks,  • raw materials and components are procured sustainably.  As a result of securing high-quality suppliers,  • competitiveness in the product market is improved.	
As a result of sluggish local economy/society,  • the product market shrinks and employment opportunities are lost.	As a result of the development of trust with local communities and contribution to local communities,  • reputation is maintained and improved, or • the product market expands and employment opportunities are gained.	
As a result of the realization of natural disaster risks and energy risks,  • business operations are disrupted.  As a result of the strengthening of climate change-related laws and regulations,  • financial cost increases.	As a result of preventing natural disaster risks and energy risks,  • business operations can be continued.  As a result of contributing to mitigating climate change issues,  • reputation is maintained and improved.	
As a result of the realization of environmental risks (violation of environmental laws and regulations or environmental pollution caused by business operations),  • financial cost due to damages, compensation, etc. increases.	As a result of the contribution to solving environmental issues,  • reputation is maintained and improved.	6 CLANWATER AND SANTAITEN 7 AFFORDABLEAU CLEAR CHERTY
As a result of environmental pollution caused by the provision of products and services,  • competitiveness in the product market declines.	As a result of the provision of products and services with high environmental performance,  • the product market expands and competitiveness is enhanced.	11 AND COMMONTES 13 ACHOR
As a result of a shortage of resources,  • business activities become stagnant.  As a result of the lack of environmental performance for products,  • competitiveness in the product market declines.	As a result of the recycling of raw materials and components,  • sustainability of business activities is improved.  As a result of the contribution to developing a recycling- oriented society,  • competitivness in the product market increases.	

### Quality and PL Management

#### Incorporating Safety, Comfort and a Sense of Security into Products

The Nabtesco Group has long been creating new markets, developing products and ensuring the safety of our products with our customers, who have a trustworthy relationships with us. Besides achieving "safety, comfort and a sense of security" of products, we also ensure them for customers who purchase our products as well as for end users by collecting and analyzing information on the actual conditions and environment in which products are used. We then utilize and reflect the gathered information in manufacturing our products to achieve the safety, reliability, and

stability requirements, as well as the high functionality and performance necessary for realizing maximum comfort.

As a result, we have received positive evaluations from corporate customers demanding high technology in various fields and can now offer products and services—many of which take top spots in their respective markets.

In the future, we will continue striving to ensure safety, comfort and a sense of security, with high value based on our unique motion control technology, throughout the life cycles of our products.

#### Nabtesco Group Quality and PL (Product Liability) Policy

The Nabtesco Group, as a provider of high level of products for a wide range of fields and markets, recognizes that one of our material CSR issues (materiality) is to provide customers with products with safety, comfort and a sense of security

which are all outcomes from functionality and performance of products. With this understanding, the Nabtesco Group has established the Nabtesco Group Quality & PL Policy.

#### Nabtesco Group Quality and PL Policy

To fulfill our corporate social responsibility (CSR) by delivering products with the highest levels of safety, comfort, security and reliability, we will:

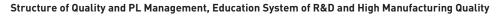
- 1. Give priority to safety over anything else, based on the principle of respect for people;
- 2. Meet safety and other quality needs of products through the integration of business activities and quality and PL activities; and
- Realize product quality, which satisfies market demand, by conducting safety and other quality evaluations prior to the release of products to the market.

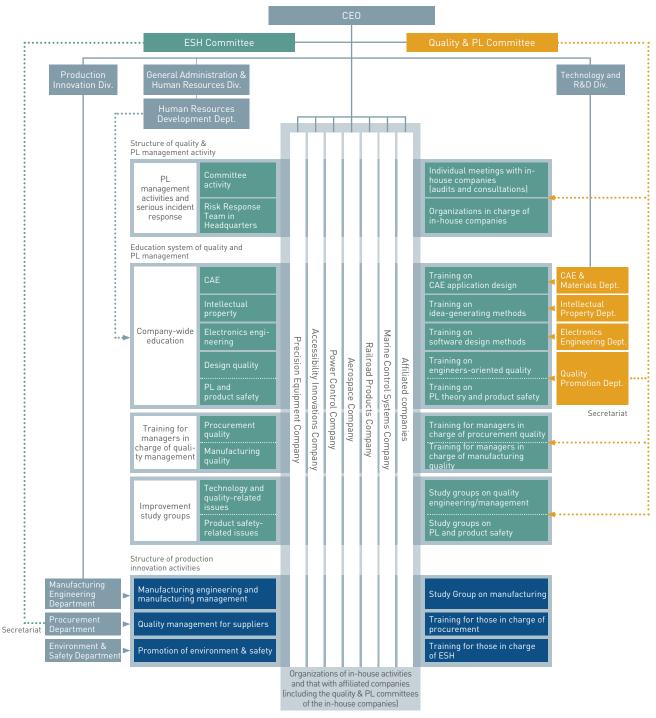
#### Promotion Framework by Quality & PL Committee

The Quality & PL Committee promotes manufacturing procedures, which incorporate quality engineering, quality control and PL management processes (including

those for product safety management) through listening to the opinions of customers and end users to meet the ever changing needs of society.

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#### Promotion of Quality and PL Management Activities

Nabtesco Group holds annual meetings of the Quality & PL Committee to decide on activity policies for the coming year by identifying what problems and issues have arisen in the Group. Based on these policies, our in-house companies conduct specific activities as a part of their daily operations.

However, since each in-house company deals with different products and customers,

it is difficult to audit the activities of all of our in-house companies according to the common rules and criteria. Therefore, we regularly hold meetings with each individual in-house company to better understand their unique situations, to give tailor-made advice and to consider what kind of support we can offer in order to make improvements and to implement more effective Quality and PL measures.

#### Systematized and Routinized Activities of the Quality & PL Committee

- 1. The Quality & PL Committee has been established within the company (Secretariat: Quality Promotion Department).
- 2. The objective of the committee is to formulate the criteria for quality control and product liability and safety management at the Nabtesco Group, to establish standard processes to prevent any instances of inferior quality, such as safety-related defects, and to respond appropriately to any quality or product liability problem should it occur, so as to maintain and improve the quality and safety of products. The committee contributes to the Group's sustainable growth through building trust with our customers.
- According to the operating rules, the committee also reviews activities implemented throughout the Group in the previous fiscal year, discusses matters such as annual policies, and main issues to be tackled in the upcoming year, which will be promoted through all in-house companies after approved.

In recent years, upholding the basic policy of enhancing fundamentals of design and manufacturing quality, we have been working on the intensive training of new employees on quality basics as well as provision f instructions to our overseas bases and suppliers for the improvement of 5S (workplace safety activities) and also establishment of necessary processes at their sites.

Since FY2015, we have been holding meetings at each site that give participating employees opportunities to ask "why" and

"how" questions that arise from their daily operations, as part of "Knowwhy Nabtesco activities." These meetings are expected to have positive impacts on operation quality and technology inheritance though higher common awareness at their worksites.

In result of the continued efforts over the long period of time, losses caused by quality defects have steadily been decreasing, and our foundation for the provision of customer safety, comfort and security have strengthened.

#### **Measures against Product Accidents**

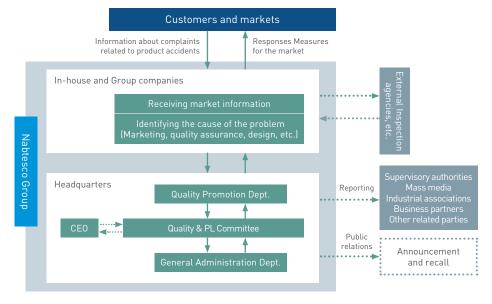
#### **Prevention System**

We have various product lineups such as aircraft flight control actuation systems, brake components for railroad vehicles, remote control systems for marine vessels, platform doors for railroad stations and automatic doors for buildings. Due to the very nature of these products, they could pose serious risks to human life in the event of a malfunction-related worst case scenario. Based on this recognition, we have a complete support system to enable us to respond appropriately to any contingency. In particular, with cus-

tomers who use our component products, we foster close communications and cooperation to ensure the quality and safety of their products and thus prevent any product-related accidents. Consequently, we have gained a high rating over the reliability of products. We also provide a consultation service about our products 24 hours a day through the website.

Until the present moment since the foundation of Nabtesco, we have not had any major casualty incidents incurred by the use of our products (product liability).

#### Response System for Accidents from Faulty Products and Quality Defects





#### **Certification for Quality Management System**

All the production bases of Nabtesco Corporation as well as major Nabtesco Group companies in Japan and major overseas Group companies have obtained certification for their quality management system according to the corresponding local industrial standards. In

terms of the amount of sales, over 90% of the Group's products are manufactured under certified quality management systems. Today, the numbers of certifications obtained amount to 13 in Japan and 16 overseas including those based on the industry specific standards.

# Quality MGS Public certification situation https://www.nabtesco.com/en/csr/public.html

#### **Quality and PL Activities Conducted in FY2016**

#### **Enhancing the Manufacturing Quality of Suppliers**

To be responsible for the quality of products sold to our customers, Nabtesco internally manufactures and processes most of the key parts of our finished products. However, at the same time, we outsource processing and procure components from suppliers, so it is essential for us to help these suppliers maintain and improve their manufacturing quality.

We have held seminars to help suppliers improve their manufacturing quality. These seminars have now become regular events. Upon the request from suppliers who attended the seminars and asked us to give the same lectures to other employees, we visited their factories to provide site-specific guidance including quality lectures and on-site instructions (for 5S and establishment of necessary processes). The

Quality Promotion Department of Nabtesco's Technology and R&D Division sent their delegates to a total of five suppliers in FY2016.

The fact that we received these requests from suppliers clearly displays a good relationship of trust between suppliers and our departments of procurement/quality assurance.



Quality education (quality lectures) for supplier staff

### Enhancing the Manufacturing Quality of Overseas Group Companies and Overseas Suppliers

To enhance the manufacturing quality of our overseas bases, the Quality Assurance Department in each in-house company cooperates with the Quality Promotion Department of the Technology and R&D Division at the Headquarters to conduct quality audits and provide the employees there with trainings and education focusing on their own issues. In addition to the theories of quality management methods, we also aim to convey knowledge about onsite control points and management methods in a specific and easy-to-understand manner to participants. In FY2016, approximately 137 employees in total from six companies participated in our lectures. In the future we plan to promote Nabtesco's quality culture and expand quality enhancement activities toward

our overseas suppliers, along with measures for better understanding of cultural differences among employees in Japan, employees stationed overseas, and local human resources. In FY2016, a total of 128 employees participated in our lectures.



Seminar on quality for an overseas Group company (Nabtesco Oclap S.r.l. (Italy))

#### Socially Beneficial Products and Services

#### Activities on Enhancing the Manufacturing Quality \*Provided by Quality Promotion Department

	FY2013-2015	FY2016		
Subject	Suppliers in Japan	Suppliers in Japan	Overseas Group Compa- nies	
Measures	Lectures on quality and site-specific instructions in responding to the suppliers' requests.	Lectures on quality and site-specific instructions in responding to the suppliers' requests.	Lectures and instructions on quality in responding to local language and cultures	
Achieve- ment	FY2013 292 companies, 573 persons FY2014 325 companies, 824 persons FY2015 7 companies, approx. 300 persons	40 companies, 124 persons	6 companies, 137 persons (quality guidance) 128 per- sons (lectures on multicul- tural workplace)	

### **Education and Training**

#### (R&D and Manufacturing Quality)

### Group-Wide Quality and PL Management Activities and the Educational System that Drives Innovation

Under the medium- to long-term strategy of developing human capital, the Human Resources Development Department of the General Administration & Human Resources Division cooperates with the Technology and R&D Division to provide employees with education on quality and PL as part of the quality and PL management activities. (Refer to the diagram P.82 "Structure of Quality and PL Management and Education System of R&D and High Manufacturing Quality)

In the company-wide technical training, employees learn that they should give first priority to safety and making sure that the company's products are in line with the international safety standards so that the products are accepted in the market and society. Moreover, we tell our employees, by combining safety considerations with our high technology and high manufacturing quality, we can provide society with

\*CAE: Computer Aided Engineering

"safety, comfort and a sense of security" as added value.

As the competition over technology development is intensifying not only with existing competitors but also with new companies both in Japan and overseas, including emerging economies, we seek to expand our areas of value creation by solving new technological problems and developing new applications of our current technologies. As an education system to drive Technology Innovation, which is set forth as one of the Basic Policies of the Medium-Term Management Plan, we provide employees with technical training on front-loading design based on the high-precision use of CAE\*, sophistication of the motion control technology utilizing motorization, digitization and systematization, and on other methodologies to discover new ideas more promptly and efficiently.

#### REFERENCE

Socially Beneficial
Products and Services
Structure of Quality and
PL Management, Education System of R&D
and High Manufacturin
Quality

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#### Company-Wide Education (Technical Training)

#### **Quality Management Training for Young Leaders**

With a view to nurture the sense of high quality among engineers in the medium- to long- term strategy, we have started an internal Quality Management Training Program in FY2007, which we run every year. The program especially targets those who are expected to play important roles in the next generation. The attendees range from young to mid-career design engineers.



Quality Management Training for young employees: functionality assessment of a plastic model car

#### Technical Training Seminars on PL and Product Safety

We have been holding Group-wide training seminars since FY2007 to raise the product liability awareness and to encourage every employee engaging in aspects of designing, manufacturing, marketing, and servicing to apply the concepts into their daily jobs in order to deliver safety, comfort, and a sense of security not only to our customers, but also to end users of our products.



Training on PL doctrine and product safety: Workshop on risk assessment methods using electrical appliances

#### Training for Higher CAE Analysis and 3D Designing Technologies

In order to reduce the number of prototyping and testing in product development, it is critical to use 3D designs and CAE analysis to examine product shapes in a virtual space. Nabtesco has established a unique curriculum through which not only our experts, but also our designers can learn to perform the CAE analysis. The CAE training is now a mandatory part of new employees training and contributes to the development of professionals who can naturally draw 3D images. The number of trainees who participate in specialist training courses started in FY2016, such as fluid analysis and system analysis, is

gradually increasing. These training programs have helped develop more personnel who can think in a multifaceted manner.



3D CAD/CAE training (New personnel training: Presentation of an assignment)

### Introductory Idea Generation Training (Nabtesco Version of TRIZ Method of Inventive Problem Solving)

To realize business growth strategies and enhance corporate value, Nabtesco is strengthening the (present and future) core value of our business and implementing intellectual property strategies to secure our competitive advantage. The most important effort with regard to the intellectual property strategies is to create core value based on the accurate anticipation of market trends and customer needs and to take strategic measures for intellectual property (to secure know-how and rights). In particular, to expedite the creation of core value, we have continuously offered an introductory idea generation course based on the TRIZ (theory of inventive problem solving) method since FY2010. This training provides participants with an opportunity to learn methods of generating ideas for developing and improving products. Trainees

are instructed to identify the core value of the business and tasks they are in charge of and to actually generate ideas for realizing customer needs. Our aim is to develop leaders in idea generation who can come up with ideas for developing new products and improving existing products by drawing on their experience and the idea generation skills they learn through this course.



Introductory idea generation course

#### Training on Software Design Quality

In response to an increase in the importance of software applied in products, in FY2013 we began to provide training on high design quality and the substantive demonstration of software reliability. In line with the software development process, we have been providing training on using the following three steps: requirement analysis, software design, and software verification.

In FY2017, we will continue to conduct training in line with the software development process and also upgrade a course

on model-based development methods with an eye to developing software with higher design quality.



Basic model-based development training

#### **Product Quality Manager Training**

#### Training for Managers in Charge of Manufacturing Quality

Since FY2012, we have held a full-scale practical training program on quality improvement methods. The program is mainly targeting managers who are responsible for providing instructions on quality at our manufacturing bases. This program improves their abilities to analyze problems and to provide education on quality-related issues at their workplaces. In addition, we also enhance our quality education at our overseas manufacturing bases, especially those in the United States, China, and Thailand.



Product quality manager course: Product quality control

#### **Improvement Study Group**

#### Responding to Demand for Higher Quality

In line with the diversification and globalization of the economy and society, we receive a broader range of requests regarding our products.

It is no longer enough to provide products that meet the needs of customers in terms of functions and performance. We must also ensure that the products can demonstrate the necessary functions and performance stably under various conditions of use.

In response, in addition to the ordinary performance test, we also conduct tests to examine the behaviors of our products under various foreseeable environments by considering all the possible usages from our customer data. Thereby we continuously make further technical and quality improvements on our products to ensure customer safety.

To manage the product quality, including managing the quality of products actually in use, it is necessary to implement a range of measures. Accordingly, Nabtesco is fostering education of personnel with expertise in such quality management thorugh quality improvement workshops. At these workshops, quality managers share their past experiences and examine quality improvement measures.



Quality improvement study: Reviewing quality control methods

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#### **Product Safety**

With regard to product safety, our in-house companies have previously implemented all safety measures required by the standards of related industries, and we have established a satisfactory level of product safety.

Out in the market, however, even first-class manufacturers are facing a range of product safety issues, such as abnormal product breakages and problems due to defective components, which often lead to product recalls. Product safety has, therefore, been attracting an increasing amount of public attention and there is growing recognition that manufacturers should be responsible for product stewardship as one of their CSR activities. In response to this trend, the Nabtesco Group is committed to ensuring even greater safety and security for its products by building a systemat-

ic framework in line with international safety standards as well as promoting the awareness of employees on and practical use of this framework. In particular, since FY2015, we have been working to provide customers with easy-to-read and intelligible user instructions in line with the relevant international standards to have our customers use our products correctly and safely.



Research on product safety: review of instruction manuals

### Human Rights and Labor Practice

#### **Human Rights Policy**

Respecting human rights in all aspects of corporate activities is the basis of Corporate Social Responsibility (CSR). Since FY2014, Nabtesco has been developing its CSR-oriented management as a signatory of the United Nations Global Compact and as a supporter of the Universal Declaration of Human Rights.

We respect basic human rights, and make sure that any discrimination based on race, beliefs, gender, age, social status, nationality, ethnicity, religion, disability; any workplace harassment; or any act that may infringe personal dignity is not conducted, allowed, or overlooked.

The Nabtesco Group is committed to the upholding of human rights and prevention

of corruption as its material CSR issues (materiality). In FY2016, we overhauled the Nabtesco Group Code of Corporate Ethics and the Nabtesco Group Code of Conduct and established the Nabtesco Group Code of Ethics, which, under the "Respect for Human Rights" section, declares that the Nabtesco Group will adhere to international standards of conduct regarding human rights, respect cultural diversity and different values, and will not engage in or utilize child labor or forced labor. The Code of Ethics also declares that Nabtesco will thoroughly familiarize all executives and employees with this Code and monitor the status of compliance with this Code.





Nabtesco Group Code of Ethics

https://www.nabtesco. com/en/ir/policy/compliance.html

#### **Human Rights Monitoring System**

In order to ensure that the recruitment of employees is carried out fairly, seven Human Rights Promotion Officers have been appointed to the Headquarters and each of six sites. We also conduct trainings for job interviewers every year to educate them on human rights-related issues that they should consider, including questions to be asked of candidates and tips for evaluating international graduates. As of FY2016, we have not received any complaints regarding human rights.

To ensure systematic and comprehensive human rights risk management within the Nabtesco Group and its supply chain, the Nabtesco Group established a Human Rights Promotion Special Committee dedicated to promoting awareness of human rights in FY2017. The new subcommittee, organized under CSR Committee which reports directly to the president, is tasked with formulating human rights policies and establishing a system for human rights due diligence.

The Nabtesco Group takes part in the Global Compact Network Japan's Human Rights Due Diligence Working Group in an effort to deepen our understanding of human rights issues and enhance our ability to effectively address risks associated with human rights. We continue to work on various challenges related to human rights in business through cooperation and dialogue with initiatives outside the Group.



#### Prevention of Child Labor and Forced Labor

Based on the Universal Declaration of Human Rights, we are committed to eliminating child labor and forced labor. To this end, in FY2014 we have dispatched an employee in charge of personnel affairs to the corporation supporting the management of Group companies in China, and provided local employees with a consulting service for personnel and labor affairs.

After dispatching the employee, we con-

ducted an employment survey and confirmed that there were no cases of child labor or forced labor at Group companies in China, and that these companies employ people in compliance with the labor-related laws enforced by the government departments. To prevent child labor in specific, we have revised and instructed on the rules of Group companies and amended the minimum age for an employment to be 18 across the Group.

#### **Labor Management Relations**

#### **Labor Union**

Nabtesco Corporation was established following the integration of Teijin Seiki Co., Ltd. and NABCO Ltd. in October 2004, and the labor unions of the two companies were united on October 30, 2010. The union is a union shop system and currently has approximately 1,850 members, including part-time employees.

The labor and management of Nabtesco maintains good relations with the union by jointly discussing ways to improve the company's various systems and programs, regularly

meeting to exchange opinions regarding business management, environment and occupational health and safety, and salaries and bonuses. The written agreement between the company and the union includes a clear statement on management's obligations to make efforts to implement the no overtime day system and encourage employees to take planned annual paid leaves. The labor and management cooperate with the union to help maintain the work-life balance of its employees.

#### Protection of Right to Bargain Collectively

Nabtesco holds labor-management meetings regularly with the labor union. Through these meetings the union obtains important information about the company's management, which helps maintain sound labor-management relationships.

When labor and management need to discuss working conditions and the treatment of union members, in addition to the aforementioned meetings, extra meetings will be held; and if the two parties do not reach agreement on the issues, they will make

their best efforts for a peaceful solution, with management supporting and protecting union members' right to bargain collectively.

- 1 Labor-management meeting (twice a year)
- In-house company labor-management meeting (twice a year)
- 3 Onsite labor-management meeting (every month)
- A Study meeting on personnel affairs and labor relations (three times a year)

#### **Guaranteeing Payment of Minimum Wages**

Based on the minimum wages set by region and industry under the Minimum Wage Act, Nabtesco agrees with the labor union about its own minimum wages to be paid at each of the sites.

Legal minimum wage levels are revised every year, and Nabtesco calculates its own minimum wages for the year by adding a certain amount agreed upon with the labor union to the revised wages, thereby improving the treatment of employees and preventing noncompliance with related laws.

Also at the Nabtesco Group companies outside Japan, employee wage levels are set in accordance with laws stipulating minimum wages in the relevant country to ensure legal compliance.



73.0%

# Management of Occupational Health and Safety

#### **ESH Basic Policy and Management Targets**

The Nabtesco Group manages environment, safety and health (ESH) issues in accordance with the basic policy and management targets shown in the table on the right. Management of ESH issues pertains to all employees of the Nabtesco Group as well as its partner companies and is led by the Group ESH Committee.

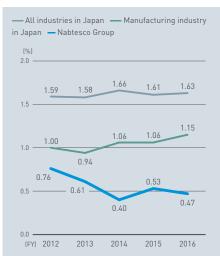
Item	Description
Basic policy	Safety first: Always make safety the first priority based on the principle of respect for human life. Safety is a responsibility of the entire production line: Each employee is responsible for him/herself and his/her co-workers. Safety should be a built-in operation: ESH = your job.
Manage- ment targets	Environment: Zero cases of environmental problems Safety: Zero cases of industrial accidents Accident prevention: Zero cases of explosions or fire Health: Zero cases of occupational diseases

#### **Activities**

There have been no cases of fatal accidents among regular and non-regular employees of the Nabtesco Group for the past five years. Over the past three years, however, industrial accidents accompanied by absence from work include those resulting in bone fractures, more than 80% of which involved workers being cut/scratched, being pinched/caught, and falling.

In FY2017, we therefore started the STOP3 activities to eradicate the above-mentioned, three most frequently occurring types of accidents with the objective of achieving zero cases of industrial accidents. Moreover, we began initiatives to foster a culture of safety to enhance workers' safety awareness.

#### Lost-Work Time Injuries Frequency Rate



- \* Data for the all industries average and the manufacturing industry average are from the 2016 Survey on Industrial Accidents, Ministry of Health, Labour and Welfare.
  \* The figure for the Nabtesco Group in FY2015 was calculated
- with the scope of the survey being the 12 months from January to December 2015.

### Occupational Health and Safety Management System (Acquisition of OHSAS 18001 certification)

The three major plants (Gifu, Tarui and Tsu), which engage in more processing work than other plants and together employ around 40% of our domestic plant workers, have acquired OHSAS 18001 certificationi as an effective tool to ensure occupational safety. These plants are establishing and operating their occupational health and safety management systems in line with the standards. The three plants undergo audit by a certification

body every year in their efforts to improve their occupational health and safety level.

We will continue to pursue preventive safety management through risk assessments, and to increase safety awareness at each workplace. Moreover, we will improve the education of new employees, reinforce efforts to raise perception of existing risks, and promote the creation of workplaces without accidents.



<sup>\*</sup> See ESH Promotion Framework on page 103.

#### **OHSAS 18001 Certification**

Name of plants	Date of certification	Last update	Certification body
Gifu Plant (Gifu pref.)	July 6, 2004		
Tarui Plant (Gifu pref.)	(Joint acquisition	July 6, 2013	LRQA
Tsu Plant (Mie pref.)	by the three plants)		

### Evaluation of Safety and Health Risks Associated with New Businesses and Projects

The Nabtesco Group makes it mandatory to assess ESH risks associated with new businesses and projects and to report as-

sessment results before implementation. In FY2016, we conducted risk assessments on 11 businesses and projects.

#### **Health Management**

#### **Efforts to Eliminate Mental Health Problems**

For a corporation to achieve a growth, it is essential that it have a physically and mentally healthy workforce that can drive the organization forward. We have two nurses in residence to provide counseling as needed to employees experiencing mental health problems and help them return to work. For employees whose workload is considered high, the nurses monitor their mental health through regular interviews. In order to promote the mental health of employees in a more proactive way, we also host various seminars and lecture events on a regular basis as well as run the Employee Assistance Program (EAP), which is available to employees on overseas assignment and their family members.

In line with the revised Industrial Safety and Health Act, in FY2016 we conducted stress checks for the first time. The rate of employees who received the check was 93.4%, which was five points higher than the average stress

check recipient rate among companies conducting the test, according to the tabulation by a test outsourcer. The stress check revealed that 13% of our employees have a high level of stress, which is 2.6 points higher than average. We will work to improve our workplace environments by making physicians available for consultation and conducting follow-up measures, thereby reducing the rate of employees with a high level of stress to less than 10%.



Joint meeting held by the Personnel Department, nurses and the Health Insurance Society

#### Countermeasures against Lifestyle Diseases

Improving the lifestyles of employees who are suffering or at risk of metabolic syndrome, one of the causes of lifestyle-related diseases, is important not only for safeguarding the health of those employees but also for reducing future medical costs.

We oblige employees found by physical examination to have a high risk of brain or heart disease to receive health guidance. We also impose certain restrictions on overtime and holiday work hours of such employees. The Nabtesco Group is committed to raising its employees' health awareness and improving their actual health status through ensuring workplace environments are conducive to supporting employees with health risks and using labor-management meetings as opportunities for regularly reporting the implementation status of health guidance and working hour restrictions.

### Fostering Workplace Diversity

### Active Employment of Non-Japanese Nationals Including Foreign Students Studying in Japan

Due to the maturity of the economy and the fact that the Japanese population is decreasing as a result of the declining birthrate, we can no longer expect significant economic growth to take place in the domestic market, and therefore need to promote further globalization.

Non-Japanese employees have different ways of looking at things and active attitudes toward work, and as such, they are expected to have positive effects on other personnel.

As a result of implementing measures such as holding job fairs to provide information on our company targeted specifically at foreign students studying in Japan and conducting recruiting activities at overseas colleges, as of December 31, 2016, foreign nationals from nine countries have joined Nabtesco's workforce.

We set the goal for the ratio of non-Japanese new graduates hired for managerial positions to around 30% each year.

Total Number of Newly Recruited Main Career Track Employees (New Graduates) and Percentage of Non-Japanese Nationals (Unit: persons)

	2013	2014	2015	2016	2017
Total number of newly recruited main career track employees	41	30	29	15	27
Number of non-Japanese nationals	16	8	10	2	4
Percentage of non-Japanese nationals	39.0%	26.7%	34.5%	13.3%	15.0%

<sup>\*</sup> The calculation scope covers only Nabtesco Corporation. The figures are based on the human resources data

#### **Proactive Employment of Women**

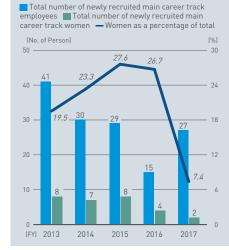
To promote employment of female employees, we hold job fairs specifically for female college students.

At these job fairs, we provide students with an opportunity to directly hear the voices from the female employees about their experiences, available childcare schemes, and work-life balance.

Thus, we had achieved the goal of maintaining the ratio of females among new graduates for managerial positions at no less than 20% each year up to FY2016. In FY2017, however, it went under the goal due to the scarcity of female graduates who majored in mechanical engineering and electrical/electronic engineering, who are our primary recruitment targets. Going forward, we will continue to uphold this goal and continue our efforts to recruit female workers.

Nabtesco has established three action plans pursuant to the Act on the Promotion of Women's Participation and Advancement in Workplace (enforced on April 1, 2016). We continue to make efforts to implement these action plans.

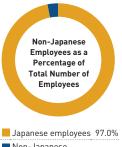
#### Total Number of Newly Recruited Main Career Track Employees (New Graduates) and Percentage of Women



<sup>\*</sup> The calculation scope covers only Nabtesco Corporation.
The figures are based on the human resources data.

#### Our Action Plan Following the Act to Advance Women's Success in Their Working Life

- Measure 1: Propose new work styles to employees on the shorter work hour scheme by introducing home working and teleworking systems
- Measure 2: Introduce a mechanism to formulate a medium-term development plan to educate employees in a systematic manner
- Measure 3: Review evaluation elements and criteria by analyzing evaluation results



- Non-Japanese employees 3.0%

  \* The calculation scope covers
- \* The calculation scope covers only Nabtesco Corporation. The figures are based on the human resources data.



(Uni	t: persons)
China	46
Republic of Korea	8
Malaysia	1
Vietnam	2
Germany	1
Czech Republic	1
Ghana	1
India	1
U.S.A.	1

\* Employees naturalized in Japan are counted as the citizens of their countries of origin; employees from Hong Kong are counted as Chinese citizens

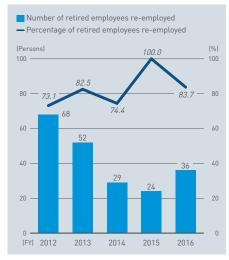
#### **Promoting Employment of Senior Persons**

Nabtesco's continued employment system provides a consolidated environment for experienced employees to maximize their performance levels, such as special benefit for those with advanced expertise.

Due to the revision of the National Pension Act, the rate at which Nabtesco re-employs retired employees will further increase beyond the present level of over 70%.

Experienced employees are sharing their skills with their successors and at each production site team members are conducting activities to turn their tacit knowledge into explicit knowledge. These activities have become an intellectual asset to support our current technical capabilities.

#### Re-Employment Rate of Retirees



\* The culculation scope covers only Nabtesco Corporation.
The figures are based on the human resources data.

#### **Promoting Employment of Persons with Disabilities**

In FY2013, the statutory employment rate of persons with disabilities was raised from 1.8% to 2%. Since FY2015, we have achieved the 2% rate by actively hiring persons with disabilities as a result of our new graduate recruitment.

In FY2015, we established Nabtesco Link Corporation, a Group company intended to promote employment of persons with disabilities in Gifu Prefecture, as part of efforts to fulfill our social responsibilities. In FY2016, the company was approved by the Ministry of Health, Labour and Welfare as a Specialized Subsidiary Company that meets the requirements under the Act on Promotion of the Employment of Persons with Disabilities.

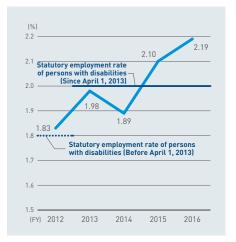
Nabtesco Link hires its employees directly from special needs schools located in the prefecture, thus contributing to local employment. Moreover, Nabtesco has fostered exchanges with these local special needs schools by arranging factory tours and by offering space on factory premises for the students to sell products they have made.

The Nabtesco Group continues its concerted efforts to hire persons with disabilities in order to promote employment in our operating regions.



Nabtesco Link Corporation

#### **Employment Rate of Persons with Disabilities**



<sup>\*</sup> The FY2015 employment rate is the average of the ninemonth fiscal period. The culculation scope covers only Nabtesco Corporation. The figures are based on the human resources data.

#### Work-Life Balance

A good balance between work and a satisfying private life provide a source of new values and concepts, and will help each employee demonstrate high-quality performance. Based on this belief, we have a wide spectrum of schemes in place to promote a healthy work-life balance. We created a childcare support handbook that summarizes childcare-related laws and internal systems to help employees understand the difficult systems in place and undertake necessary procedures more easily. In January 2016, we created a nursing care support handbook to explain the nursing care leave system, which allows

employees to take leave repeatedly for up to a total of two years, as well as other support systems and consultation services to provide employees with alternatives to giving up their careers while committing to family responsibilities.



Brochures

#### Support for Childcare and Eldercare

- Parental leave: Up to two years. This leave can be taken even when the spouse is devoted to full-time child-rearing.
- Nursing care leave: Up to a total of two years per family member who needs eldercare, but if the number of days taken off by an employee under the system does not exceed 93 days during the two-year period, the employee can take the leave also after the end of the period. (revised in April 2013)
- Shorter working hours for childcare: Working hours can be reduced by two hours per day until the beginning of the child's fourth grade of elementary school.
- 4. Sick/injured childcare leave: This leave is available until the beginning of the child's fourth grade of elementary school. Ten days (unpaid) or any necessary number of days that can be covered by the accumulated expired paid leave system (paid)
- Paternity leave: This leave can be taken when the employee's wife gives birth to a child. Five days (paid)
- Shorter working hours for nursing care: Working hours can be reduced by two hours per day.
- 7. Financing by the Kyosaikai employee cooperative society to support employees taking childcare/eldercare leave
- 8. Consideration for employees who are engaged in childcare/eldercare when transferred (avoiding change of workplace, etc.)

#### Other Support

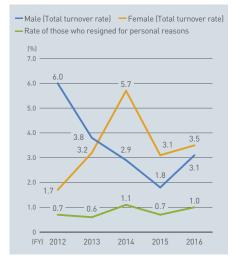
- 1. Integrated benefits program
- 2. Nabtesco corresponding education program
- 3. Qualification support program
- 4. English/Chinese lessons at each site
- 5. Support for club activities

#### **Stability of Workforce**

Nabtesco promotes labor management and related measures based on employee turnover data that details the reasons for leaving the company.

The graph on the right shows the rates of male and female employees that retired or resigned from Nabtesco. The rate of employees who resigned for personal reasons has remained around 1%, which shows that Nabtesco provides its employees with a good work environment

#### Rate of those who resigned for personal reasons



<sup>\*</sup> The culculation scope covers only Nabtesco Corporation.
The figures are based on the human resources data.

#### Breakdown of Employees who Resigned or Retired (FY2016)

(Unit: persons)

	(1) Total number	Retirees among (1)	Those who resigned for reasons related to the company among [1]	Those who resigned for personal reasons among (1)
Managers	16	11	0	5
General employees	50	32	0	18
Total	66	43	0	23

<sup>\*</sup> The number of voluntary resignation of executive officers and those who had been re-employed are excluded. The calculation scope covers only Nabtesco Corporation. The figures are based on the human resources data.

#### Breakdown of Regular Employees (as of December 31, 2016)

(Unit: persons)

	(1) Number of perma- nent employees	Number of manag- ers among (1)	(2) Number of newly hired employees	Number of new graduates among (2)
Male	1,940	323	68	40
Female	210	2	15	11
Total	2,150	325	83	51

<sup>\*</sup> The calculation scope covers only Nabtesco Corporation. The figures are based on the human resources data.

### Human Capital Development

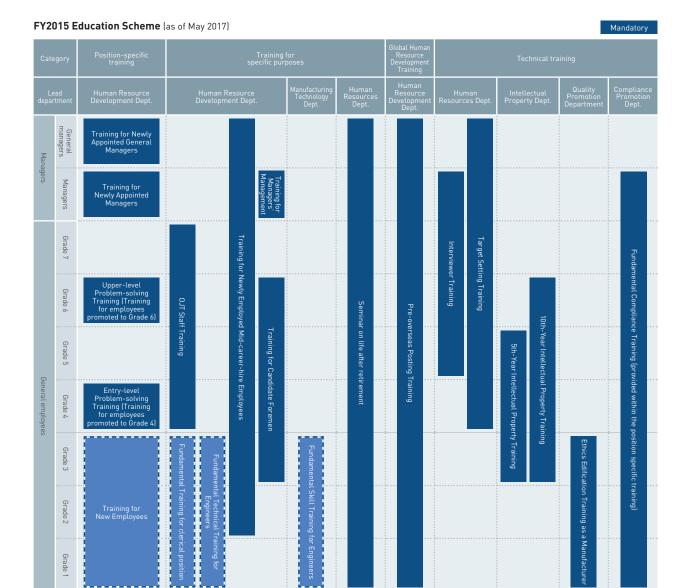
#### **Basic Policy on Human Capital Development**

We clearly state, "Employees are essential assets" in The Nabtesco Way.

In order to share the company's ideal image of the human capital where it is the people who make the company, and to define the direction that all employees should follow, the Nabtesco Group established the Basic Policy on Human Capital Development and has been providing a range of educational opportunities in line with this policy ever since.

#### **Basic Policy on Human Capital Development**

Develop personnel who can think and learn on their own at all times as members of a global corporate group, and create a culture that values and supports learning.



Target	Position-specific training	joining the company or being promoted
		operation of management and human resources systems
	Global human resource development training	To enhance skills and knowledge to fulfill duties on a global scale
	Technical training	To improve technical knowledge and skills

Number of Trainees (Training Provided by the Human Resources Development Department from January to December in FY2016)

2000201						
Training for New Employees	59	Second-year Training for Clerical Position				
Entry-Level Problem-Solving Training (for	53	Third-year Training for Engineers				
those promoted to Grade 4)	33	Third-year Training for Clerical Position				
Upper-Level Problem-Solving Training (for those promoted to Grade 6)	42	Third-year Retrospective Training (head office worker)				
Training for Newly Appointed Managers	24	Basic Management Program				
Training for Newly Appointed General Managers	10	Studying at domestic and overseas business schools				
Training for Candidate Foremen	21	Studying overseas (overseas trainee)				
Training for Newly Employed Mid-Career- Hire Employees	132	English Writing Training				
Selective Training for One and Second-year Engineers	24	Intensive Study Camp for English Conversation				
Second-Year Research Report & Presentation	34	English Presentation Training				
Second-year Retrospective Training (office	0.	Training on Marketing				
worker)	28	Workshop on Designing				
Second-year Training at the Head Office Technical Department	35	Training for those to be transferred overseas				

- \* The number of trainees above includes also trainees from subsidiaries.
- \* Number of Training for Newly Employed Mid-Career-Hire Employees inclues transferring employees from Hyest Corporation

#### **Development of Globally Competitive Human Capital**

As overseas business is expected to continue to expand, it is becoming increasingly important to develop globally competitive human capital. We introduced a system to register in advance employees slated to work overseas so that we can provide them with essential training in a planned manner. It also builds a database of the experiences of those actually working overseas to share useful information on overseas work among employees, thereby enhancing the entire Nabtesco Group's global abilities.

We organize regular English writing and presentation classes to provide our employees with opportunities to gain and improve basic English language skills

required for global business communications. In FY2012, we introduced the "Overseas Trainee Program" in which our employees can study and work aboard. By the end of FY2016 we had sent a total of 17 employees overseas under this program.



**English Writing Training** 

Annual total number of participants (for training provided by Human Resources Development Dept.)

14

33

8

43

19

12

4

21 3

13

15 15

7

eas business

Total hours of training: The number of hours of training per person: hours

### Improving Basic Skills of Young Employees to Immediately Become an Effective Workforce

We provide new graduates who have joined the company with intensive training in a planned and systematic manner during their first three years of work, deeming this time to be optimal for enhancing their basic skills. Specifically, we provide them with annual training programs in consideration of their individual growth stage, thereby helping them to improve year by year.

We also give new employees on-the-job (OJT) training, believing it to be important to offer them hands-on work experience so

that they can become an effective members of the workforce as soon as possible. Under the OJT system, OJT staff members provide careful instructions to individual trainees, while the trainers themselves also receive training to maintain their high ability to provide such instruction. In addition, a common training plan worksheet designed to visualize the contents and progress of the training is used for all trainees to create a uniform, high-quality training environment.



Second-Year Research Report & Presentation

#### **Development of Human Capital at Overseas Group Companies**

The Nabtesco Group is proactively endeavoring toward the development of human resources at Group companies outside Japan. For example, we are implementing various training programs aimed at improving the skills of locally hired personnel. In addition, we offer an OJT-based training program designed for skill enhancement, in which employees of overseas Group companies are assigned, for a certain period of time, to factories in Japan belonging to various business segments, including the railroad

vehicle equipment, hydraulic equipment and commercial vehicle equipment businesses.

By offering opportunities to deepen their understanding of the Nabtesco Group's corporate culture and The Nabtesco Way that supports it, and to learn specialist skills, we are developing workers who can contribute to economic development in their home countries. We will continue these efforts to reinforce our overseas operational bases and to contribute to the economic and social development of the countries in which we operate.

#### Activity to Increase Employees' Awareness of The Nabtesco Way

We established The Nabtesco Way in October 2012. The Nabtesco Way is a collective term that means our Corporate Philosophy, Our Promises, Action Guidelines and Action Declaration. In FY2016, the fifth year since the establishment of The Nabtesco Way, we held a workshop for employees who exhibited a certain attribute.

The diagnosis of our organization conducted in 2015 revealed that newer employees—those who joined the company after Nabtesco Corporation was founded—had a poorer understanding of and felt less affinity for The Nabtesco Way, as compared to more longstanding employees. We therefore invited 196 such newer employees to join the workshop to share positive aspects of their workplaces and examples of practices they perceived as being unique to Nabtesco, from the perspective of The Nabtesco Way. The workshop provided them with a deeper understanding of the background to The Nabtesco Way as well as helped them share its aims.

We have also held the "Nabtesco Way Month" every April since FY2013 to raise employee awareness about The Nabtesco Way. For the fourth Nabtesco Way Month, marked in FY2016, "Way" meetings were held at 412 workplaces across Nabtesco, including nine Group companies in Japan, with the participation of a total of 3,921 employees. Participants discussed and shared The Nabtesco Way experiences and discussed how they could apply The Nabtesco Way in their own business operations.



Workshop on The Nabtesco Way

"The Nabtesco Way Month" (Workplace Meeting) Participants in FY2016



### **Environmental Management**

#### **Environmental Policy**

The Nabtesco Group formulated the Environmental Philosophy and Environmental Action Plan in 2005 to promote activities

reflecting our strong sense of social responsibility and to help realize a sustainable society.

#### Nabtesco Group Environmental Philosophy/Environmental Action Plan

#### Nabtesco Group Environmental Philosophy

At all times, we acknowledge the impact of our business activities on the global environment; we strive to create products and an environment which are both peoplefriendly and nature-friendly; and we aim to achieve a future society which is enriched and comfortable.

#### Nabtesco Group Environmental Action Plan

- We acknowledge that the preservation of the global environment is a crucial issue that is common to humankind. With participation by all employees, we will actively promote the establishment of targets which aim to improve the results of our environmental preservation activities, and we will actively promote initiatives for sustainable improvements.
- We will strive to improve energy, resource and recycling efficiency during the planning, development and design stages of each product by understanding the impact on the environment throughout the life cycle of the product.
- We will strive to reduce the burden on the environment during the production, sales, distribution and servicing of each product by actively employing or engineering advanced environmental technology, such as for the conservation of energy, the effective use of resources and meeting the challenge of zero emissions.
- We are committed to voluntary activities designed to realize environmental targets.
   We will comply with environment-related laws and regulations, as well as with social norms, and we will set independent control standards as necessary.
- We will actively promote exchange and links with society, and strive to gain wider understanding and trust through such action as the disclosure of environment-related information and participation in social activities.

#### **ESH Promotion Framework**

We have set up the Group ESH Committee as the organization that promotes the management of environment-, safety-, and health (ESH)-related issues across the Nabtesco Group. The Group ESH Committee directly reports to the president. (The meetings are held at least once a year. The Environment & Safety Department serves as the secretariat for the meetings.) The chairman and the other members of this committee are selected from among officers including directors and appointed by the president.

The Group ESH Committee collects important information on the environment, safety and health, including climate change-related risks and opportunities; assesses the materiality of related issues; and discusses measures for issues that are deemed to be important. Based on the results of the discussions, particularly important issues that might have a serious

impact on the Group's business are reported to the Management Committee, where highest-level management decisions are made for execution of business and reflected in formulation of business strategies.

#### **ESH Management Organization**



#### **Group ESH Committee Members**

Chairman Corporate Officer General Manager, Production Innovation Division Isao Shimizu  Member Deputy Chief Executive Officer President, Aerospace Company and in charge of Production Innovation Nobutaka Osada Innovation Nobutaka Osada Innovation Toshio Yoshikawa  Member Managing Executive Officer President, Precision Equipment Company Shinji Jyuman Shinji Jyuman General Manager, Corporate Planning Division and General Manager of General Administration & Human Resources Division Amanaging Executive Officer Company Tresident, Railroad Products Company Taizo Tsuri  Member Managing President, Marine Control Systems Taizo Tsuri  Member Executive Officer Company Resources Division Goro Hashimoto Division General Manager, Compliance Division Member Executive Officer Company Taizo Tsuri  Member Executive Officer Representative Director, Nabtesco Automotive Corporation Michio Ogawa				
Member       Deputy Chief Executive Officer       and in charge of Production Innovation       Nobutaka Osada         Member       Managing Executive Officer       General Manager, Technology and R&D Division       Toshio Yoshikawa         Member       Managing Executive Officer       President, Precision Equipment Company       Shinji Jyuman         Member       Managing Executive Officer       General Manager, Corporate Planning Division and General Manager of General Administration & Human Resources Division       Daisuke Hakoda         Member       Managing Executive Officer       President, Railroad Products Company       Yukihiro Imuta         Member       Managing Executive Officer       President, Marine Control Systems Company       Taizo Tsuri         Member       Managing Executive Officer       President, Accessibility Innovations Company       Koji Kaminaka         Member       Executive Officer       General Manager, Compliance Division       Goro Hashimoto         Member       Executive Officer       Representative Director, Nabtesco Automotive Corporation       Michio Ogawa	Chairman	Corporate Officer	<b>3</b>	Isao Shimizu
Member       Executive Officer       R&D Division       Toshio Yoshikawa         Member       Managing Executive Officer       President, Precision Equipment Company       Shinji Jyuman         Member       Managing Executive Officer       General Manager, Corporate Planning Division and General Manager of General Administration & Human Resources Division       Daisuke Hakoda         Member       Managing Executive Officer       President, Railroad Products Company       Yukihiro Imuta         Member       Managing Executive Officer       President, Marine Control Systems Company       Taizo Tsuri         Member       Managing Executive Officer       President, Accessibility Innovations Company       Koji Kaminaka         Member       Executive Officer       General Manager, Compliance Division       Goro Hashimoto         Member       Executive Officer       Representative Director, Nabtesco Automotive Corporation       Michio Ogawa	Member		and in charge of Production	Nobutaka Osada
Member       Executive Officer       Company       Shinji Jyuman         Member       Managing Executive Officer       General Manager, Corporate Planning Division and General Manager of General Administration & Human Resources Division       Daisuke Hakoda         Member       Managing Executive Officer       President, Railroad Products Company       Yukihiro Imuta         Member       Managing Executive Officer       President, Marine Control Systems Company       Taizo Tsuri         Member       Managing Executive Officer       President, Accessibility Innovations Company       Koji Kaminaka         Member       Executive Officer       General Manager, Compliance Division       Goro Hashimoto         Member       Executive Officer       Representative Director, Nabtesco Automotive Corporation       Michio Ogawa	Member	5 5	3 '	Toshio Yoshikawa
Member       Managing Executive Officer       Planning Division and General Manager of General Administration & Human Resources Division       Daisuke Hakoda         Member       Managing Executive Officer       President, Railroad Products Company       Yukihiro Imuta         Member       Managing Executive Officer       President, Marine Control Systems Company       Taizo Tsuri         Member       Managing Executive Officer       President, Accessibility Innovations Company       Koji Kaminaka         Member       Executive Officer       General Manager, Compliance Division       Goro Hashimoto         Member       Executive Officer       Representative Director, Nabtesco Automotive Corporation       Michio Ogawa	Member	5 5	The state of the s	Shinji Jyuman
Member       Executive Officer       Company       Yukiniro Imuta         Member       Managing Executive Officer       President, Marine Control Systems Company       Taizo Tsuri         Member       Managing Executive Officer       President, Accessibility Innovations Company       Koji Kaminaka         Member       Executive Officer       General Manager, Compliance Division       Goro Hashimoto         Member       Executive Officer       Representative Director, Nabtesco Automotive Corporation       Michio Ogawa	Member	5 5	Planning Division and General Manager of General Administration	Daisuke Hakoda
Member     Executive Officer     Company       Member     Managing Executive Officer     President, Accessibility Innovations Company     Koji Kaminaka       Member     Executive Officer     General Manager, Compliance Division     Goro Hashimoto       Member     Executive Officer     Representative Director, Nabtesco Automotive Corporation     Michio Ogawa	Member	5 5	*	Yukihiro Imuta
Member       Executive Officer       Company       Koji Kaminaka         Member       Executive Officer       General Manager, Compliance Division       Goro Hashimoto         Member       Executive Officer       Representative Director, Nabtesco Automotive Corporation       Michio Ogawa	Member	5 5		Taizo Tsuri
Member Executive Officer Division Goro Hashimoto  Member Executive Officer Representative Director, Nabtesco Automotive Corporation Michio Ogawa	Member	5 5		Koji Kaminaka
Member Executive Ufficer Automotive Corporation Michio Ugawa	Member	Executive Officer	3	Goro Hashimoto
Member Evecutive Officer President Toyo lidaki Co. Ltd. Akiyoshi Kitamura	Member	Executive Officer	· · · · · · · · · · · · · · · · · · ·	Michio Ogawa
Member Executive officer Freshaerit, Toyo Shaoki Co., Eta. Akiyoshi kitamura	Member	Executive Officer	President, Toyo Jidoki Co., Ltd.	Akiyoshi Kitamura
Member Executive Officer President, Power Control Company Kazuyoshi Kimura	Member	Executive Officer	President, Power Control Company	Kazuyoshi Kimura

#### **ESH Audits**

The chairperson of the Nabtesco Group's ESH Committee visits each site to carry out an audit that includes checking the results of ESH-related activities. Instructions are then given based on the results of the audit. At the end of each fiscal year, the company's management team reviews the ESH management system based on the report about the results of the ESH activities, including

the audit results and follow-up surveys.

Results of the FY2016 ESH audits are summarized below. Key guidance provided based on the audits includes the formulation of more environment-friendly plans such as promoting the replacement of existing air-conditioning equipment with non-CFC products in the following fiscal year and thereafter.

#### Results of FY2016 ESH Audits

	Type of audit	Outline	Auditor	Audited organizations
	ESH audit I	On-site audit: Check the results of activities conducted in the previous fiscal year and the activity plan for the current fiscal year; check the responses to accidents/disasters and their appropriateness	Chairperson of the ESH Committee, Pres- ident of the in-house company, Manager of the Environment & Safety Dept.	Nabtesco: 6 plants Group companies: 6 companies Number of guidance: 129
	Follow-up audit	On-site audit: Check the measures implemented in response to the issues pointed out in the ESH audit I	Environment & Safety Dept. (ESH secretariat)	Nabtesco: 6 plants Group companies: 6 companies
	ESH audit II	Documentary examination: On-site examination will also be carried out as necessary. Check the achievements (to be made by the end of the fiscal year) of the ESH activities	Environment & Safety Dept. (ESH secretariat)	Nabtesco: 7 plants Group companies: 8 companies Improvement completed number: 112 Improvement completed number: 17

#### **Environmental Management System**

The Nabtesco Group acknowledges that the ISO 14001 international standard is an effective tool for environmental management and therefore uses it in building and operating our environmental management system. Since the Konan Plant (Automatic door business) first obtained ISO 14001 certification in October 1999, all Nabtesco Corporation plants, as well as five plants operated by major Group companies, have become ISO 14001 certified. With regard to domestic Group companies that have not yet obtained ISO 14001 certification, we will check the status of environmental management during the ESH audit. Headquarters staffs have also started checking the environmental management status

of overseas Group companies including Group companies in China since FY2016.

The Nabtesco Group is aiming to establish a sustainable system that integrates ecology and economy and is also working to maintain consistency and alignment in our environmental activities across the entire Group by promoting information sharing and collaboration among our sites. In order to enhance the performance of our environmental management in a sustainable manner, we incorporated the indicator of environmental objective (reduction of  $\mathrm{CO}_2$  emissions) achievement ratio into the performance evaluation of business departments in FY2017.

#### Nabtesco Energy Management System (NEMS)

In April 2015, we introduced an environmental information management tool and changed biannual environmental information reporting by branch offices into monthly reporting, in purpose of speeding up collection, aggregation and analysis of the environmental information. This has lead us to take quicker actions against gaps between our target numbers and actual data identified through the monthly reporting to the Corporate Officers Committee.

Furthermore, we have began installations

of a monitoring system at six of Nabtesco's factories since 2015 that allows real-time data verification and aggregation on energy usage. The monitoring system will enable the factories to easily compare and analyze their energy usage to abnormality and previous data. The results will also be shared at monthly meetings (of the Environmental Committee, Energy Conservation Committee, and Energy Study Group) and used to encourage all employees to participate in energy conservation activities.



#### **Environmental Education**

The Nabtesco Group provides its employees with diverse environmental education to raise their awareness about environmental protection, safety, and health. For the environmental education to new employees, we explain the company's environmental activities and achievements, and emphasize that every small step made by each employee will eventually result in a great stride in the reduction of our environmental impact.

We also organize ESH trainings and energy saving committees for ESH managers and those in charge of ESH at each site to share such information as the latest ESH-related trends and revisions of important laws and regulations.



Meeting for energy conservation committees

#### **Number of Trainees**

(Unit: persons)

	FY2014	FY2015	FY2016
Energy conservation (Frequency: 6/year)	76	80	123
ESH (Frequency: 1/year)	14	18	17
Safety (Frequency: 2/year)	13	14	34

<sup>\*</sup> Object persons: ESH managers and those in charge of ESH

#### **Violation of Environmental Regulations**

The Nabtesco Group identifies laws and regulations applied to our business and compiles the list and confirms the company's compliance with them to prevent the occurrence of legal violations. In FY2016, one violation of the environmental regulations occurred at a plant in China (Shanghai) that produces hydraulic equipment. As part of the water quality inspection on wastewater and sewage by the waterworks bureau in Songjiang District, Shanghai City, it was pointed out that the water quality at the plant had exceeded the standards specified by Shanghai City, and we paid a fine of 50,000 yuan. Since

it was presumed that the ingredients in the soap used at the employees' handwashing area and insufficient cleaning of the septic tank had caused the water quality to exceed the specified standards, we took the following countermeasures to prevent a recurrence of similar incidents.

- (i) Changed the soap to be used
- (ii) Increased the frequency of visual inspections and cleaning of the septic tank
- (iii) Conducted employee training aimed at preventing a recurrence of similar incidents
- (iv) Made it obligatory to report a status at the monthly safety meetings within the plant

### Participation in the United Nations Global Compact Study Group on Environmental Management

Nabtesco has been participating in various organizational activities related to environmental conservation including the United Nations Global Compact Network Japan's study group on environmental management. In this study group, we collect information from NGOs and experts and share information with a wide range of companies, including those in other

industries, while discussing issues around climate change, water-related risks, biodiversity, energy and other themes. Through this type of proactive collaboration and dialogues with external initiatives, we strive to assimilate advanced initiatives in order to enhance our own environmental management.

### Combating Climate Change

#### Measures Against Climate Change

Based on its material CSR issues (materiality), the Nabtesco Group has been promoting Group-wide efforts to reduce greenhouse gas emissions and to enforce energy-saving activities as part of its measures against climate change. By introducing the energy-saving product certification system and the energy conservation activity commendation program in FY2012, we have set improvement themes, including the certification standards for energy-saving products and reduction of energy consumption, in order to realize energy conservation through product design, equipment operations, maintenance and management. In addition, we strive to steadily reduce greenhouse gas emissions by monitoring the status and effects of such efforts in a quantitative manner.

In November 2016, the Paris Agreement\*1, an international framework for countermeasures against climate change beyond 2020, came into effect and the 2 degrees Celsius target\*2 was adopted as an international target. Under such circumstances, the Nabtesco Group set a longterm target for reducing greenhouse gas

emissions, which has been approved by the SBT (Science Based Targets)\*3 Initiative.

We also advocate the measures taken by the CDP\*4 of the United Kingdom to mitigate the impact of climate change and reduce greenhouse gas emissions. Accordingly, to enhance the transparency of our own efforts, we have disclosed the Nabtesco Group's climate change strategies and greenhouse gas emissions to the CDP since FY2010. In FY2016, our efforts were recognized at the highest level when we were included in the Climate A List and the Supplier Climate A List.

The Nabtesco Group has also been participating in various organizational activities related to environmental conservation, including the United Nations Global Compact Network Japan's study group on environmental management, and is striving to assimilate advanced initiatives to tackle climate change through collaboration and dialogues with external initiatives. We will further develop our motion control technology, which moves and stops objects in a precise manner, thereby making greater contributions to the prevention of climate change.

#### Reduction Targets for Greenhouse Gas Emissions

In FY2016, the Nabtesco Group set long-term greenhouse gas emissions targets for FY2050 with the aim of preventing global warming. With regard to the total amount of  $\text{CO}_2$  emissions from the sites of Group companies in Japan and our overseas production sites, we aim to reduce emissions relative to our sales (per unit of sales) by 30% in FY2030 and by 80% in FY2050 compared to the FY2015 levels. Moreover, the long-term target of Nabtesco Corporation

for reducing greenhouse gas emissions has been approved by the SBT Initiative.

In terms of the medium-term target for FY2020, we aim to manage our total amount of  $CO_2$  emissions below the level of FY2015 and reduce our emissions per unit of (global) sales by 9% or more in light of the anticipated increase in production volumes and reinforcement of plants and equipment in line with our expected future operational growth.

CO <sub>2</sub> emissions target	FY2015 (base year)	FY2020	FY2030 (30% reduction)	FY2050 (80% reduction)
Total CO2 emissions [In Japan]	46,100	46,100	32,270	9,220
Per unit of sales [Global]	0.239	0.217	0.167	0.048

- \*1 An international treaty to curb climate change beyond 2020 that was adopted by multiple nations on December 12, 2015 in Paris, following the 21st Session of the Conference of Parties to the United Nations Framework Convention on Climate Change (COP 21)
- \*2 An international target set under the Paris Agreement to maintain the average global temperature rise to well below 2 degrees Celsius (°C) compared to pre-industrial levels
- \*3 A framework that encourages companies to set their medium-term targets (for five to 15 years ahead) at a level that will enable achievement of the 2°C target. Such targets are certified following a screening by the SBT initiative.
- \*4 The CDP is an international non-profit organization. It urges companies that boast the world's top-ranked total market value to disclose their climate change strategies and greenhouse gas emissions levels. Based on the information disclosed, the CDP annually evaluates the companies and announces their scores to the public. The CDP represents 803 institutional investors with total assets of 100 trillion US dollars (as of 2017 survey), and calls on Japan's top 500 companies in terms of market capitalization (that is, the constituents of the FTSE Japan Index) to disclose information.

Group's long-term targets

Colobal target >
Total CO<sub>2</sub> emissions (per unit of sales)

FY2030 30% reduction

FY2050 80% reduction

[Relative to FY2015]

Group's
medium-term target
(To be achieved by FY2020)

< Global target >
Total CO<sub>2</sub> emissions
(per unit of sales)

% reduction
(Relative to FY2015)

#### 2016 Targets and Results

In FY2016, our total amount of  $CO_2$  emissions from Japanese operations were 8% over the FY2016 target, although the level of emissions remained virtually unchanged from the previous fiscal year as a result of our efforts to save energy and increase solar power generation equipment despite an increase in production volumes.

Our global emissions, which combines emissions from both Japanese and overseas sites, increased by 6% from the previous fiscal year, reflecting the commencement of operations of a new plant in China in January 2016 in the precision reduction gear business as well as the rebound of the Chinese market for construction machinery in the hydraulic equipment business. Meanwhile, our  $CO_2$  emissions per unit of sales target for FY2016 was overachieved by 14% on a global basis due to the re-

placement of existing equipment with energy-saving products as well as relentless efforts to reduce standby power.

The Nabtesco Group has been advancing energy-saving activities toward achieving our long-term targets through the improvement of efficiency of production equipment and air-conditioning equipment and the utilization of energy monitoring systems. Although our production capacity is expected to continue to expand in line with operational growth in the future, it is a prerequisite that new plants to be established in Japan and overseas cut their energy consumption by 40% or more relative to that of existing plants. It is our plan to leverage energy-saving technologies to be developed at these new plants for use at our existing plants, thus achieving the reduction of CO2 emissions across the Group.

## THIRD-PARTY VERIFI-CATION Nabtesco Group's CO2 emissions data for the FY2016 https://www.nabtesco. com/en/ir/tibrary/report

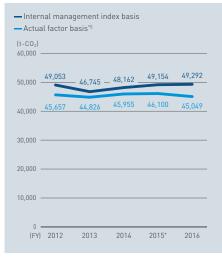
CO2 emissions per unit of sales [Global]



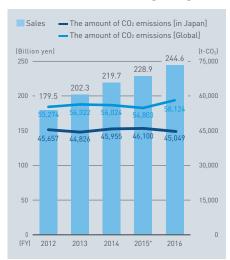
#### Targets and Results of FY2016

ltem	FY2016 Targets	FY2016 Results	Performance	Status
Total CO <sub>2</sub> emissions [In Japan] *1*2*3*4	45,551	49,292	8% above target	Not Achieved
Per unit of sales [Global] *1 *3 *5 *6	0.277	0.238	14% below target	Achieved

#### The Amount of CO<sub>2</sub> Emissions [in Japan]



#### The Amount of CO<sub>2</sub> Emissions [Global]



\* The figure for the Nabtesco Group in FY2015 was calculated with the scope of the survey being the 12 months from January to December 2015.

- \*1 The calculation policy and standards comply with the Act on the Regional Use of Energy and the Act on the Promotion of Global Warming Countermeasures, and are aligned with the internal Guidelines on the Management of Environmental Information.
- \*2 The management of the results for the total CO2 emissions is based on the number derived from the internal management index. The CO2 conversion factors used to calculate actual results are the FY2008 factors, except the factor for electricity, for which the default value of 0.555 kg-CO2/kWh is used.
- \*3 The calculation period covers January to December 2016.
- \*4 The calculation scope includes Nabtesco Corporation and domestic Group Companies (10 companies and 24 sites), which are listed at "Scope of Environment and Other Data," P.116.
- \*5 The CO<sub>2</sub> conversion index published by the Ministry of Environment for each industry is used as the actual emission factor.
- \*6 The calculation scope includes Nabtesco Corporation, domestic Group companies (10 companies and 24 sites), and overseas Group companies (12 companies and 12 sites), which are listed at "Scope of Environment and Other Data," P.116.

#### CO<sub>2</sub> Emissions per Unit of Sales [Global]

(Amount of CO<sub>2</sub> emissions/sales)



\* The figure for the Nabtesco Group in FY2015 was calculated with the scope of the survey being the 12 months from January to December 2015.

# Calculation of Scope 3 Emissions

The Nabtesco Group had begun to calculate greenhouse gas emissions from the entire supply chain in FY2013 with a view to identifying and effectively reducing the en-

vironmental impact of our business activities as a whole. The following table shows the calculation results of past three years.

#### Emissions from the entire supply chain

(Unit: t-CO2)

Classification	FY2014	FY2015	FY2016
Direct emissions (Scope 1) *7*8	7,439	7,074	7,259
Indirect emissions through the use of electricity and others (Scope 2)*7*8	48,584	47,729	50,865
Emissions from the supply chain (Scope 3)*9	845,068	826,842	885,494

\* The figure for the Nabtesco Group in FY2015 was calculated with the scope of the survey being the 12 months from January to December 2015.

The following table shows the breakdown of our Scope 3 greenhouse gas emissions. "Purchased goods and services" (category 1) accounts for the largest percentage (84.3% of the total  $CO_2$  emissions for FY2016 in global terms), followed by "Upstream transportation and distribution" (category 4, 10.8%). As described earlier, our Scope 3 emissions increased mainly due to the increase in production volumes

in the precision reduction gear business and the hydraulic equipment business.

We will continue to identify and reduce greenhouse gas emissions from our entire supply chain.

In order to ensure the reliability of the calculation results, we had them verified by Lloyd's Register Quality Assurance Limited.



- \*7 The calculation scope includes only domestic operations: Nabtesco Corporation and Group companies (10 companies and 24 sites, 12 overseas Group companies and 12 sites), which are listed at "Scope of Environment and Other Data," P.116.
- \*8 The calculation policy and standards comply with the Act on the Regional Use of Energy and the Act on the Promotion of Global Warming Countermeasures, and are aligned with the internal Guidelines on the Management of Environmental Information.
- \*9 The calculation scope includes Nabtesco Corporation only.

Scope 3 Emissions (FY2016)

	Category	Emissions (t-CO <sub>2</sub> )	Rate (%)	Remarks
	Category	FY2016	Rate (70)	Remarks
1	Purchased goods and services	746,844	84.3%	
2	Capital goods	17,973	2.0%	
3	Fuel- and energy-relat- ed activities	2,951	0.3%	
4	Upstream transportation and distribution	96,004	10.8%	
5	Waste generated in operations	1,114	0.1%	
6	Business travel	3,901	0.4%	
7	Employee commuting	1,388	0.2%	
8	Upstream leased assets	_		N/A (No corresponding leased assets)
9	Downstream transportation and distribution	_		N/A (Completed products transported on consignment are included in Category 4)
10	Processing of sold products	_		N/A (Nabtesco products are completed products and not processed after being sold)
11	Use of sold products	14,280	1.6%	
12	End-of life treatment of sold products	1,039	0.1%	
13	Downstream leased assets	_		N/A (No corresponding leased assets)
14	Franchises	_		N/A (No corresponding franchises)
15	Investments	_		N/A (No corresponding investments)
	Total	885,494	100.0%	

# **Reduction in Energy Consumption**

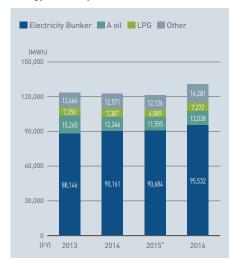
The Nabtesco Group is continuously working to conserve energy and replace existing equipment with energy-saving alternatives, thereby we aim to achieve the target to reduce energy consumption per unit of sales by 2% per year. We have installed electricity meters to our energy-heavy production facilities to monitor excessive use of electricity and standby power, repair equipment and improve operational methods.

We also introduced a monitoring system using the intranet where employees can see their energy use data in an effort to enhance visualization and engage in activities to raise awareness on energy saving at the same time. Through these efforts, our global energy consumption per unit of sales has been steadily improving.

To raise awareness of energy-saving, in September 2012 the Nabtesco Group has established the energy conservation activity commendation program to give commendations to the sites which achieved successful results in energy-saving activ-

ities. In FY2016, Aerospace Company (Gifu Plant), Toyo Jidoki Co., Ltd. (Iwakuni Plant) and Accessibility Innovations Company (Konan Plant) received the commendations under this program.

#### **Energy Consumption [Global]**



\* The figure for the Nabtesco Group in FY2015 was calculated with the scope of the survey being the 12 months from January to December 2015.



The Scope 3 calculations for FY2016 were made by the following method and for the following period and scope.

- Calculation method: As shown in the basic guidelines on the calculation of greenhouse gas emissions from supply chains set by the Ministry of the Environment and the Ministry of Economy, Trade and Industry
- Targeted period: January 1, 2016 to December 31, 2016

# Renewable Energy

The Nabtesco Group is promoting the use of renewable energy equipment including solar panels at its facilities. In 2012, The Tarui plant (Gifu Prefecture) began generating 400 kW of electricity through solar power, and in February 2016 the Tsu plant (Mie Prefecture) started its operation producing 500 kW of electricity. Furthermore, the Kobe plant (Hyogo Prefecture) started

the operation to produce 494 kW of electricity in April 2016. In addition, we have installed solar panels with a total capacity of 161 kW for the two new plant buildings constructed within Gifu plant (Gifu Prefecture) and commenced solar power generation. The Nabtesco Group will continue its proactive measures to promote the use of renewable energy in the future.

# Mitigation of Environmental Impact Caused by Products and Services

# **Certification System for Energy-Saving Products**

This certification system was established to foster the design and the development of energy-saving products in order to promote environmental protection and the development of a sustainable society. Through this system we are contributing to the mitigation of global warming while increasing the environmental awareness of our employees.

For products that have obtained the certification, we issue certificates, approve the use of the certification mark and make announcements about the certification in our in-house magazine. For energy-saving product certifications, we internally evaluate products to be released on the market to see whether they meet more than one certification criteria and exceed existing levels in non-requisite criteria items.

In FY2016, a product developed by Toyo Jidoki Co., Ltd., which engages in the pack-

aging machine business, was certified as an energy-saving product. The "TT-10CW Type 2" high-speed packaging machine has been improved the filling and packaging capability by 50% through enhancement of the mechanism and the product lifespan has been extended by 260%, a significant improvement in comparison with conventional products.



TT-10CWType2

#### **Certification Criteria**

Downsizing and
Downsizing and
weight reduction
Weight reduction

By 15% or more compared with previous models

## Longer life

By 20% or longer compared with previous models

# Higher efficiency and less energy use

By 15% or more compared with previous models

#### Non-use of hazardous substances

Not contained

#### Certified Product in FY2016

		Evaluation c	riteria	
Product name	Downsizing and weight reduction	Higher efficiency and less energy loss	Longer life	No-use of hazard- ous Substances
High-speed packaging machine TT-10CWType2	On par with previous models	Packaging capability improved by 50%	Improved by 260%	Not contained



Solar panels at Tsu plant



Solar panels at Kobe plant



Solar panels at Gifu plant

# eco PRODUCTS



Nabtesco's eco label and Certificate

# **Cost of Implementing Anti-Climate Change Measures**

The Nabtesco Group is collecting important information about the environment, safety, and health, including climate change-related risks and opportunities, and is assessing the materiality of related issues and discussing measures to implement for those that are deemed to be important. In FY2016, as a part of measures against climate change-related risks, we updated air conditioners, and implemented measures against snow, wastewater, and rain leakage, for which we spent approximately 28.2 million yen in total.

Furthermore, in FY2016, Nabtesco spent about 7.4 billion yen on R&D related to climate change measures and development of green products.

The Nabtesco Group pursues higher energy efficiency in a range of business fields based on the motion control technology, which has developed for precision reduction gears for industrial robots, travel unit for excavators, aircraft flight control actuation systems, brake operating units, and door operators for railroad vehicle, engine control systems for marine vessels, and automatic doors for buildings and other structures. Thereby we contribute to reducing greenhouse gas emissions generated through the use of end products by our customers.

# Management of Waste and Other Emissions

#### **Waste Reduction**

#### **Activities to Reduce Landfill Waste**

The Nabtesco Group is fostering the activities to reduce landfill waste to zero based on the approach of 3Rs (reduce, reuse, recycle)—the basic practice for establishing a resource-circulating society—for all types of emissions generated in the course of our business.

In FY2016 we continued to implement the separation of waste bound for landfill and enhanced waste heat recovery processes, thus achieving a 71% reduction from the previous fiscal year. The Zero

Emission rate was 0.13%, exceeding the FY2016 target rate of 0.2% or below. This year we will continue to promote the 3Rs in order to achieve the Zero Emissions goal of 0%\* by FY2020.

The Nabtesco Group landfills sludge, waste plastics, and waste glass that do not contain hazardous substances. For hazardous water-soluble waste oil and alkalis, we detoxify them so as not to release waste containing hazardous substances.

\* Here "zero" means 0.05% or lower

# 🔳 Web

THIRD PARTY VERIFICATION Nabtesco Group's environmental and social indicators

\*Waste generated and landfilled

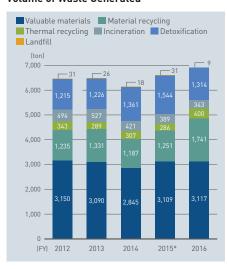
com/en/ir/library/report.



#### Targets and Results of FY2016

Targets	Results	Status
Zero emissions rate: 0.2% or below	Zero emissions rate: 0.13%	Achieved

#### Volume of Waste Generated



#### Volume of Landfill Waste and Zero **Emissions Ratios**



\* The figure for the Nabtesco Group in FY2015 was calculated with the scope of the survey being the 12 months from January to December 2015.

# Breakdown of emissions Valuable materials metal, oil, cardboard, etc. Material recycling oil, sludge, wood, liquid,

plastic, etc.

Thermal recycling packaging, general waste, plastic, etc.

#### Incineration

general waste, plastic, etc.

water-soluble oil, alkalis,

sludge, plastic, glass

#### Measures to Reduce Use of Raw Materials

By reusing components and reducing the production of new ones, Nabtesco is working to minimize the use of resources. We have been fostering the MRO (maintenance, repair, and overhaul) business to optimized the use of resources and expand sales in the service field.

# **Prevention and Reduction of Pollution**

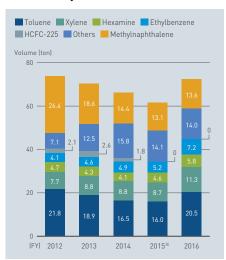
The Nabtesco Group is working to identify, reduce the use, and prevent the leakage of

substances that impact the environment as a result of its business operations.

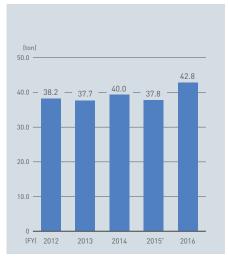
#### Targets and Results of FY2016 for Prevention and Reduction of Pollution

ltem	Target	FY2016 results	Status
Usage of PRTR substances: 61.8 tons or less		72.3 tons	Not Achieved
chemical substances	Volatile organic compound (VOC) emissions: 37.8 tons or less	42.8 tons	Not Achieved
Soil contamination	Prevent the outflow of hazardous substances inside and outside the sites	No soil contamination observed	Achieved
	Identify, manage, store	Low concentration PCB equipment: Disposal completed	
Waste containing PCBs	and dispose the equipment containing low and high concentrations of PCBs at the sites and prevent the outflow of PCBs	High concentration PCB equipment: Stored at Gifu Plant, Tarui Plant and Konan Plant. Waiting for acceptance by a designated disposal business operator (JESCO).	Achieved
Asbestos management	Identify and manage the building materials containing asbestos and prevent dispersal of asbestos	Demotished buildings using materials containing asbestos while taking measures to prevent dispersal of asbestos	Achieved

#### Volume of Major PRTR Substances Used



#### **VOC Emissions**



<sup>\*</sup> The figure for the Nabtesco Group in FY2015 was calculated with the scope of the survey being the 12 months from January to December 2015.



#### Conservation of Water Resources

## **Basic Approach to Water Use**

The Nabtesco Group does not require a large amount of water nor water of a certain quality for its business operations.

However, we deem it important to manage water resources, and accordingly conduct water-related risk analyses, measure the amount of water used and discharged, monitor water quality, and implement measures to prevent the leakage of hazardous substances into water. The Group has the following targets for the use of water and management of water quality.

The amount of water used and discharged at each base are measured every month, and the Group data are accumulated through the environmental information system. As for bases found using a large amount of water per month, we conduct surveys to identify contributing factors for the increased water usage, and implement measures to reduce the water use as necessary.

As for water quality control, we continuously monitor through monthly voluntary tests and regular inspections by external experts.

#### <Target of Water Use Activities and FY2016 Results>

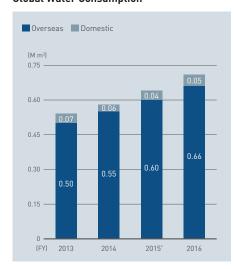
Item	Targets	FY2016 results	Status
Global water use	Year-on-year change rate at 10%: 0.702 M m³ or less	0.714M m <sup>3</sup>	Not Achieved
Water quality control in Japan	In-house management criteria* Excessive number: zero	0	Achieved

 $<sup>^{*}</sup>$  Set criteria that are stricter than local standards, and monitor and manage the discharge of water.

# Global Water Use Management

In 2012 the Nabtesco Group started to measure water consumption in its production activities on a global level \*1\*2\*3, including the data for the overseas subsidiaries. The water consumption at the overseas subsidiaries remains relative low, constituting a mere 8% of the Group consumption; however, in order to respond to

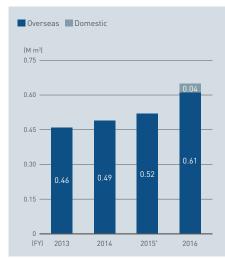
## Global Water Consumption



global water risks, we continue measuring the water consumption in our overseas operations.

In addition, while we used to manage the amount of water discharged only for Group companies in Japan, we commenced wastewater management on a global basis in FY2016.

#### Global Wastewater



\* The figure for the Nabtesco Group in FY2015 was calculated with the scope of the survey being the 12 months from January to December 2015.

# THIRD PARTY VERIFI-CATION Nabtesco Group's environmental and social indicators • Water consumption https://www.nabtesco.com/ en/ir/library/report.html

- \*1 The calculation scope includes Nabtesco Corporation, domestic Group companies (10 companies and 17 sites) and overseas Group companies (12 companies and 12 sites), which as listed at "Scope of Environment and Other Data," P.116.
- \*2 The calculation period for Nabtesco Corporation and domestic Group companies is from January 2016 to December 2016.
- \*3 To ensure data credibility, all data received the thirdparty verification from Lloyd Register Quality Assurance Limited.

# Water Use and Water Discharge Management in Japan

The Nabtesco Group in Japan uses ground-water mainly to cool test stands and melt snow in snowy regions (Yamagata and Gifu). We discharge the used groundwater to rivers under the strict water quality control criteria set by the Group. In FY2016, there were no cases wherein used groundwater did not meet the water quality control criteria.

The total volume of water used by the Nabtesco Group in FY2016 amounted to 660,000 m³, an increase of 9% (55,000 m³) compared to the previous fiscal year. The major contributor to this increase was an expansion in production volumes at Tarui Plant (which supplies hydraulic equipment for construction machinery) on the back of the rebound of demand for construction machinery in the Chinese market. The

increased production volumes resulted in longer operation hours for test stands.

Due to heavy rain falls caused by recent climate change, the risk of rainwater flooding our plants is increasing. The Nabtesco Group uses oil-based type and water-soluble type cutting fluids in its business operations and recognizes the risk of hazardous substances contained in these cutting fluids discharged to rivers if rainwater floods the manufacturing facilities. To prevent this, we have been making capital expenditure to install oil-water separation tanks and oil recovery equipment.

In FY2016, we spent around 7.5 million yen to enhance the rainwater discharging function, install drainage pipes, and make our facilities more water-resistant.

## Addressing water risks

In FY2014, water-related risks in the areas where the Nabtesco Group's seven plants (Yamagata, Gifu, Tarui, Tsu, Kobe, Seishin, and Konan Plants) are located were evaluated using the Aqueduct tool provided by the World Resources Institute and referencing the "water vision" announced by the local municipalities. The evaluation results confirmed that our Group has no water-related risks. In FY2016, regarding our overseas plants, we assessed water-related risks in the areas in which we have plants that use water during production process, including those in China (two plants) and Thailand (two plants). As a result of the assessment of risks related to water quality in China, we concluded that water-related risks were low in light of the low impact of water

quality on our production. Meanwhile, as there is a high risk of floods in the region where we have our Shanghai district plant, which supplies hydraulic equipment for construction machinery, we took measures against floods, including the elevation of power supply systems, etc., with the aim of reducing risks associated with the suspension of production activities.

To reduce water use, the Nabtesco Group has since FY2014 been replying to the CDP Water\*4 questionnaire in collaboration with external organizations. Furthermore, from the perspective of harmony with local communities, we proactively participate in the local environment/water-related councils, implement water conservation activities and exchange opinions.

program to find each company's risk awareness and the strategies against the water risks.

\*4 CDP Water: CDP's survey

Name	Area
Hyogo Environmental Conservation Liaison Committee	Kobe
Toban Regional Groundwater Useage Measure Council	Kobe
Hyogo Prefecture Atmosphere Environment Conservation Liaison Council	Kobe
Gifu Prefecture Environment Promotion Association	Gifu
Seino Area Groundwater Useage Measure Council	Gifu

#### Scope of Environment and Other Data

The scope of the calculation covers the major domestic and overseas production bases and business sites.

# (Domestic Bases)

Corporation	Location	CO <sub>2</sub>	Water	Waste	PRTR	Disaster
	Tokyo Headquarter	0		0		0
	Sensor Technology Group	0				
	Gifu Plant	0	0	0	0	0
	Tarui Plant (Surface Treatment Plant)	0		0	0	0
	Tarui Plant	0	0	0	0	0
Nabtesco Corporation	Tsu Plant	0	0	0	0	0
	Kobe Plant	0	0	0	0	0
	Konan Plant	0	0	0	0	0
	Seishin Plant	0	0	0	0	0
	Nagoya Office	0				0
	Osaka Office	0				0
	Tokyo Headquarter	0				0
Nabtesco Automotive Corporation	Yamagata Plant	0	0	0	0	0
	Yokosuka Technical Center	0	0	0		0
Diavac Limited	Tokyo Headquarter	0	0	0	0	0
CMET Inc.	Headquarter	0	0	0	0	0
Nabtesco Service Co., Ltd.	Yokohama Techno-Center	0	0	0	0	0
Nablesco Sei vice Co., Ltu.	Kobe Techno-Center	0	0	0	0	0
NABCO DOOR Ltd.	Headquarter	0	0	0		0
TS Precision Co., Ltd.	Headquarter Plant	0	0	0	0	0
	Matsuyama Plant	0	0	0	0	0
Toyo Jidoki Co., Ltd.	Iwakuni Plant	0	0	0	0	0
Hyest Corporation*	Headquarter	0		0	0	0
Nabtesco Link Corporation	Headquarter	0	0		0	0

<sup>\*</sup> On April 1, 2016, Hyest Corporation was absorbed in a merger with Nabtesco Corporation. Therefore, the FY2016 environmental data for Hyest Corporation was collected during the period from January to March 2016.

#### (Global Bases)

Country	CO <sub>2</sub>	Water
Thailand	0	
Thailand	0	0
China	0	
China	0	0
China	0	0
Switzerland	0	
Italia	0	0
USA	0	0
USA	0	0
	Thailand Thailand China China China China China China China Italia USA	Thailand  Thailand  China  USA

# Promote CSR Throughout Supply Chain

# Fundamental Approach for Fair, Proper and Transparent Procurement Activities

We are well aware of the importance of meeting the demands and expectations of society regarding social and environmental impacts of activities in our supply chain. By developing mutual trust relationships with suppliers

through fair, proper, and transparent transactions, we are committed to meeting our social responsibilities not just through the efforts of the Nabtesco Group alone but with the cooperation of the entire supply chain.

# Promotion Framework for Nabtesco Group's CSR-Oriented Procurement

We at the Nabtesco Group have been taking measures for manufacturing innovation by pursuing collaboration with suppliers with the aim of strengthening our comprehensive procurement capabilities from the perspectives of sustainability, including quality, cost and delivery (QCD) and technological development. In order to achieve medium- to long-term growth for the Group, it is essential to secure a sustainable supply chain. We are promoting CSR-oriented procurement by recognizing fair, proper and transparent procurement activities as one of our material CSR issues (materiality).

In order to promote CSR-oriented procurement, we need to have expertise and know-how on environment- and human rights-related issues, which are not conventionally handled by purchasing departments. Therefore, the Purchasing Planning Department of the Production Innovation Division, in collaboration with the head office departments, plays a central role in promoting CSR-oriented procurement, including supporting the activities conducted to this end by the in-house companies and Group companies. The Purchasing Planning Department discusses and decides on the related policies and measures at the Group Purchasing Meeting held with the participation of the procurement departments of each in-house and Group company, providing education and training for procurement managers. Through these Group-wide efforts, we endeavor to fulfill our social responsibility throughout the supply chain in cooperation with our suppliers.



# **Establishment of Nabtesco Group CSR-Oriented Procurement Policy**

In accordance with the globalization of our business, we increasingly need to respond appropriately in our supply chain to the worldwide demands related to the environment and human rights. On April 1, 2014, aiming to further foster CSR activities across the supply chain, we established the Nabtesco Group CSR-Oriented Procurement Policy. In formulating this policy,

we referred to the ISO 26000 standard, the United Nations Guiding Principles on Business and Human Rights, the Electronic Industry Citizenship Coalition (EICC) Code of Conduct, and other international guidelines, and also incorporated into the policy the ideas expressed in the Nabtesco Group Code of Ethics.

# Nabtesco Group's CSR-Oriented Procurement Policy https://www.nabtesco.com/ en/csr/procurement.html

#### Nabtesco Group's CSR-Oriented Procurement Policy

#### 1. Compliance with Laws and Regulations and the Establishment of Corporate Ethics

- (1) Compliance with the laws, regulations and social norms implemented in the countries and regions where the company conducts business activities
- (2) Transparent transactions, which are based on fair and free competition and in compliance with the antimonopoly-related laws and regulations
- (3) Appropriate export and import control based on the related laws and regulations
- (4) Prohibition of the inappropriate transfer of money and other benefits and of illegal political contribution and donation
- (5) Prohibition of the inappropriate treatment of confidential information, personal information and intellectual property rights in relation to business activities
- (6) Assurance of accountability and transparency to society through proactive disclosure of information

#### 2. Respect for Human Rights

- (1) Prohibition of inhumane labor, including forced labor and child labor
- (2) Elimination of all forms of discrimination based on race, nationality, religion, age, gender and others

#### 3. Consideration to Employees

- (1) Respect for workers' rights, including the payment of appropriate salaries and proper management of working hours
- (2) Provision of safe and clean workplaces where employees can work healthily and with ease of mind

#### 4. Provision of Valuable Products and Services

- (1) Establishment of a business process to ensure the provision of safe and comfortable products and services that people can use with a sense of security
- (2) Establishment of a system to ensure the stable supply of products and services that are competitive in the market in terms of quality, pricing and delivery deadlines

#### 5. Consideration to the Environment

- (1) Establishment of an environmental management system to foster sustainable business activities
- (2) Reduction of environmental impact through the development of environmentally friendly products, contribution to the mitigation of climate change, reduction of waste and strict management of chemical substances

#### 6. Consideration to Local Communities and Society

- (1) Respect for cultures and customs of the regions and society where the company conducts business activities
- (2) Harmony with local communities and society and contribution to the communities and society

## Internal Training Based on Nabtesco CSR Procurement Policy

We provide practical training to procurement managers of in-house companies and Group companies to deepen their understanding of the Nabtesco CSR Procurement Policy and how to ask for cooperation from suppliers with regard to the survey research and interviews. Upon completion of the training, the procurement managers, equipped with a full understanding of CSR-oriented procurement, work to ensure that the Policy is thoroughly implemented by gaining support from the suppliers.

## Organization of Briefing Sessions for Suppliers in Japan and Abroad

We have been visiting suppliers in China, Thailand and South Korea to brief them on the Nabtesco Group CSR-Oriented Procurement Policy since the latter half of FY2014, thereby accelerating the global penetration of the policy. Specifically, since FY2014, we have briefed approximately 600 suppliers on the Policy each year, including FY2016. We will further promote and foster CSR-oriented procurement across the Group in order to meet the expectations of a wide range of stakeholders, including customers, by making new suppliers aware

of the Policy and enhancing partnerships with existing suppliers under the Nabtesco Group CSR-Oriented Procurement Policy.



Briefing session for suppliers

## **Self-Assessment Questionnaire Survey for Suppliers**

We at the Nabtesco Group have identified key suppliers from the perspective of business continuity based on transaction volume, QCD (quality, cost and delivery) performance, ability to develop technologies, soundness of financial position, etc. With the aim of enhancing the effectiveness of CSR-oriented procurement, we have conducted the self-assessment questionnaire (SAQ) survey for primary (Tier 1) suppliers including key suppliers in and out of Japan every year since FY2014.

In FY2016, we expanded the scope of the survey to include China and asked 992 suppliers to reply to the CSR-Oriented Policy-based SAQ survey.

The questionnaire consists of six categories aligned with the paragraphs of the CSR-Oriented Procurement Policy and

contains a total of 38 subcategories, which were assessed in descending order of priority. While our goal for FY2016 was to see a score of 80 points out of 100 in all six categories, we saw a score of 80 points for two out of the six categories in FY2016. Survey results are analyzed and assessed by each supplier and the results are communicated in writing as feedback. In addition, we have visited and interviewed specific suppliers with the aim of jointly developing initiatives for further promoting CSR activities. Specifically, we have identified matters to be addressed and risks associated with the environment, health and safety and made some improvement plans. We will continue to improve the SAQ survey in the future by considering adding some questions on the reduction of CO<sub>2</sub> emissions, etc.

# **Nabtesco's Basic Purchase Agreement**

In the Basic Purchase Agreement that we conclude with new suppliers, we list not only compliance, including the prevention of any form of corruption such as bid rigging or bribery, but also consideration to

the environment and occupational health and safety and the elimination of anti-social forces as the most important items to be observed by our suppliers.

#### **Basic Purchase Agreement**

(Examples) Article 10: Ensuring occupational health and safety and appropriate working conditions (including prohibiting forced labor and child labor)

Article 29: Obligation to prevent pollution, manage the environment, and manage the use of specified hazardous substances

Article 30: Obligation to prevent workplace disasters

Article 32: Prohibition of bid rigging and bribery

Article 47: Elimination of anti-social forces

No. of Suppliers
Briefed on the Policy
(in FY2016)

Approx.

400

companies

No. of Respondents to the SAQ
(in FY2016)

992

companies

# **Participation in United Nations Global Compact**

Nabtesco signed the United Nations Global Compact in April 2014 to show that it supports this international initiative, and has since been proactively participating in the activities conducted by the Global Compact Network Japan. We have worked to set norms and criteria and to solve problems for global CSR-oriented procurement in cooperation with peers and companies in other industries in the study

group on supply chains. In FY2016, Nabtesco was appointed a corporate leader for the supply chain study group and contributed to the completion of an SAQ (self-assessment tool for CSR-oriented procurement) that can be used across the industry. We will continue to work on the enhancement of the SAQ while promoting its use in collaboration with external initiatives in the future.

# Web Global Compact Network Japan study group activities in FY2016

http://ungcjn.org/activities/ help/index.html

#### Measures for Conflict Minerals\*

As neither Nabtesco Corporation nor its Group companies are listed on US stock markets, we are not subject to the Dodd-Frank Act or the reporting obligation with regard to the use of conflict minerals. The Nabtesco Group, however, is focused on strategic measures for conflict minerals from the perspective of risk management through establishing a sustainable supply chain system while keeping an eye on maintaining international peace and security. To this end, we will conduct the Reasonable Country of Origin Inquiry (RCOI) in cooperation with our suppliers in response to requests from customers to conduct surveys on conflict minerals. We aim to establish a responsible procurement system to avoid becoming complicit in the activities of armed groups and conflicts by working closely with our suppliers and Group companies.

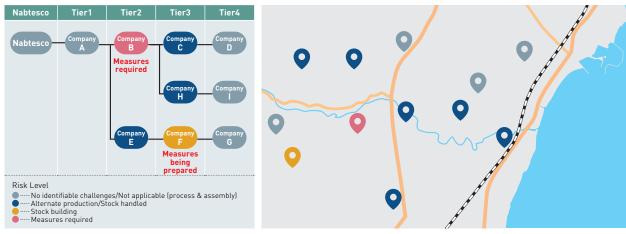
# Consolidation of Risk Management Systems in Response to Supply Risk

Nabtesco has begun identifying risks for each operational company, leveraging lessons learned in the Great Hanshin Earthquake of 1995, the Great East Japan Earthquake of 2011, and recurring floods in Thailand, in order to recognize potential risks and build countermeasures against them, and ultimately turn these risks into growth opportunities.

Practically, the procedure for the above includes identifying possible challenges in the supply chain that could result in bottlenecks likely to hinder stable supply as well as developing countermeasures, and is premised on our having understood numerous potential risks to the Group, for instance, impacts from anticipated external factors such as natural disasters and suspension of production lines attributed to business partners and clients.

We will continue to strengthen our supply risk response system in every operational company in light of identified challenges arising from risks to the supply chain in the future. \* The term "conflict minerals"refers to four mined minerals foold, tantalum, tin and tungsten), which may be partially used to fund armed groups and exacerbate conflicts in the Democratic Republic of the Congo and surrounding countries. In the United States, pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act established in 2010, companies using these minerals are required to report such use to the Securities and **Exchange Commission** 

# Supply Risk Response Crisis Management in the Supply Chain



Grasp the full spectrum of the supply chain via a "tree" diagram Understand production plant locations of suppliers and clients on a "map"

# Consideration of Community and Society

# **Policies on Consideration of Community and Society**

The Nabtesco Group formulated The Nabtesco Way in FY2012. In it, our commitment to achieving harmony with local communities and cultures is expressed in the Action Guidelines applicable to all Group members: "To grow together within our society, we will participate in social activities, actively foster exchange and cooperation with local communities, and promote harmony." Moreover, the Nabtesco Group's CSR Basic Policy stipulated in FY2016 includes local community development among the 12 issues of materiality

(material CSR issues) identified, indicating a policy to actively implement efforts for the Sustainable Development Goals (SDGs).

In line with the above, in addition to contributing to local economies by the establishment of a local production and local consumption system, we are fostering exchange with local educational institutions and the implementation of environmental education and sports promotion projects for the development of the next generation of leaders, with an eye to contributing to the development of local communities.





Nabtesco Group's CSR Basic Policy

## **Donation of Assist Wheel® Electric Wheelchairs**

We developed the Assist Wheel® (AW) to help ease the physical burden of caretakers of wheelchair-bound people in moving their chargers from place to place. The AW is an electric wheelchair equipped with a sensor that automatically switches on the motor and brake and delivers superior performance, especially on both ascending and descending slopes, irregular ground and other places where moving ordinary wheelchairs is difficult.

Since FY2008 we have been donating AW wheelchairs to local governments in areas in which the Nabtesco Group has bases or where many of its employees reside. In FY2011, we also began donating the AW wheelchairs to areas afflicted by the Great East Japan Earthquake, where the superior performance of the wheelchairs on irreg-

ular ground is particularly useful. In 2015, we donated the AW to West Japan Railway Company in addition to local governments. So far, We have donated 300 AW wheelchairs in total.

We aim to be able to contribute to improving the lives of even more people through the provision of the AW wheelchairs.



Donation to Imabari City in Ehime prefecture



# Electric Wheelchair "Assist Wheel"

The grip sensor detects the force being used to operate the wheelchair, and the electric motor assists the caregiver on slopes and pebbled paths. The electric wheelchair thus reduces the burden imposed on caregivers.

#### Numbers of Donated Assist Wheel® Wheelchairs

Site/Region	Local government/ Public Institution	2016	Total Number
Mehtaga Haadayantan in Taliya	Tokyo, Kanagawa Pref., Chiba Pref.	2	18
Nabtesco Headquarters in Tokyo	West Japan Railway Company	0	10
Nabtesco Tarui and Gifu Plants	Gifu Pref.	2	17
Nabtesco Tsu Plant	Mie Pref.	2	18
Nabtesco Kobe, Konan, Seishin Plant	Hyogo Pref.	3	32
NAM Yamagata Plant	Yamagata Pref.	2	18
TSP and Toyo Jidoki	Yamaguchi Pref.	2	16
TSP Matsuyama Plant and Shikoku Marine Customer Service	Ehime Pref.	2	14
	Iwate Pref.	5	41
3 Prefectures in Tohoku	Miyagi Pref.	5	44
	Fukushima Pref.	5	42
Total Number of AW donated		30	270

NAM: Nabtesco Automotive Corporation TSP: TS Precision Co., Ltd.

# **Support for Employees' Community Contribution Activities**

The Nabtesco Group believes that employees' participation in local community contribution activities helps nurture diversified values and establish trust with the communities in which we operate, thus we are actively providing relevant support

and information to employees. In addition, to promote employees' community contribution activities, our working regulations provides for the use of accumulated leave for participating in volunteer activities organized by international NGOs.

# **Development of the Next Generation of Leaders**

## **Exchange with Local Educational Facilities**

In order to contribute to the development of next-generation human resources as a member of the local community, the Nabtesco Group invites students, teachers and general citizens to its plants and other facilities for tours and internship programs. In FY2016, the Group hosted 260 groups comprising 2,476 people in such events held to foster exchange with local

## Support for an Environmental Education Program

Nabtesco has been supporting Asahi Shimbun's Environmental Education Program in since FY2014. The Program is held to help children learn about the Earth in a pleasant manner, and encourage them to voluntarily take actions for the planet. We will continue to support this program also in FY2016.

Under the Program, free-of-charge educational materials, which Asahi Shimbun created with four supporting companies including Nabtesco, will be distributed to 240,000 children in about 3,000 elementary schools located across Japan (as of FY2016). Moreover, an environmental event will be held in September, special classes

will be provided at elementary schools in November and December, and participatory events will be held for the children, who will be asked to write articles and essays for some of the events.



Special class provided in the Program



# Development of the Next Generation through Sports Promotion Projects

# U10 Starter League co-sponsored by Nabtesco and DyDo held for the first time

The Nabtesco Group, in partnership with DyDo DRINCO, INC., hosted a soccer championship in Mie Prefecture, where both companies have operational bases. Given the decrease in the number of children joining soccer teams and the widening gaps in performance levels between teams, this championship aims to provide children with an opportunity to participate on an equal footing, thereby offering more opportunities for exchange between teams and developing the next generation through sports. With approximately 560 children

participating, the first championship, held in February 2017, was great success.



Soccer Championship

# Mangrove Planting Activity Conducted by Overseas Group Company

Nabtesco Automotive Products (Thailand)
Co., Ltd. and Nabtesco Power Control
(Thailand) Co., Ltd. have been conducting
a mangrove planting activity on tideland
located within the premises of the Bang Pu
Nature Education Center in the province
of Samut Prakan. The activity was carried
out three times in the past. In August 2016,
the two companies conducted the fourth
event jointly for the first time. A total of
160 employees and their families planted

1,000 mangrove seedlings, taking the total number of seedlings planted in this activity to 2,250. Mangroves grow in intertidal zones where seawater mingles with fresh water, and there are hopes that mangroves will help purify marine water, maintain and recover ecosystems, mitigate the damage caused by natural disasters, and prevent global warming. The Nabtesco Group will continue to regularly conduct social contribution activities into the future.



Planting mangrove seedlings



A commemorative photo of the mangrove planting activity

# Management Team

#### Board of Directors (as of March 28, 2017)



Kazuaki Kotani Chairman of the Board (Sep. 15, 1951)

Sep. 2003 May 2008	Vice President of P. T. Pamindo Tiga T General Manager, Sales Department, Power Control
	Company of Nabtesco Corporation
Jun. 2009	Executive Officer of Nabtesco Corporation
Jun. 2010	Director and General Manager, Planning Division of Nabtesco Corporation
Jun. 2011	Representative Director, President & CEO of Nabtesco Corporation
Mar. 2017	Chairman of Nabtesco Corporation (to present)

Reasons for appointment Mr. Kazuaki Kotani, as the chairperson of the Board of Directors, has worked to create an environment for frank and constructive dialogue and the free exchange of ideas and has improved the decision-making functions of the Board of Directors. He has broad experience at the Company and extensive insight concerning global business. Due to these factors, he has been determined to be an appropriate person to realize continued improvement in corporate value, and thus appointed as Director.



Katsuhiro Teramoto (Dec. 13, 1955) Representative Director, President & CEO

	Equipment Company of Nabtesco Corporation
Jul. 2008	General Manager, Overseas Sales Department, Precision Equipment Company of Nabtesco Corporation
Jun. 2009	General Manager, Planning Department, Accessibility Innovations Company of Nabtesco Corporation
Jun. 2011	Executive Officer of Nabtesco Corporation
Oct. 2011	Vice President and General Manager of Planning Department, Accessibility Innovations Company of Nabtesco Corporation
Feb. 2013	Deputy General Manager, Corporate Planning Division, and General Manager, Corporate Planning Department of Nabtesco Corporation
Jun. 2015	Representative Director, Managing Executive Officer and General Manager of Corporate Planning Division of Nabtesco Corporation
Mar. 2017	Representative Director, President & CEO of Nabtesco Corporation (to present)

Jun. 2007 General Manager, Sales Department No. 1, Precision

Reasons for appointment Mr. Katsuhiro Teramoto, based on broad experience in business sectors and corporate planning division, takes a leading role in debates at Board of Directors meetings from the viewpoint of overall business promotion. Due to these factors, he has been determined to be an appropriate person to realize continued improvement in corporate value, and thus appointed as Director.



Nobutaka Osada

(Sep. 14, 1953) Representative Director, Deputy Chief Executive Officer and in charge of Production Innovation President of Aerospace Company

President of Nabtesco Aerospace Inc. General Manager, Gifu Plant, Aerospace Company of Nabtesco Corporation
Executive Officer of Nabtesco Corporation
President, Aerospace Company of Nabtesco Corporation (to present)
Director of Nabtesco Corporation
Director and Managing Executive Officer of Nabtesco Corporation
Representative Director and Senior Managing Executive Officer of Nabtesco Corporation
Deputy Chief Executive Officer of Nabtesco Corporation and in charge of Production Innovation (to present)

Reasons for appointment Mr. Nobutaka Osada has broad experience and extensive insight concerning the aircraft equipment business. He has therefore been determined to be an appropriate person to realize continued improvement in corporate value and appointed as Director.



Oct. 2004

Toshio Yoshikawa

(Nov. 14, 1954) Director, Managing Executive Officer General Manager of Technology and R&D Division

Jun. 2007	General Manager, Planning Department, Precision Equipment Company of Nabtesco Corporation
Aug. 2009	Assistant to General Manager, General Administration & Human Resources Division and General Manager, General Administration Department of Nabtesco Corporation
Jun. 2010	President of Precision Equipment Company of Nabtesco Corporation
Jun. 2011	Executive Officer of Nabtesco Corporation
Jun. 2014	Director and General Manager, Technology Division of Nabtesco Corporation (to present)
Jun. 2015	Managing Executive Officer of Nabtesco Corporation (to present)

General Manager, Sales Department No. 2, Precision Equipment Company of Nabtesco Corporation

**Reasons for appointment** Mr. Toshio Yoshikawa has broad experience and extensive insight concerning the precision equipment business and technology overall. He has therefore been determined to be an appropriate person to realize continued improvement in corporate value and appointed as Director.



Shinji Juman (Aug. 28, 1957) Director, Managing Executive Officer

General Manager, Cost Control Department, Tsu Plant, Precision Equipment Company of Nabtesco Corporation Jan. 2006 Jun. 2006 General Manager, Manufacturing Department, Tsu Plant, Precision Equipment Company of Nabtesco Corporation General Manager, Tsu Plant, Precision Equipment Company of Nabtesco Corporation Jun. 2009 Executive Officer of Nabtesco Corporation and President, Jun. 2011 Nabtesco Automotive Corporation President, Precision Equipment Company of Nabtesco Corporation (to present) Jun. 2014 Managing Executive Officer (to present) Mar. 2017 Director of Nabtesco Corporation (to present)

Reasons for appointment Mr. Shinji Juman has broad experience and extensive insight concerning the precision equipment business, and has experience as a corporate manager, including his role as President of Nabtesco Automotive Corporation. Due to these factors, he has been determined to be an appropriate person to realize continued improvement in corporate value, and thus appointed as Director



Daisuke Hakoda (Oct. 25, 1957) Director, General Manager of Corporate Planning Division and General Manager of General Administration & Human Resources Division

Jun. 2007 President of Nabtesco Aerospace Inc. General Manager, Accounting & Finance Department of Nabtesco Corporation Jun. 2009 Jun. 2010 General Manager, Corporate Planning Department of Nabtesco Corporation General Manager of Shanghai Nabtesco Hydraulic Co., Ltd.

May. 2013 Jun. 2013 Executive Officer of Nabtesco Corporation

Director and General Manager of General Administration & Human Resources Division of Nabtesco Corporation (to Jun. 2015 present)

Managing Executive and General Manager of Corporate Planning Division (to present) Mar. 2017

Reasons for appointment Mr. Daisuke Hakoda has broad experience as General Manager, includeing his role of Shanghai Nabtesco Hydraulic Co., Ltd., and has extensive insight concerning overall management, supervision and operations. He has been determined to be an appropriate person to realize continued improvement in corporate value and thus appointed as Director.



Goro Hashimoto

(Feb. 7, 1957) Director, **Executive Officer** General Manager of Compliance Division

Jan. 2009 General Manager, Legal Department of Nabtesco Corporation

Jun. 2015 Director, Executive Officer and General Manager of Compliance Division of Nabtesco Corporation (to present)

Reasons for appointment Mr. Goro Hashimoto has broad experience and extensive insight concerning legal matters, compliance and risk management. He has therefore been determined to be an appropriate person to realize continued improvement in corporate value and appointed as Director.



Yutaka Fujiwara (Apr. 20, 1951) Outside Director

Apr. 1974	Joined MODEC, Inc.
Nov. 1987	Joined The Yasuda Trust & Banking Co., Ltd. (current Mizuho Trust & Banking Co., Ltd.
Aug. 1994	Deputy General Manager, New York Branch of Yasuda Trust & Banking Co., Ltd.
Jun. 1996	General Manager, Chicago Branch of Yasuda Trust & Banking Co., Ltd.
Jul. 1998	Retired from Yasuda Trust & Banking Co., Ltd.
Aug. 1998	Joined OMRON Corporation
Jul. 2001	General Manager, Corporate Planning Department, Corporate Strategic Planning Group, Kyoto Head Office of OMRON Corporation
Oct. 2002	General Manager, Corporate IR Department, Corporate Planning Division of OMRON Corporation
Jun. 2005	Executive Officer and General Manager, Financial IR Department of OMRON Corporation
Mar. 2007	Executive Officer and General Manager, Group Strategy Department of OMRON Corporation
Jun. 2008	Managing Officer and General Manager, Group Strategy Department of OMRON Corporation
Dec. 2008	Managing Officer and General Manager, IR & Corporate Information Department of OMRON Corporation
Jun. 2011	Retired from OMRON Corporation
Aug. 2011	President & CEO of Cross-Border Bridge Corporation (to present)
Jun. 2013	Director of Nabtesco Corporation (to present)

Reasons for appointment Mr. Yutaka Fujiwara has worked overseas for a number of years and has a broad range of experience and extensive knowledge and insight regarding global business. He has expertise in advanced corporate strategies and financial affairs, having been in charge of the financial affairs and investor relations sections of a listed company. The Company, having high regard for his experience and insight, has appointed Mr. Yutaka Fujiwara as Outside Director so that he may utilize his knowledge to provide supervision and advice.



Norio Uchida (Oct. 22, 1950) Outside Director

Apr. 1973	Joined Tokyo Optical Co., Ltd. (current TOPCON CORPORATION)
Jun. 1980	General Manager of Topcon Singapore Pte. Ltd.
Feb. 1989	President of Topcon Australia Pty Ltd.
Oct. 1994	Senior Vice President of Topcon Laser Systems, Inc. (current Topcon Positioning Systems, Inc.)
Jun. 2003	Executive Officer of TOPCON CORPORATION
Jul. 2003	President and Director of Topcon Sales Co., Ltd.
Jun. 2005	Director and Executive Officer of TOPCON CORPORATION
Jun. 2007	Director, Managing Executive Officer, Supervising Sales Promotion Group, and Chief of Positioning Business Unit of TOPCON CORPORATION
Jun. 2010	Director, Senior Managing Executive Director and Supervising Corporate Planning Group of TOPCON CORPORATION
Jun. 2011	President & Representative Director of TOPCON CORPORATION
Jun. 2013	Advisor of TOPCON CORPORATION
Jun. 2015	Director of Nabtesco Corporation (to present)
Sep. 2015	External Director of ULVAC, Inc. (to present)

Reasons for appointment Mr. Norio Uchida has served as Representative Director of Topcon Corporation and has broad experience and extensive knowledge and insight as a corporate executive. The Company, having high regard for his experience and insight, has appointed Mr. Norio Uchida as Outside Director so that we may benefit from his supervision and advice on technical development and global business overall.



Naoko Yamazaki (Dec. 27, 1970) Outside Director

Apr. 1996	Joined the National Space Development Agency of Japan (currently Japan Aerospace Exploration Agency (JAXA))
Sep. 2001	Certified as International Space Station (ISS) onboard astronaut
May 2004	Acquired certification for Flight Engineer, Soyuz Spacecraft
Feb. 2006	Acquired certification for Mission Specialist, Space Shuttle
Apr. 2010	Crew Member of Space Shuttle Discovery as Mission Specialist, participated in Construction and Supply for ISS
Aug. 2011	Retired from JAXA
Sep. 2011	Honorary Chairperson of the National Soroban Education Association (to present)
Apr. 2012	Visiting Professor of Ritsumeikan University (to present)
Jul. 2012	Member of Committee on National Space Policy, Cabinet Office (to present)
May. 2013	Visiting Professor of Joshibi University of Art and Design (to present)
Jul. 2015	President of Japanese Rocket Society (to present) and Chairperson of Sorajo Committee (to present)
Dec. 2015	Advisory Board Member of International Robot Competition Executive Committee (to present)
Jan. 2016	Specialist Member of Council on Science Technology and Academics (Marine Resource Development Subcommittee) (to present)
Mar. 2016	Director of Nabtesco Corporation (to present)
Jul. 2016	Member of the Long-term Global Warming Countermeasures Platform, Ministry of Economy, Trade and Industry (to present)
Nov. 2016	Ministry of Foreign Affairs of Japan , Women's Initiative in Developing STEM Career (WINDS) ambassador.(to present)

Reasons for appointment Ms. Naoko Yamazaki has broad insight as an engineer regarding the latest developments in aerospace engineering and the field of manned space machinery systems including robotic arms. As an astronaut, she has experience in conducting crisis management in the harsh, resource-limited environment of spacecraft, etc., and has broad skills in risk management. The Company, having high regard for her experience and insight, has appointed Ms. Yamazaki as Outside Director so that we may benefit from her supervision and advice on decisions based on an objective and fair viewpoint.

#### Audit & Supervisory Board Members (as of March 28, 2017)



Takayuki Onishi (Nov. 25, 1954) Audit & Supervisory Board Member

General Manager, Accounting & Finance Department of Jul. 2007 Nabtesco Corporation

General Manager, Business Auditing Department of Jun. 2009 Nabtesco Corporation

General Manager, Railway Products Company of Nabtesco Apr. 2013

Audit & Supervisory Board Member of Nabtesco Jun. 2015 Corporation (to present)



Kensuke loku

Audit & Supervisory Board Member (Jan 30, 1954)

General Manager, Product Development Department,
Power Control Company of Nabtesco Corporation
General Manager, Technology Department, Power Control
Company of Nabtesco Corporation
General Manager, Manufacturing Department, Tarui Plant,
Power Control Company of Nabtesco Corporation
General Manager, Production Management Department and
General Manager, Tarui Plant, Power Control Company of
Nabtesco Corporation
Feeruity officer of Nabtesco Corporation Mar. 2006 Nov. 2007

Jun. 2010

Jun. 2012

Jun. 2013

Raditesco Corporation

Executive Officer of Nabtesco Corporation

General Manager, Production Innovation Division and General

Manager, Purchasing Planning Department of Nabtesco Corporation

Audit & Supervisory Board Member of Nabtesco

Corporation (to present) Jun. 2014



Hisao Katayama Audit & Supervisory Board Member (Independent) (Jul 19, 1948)

May. 1972 Joined Toyota Motor Co., Ltd. (current Toyota Motor

General Manager, Machinery Department No. 2, Kamigo Plant of Toyota Motor Corporation Jun. 1999

General Manager, Production Engineering Department, Kamigo Plant of Toyota Motor Corporation President of ART METAL MFG. CO., LTD. Jan. 2002

Jun. 2007

Jun. 2014 Special Advisor of ART METAL MFG. CO., LTD. (to present) Outside Director of YUSHIRO CHEMICAL INDUSTRY CO., LTD. (to present) Jun. 2014

Audit & Supervisory Board Member (Independent) of Nabtesco Corporation (to present) Jun. 2015



Zenzo Sasaki

Audit & Supervisory Board Member (Independent) (Nov 1, 1952)

Apr. 1979 Appointed Public Prosecutor
Apr. 2000 Deputy General Manager, Special Investigation Department of
Tokyo District Public Prosecutor's Office

Sep. 2002 Manager, Facilities Division, Minister's Secretariat of Ministry of Justice

Jan. 2004 General Manager, Public Safety Department and General Manager,
Transportation Department of Tokyo District Public Prosecutor's Office
Aug. 2006 Chief Public Prosecutor of Wakayama District Public
Prosecutor's Office
Jun. 2008 Public Prosecutor of Supreme Public Prosecutor's Office
Oct. 2008 Chief Public Prosecutor of Mito District Public Prosecutor's Office
Jul. 2010 Chief Public Prosecutor of Sendai District Public Prosecutor's Office
Aug. 2011 Chief Public Prosecutor of Myoto District Public Prosecutor's Office Nov. 2012 Retired as Public Prosecutor

Feb. 2013 Registered with Tokyo Bar Association, Joined Harumi-kyowa

Law Offices (to present)
Mar. 2016 Audit & Supervisory Board Member (Independent) of

Nabtesco Corporation (to present)



Takemi Nagasaka Audit & Supervisory Board Member (Independent) (Jan 24, 1956)

Oct. 1978 Joined Musashi Audit Corporation (currently Ernst & Young ShinNihon LLC) Joined Musashi Audit Corporation (currently Ernst & Young ShinNihon LLC)
Joined Sony Corporation
Sony Corporation of America / Director, Tax Department
Statutory Auditor of Sony Financial Holdings Inc.
General Manager, Accounting Department of Sony Corporation
Statutory Auditor of Sony Computer Entertainment Inc.
Auditor of Sony Music Entertainment (Japan) Inc.
Senior General Manager, Accounting Division of Sony Corporation
Senior Vice President, Corporate Executive, Senior General Manager, Accounting Division of Sony Corporation
Director of Sony Financial Holdings Inc.
Senior Advisor of Sony Corporation (to present)
Audit & Supervisory Board Member (Independent) of Nabtesco Corporation (to present)
Audit & Supervisory Board Member of Solize Corporation (to present)
Audit & Supervisory Board Member of DAIO Paper Corporation (to present) Aug. 1981 Sep. 1986 Apr. 2004 Jun. 2004 Jun. 2004 Jun. 2006 Apr. 2007 Jun. 2010 Jun. 2013 Jun. 2015 Mar. 2016 Jun. 2016 Audit & Supervisory Board Member of DAIO Paper Corporation (to present)

# Executive Officers (as of March 28, 2017)

Chief Executive Officer	Katsuhiro Teramoto	Representative Director, President
Deputy Chief Executive Officer	Nobutaka Osada	President, Aerospace Company and in charge of Production Innovation
Managing Executive Officer	Toshio Yoshikawa	General Manager, Technology and R&D Division
Managing Executive Officer	Shinji Jyuman	President, Precision Equipment Company
Managing Executive Officer	Daisuke Hakoda	General Manager, Corporate Planning and Division General Manager, General Administration & Human Resources Division
Managing Executive Officer	Yukihiro Imuta	President, Railroad Products Company
Managing Executive Officer	Taizo Tsuri	President, Marine Control Systems Company
Managing Executive Officer	Koji Kaminaka	President, Accessibility Innovations Company
Executive Officer	Goro Hashimoto	General Manager, Compliance Division
Executive Officer	Shigeto Kunii	Vice President, Accessibility Innovations Company (in charge of overseas business)
Executive Officer	Kiyoo Amako	Deputy General Manager, Technology and R&D Division Manager, Business Planning Department
Executive Officer	Jakob Gilgen	President, Gilgen Door Systems AG
Executive Officer	Shigeru Naoki	Vice President, Railroad Products Company
Executive Officer	Michio Ogawa	Representative Director, Nabtesco Automotive Corporation
Executive Officer	Toshiaki Akita	Deputy General Manager, Technology and R&D Division (in charge of technology) and Representative Director, NABTEC Co., Ltd.
Executive Officer	Kiyoshi Ando	Technology and R&D Division in charge of European business
Executive Officer	Norimasa Takagi	Vice President, Manager of Customer Support Center, Aerospace Company
Executive Officer	Shoji ljuin	Director, NABCO Systems Co., Ltd.
Executive Officer	Akiyoshi Kitamura	President, Toyo Jidoki Co., Ltd.
Executive Officer	Kazuyoshi Kimura	President, Power Control Company
Executive Officer	Habe Atsushi	Manager of Sales Management Department, Precision Equipment Company

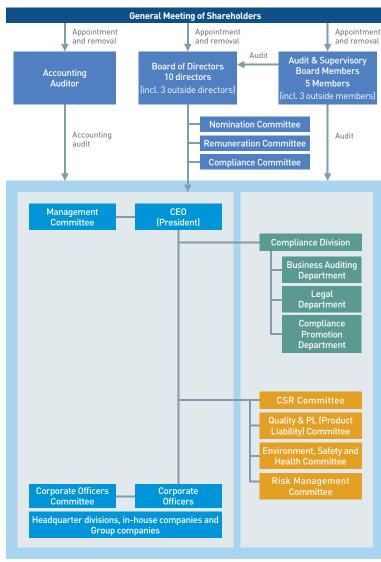
# Basic Approach to Corporate Governance

Nabtesco is committed to achieving sustainable growth, increasing its corporate value on a medium- to long-term basis, and earning greater trust from stakeholders based on the principles and spirit of Japan's Corporate Governance Code, which is incorporated into the Securities Listing Regulations of the Tokyo Stock Exchange. To fulfill this commitment by improving our corporate governance so as to ensure transparency and fairness in our business and foster prompt decision-making, we established the Nabtesco Corporate Governance Basic Policy on October 30, 2015. The Policy is found on our website.

# Measures to Enhance Corporate Governance

Given the content and characteristics of business operations covered by our Group, we have adopted an executive officer system and an in-house company system as a means of expediting decision-making and clarifying the responsibility for executing certain business operations. As a means of controlling these systems, we have established corporate governance under which the Board of Directors, Audit & Supervisory Board (Members), Accounting Auditors, and the Management Committee—an organization tasked with carrying out the deliberation of important issues relating to executing business operationshave been set up to clearly divide the functions of decision-making, the control and execution of business, and the monitoring and supervision of management.

#### Corporate Governance System (As of March 31, 2017)



#### **Explanation of Company Organizations**

Organization Name	Roles and Responsibilities	No. of People	Frequency of meetings in FY2016
Board of Directors	Formulates the Group's basic policies and strategies, makes decisions about the execution of important business matters and supervises the way business is carried out.	10 (incl. 3 outside directors)	18 times (At least once a month, in principle)
Nomination Committee	Deliberates on candidates for Directors, Audit & Supervisory Board Members and the CEO as well as succession plans for the CEO etc, and reports the results to the Board of Directors. The Committee consists of five members including three Outside Directors.	5 (incl. 3 outside members)	2 times
Remuneration Committee	Deliberates on policies and management of remuneration for directors and corporate officers and reports the results to the Board of Directors. The Committee consists of three members including two Outside Directors.	3 (incl. 2 outside members)	2 times
Compliance Committee	The Committee is responsible for promoting compliance in the Nabtesco Group by providing advice on basic policies and priority issues related to the Group-wide compliance system to the Board of Directors.	7 (incl. 2 outside members)	2 times
Audit & Supervisory Board (Members)	The Audit & Supervisory Board is briefed on auditing plans in advance and receives reports on audit results from Accounting Auditors, as well as exchanging opinions as necessary. To reinforce coordination with the internal audit division, the accounting division in charge of promoting internal control and the compliance risk management division, the Audit & Supervisory Board holds information-sharing conferences twice a year.	5 (incl. 3 outside auditors)	13 times
Corporate Officers Committee	The Corporate Officers Committee is the body devoted to the execution of business pursuant to the policies and strategies of the Board of Directors under the supervision of the Board. It is composed of 20 members including the corporate officers of the Group's four subsidiaries.	20	13 times
Management Committee	In line with the policies decided by the Board of Directors, the Management Committee serves as the body that discusses important matters relating to execution of the Group's business and reports on results and the execution of business. It is composed of full-time directors, corporate officers (general managers and in-house company presidents) and full-time Audit & Supervisory Board Members.	-	20 times (At least once a month in principle
Business Auditing Department	With the aim of contributing to sound management control and in an attempt to improve the effective operation and quality of Group management activities, the Business Auditing Department was established to strengthen internal business auditing. It conducted internal business audits of headquarter divisions, in-house companies and consolidated subsidiaries.	7	-

<sup>\*</sup> No. of people and frequency of meetings show the aggregated figures of FY2016. No. of members of the Nomination Committee is as of March 31, 2017.

# **Corporate Governance Effort**

		2004	2005	2006	2007	2008	2009	
Chairman of the	Representation right	Shigeo Iwatare						
Board	No representation right		Makoto Okitsu					
Representative Di	rector, President	Makoto Okitsu	Kazuyuki Matsum	noto				
Number of Board o	f Directors	10 directors (incl. 2 outside directors)	10 directors (incl.	1 outside director)				
Number of Audit Board Members	& Supervisory				5 Audit & Supervi members)*1	sory Board Member	s (incl. 3 outside	
					Group ESH (Envir	onment, Safety, and	Health) Committee	
		Group PL (Produc	t Liability) Committe	ee			PL (Product Liability)	
		Group Quality Cor	mmittee			Committee		
Committees						Remuneration Co	mmittee	
Remuneration for	- Incido	Monthly remuner	ation and retiremen	t benefit				
Directors*2	iliside							
Accounting Stand	ard	Settlement of acc	ount in March (JGAA	AP)				
			Corporate Philoso	ophy				
			Long-term Vision	(Final year: FY2014)				
				Basic Policies for of an Internal Con				
Corporate Philoso	nnhies etc		Nabtesco Group Co	ode of Corporate Ethics	S			
oorporate rintos	opines etc		Nabtesco Group (	Code of Conduct				
		Group ESH Rules						
		Group Quality Ma	nagement Rules			Group PL Manage	ement Rules	
		Group Quality and	I PL Management R	ules		oroup / E rianage		
			Nabtesco Group I	Environmental Philos	sophy/Environmenta	al Action Plan		
					D			
Anti-takeover Me	asures				Pre-warning Anti- Measures*4	-takeover		

<sup>\*1.</sup> In FY2011 and FY2015, the number of Audit & Supervisory Board Members was temporarily four (including three Outside members) due to the resignation of a members for personal reasons.

\*2. Outside Directors are paid on a monthly basis.

\*3. Remuneration is linked to medium-term and long-term business results.

\*4. The pre-warning anti-takeover measures were introduced with the resolution of the 4th Ordinary General Meeting of Shareholders held on June 26, 2007. However, they were abolished at the conclusion of the 7th Ordinary General Meeting of Shareholders held on June 24, 2010.

2010	2011	2012	2013	2014	2015	2016	2017
2010	2011	2012	2010	2014	2010	2010	2017
	Kazuyuki Matsum	oto					Kazuaki Kotani
	Kazuaki Kotani						Katsuhiro Teramoto
		10 directors (incl. 2 outside directors)	10 directors (incl. 3 outside directors)	10 directors (incl. 2 outside dir	ectors)	10 directors (incl. 3 *Including a female	3 outside directors) outside director
	*1				*1		
					Nomination Comr	nittee	
						Compliance Com	nittee
						CSR Committee	
						Risk Management	: Committee
Monthly remuner tem performance	ation (Fixed compen	sation and short-					
Stock-based com performance-bas	pensation stock opti	on (Long-tem		Stock-based com	pensation stock opti	on*³	Board Benefit Trust*3
por rounding sac	Ju 133,				Settlement of acc	ount in December	Settlement of account in December (IFRS)
		The Nabtesco Way	,				
			Long-term Vision	(Final year: FY2020)			
					Nabtesco Corpora	ite Governance Basi	c Policy
				Risk Management	Rules		
						N. I.	
						Nabtesco Group C	ode of Ethics
				Nabtesco Group C	SR-Oriented Procu	rement Policy	
						Nabtesco Group C	SR Basic Policy

# **Composition and Nomination Policy of Directors and Audit & Supervisory Board Members**

#### **Nomination Committee**

With the aim of ensuring independence and objectivity in the process of selecting the directors and the audit & supervisory board members and fulfilling the company's accountability obligations, we established the Nomination Committee, which is composed of two directors and three independent outside directors/audit & supervisory board members. The committee deliberates on candidates for directors, audit & supervisory board members and

the CEO, succession plans for the next CEO and development of the next generation of senior executives. It reports the results to the Board of Directors.

When nominating candidates to serve as executives, directors and audit & supervisory board members, Nabtesco selects individuals who, based on their career record and abilities, can contribute to the growth and advancement of the entire Group.

# **Composition of Board of Directors**

The Board of Directors is composed of up to ten directors, of which three are independent outside directors. For the Board of Directors to fulfill its roles and responsibilities to the fullest, members are selected from inside and outside the company and among those who have outstanding personal qualities, expertise and abilities, exhibit advanced professionalism and strong ethics, and can demonstrate abundant experience. This helps ensure the well-balanced Board of Directors having diverse expertise, talent, experience and other qualifications.

# **Independent Outside Directors**

Nabtesco has at least two independent outside directors who can give advice and supervise management to help increase the corporate value in a sustainable manner and on a medium- to long-term basis.

All independent outside directors are well experienced, have versatile knowledge, can take a broader view for various stakeholders of the company, and meet

Nabtesco's Criteria for the Impartiality of Outside Directors and Outside Audit & Supervisory Board Members.

Outside directors meet by themselves as necessary in order to freely discuss and exchange information and views objectively and independently, apart from the execution of business.

## **Composition of Audit & Supervisory Board Members**

The Audit & Supervisory Board Members is composed of up to five members, of whom at least half (three) are independent outside members. Members are selected from among those who have outstanding personal qualities, expertise and abilities, exhibit advanced professionalism and strong ethics, and can demonstrate abundant experience. The Audit & Supervisory Board Members includes at least one person who is appropriately well versed in

financial and accounting issues.

The Audit & Supervisory Board Members organically combines the robust independence of outside members and the advanced information collection ability of internal members so that it may fulfill its roles and responsibilities effectively. All independent Audit & Supervisory Board Members meet Nabtesco's Criteria for the Impartiality of Outside Directors and Outside Audit & Supervisory Board Members.



Nabtesco Corporate Governance Basic Policy

https://www.nabtesco.com/ en/ir/policy/governance. html



🔳 Web

Appointment Criteria for **Directors and Auditors** Notice of Convocation of the 14th Annual General Meeting of Shareholders (P.4-10)

com/library/pdf/ shareholders\_meeting/ shoushuu\_14\_en.pdf



🔳 Web

Activities conducted by external directors and external corporate auditors Notice of Convocation of the 14th Annual General Meeting of Shareholders(P.42)

https://www.nabtesco. com/library/pdf/ shareholders\_meeting/ shoushuu\_14\_en.pdf



🔳 Web

Criteria for the Impartiality of Outside Directors and Outside **Corporate Auditors** 

com/en/ir/policy/governance.html#column4

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

#### **Remuneration Committee**

With the aim of ensuring independence and objectivity in the process of deciding the remuneration of the directors and fulfilling the company's accountability obligations, we established the Remuneration Committee, which is composed of one director and two independent outside directors/audit & supervisory board members.

The Board of Directors makes decisions on the remuneration and other payments to be made to directors, based on the results of deliberation made by the Remuneration Committee.

The remuneration system for directors is basically designed to give them incen-

tives to strive to improve the business performance of the company on a continual and medium- to long-term basis, thereby meeting the expectations of shareholders in line with the management policies. The system is thus expected to contribute to increasing the corporate value of the entire Nabtesco Group.

To this end, the Remuneration Committee sets the policies on the remuneration and other payments to be made to individual directors, deliberates on these issues, and then reports the results to the Board of Directors.

# **Compensation System for Directors**

Compensation to directors comprises "monthly compensation," which is made up of fixed compensation and short-term performance-linked compensation, and "stock compensation-type stock options," which are offered in consideration of medium-to long-term performance. ROE, net sales, operating income, net income, R&D indicators and environmental indicators are used as the major performance indicators.

Compensation of independent outside directors is only paid on a fixed basis in light of their roles and independence.

With the resolution of the 14th Ordinary General Meeting of Shareholders held on March 28, 2017, the amount of remuneration of directors was revised from a maximum of 350 million yen per annum (of which a maximum of 30 million yen per annum for outside directors) to a maximum of 400 million yen per annum (of which 50 million yen for outside directors). In ad-

dition, a new stock compensation plan, a Board Benefit Trust (BBT), was introduced. This revision aims to establish a level of remuneration that will further increase the motivation of each director to contribute to improving business performance and boosting corporate value as well as further increase their shareholder-centric management awareness.

In the event of a significant retrospective change in the business results of a past year, based on which performance-linked compensation was calculated, as a result of the revision of operating results due to inappropriate accounting or for other reasons, or if the company incurs serious loss due to a director's wrongful or illegal acts, the company will, with the resolution of the Board of Directors, demand that the director concerned return part of the compensation.

# Compensation Structure for Audit & Supervisory Board Members

Compensation given to audit & supervisory board members is decided through consultation with the auditors. Due to the nature of auditing, the compensation structure

for audit & supervisory board members comprises only the base salary and no performance-based incentives.

#### Total Amount of Compensation Paid to Directors and Audit & Supervisory Board Members (for FY2016)

(Unit: Million yen)

		Тур	es of Compensa	tion	Number of
	Total Amount of Compensation	Monthly Compensation	Monthly Compensation	Stock Compensation- Type Stock Options	Directors and Audit & Supervisory Board Members
Directors (excl. Outside Directors)	270	198	0	71	8
Audit & Supervisory Board Members (excl. Outside Members)	45	45	_	-	2
Outside Directors	42	42	_	_	8

(Notes) 1. The number of directors shown above includes one director who resigned during the FY2016/12.

- 2. The number of outside directors /audit & supervisory board members shown above includes 2 audit & supervisory board members who resigned during the term.
- 3. Monthly remuneration consists of basic monthly salary and performance-based compensation, paid out in total on a monthly basis.
- 4. Since none of the directors /audit & supervisory board members receives a compensation exceeding JPY100 million, disclosure of compensation on an individual level is omitted (according to Japanese legislation, a compensation exceeding JPY100 million should be publicly disclosed)

## Introduction of New Stock Compensation Plan (Board Benefit Trust)

The company takes the view that, compared with existing stock compensation-type stock options, the Plan, as a remuneration system, has the potential to further increase the motivation of directors and executive officers (excluding outside directors, hereinafter "Directors") to contribute to improving the medium-to long-term business performance of the Group as a whole and boosting corporate value, as well as to further increase shareholder-centric management awareness by additionally clarifying the link between compensation of Directors and the business performance and share value of the company, and by having

Directors share with shareholders not only the benefits of rising share prices, but also the drawbacks of falling share prices. The company thus decided to introduce the Plan.

The company abolished both the long-term performance-linked stock compensation-type stock option compensation and the medium-term performance-linked stock compensation-type stock option compensation upon the introduction of the Board Benefit Trust (BBT) Plan. However, any subscription rights to shares already awarded to Directors as stock compensation-type stock options that have not been exercised will continue to be retained.

# Measures to Ensure Effectiveness of Board of Directors and Its Evaluation

Nabtesco analyzes and evaluates the effectiveness of the Board of Directors by way of self-evaluation performed every year by each director. In FY2016, the company conducted an anonymous self-evaluation questionnaire survey (with the design of questions and aggregation of responses performed by an independent third party) of the Directors and Audit & Supervisory Board Members, and the Board analyzed and evaluated the survey results. According to the results, the directors positively believe that the establishment of the Compliance Committee as an advisory body for the Board of Directors in FY2016 has helped establish a system to enhance the Board's supervision function and to nurture a culture of open and constructive discussion and opinion exchange. The effectiveness of the Board is,

therefore, considered to be well secured.

On the other hand, in order to further deepen discussions and increase deliberation efficiency at Board meetings, respondents to the survey offered constructive comments regarding issues pointed out in FY2015 such as how to discuss medium- to long-term growth strategies and how to improve the operation of the Board. They also indicated the need for conditions that encourage the active participation of Outside Directors and Outside Audit & Supervisory Board Members.

Nabtesco will further enhance its corporate governance system to increase its corporate value through better corporate management. Based on the aforementioned evaluation results, we will maintain and further enhance the effectiveness of the Board on a continual basis.

# Attendance Rates of Members at Board of Directors and Audit & Supervisory Board Members Meetings in FY2016

Average Attendance Rate 99.59 Average Attendance Rate of Outside Directors  Representative Director, President & CEO  Nobutaka Osada Representative Director  Katsuhiro Representative Director Teramoto Director Hiroaki Sakai Director 100.09 Toshio Yoshikawa Director 100.09 Daisuke Hakoda Director 100.09  Yutaka Fujiwara Outside Director 100.09  Yutaka Fujiwara Outside Director 100.09
Average Attendance Rate of Outside Directors  Representative Director, President & CEO  Nobutaka Osada Representative Director Representative Director  Katsuhiro Teramoto Hiroaki Sakai Director Director  Toshio Yoshikawa Director Daisuke Hakoda Goro Hashimoto Director
Representative   Director,   President & CEO
Kazuakai KotaniDirector, President & CEO100.09Nobutaka OsadaRepresentative Director100.09Katsuhiro TeramotoRepresentative Director100.09Hiroaki SakaiDirector100.09Toshio YoshikawaDirector100.09Daisuke HakodaDirector100.09Goro HashimotoDirector100.09
Katsuhiro Representative Director 100.09  Hiroaki Sakai Director 100.09  Toshio Yoshikawa Director 100.09  Daisuke Hakoda Director 100.09  Goro Hashimoto Director 100.09
Teramoto Director 100.09  Hiroaki Sakai Director 100.09  Toshio Yoshikawa Director 100.09  Daisuke Hakoda Director 100.09  Goro Hashimoto Director 100.09
Toshio Yoshikawa Director 100.09  Daisuke Hakoda Director 100.09  Goro Hashimoto Director 100.09
Daisuke Hakoda Director 100.09 Goro Hashimoto Director 100.09
Goro Hashimoto Director 100.00
Yutaka Fujiwara Outside Director 100.09
Norio Uchida Outside Director 100.09
Naoko Yamazaki Outside Director 92.3°
Takayuki Onishi  Audit & Supervisory 100.09 Board Member
Kensuke loku Supervisory Board Member
Hisao Katayama  Audit & Supervisory Board Member (Independent)
Zenzo Sasaki  Audit & Supervisory Board Member (Independent)
Audit & Supervisory Board Member (Independent)

Audit & Supervisory Board Members				
Average Attendance Rate		100.0%		
Average Attendance Rate of Outside Audit & Supervisory Board Members		100.0%		
Takayuki Onishi	Audit & Supervisory Board Member	100.0%		
Kensuke loku	Audit & Supervisory Board Member	100.0%		
Hisao Katayama	Audit & Supervisory Board Member (Independent)	100.0%		
Zenzo Sasaki	Audit & Supervisory Board Member (Independent)	100.0%		
Takemi Nagasaka	Audit & Supervisory Board Member (Independent)	100.0%		

## **Current Status of Internal Control System**

Based on its Basic Polices for the Construction of an Internal Control System, the Nabtesco Group is working to enhance all the areas associated with internal control—such as increased efficiency of management, compliance, information management, risk management and collaboration with the Audit & Supervisory Board Members under consistent principles, and integrate them to construct an internal control system.

Internal control for the Nabtesco Group shall be based on making The Nabtesco Way and the Nabtesco Group Code of Ethics cornerstones of proper and fair business activities, and requiring the Group's directors, audit & supervisory board members and all employees to comply with these norms and rules.

The Chief Executive Officer (CEO) shall be the top executive responsible for the promotion of internal control. The Board of Directors shall examine the maintenance of internal control systems on a continual basis in line with changes in the business environment and social needs, revisions to laws and regulations, risk diversification and other factors, and shall conduct a review yearly and whenever else necessary.

Average Attendance Rate of Board of Directors (FY2016)

99.5%
(Outside Directors

97.4%)

Average Attendance Rate of Audit & Supervisory Board Members (FY2016)

100% (Outside Audit & Supervisory Board Members 100%)

# Risk Management

# **Risk Management in General**

The Nabtesco Group has a system in place to ensure that profits and losses, capital efficiency, quality issues, extraordinary accidents and other matters concerning the execution of business operations are reported to the Board of Directors appropriately and in a timely manner, thereby detecting risks at their early stages and minimizing losses.

In FY2016, to properly implement risk and crisis management at the Nabtesco Group and to maintain and improve its corporate value, we overhauled the risk management rules and stipulated detailed

rules on risk management, which specify escalation rules and departments in charge in the event that risks materialize.

Given that risks faced by corporations have been multiplying and becoming increasingly diversified, we have established the Risk Management Committee as a forum for Group-wide risk management activities. The Committee is tasked with identifying serious risks and discussing countermeasures.

In FY2016, we managed the following types of risks and prevented losses.

- (1) Risks relevant to the economy and markets
- (2) Risks relevant to overseas operations
- (3) Risks relevant to large-scale disasters
- (4) Risks relevant to exchange rate fluctuations
- (5) Risks relevant to procurement
- (6) Risks relevant to product quality
- (7) Risks relevant to competition
- (8) Risks relevant to information security
- (9) Risks relevant to intellectual property
- (10) Risks relevant to laws, ordinances and regulations
- (11) Risks relevant to environment

We also ensure the rationality, appropriateness and legality of decision-making and manage risks through compliance with, and thoroughgoing implementation of, the Group regulations for responsibility and authority. We have also established company regulations that set forth reporting procedures in the event of accidents, disasters, critical quality problems and other incidents that may have a seriously negative impact on the Group's business results, financial standing or credit. We thus have established a prompt

and proper information communication and emergency response system in case of a contingency.

With regard to monitoring, expert members at the Headquarters, such as the Business Auditing Department, conduct cross-organizational audits of operational risk management and offer necessary and appropriate advice with regard to operational improvement.



# **Risk Management Activities of the Group**

In response to the globalization of our business operations, we are fostering activities to identify a range of risks faced by our business sites in Japan and overseas, and to prevent the materialization of serious risks.

In FY2016, based on the risk management rules, we reviewed the risks related to five Asian companies in the Nabtesco Group identified in the FY2014 risk assess-

ment in connection with corruption risks such as bribery and human rights risks associated with child and forced labor. Using the review results, we will formulate and implement measures to address key risk factors on a continuous basis. We also continue efforts to raise awareness by covering risk management issues in compliance newsletters.

# **Business Continuity Plan (BCP) Activities**

To prepare for major natural disasters such as large earthquakes and other contingencies, the Nabtesco Group has been fostered activities to create BCPs since FY2010.

Risks faced by business sites were assessed in FY2015. The risk assessment on in-house companies and domestic Group companies revealed that natural disasters posed the greatest risk against the continuation of our business due to possible damage to facilities of Nabtesco and its suppliers. It therefore became imperative that BCPs be reviewed and enhanced.

In FY2016, the office responsible for promoting Group-wide BCP efforts was transferred out of the Compliance Division and put under the supervision of the

Production Innovation Division. This change prompted the establishment of a business continuity system for our entire production activities, the revision of policies, and the identification of issues to increase the effectiveness of BCPs.

In FY2017, we launched the restructuring of BCP systems for major factories in Japan. To ensure that critical materials can be purchased even in an emergency, we started efforts for BCPs for purchasing, with an eye to mitigating risks associated with supply chains.

We will further strengthen our business continuity through integrated effort by bases and the BCP office together.

# Compliance

# **Rules Surrounding Compliance**

## **Establishment of the Nabtesco Group Code of Ethics**

To strengthen the Group-wide and global compliance system, the Nabtesco Group has overhauled the Nabtesco Group Code of Corporate Ethics and the Nabtesco Group Code of Conduct and, in December 2016, we formulated the Nabtesco Group Code of Ethics.

The Compliance Promotion Department, a department in charge of compliance issues, fulfills a central role by increasing employees' compliance awareness in addition to fostering their compliance with laws and regulations in order to enhance the Group's corporate value over the medium to long term. The Nabtesco Group Code of Ethics shows, from the compliance viewpoint, the basic approach to be taken

by members of the Nabtesco Group for the implementation of Corporate Philosophy in their business activities.

In order to help employees deepen their understanding of this Code of Ethics and take actions that are in line with it, we have prepared a Compliance Handbook, which is used for compliance education and awareness-raising activities. The Japanese and English version of the Compliance Handbook is available on Nabtesco's website, and other language versions will be published later. We will make efforts to disseminate the Code of Ethics and the handbook to all Nabtesco Group companies in and outside Japan.

# Web Nabtesco Group Code of Ethics https://www.nabtesco.com/en/ir/policy/compliance.html

#### **Nabtesco Group Code of Ethics**

#### Scope of Application

Implementation of the Nabtesco Group Code of Ethics

- (1) Behavioral Requirements for Directors, Officers and Employees
- (2) Behavioral Requirements for Executives and Managers
- (3) Reporting a Violation of this Code
- (4) Discipline
- 1. General Standards
- 2. Relationships with Company
  - (1) Respect for Human Rights
  - (2) Discrimination and Harassment
  - (3) Building Safe and Positive Workplace Environments
  - (4) Political and Religious Activities
  - (5) Conflicts of Interest

#### 3. Fair and Honest Business Activities

- (1) Fair Transactions
- (2) Anti-bribery, Gifts and Entertainment
- (3) Trade Control
- (4) Relationship with Politics and Governments
- (5) Relationship with Anti-Social Forces

#### 4. Management of Company Assets and Other Property

- (1) Management of Company Assets
- (2) Management of Confidential Information
- (3) Management of Financial Information
- (4) Protection of Personal Information
- (5) Protection and Respect for Intellectual Property
- (6) Insider Trading

#### 5. Relationships with Society

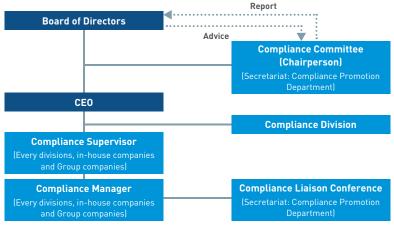
- (1) Relationships with Society
- (2) Disclosure of Company Information

## **Reinforcement of Compliance System**

The Board of Directors stipulated the Rules for Group Compliance Promotion System in FY2016. Based on the Rules, the Compliance Committee, which includes experts from outside the company, was established as an advisory body for the Board of Directors. By strengthening the Group-wide compliance system and appointing compliance supervisors and compliance manag-

ers (to support the supervisors) for every divisions, in-house companies and Group companies, we have launched the system to promote compliance on a global scale. Moreover, a Compliance Liaison Conference was held in March 2017 for compliance supervisors and managers to share and exchange information on compliance.

#### **Compliance Promotion System**



## **Fostering Compliance Awareness**

## **Compliance Training for Employees**

#### (1) Position-Specific Training

We incorporated compliance education into the training provided by the Human Resources Development Department to employees for each position.

#### (2) Training for All Group Employees

In addition to the training provided by the Human Resources Development Department to employees for each position, the Compliance Promotion Department provided all Group employees in Japan with training, including raising awareness of human rights, during the period from the latter half of 2015 to 2016.

#### (3) Compliance Education Through E-Learning

We continued the e-learning program launched in FY2011 and offered courses on the basics of Security export control and the Subcontract Act. We will also conduct this program in FY2017

#### **Breakdown of Position-Specific Training**

- Training for Newly Appointed Executive Officers
- Training for Newly Appointed Managers
- Entry-Level Problem-Solving Training
- Upper-Level Problem-Solving Training
- Training for Newly Employed Mid-Career-Hire Employees
- Training for Candidate Foremen
- Training for Second-Year Employees

#### Compliance Education Through E-learning (FY2016)

	Security Export Control, Applicability assessment	Security Export Control, Basics	The Subcontract Act
Eligible employees	344 persons	380 persons	300 persons
Employee who have completed	298 persons	345 persons	276 persons
Completion rate	87	91	92



Training for Candidate Foremen



Fundamental Compliance Training for Group companies in Japan

# **Compliance Awareness Survey**

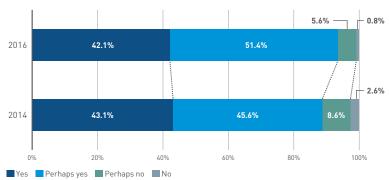
We have been conducting biennial surveys to evaluate the penetration degree of the compliance awareness among all employees of Nabtesco Corporation and its Group companies in Japan since FY2006.

The results of the Compliance Awareness Survey in FY2016 show that the number of respondents replying "Yes"

and "Perhaps yes" to the question asking if they understand the word "compliance" increased by 4.8% from the FY2014 survey.

We will continue to implement the survey and related activities to further increase compliance awareness among employees.

#### Do you understand the meaning of the word "compliance"?



## **Promotion of Compliance at Overseas Group Companies**

#### (1) China

In June 2016, the Compliance Promotion Department took the opportunity to announce the new policy to develop a compliance promotion framework in China at the meeting of local corporate association which our Group companies in China attended. In September, as a new initiative, China's regional headquarters organized a compliance training session under the theme of protection of trade secrets, selected by the headquarters as a critical issue in the region. The session was attended by 289 employees from 11 Group and partner companies. We will continue to support compliance activities led by local companies.

Moreover, we publish a bi-monthly newsletter on compliance in Chinese, and strive to foster employees' awareness of compliance.

#### (2) Southeast and South Asia

In September 2016, at the meeting of local corporate association of Group companies in the region, Nabtesco outlined the plan to promote a global compliance system aimed at preventing bribery in Southeast and South Asia, where there is a higher risk of it.

As in China, Nabtesco publishes a bi-monthly newsletter on compliance in Thai

#### (3) Training for Overseas Postings

In coordination with the Human Resources Development Department, we provide employees preparing for overseas assignments with training on legal risks specific to the host country on an as-needed and individual basis. In FY2016, the training was provided to employees assigned to Switzerland, the Netherlands, Germany, China and the US.

# Information Dispatch and Enlightenment Activities

### **Corporate Ethics Month**

Since FY2011, we have designated every October as "Nabtesco Group Corporate Ethics Month" and have been conducting an intensive campaign, led by top management, to raise awareness of compliance among employees of Nabtesco Corporation and its Group companies in Japan.

In FY2016, the CEO offered a message for the month-long campaign. Moreover, compliance meetings were conducted at each workplace. A total of 4,256 employees participated in the campaign activities for the fiscal year, including participation from two overseas group companies.



Poster for Corporate Ethics Month in FY2016

#### **Activities**

To raise employees' compliance awareness, we used the intranet as well as handouts to disseminate information to all employees. We will continue these activities using a wider range of tools.

#### Examples of Activities Conducted in FY2016

- Publication of the newsletter on compliance (Japanese language: monthly; Chinese and Thai languages: bimonthly)
- Introduction of a case study on compliance in the in-house magazine
- Distribution of the e-mail newsletter on compliance
- Dispatch of risk management- and compliance-related information, including news, quizzes, articles, and information about Corporate Ethics Month

# Global Expansion of Internal Reporting System (Hotline)

We have established a "hotline" system for the purpose of preventing, discovering and rectifying instances of bribery, bid rigging and misconduct.

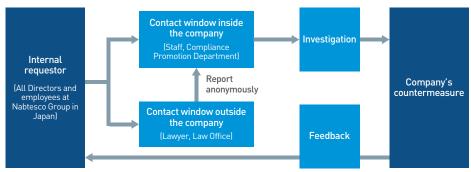
This hotline system, which offers a contact point not only within the company (Compliance Promotion Department) but also outside the company (a law firm), is available to all directors and employees (including fixed-term non-regular, temporary and part-time employees and interns) at Nabtesco Corporation and its Group companies in Japan. Contact can be made

anonymously, and a system is in place to safeguard whistleblowers from any disadvantageous treatment.

In FY2016, we received 30 reports/inquiries through the hotline system. Each was investigated and appropriately dealt with.

Also in FY2016, a new hotline was launched for some Group companies in China. We plan to implement a hotline system for other companies in China, as well as in Europe, North America and Southeast and South Asia in FY2017.

#### Flow of "Nabtesco Hotine"



#### **Anti-Corruption Measures**

We established the Nabtesco Group Global Anti-Bribery Policy through the resolution of the Board of Directors in FY2016. Applicable to Nabtesco Corporation and all its Group companies in and outside Japan, this policy clearly prohibits any acts of bribery including facilitation payments, requires the establishment of internal rules and guidelines regarding entertainment and gifts, and rules out any engagement with third parties who may pose a bribery risk. This Policy is published on the website of Nabtesco Corporation both in Japanese and English, along with a message from the CEO.

The Nabtesco Group Global Anti-Bribery Policy has been disseminated to compliance supervisors and compliance managers at all Group companies in and outside Japan. We are further promoting Groupwide anti-bribery efforts by ensuring that each Group company establishes relevant

internal rules and guidelines and conducts compliance education and awareness-raising activities.

Furthermore, a compliance education session focused on anti-bribery and anti-corruption was provided at a Corporate Officers Committee meeting.

We participated in the anti-corruption working group organized by the Global Compact Network Japan and actively exchanged opinions and information with other companies.

Nabtesco has not been fined for any bribery offense since its establishment in FY2003. We have made no political donations since 2003.

In FY2017, we will disseminate the Policy to all overseas companies of the Nabtesco Group, assess their bribery risks and establish anti-bribery internal rules and guidelines for them.

To ensure compliance with competition laws and regulations on an international scale, Nabtesco established the Global Antitrust Compliance Guidebook in FY2013 in Japanese, English and Chinese.

**Prevention of Bid Rigging** 

In FY2015, we stipulated the Code of Conduct for Prevention of Bid Rigging, a set of internal rules that defines the practices that are prohibited, rules on contact with competitors, authority of audits by the Legal Department and the Business Auditing Department, among others. In FY2016, all Group companies in Japan completed the establishment of their respective codes of conduct for the prevention of bid rigging, and Group companies outside Japan are scheduled to establish their own codes of

conduct to the same effect in FY2017.

Nabtesco also puts an emphasis on education for the prevention of bid rigging and, since FY2013, we have held seminars on the Global Antitrust Compliance Guidebook at Nabtesco's offices/plants and Group companies in and outside Japan. In FY2016, a training session for preventing bid rigging was provided at a meeting of the Corporate Officers Committee, and e-learning programs were extended to Nabtesco's sales personnel.

We will continue to undertake measures to prevent bid rigging in order to maintain and enhance the corporate value of the Nabtesco Group.

#### Web

#### Anti-Bribery

https://www.nabtesco. com/en/ir/policy/compliance.html

#### Initiatives on Anti-Corruption Measures

# 1

#### FY2017

Scheduled to provide all Nabtesco Group employees with anti-bribery education

#### FY2016

Established the Nabtesco Group Code of Ethics and the Nabtesco Group Anti-Bribery Policy

#### FY2014

Signed the United Nations Global Compact

## Measures implemented to prevent bid rigging



#### FY2016

Provided e-learning programs on prevention of bid rigging provided

#### Y2015

Established the Code of Conduct for Prevention of Bid Rigging established

#### FY2013

Published the Global Antitrust Compliance Guidebook published

#### **Compliance Committee**

#### Message from Outside Corporate



Zenzo Sasaki, Outside Corporate Auditor (Attorney at Law, Harumikyowa Law Office)

In recent years, a series of incidents of noncompliance have been reported, threatening the existence of many prominent corporations. This has heightened the global business community's awareness that compliance is a critical basis for ensuring sustainable corporate growth and strengthening competitiveness.

The Nabtesco Group Code of Ethics defines compliance not only as complying with laws and internal rules (manuals, guidelines and other operational rules) but also as meeting needs of stakeholders (customers, employees, business partners, shareholders and local communities) through acting in compliance with ethics and social norms.

As a prerequisite for expanding its global business operations, the Nabtesco Group needs to reinforce its compliance system in such a way as to encompass its overseas Group companies. The Compliance Committee, which was established in FY2016 as an advisory body to the Board of Directors, deliberates on the basic policy and priority issues related to the Group's compliance system. As an independent member of the Committee, I deliver opinions from an external point of view to ensure the effectiveness of internal control of the Group.

In order for the Nabtesco Group to achieve sustainable growth, each employee is expected to conduct business with high ethical standards and transparency. I am committed to contributing to the reinforcement of the Nabtesco Group's compliance system through various initiatives of the Compliance Committee.

#### Fundamental Approach (Policy on Disclosure of Information)

Under Nabtesco Corporate Governance Basic Policy, to assure appropriate disclosure of corporate information and transparency, we disclose information in accordance with: the Companies Act, the Financial Instruments and Exchange Act, and other laws and regulations, as well as Timely Disclosure Rules mandated by Tokyo Stock Exchange for the listed companies. We also pledge to disclose any other information but not required under the aforementioned rules, when the information, both financial and non-financial, is considered to have

potentially high impact on decision-making of investors.

In order to gain the understanding and receive the appropriate evaluation by our stakeholders both within and outside Japan, such as shareholders and investors there, we disclose management and financial information that we believe to be relevant to their investment decision-making. Moreover, we also disclose non-financial information regarding our measures for the environment, society and corporate governance (ESG) in a proactive manner.

# Measures for Facilitating Participation in General Meeting of Shareholders and Execution of Voting Rights

Facilitating Participation in General Meeting of Shareholders and Execution of Voting Rights Nabtesco regards the General Meeting of Shareholders as a precious opportunity and place. Therefore, we make

every effort to consolidate the environment where shareholders are given enough time to assess proposals and effectively exercise their voting rights.

Item	Outline
Early dispatch of the notice of convocation	We have been sending the notice of convocation to shareholders three weeks prior to the Meeting since FY2007.
Early disclosure of the notice of convocation (disclosed on the website)	We have been making early disclosure of the notice of convocation since FY2013. In FY2016, the disclosure was made approximately one month before the day of the General Meeting.
Participation in the ICJ platform*	We have participated in the ICJ platform in FY2007 to enable institutional investors and others in Japan and abroad who cannot attend the Meeting to execute their voting rights via the Internet.
Organization of a meeting to explain the Group's business activities	Since FY2009, following the General Meeting of Shareholders, we have been holding a further meeting to explain our business activities to shareholders and deepen their understanding of the Nabtesco Group.
Provision of an English summary of the notice of convocation	We translated the summary of the notice of convocation and posting it on our website since FY2011. Additionally, in FY2016, we have published an English edition of parts of business report and financial statements on our website.

<sup>\*</sup> ICJ platform: Infrastructure to facilitate the disclosure of information concerning the agenda of shareholders' meetings, execution of shareholders' voting rights and tabulation of voting results. The platform was established by ICJ, a joint venture launched by three companies including the Tokyo Stock Exchange, and has been in operation since 2005.



#### Investor Relations (IR) Activities for Institutional and Individual Investors

IR Activities for Institutional investors					
Briefings on financial results	We organize meetings following the end of the second and fourth quarters in which the CEO reports the financial results to participants. For the first and third quarters, we hold telephone conferences.				
Participation in IR conferences and implementation of overseas roadshows	In order to foster communication with institutional investors both in Japan and overseas, we participated in five IR conferences in Japan and two overseas, and also held five overseas roadshows in FY2016.				
Organization of one-on-one interviews and small meetings	We proactively share information with securities analysts and institutional investors to gain their understanding and help them to make appropriate evaluations. In FY2016, we accepted over 400 requests from analysts and investors for one-on-one interviews including telephone inquiries.				
Factory tours  We organize factory tours at our production bases in Japan and as often as deemed appropriate.					
Overseas IR activities	In FY2016, we conducted IR activities in Europe, the United States, Canada, Singapore, Hong Kong and Malaysia.				
IR Activities for Individual Inve	estors				
Briefing on the company	We held IR briefings across Japan, with an eye to fostering communication with individual investors through new approaches.				
Posting of IR information on the website	We post financial information, securities reports, Kabunushi Tsushin shareholder newsletter, integrated reports and various other IR documents on our website and also provide streaming video of meetings held to announce our financial results				

#### **Global IR Activities**



Nabtesco is proactively conducting overseas IR activities to keep in touch with overseas investors and shareholders, who account for as much as 54% ownership of the company's outstanding shares. (as of December 31, 2016)

Outside Japan, we held a total of 164 in FY2014, a total of 87 in FY2015 and a total of 97 in FY2016. With a vision of our shares to be held by investors who have a long-term perspective as possible, we proudly believe that reaching out a wide range of investors interested in long-term assets using a targeting method will result in formation of a group of loyal shareholders. We proactively seek out candid investor opinions on our capital policy at meetings, and endeavor to engage in two-way communication with our investors, which includes accepting feedback to improve our management.

Through continuous communication, we have already succeeded in making our company recognized to a certain extent by both domestic and overseas institutional investors. We therefore now intend to focus our efforts on attracting more attention from individual investors.



General Manager General Administration Dept. General Administration & Human Resources Div. Toshihiro Matsumoto

#### **External Assessments**

Dow Jones Sustainability Indices (DJSI) World Index	The DJSI is a well-known socially responsible investment (SRI) index compiled by S&P Dow Jones Indices in the US and RobecoSAM in Switzerland. The index showcases the best overall companies each year, evaluated in terms of corporate social responsibility (CSR) and sustainability from the three perspectives of economy, environment and society. Nabtesco was included in the DJSI World Index for the first time in FY2016, and has been included in the Asia Pacific Index every year since FY2013.
FTSE4Good Index Series	FTSE4Good is a well-known SRI index created by the FTSE Group in the UK. The index showcases the best overall companies each year, evaluated in terms of corporate social responsibility (CSR) and sustainability from the three perspectives of environment, society and corporate governance (ESG). Nabtesco has been included in the index every year since September 2009.
MSCI Global Sustainability Index	The MSCI Global Sustainability Index is an index developed by US organization MSCI Inc. It is composed of companies that have been highly recognized in light of ESG criteria, and has been used globally as one of the leading SRI indices. Nabtesco has been included in the index every year since FY2015.
STOXX Global ESG Leaders Index	The STOXX Global ESG Leaders index is an SRI index compiled by STOXX. Leading global companies that meet the ESG criteria are selected for inclusion in the index. Nabtesco was included in the index for the first time in FY2016.
Institutional Investor Best IR Professional (machinery sector, buy side)	In the IR Ranking 2017, a ranking targeting listed companies in Japan conducted by globally renowned US financial magazine Institutional Investors, Nabtesco was ranked 3rd in both the Best IR Companies (sell-side category) section and Best IR Websites (sell-side category) section.  Previously, Nabtesco was ranked 1st in the Best IR Professionals section in FY2014 and 2nd in both the Best CEOs (buy-side category) and Best IR Companies (sell-side category) sections in FY2013.
Internet IR awards by Daiwa Investor Relations	Daiwa Investor Relations Co., Ltd. evaluates the IR websites of listed companies in Japan based on its own criteria. Since FY2006 Nabtesco has received IR awards from the company for 10 consecutive years, including an excellence award won in FY2016.
Listed Company Website Quality Ranking by Nikko Investor Relations	Nikko Investor Relations Co., Ltd. evaluates the website quality of all listed company in Japan in terms of its intelligibleness, usability and information quantity. Nabtesco has received a high placing for 11 consecutive years since FY2006, including the best award won in 2016.
MSCI Japan Index	The MSCI Japan Index is an index developed by U.S. organization, MSCI Inc. It is composed of shares listed on Japanese securities exchanges and is globally used as a leading investment benchmark for Japanese shares. Nabtesco has been continuously included in the index since November 2009.
JPX-Nikkei Index 400	Nabtesco has been included in this index for which Japan Exchange Group, Inc., Tokyo Stock Exchange, Inc. and Nikkei Inc. have begun making the calculations in January 2014. One of the features in the criteria for selecting the companies is the fact that they reflect the requirements of global investment standards, such as efficient use of capital and investor-focused management perspectives.
CDP Climate A List	CDP is an international non-profit organization that requests the world's largest companies in terms of market capitalization to disclose anti-climate change strategies and GHG emissions data, evaluates the information and publishes the scores for public view. The Nabtesco Group is recognized by CDP, based on its 2016 survey, as one of the world's leaders in corporate activities for anti-climate change measures and strategies and is included in the Climate A List, which is composed of 193 companies worldwide.
CDP Supplier Climate A List	The Nabtesco Group is included in the Supplier Climate A List (consisting of 112 companies worldwide) and recognized as one of the suppliers evaluated as global leaders in anti-climate change actions and strategies under the CDP Supply Chain Program, in which CDP gathers information on supplier companies' activities to mitigate climate change and evaluates them on behalf of global companies.

#### Corporate Profile

#### Corporate Profile (as of December 31, 2016)

Company Name Nabtesco Corporation Established September 29, 2003

**Address** 7-9, Hirakawa-cho 2-chome,

Chiyoda-ku,Tokyo 102-0093, Japan

 TEL
 +81-3-5213-1133

 FAX
 +81-3-5213-1171

 Capital
 10 billion yen

 Number of issued
 125,133,799

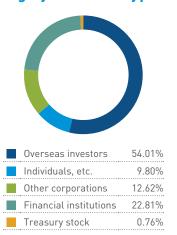
shares

**Employees** Non-consolidated 2,222

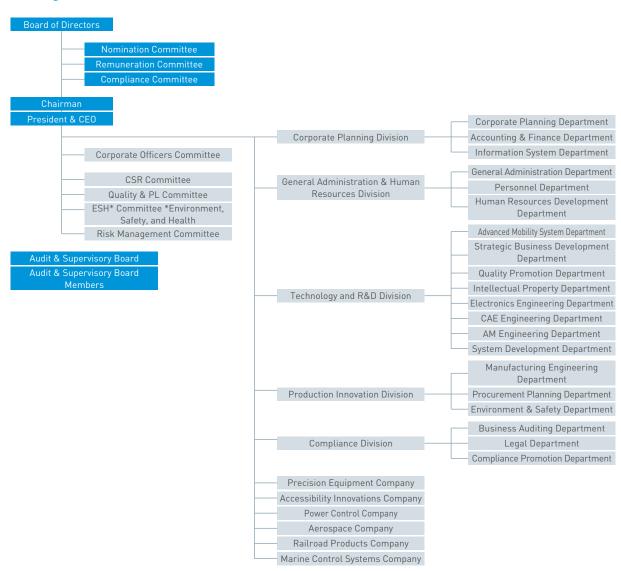
Consolidated 7,162

ConsolidatedIn Japan15 (excl. 4 equity method affiliates)companiesOverseas41 (excl. 4 equity method affiliates)

#### Breakdown of Shareholding by Investor Type



#### **Management Structure**



#### Disclosure Policy

#### **Boundary of the Report**

Nabtesco Corporation and its consolidated subsidiaries This report covers activities conducted by Nabtesco Corporation and its consolidated subsidiaries. However, a portion of the nonfinancial data pertains to only Nabtesco Corporation.

#### **Period Covered**

January 1, 2016 to December 31, 2016 In light of the importance of providing up-to-date information, some activities conducted after the period are also reported.

#### **Date of Publication**

Published in June 2017 (Published annually; previous report published in June 2016)

#### Performance Data

Nabtesco has changed the accounting closing date of fiscal year from March 31 to December 31 since FY2015. In this report, the results for FY2015 are calculated on a basis of 9 months for Nabtesco Corporation and the other consolidated subsidiaries in Japan, and 12 months for the overseas consolidated subsidiaries.

Please note that the estimates for FY2015/12 (Reference) were calculated for the period of 12 months to make comparisons with the plan for FY2016/12 under the same conditions.

#### Note about the Forecasts

Forecasts made in this report about numerical figures and measures for the future are based on currently available information and on certain judgments and assumptions that Nabtesco considers reasonable. Actual results may vary significantly from such forecasts due to a variety of important factors, including the economic situations of the company's major markets in and outside Japan and changes in the foreign exchange market.

#### Guidelines Referenced

- International Integrated Reporting Framework published by the International Integrated Reporting Council (IIRC)
- WICI Intangible Reporting Framework published by the World Intellectual Capital/Assets Initiative (WICI)
- G4 Sustainability Reporting Guidelines published by the Global Reporting Initiative (GRI)
- ISO26000 (International standard on the social responsibilities of organizations)

#### Participation in External Initiatives and External Evaluation

The Nabtesco Group announced our support for and signed the United Nations Global Compact in April 2014, thereby further fostering its CSR-oriented management. Our long-term greenhouse gas emission targets have been officially approved by the Science Based Targets (SBT) Initiative.





The Nabtesco Group's CSR initiatives are highly appreciated on an international level, which is proven by the fact that Nabtesco is included in the Dow Jones Sustainability World Index, FTSE4Good, FTSE Blossom Japan Index, MSCI ESG Leader Indexes, MSCI Japan ESG Select Leaders Index and STOXX Global ESG Leaders Index. The Group is also included in the Climate A List and the Supplier Climate A List 2016 of the CDP, which evaluates corporate anti-climate change measures and strategies. Since 2014, the company has been selected to be included in the JPX-Nikkei Index 400.

# Dow Jones Sustainability Indices

In Collaboration with RobecoSAM (





FTSE Blossom Japan



2017 Constituent MSCI ESG Leaders Indexes



2017 Constituent MSCI Japan ESG Select Leaders Index







\* THE INCLUSION OF Nabtesco Corporation IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF Nabtesco Corporation BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

**Nabtesco Corporation and Consolidated Subsidiaries** 

# Consolidated Financial Statements

December 31, 2016 and December 31, 2015 (With Independent Auditors' Report)

#### Consolidated Balance Sheets

Nabtesco Corporation and Consolidated Subsidiaries December 31, 2016 and nine-month period ended December 31, 2015

	(Millions	(Millions of yen)		
	Dec. 2016	Dec. 2015	Dec. 2016	
Assets				
Current assets:				
Cash and deposits (Note 4)	¥ 29,946	¥ 22,068	\$ 257,067	
Notes and accounts receivable-trade	65,712	59,751	564,102	
Less allowance for doubtful receivables	(319)	(238)	(2,740)	
Short-term investment securities (Note 6)	12,000	13,000	103,013	
Inventories (Note 7)	32,619	28,422	280,019	
Deferred tax assets (Note 10)	2,274	1,976	19,524	
Other current assets	3,759	3,597	32,267	
Total current assets	145,991	128,576	1,253,252	
Property, plant and equipment (Note 9)				
Land	17,559	13,737	150,738	
Buildings and structures	54,644	50,637	469,089	
Machinery and equipment	97,425	95,836	836,334	
Construction in progress	6,715	1,551	57,646	
Sub-total	176,343	161,761	1,513,807	
Less accumulated depreciation	(108,520)	(105,845)	(931,586)	
Property, plant and equipment, net	67,823	55,916	582,221	
Investments and other assets				
Investment securities (Note 6)	20,741	23,058	178,049	
Deferred tax assets (Note 10)	658	466	5,652	
Goodwill (Note 22)	17,031	19,424	146,205	
Other intangible assets	3,896	4,234	33,441	
Assets for retirement benefits (Note 13)	177	205	1,522	
Other assets	2,718	1,585	23,325	
Less allowance for doubtful receivables	(89)	(83)	(760)	
Total investments and other assets	45,132	48,889	387,434	
Total assets	¥ 258,946	¥ 233,381	\$2,222,907	

	(Millions	(Thousands of U.S. dollars) (Note 1)	
	Dec. 2016	Dec. 2015	Dec. 2016
Liabilities and Net assets			
Current liabilities:			
Notes and accounts payable-trade	¥ 16,926	¥ 38,643	\$ 145,300
Electronically recorded obligations	25,635	_	220,065
Short-term loans payable	5,648	5,257	48,481
Current portion of bonds (Note 8)	_	10,000	_
Current portion of long-term loans payable (Note 8)	146	77	1,256
Income taxes payable (Note 10)	5,408	1,057	46,428
Provision for product warranties	696	612	5,971
Provision for loss on order received	27	5	234
Others	20,316	17,350	174,397
Total current liabilities	74,802	73,001	642,132
Non-current liabilities:			
Bonds (Note 8)	10,000	_	85,844
Long-term loans payable (Note 8)	1,202	_	10,315
Provision for directors' retirement benefits	289	180	2,481
Liability for retirement benefit (Note 13)	9,343	7,340	80,205
Deferred tax liabilities (Note 10)	2,901	2,094	24,907
Others	1,888	1,842	16,210
Total non-current liabilities	25,623	11,456	219,962
Total liabilities	100,425	84,457	862,094
Net assets (Note 12)			
Common stock:			
Authorized: 400,000,000 shares as at December 31, 2016 and December 31, 2015			
Issued: 125,133,799 shares as at December 31, 2016 and			
December 31, 2015	10,000	10,000	85,844
Capital surplus	14,237	14,237	122,218
Retained earnings	119,345	107,487	1,024,509
Treasury stock, at cost			
1,608,476 shares as at December 31, 2016 and	(0.770)	(0.710)	(00 500)
1,639,476 shares as at December 31, 2015 Total shareholders' equity	(2,649) 140,933	(2,718) 129,006	1,209,833
Accumulated other comprehensive income			
Valuation difference on other securities	2,015	2,159	17,299
Deferred gains (losses) on hedges	(36)	2,137	(308)
· · · · · · · · · · · · · · · · · · ·			
Foreign currency translation adjustments Remeasurements of defined benefit plans	8,504 (1,295)	11,599 (698)	73,005
·			(11,119)
Total accumulated other comprehensive income	9,188	13,063	78,877
Subscription rights to shares	467	379	4,002
Non-controlling interests	7,933	6,476	68,101
Total net assets	158,521	148,924	1,360,813
Total liabilities and net assets	¥258,946	¥233,381	\$2,222,907

See accompanying notes to consolidated financial statements.

#### Nabtesco Value Report FY Ended December 31, 2016

#### Consolidated Statements of Income

Nabtesco Corporation and Consolidated Subsidiaries Year ended December 31, 2016 and nine-month period ended December 31, 2015

	(Million:	s of yen)	(Thousands of U.S. dollars) (Note 1)
	Dec. 2016	Dec. 2015	Dec. 2016
Net sales (Note 22)	¥ 244,619	¥ 187,001	\$2,099,913
Cost of sales (Notes 14 and 22)	175,380	136,577	1,505,533
Gross profit	69,239	50,424	594,380
Selling, general and administrative expenses (Notes 14 and 22)	45,767	35,129	392,886
Operating income	23,472	15,295	201,494
Other income (expenses):			
Interest and dividend income	188	260	1,610
Interest expenses	(153)	(148)	(1,315)
Foreign exchange gain (loss), net	(260)	(986)	(2,232)
Equity in earnings of affiliates	1,111	1,710	9,540
Gain on sales of investment securities	6	2,064	55
Gain on sales of property, plant and equipment	744	32	6,386
Gain on negative goodwill (Note 11)	353	_	3,029
Gain on step acquisitions (Note 11)	786	_	6,751
Loss on disposal of property, plant and equipment	(106)	(337)	(913)
Impairment loss (Notes 20 and 22)	_	(2,111)	_
Business structure improvement expenses (Note 21)	_	(288)	_
Loss on valuation of investments securities	(2)	_	(19)
Loss on valuation of golf club membership	_	(4)	_
Loss on revision of retirement benefit plan (Note 13)	(390)	(385)	(3,349)
Environmental expenses	_	(32)	_
Others, net	373	289	3,206
Total	2,650	64	22,749
Income before income taxes	26,122	15,359	224,243
Income taxes (Note 10):			
Current	8,264	5,348	70,942
Deferred	(44)	384	(379)
Total	8,220	5,732	70,563
Net income	17,902	9,627	153,680
Net income attributable to non-controlling interests	317	(1,432)	2,723
Net income attributable to owners of the parent	¥ 17,585	¥ 11,059	\$ 150,957

	(Ye	en)	(U.S. dollars) (Note 1)
	Dec. 2016	Dec. 2015	Dec. 2016
Earnings per share of common stock;			
Basic net income per share	¥ 142.37	¥ 88.85	\$ 1.22
Diluted net income per share	142.12	88.75	1.22
Net assets per share	1,215.31	1,150.41	10.43
Cash dividends per share applicable to the period/year	50.00	44.00	0.43

 $See\ accompanying\ notes\ to\ consolidated\ financial\ statements.$ 

#### Nabtesco Value Report FY Ended December 31, 2016

#### Consolidated Statements of Comprehensive Income

Nabtesco Corporation and Consolidated Subsidiaries Year ended December 31, 2016 and nine-month period ended December 31, 2015

	(Million	s of yen)	(Thousands of U.S. dollars) (Note 1)
	Dec. 2016	Dec. 2015	Dec. 2016
Net income	¥17,902	¥ 9,627	\$153,680
Other comprehensive income (Note 15)			
Valuation difference on other securities	(137)	(1,268)	(1,176)
Deferred gains (losses) on hedges	(3)	6	(27)
Foreign currency translation adjustments	(3,579)	(1,772)	(30,727)
Remeasurements of defined benefit plans	(641)	(522)	(5,501)
Share of other comprehensive income (loss) of affiliates accounted for using equity method	(111)	(67)	(952)
Total other comprehensive income	(4,471)	(3,623)	(38,383)
Comprehensive income	¥13,431	¥ 6,004	\$115,297
Comprehensive income attributable to:			
Owners of the parent	13,710	7,875	117,696
Non-controlling interests	(279)	(1,871)	(2,399)

 $See\ accompanying\ notes\ to\ consolidated\ financial\ statements.$ 

### Consolidated Statements of Changes in Net Assets

Nabtesco Corporation and Consolidated Subsidiaries Nine-month period ended December 31, 2015

		(Millions of yen)						
	Number of shares of common stock (Shares)	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity		
Balance at April 1, 2015	128,265,799	¥10,000	¥18,990	¥107,554	¥ (2,928)	¥133,616		
Cash dividends	_	_	_	(5,785)	_	(5,785)		
Net income attributable to owners of the parent	_	_	_	11,059	_	11,059		
Purchase of treasury stock	_	_	_	_	(10,002)	(10,002)		
Disposal of treasury stock	_	_	(94)	_	212	118		
Retirements of treasury stock	(3,132,000)	_	(4,659)	(5,341)	10,000	_		
Staff and workers bonuses and welfare fund	_	_	_	(0)	_	(0)		
Net changes of items other than shareholders' equity	_	_	_	_	_	_		
Balance at December 31, 2015	125,133,799	¥10,000	¥14,237	¥107,487	¥ (2,718)	¥129,006		

		(Millions of yen)						
	Valuation difference on other securities	Deferred gains (losses) on hedges	Foreign currency translation adjustments	Remeasure- ments of defined benefit plans	Total Accumulated other comprehensive income	Subscription rights to shares	Non- controlling interests	Total net assets
Balance at April 1, 2015	¥ 3,447	¥(3)	¥12,978	¥(176)	¥16,246	¥391	¥ 8,411	¥158,665
Cash dividends	_	_	_	_	_	_	_	(5,785)
Net income attributable to owners of the parent	_	_	_	_	_	_	_	11,059
Purchase of treasury stock	_	_	_	_	_	_	_	(10,002)
Disposal of treasury stock	_	_	_	_	_	_	_	118
Retirements of treasury stock	_	_	_	_	_	_	_	_
Staff and workers bonuses and welfare fund	_	_	_	_	_	_	_	(0)
Net changes of items other than shareholders' equity	(1,288)	6	(1,379)	(522)	(3,183)	(12)	(1,935)	(5,131)
Balance at December 31, 2015	5 ¥ 2,159	¥ 3	¥11,599	¥(698)	¥13,063	¥379	¥ 6,476	¥148,924

See accompanying notes to consolidated financial statements.

#### Nabtesco Value Report FY Ended December 31, 2016

#### Consolidated Statements of Changes in Net Assets

Nabtesco Corporation and Consolidated Subsidiaries Year ended December 31, 2016

(Millions of yen) Number of shares of Total common stock (Shares) Common Capital Retained Treasury shareholders' earnings stock surplus stock equity Balance at January 1, 2016 125,133,799 ¥10,000 ¥14,237 ¥107,487 ¥(2,718) ¥129,006 Cash dividends (5,712) (5,712) Net income attributable 17,585 17,585 to owners of the parent (3) (3) Purchase of treasury stock (15) 57 Disposal of treasury stock 72 Net changes of items other than shareholders' equity Balance at December 31, 2016 125,133,799 ¥10,000 ¥14,237 ¥119,345 ¥(2,649) ¥140,933

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	Valuation difference on other securities	Deferred gains (losses) on hedges	Foreign currency translation adjustments	Remeasure- ments of defined benefit plans	Total Accumulated other comprehensive income	Subscription rights to shares	Non- controlling interests	Total net assets
Balance at January 1, 2016	¥2,159	¥ 3	¥11,599	¥ (698)	¥13,063	¥379	¥6,476	¥148,924
Cash dividends	_	_	_	_	_	_	_	(5,712)
Net income attributable to owners of the parent	_	_	_	_	_	_	_	17,585
Purchase of treasury stock	_	_	_	_	_	_	_	(3)
Disposal of treasury stock	_	_	_	_	_	_	_	57
Net changes of items other than shareholders' equity	(144)	(39)	(3,095)	(597)	(3,875)	88	1,457	(2,330)
Balance at December 31, 2016	¥2,015	¥(36)	¥ 8,504	¥ (1,295)	¥ 9,188	¥467	¥7,933	¥158,521

See accompanying notes to consolidated financial statements.

		(Thousands of U.S. dollars) (Note 1)				
	Number of shares of common stock (Shares)	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at January 1, 2016	125,133,799	\$85,844	\$122,218	\$ 922,715	\$ (23,336)	\$1,107,441
Cash dividends	_	_	_	(49,033)	_	(49,033)
Net income attributable to owners of the parent	_	_	_	150,957	_	150,957
Purchase of treasury stock	_	_	_	_	(23)	(23)
Disposal of treasury stock	_	_	_	(130)	621	491
Net changes of items other than shareholders' equity	_	_	_	_	_	_
Balance at December 31, 2016	125,133,799	\$85,844	\$122,218	\$1,024,509	\$ (22,738)	\$1,209,833

#### (Thousands of U.S. dollars) (Note 1)

	Valuation difference on other securities	Deferred gains (losses) on hedges	Foreign currency translation adjustments	Remeasure- ments of defined benefit plans	Total Accumulated other comprehensive income	Subscription rights to shares	Non- controlling interests	Total net assets
Balance at January 1, 2016	\$18,536	\$ 29	\$ 99,562	\$ (5,990)	\$112,137	\$3,256	\$55,597	\$1,278,431
Cash dividends	_	_	_	_	_	_	_	(49,033)
Net income attributable to owners of the parent	_	_	_	_	_	_	_	150,957
Purchase of treasury stock	_	_	_	_	_	_	_	(23)
Disposal of treasury stock	_	_	_	_	_	_	_	491
Net changes of items other than shareholders' equity	(1,237)	(337)	(26,557)	(5,129)	(33,260)	746	12,504	(20,010)
Balance at December 31, 2016	\$17,299	\$(308)	\$ 73,005	\$(11,119)	\$ 78,877	\$4,002	\$68,101	\$1,360,813

 $See\ accompanying\ notes\ to\ consolidated\ financial\ statements.$ 

#### Consolidated Statements of Cash Flows

Nabtesco Corporation and Consolidated Subsidiaries Year ended December 31, 2016 and nine-month period ended December 31, 2015

	(4.00)	(Marie Co.)		
		of yen)	(Note 1)	
Occupation a still the	Dec. 2016	Dec. 2015	Dec. 2016	
Operating activities:	V 0 / 100	V 15 050	<b>#</b> 227 272	
Income before income taxes	¥ 26,122	¥ 15,359	\$ 224,243	
Adjustments to reconcile income before income taxes to net cash provided by operating activities:				
Depreciation and amortization	7,407	6,364	63,581	
Amortization of goodwill	1,424	1,608	12,227	
Gain on negative goodwill	(353)	_	(3,029)	
Share-based compensation expenses	143	106	1,228	
Changes in asset and liability for retirement benefits	74	38	621	
Changes in allowance for doubtful receivables	61	42	524	
Equity in earnings of affiliates	(1,111)	(1,710)	(9,540)	
Interest and dividend income	(188)	(260)	(1,610)	
Interest expenses	153	148	1,315	
Gain on sales of property, plant and equipment	(744)	(32)	(6,386)	
Gain on sales of investment securities	(6)	(2,064)	(55)	
Loss on disposal of property, plant and equipment	106	337	913	
Gain on step acquisitions	(786)	_	(6,751)	
Impairment loss	_	2,111	_	
Loss on valuation of golf club membership	_	4	_	
Changes in notes and accounts receivable—trade	(468)	(618)	(4,014)	
Changes in inventories	(1,099)	(2,737)	(9,432)	
Changes in other assets	(31)	(487)	(267)	
Changes in notes and accounts payable—trade	(261)	(392)	(2,238)	
Changes in consumption tax payable	(65)	188	(560)	
Changes in other liabilities	443	(1,029)	3,804	
Others, net	204	(52)	1,759	
Sub-total	31,025	16,905	266,333	
Interest and dividend income received	980	891	8,409	
Interest expenses paid	(106)	(150)	(914)	
Income taxes paid	(4,169)	(8,900)	(35,785)	
Net cash provided by operating activities	27,730	8,746	238,043	

	(Million:	s of yen)	(Thousands of U.S. dollars) (Note 1)
	Dec. 2016	Dec. 2015	Dec. 2016
Investing activities:			
Deposit in time deposits	¥ (5)	¥ (7)	\$(44)
Proceeds from withdraw of time deposits	177	310	1,523
Purchases of property, plant and equipment	(14,474)	(6,193)	(124,255)
Proceeds from sales of property, plant and equipment	1,314	930	11,276
Purchases of intangible assets	(920)	(875)	(7,901)
Proceeds from sales of intangible assets	96	_	822
Purchases of investment securities	(14)	(13)	(119)
Proceeds from sales of investment securities	120	3,314	1,034
Purchases of investments in affiliates	(80)	(29)	(689)
Purchases of investments in capital of subsidiaries	(32)	_	(270)
Payments of loans receivable	(3)	_	(23)
Payments for business transfer	_	(38)	_
Purchase of investments in subsidiaries resulting in change in scope of consolidation	(778)	(2,220)	(6,680)
Others, net	(390)	(66)	(3,347)
Net cash used in investing activities	[14,989]	(4,887)	(128,673)
Financing activities:			
Net decrease in short-term loans payable	(289)	(3,298)	(2,480)
Repayments of long-term loans payable	(206)	(81)	(1,772)
Proceeds from long-term loans payable	1,254	_	10,765
Proceeds from issuance of bonds	10,000	_	85,844
Redemption of bonds	(10,000)	_	(85,844)
Proceeds from stock issuance to non-controlling shareholders	275	34	2,362
Purchases of treasury stock	(3)	(10,002)	(23)
Proceeds from sales of treasury stock	1	0	10
Dividends paid	(5,840)	(5,743)	(50,137)
Net cash used in financing activities	(4,808)	(19,090)	(41,275)
Effect of exchange rate changes on cash and cash equivalents	(863)	(514)	(7,404)
Changes in cash and cash equivalents	7,070	(15,745)	60,691
Cash and cash equivalents at the beginning of period/year	34,710	50,455	297,965
Cash and cash equivalents at the end of period/year (Note 4)	¥ 41,780	¥ 34,710	\$ 358,656

See accompanying notes to consolidated financial statements.

#### Notes to Consolidated Financial Statements

Nabtesco Corporation and Consolidated Subsidiaries Year ended December 31, 2016 and nine-month period ended December 31, 2015

#### 1. Description of Business and Basis of Presenting Consolidated Financial Statements

#### (1) Description of business

Nabtesco Corporation (the "Company"), a Japanese corporation, was established as a holding company on September 29, 2003 through a stock transfer process by TS Corporation (formerly Teijin Seiki Co., Ltd.) and NABCO Ltd. As a result of the stock transfer, both TS Corporation and NABCO Ltd. became wholly owned subsidiaries of the Company.

The Company completed its business integration through the acquisition of the two wholly owned subsidiaries on October 1, 2004.

The main products of the Company and its consolidated subsidiaries (the "Companies") include precision equipment, transport equipment, aircraft and oil hydraulic equipment, and industrial equipment.

#### (2) Basis of presenting consolidated financial statements

The accompanying consolidated financial statements of the Company have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Law and its related accounting regulations, and in conformity with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to application and disclosure requirements of International Financial Reporting Standards.

The accounts of consolidated overseas subsidiaries are prepared in accordance with either International Financial Reporting Standard or U.S. generally accepted accounting principles, with adjustment for the specific four items as applicable.

The accompanying consolidated financial statements have been restructured and translated into English from the consolidated financial statements of the Company prepared in accordance with Japanese GAAP and filed with the appropriate Local Finance Bureau of the Ministry of Finance as required by the Financial Instruments and Exchange Law. Certain supplementary information included in the statutory Japanese language consolidated financial statements, but not required for fair presentation, is not presented in the accompanying consolidated financial statements.

The translation of the Japanese yen amounts into U.S. dollars is included solely for the convenience of readers outside Japan, using the prevailing exchange rate at December 31, 2016, which is ¥116.49 to U.S. \$1.00. The convenience of the translation should not be construed as representations that the Japanese yen amounts have been, could have been, or could in the future be, converted into U.S. dollars at this or any other rate of exchange.

#### 2. Summary of Significant Accounting Policies

#### (1) Principles of consolidation

The consolidated financial statements include the accounts of the Company and its 56 subsidiaries. All significant inter-company transactions, account balances and unrealized profits are eliminated in consolidation.

Investments in 8 affiliated companies (generally 20% to 50% owned), over which the Company has the ability to exercise significant influence over operating and financial policy, are accounted for by the equity method.

#### (2) Cash and cash equivalents

For the purpose of the consolidated statements of cash flows, cash and cash equivalents consist of cash on hand, deposits with banks withdrawable on demand and short-term investments which are readily convertible to cash subject to an insignificant risk of changes in value and which are purchased with an original maturity of three months or less. See Note 4 as to reconciliation to cash and deposits on the balance sheets.

#### (3) Allowance for doubtful receivables

The allowance for doubtful receivables is provided in amounts management considers sufficient to cover possible losses on collection. The allowance is based on past collection experience and management estimate of the collectability of individual receivables.

#### (4) Provision for loss on order received

To cover the future losses relating to order received, a provision is recorded when the future losses are anticipated and the losses are reasonably estimated.

#### (5) Securities

The Companies are required to examine the intent of holding each security and classify those securities as (a) securities held for trading purposes (hereafter, "trading securities"), (b) debt securities intended to be held to maturity, (c) equity securities issued by subsidiaries and affiliated companies, and (d) for all other securities that are not classified in any of the above categories (hereafter, "other securities"). The Companies have no trading securities at December 31, 2016 and December 31, 2015.

Held-to-maturity debt securities are expected to be held to maturity and are recognized at amortized cost computed based on the straight-line method. Other securities with available fair market values are stated at fair market value. Unrealized gains and losses on these securities are reported, net of applicable income taxes, as a separate component of net assets. Realized gains and losses on sale of such securities are computed using the moving-average cost method. Other securities with no available fair market value are stated at moving-average cost.

If the market value of equity securities and other securities declines significantly, such securities are written down to their fair market value and the difference between fair market value and the carrying amount is recognized as loss in the period of the decline. For equity securities with no available fair market value, if the net asset amount of the investee declines significantly, such securities are written down to the net asset amount in the income statement in the period of decline. In these cases, such fair market value or net asset amount will be the carrying amount of the securities at the beginning of the next year.

#### (6) Inventories

Inventories of the Company and its consolidated subsidiaries are stated at the lower of the cost or net realizable value.

The evaluation methods for the cost of inventories are as follows:

Inventories	Evaluation method
Finished goods and Work in process	Mainly weighted average method (however certain finished goods and work in process are determined by the specific identification method)
Raw materials and Supplies	Mainly weighted average method (however certain raw materials and supplies are determined by moving average method)

#### (7) Property, plant and equipment

Property, plant and equipment, including building and building fixtures, are stated at cost. The Company and its consolidated domestic subsidiaries calculate depreciation by the straight-line method over the estimated useful lives of the respective assets. In addition, the Company and its consolidated domestic subsidiaries depreciate machinery and equipment, of which acquisition cost is ¥100 thousand or more but less than ¥200 thousand, over a period of three years on a straight-line basis. The consolidated foreign subsidiaries calculate depreciation mainly by the straight-line method over the estimated useful lives of the respective assets.

Depreciation of assets acquired by the domestic companies after March 31, 2007 is calculated mainly by the straight-line method under the amended tax code for building, not including building fixtures and by the declining-balance method under the amended tax code for the remaining assets.

#### (8) Lease assets

Property, plant and equipment capitalized under finance lease arrangements are depreciated over the lease term of the respective assets.

#### (9) Derivative financial instruments and hedging transactions

The Companies use derivative financial instruments only for the purpose of mitigating fluctuation risk of interest rates with respect to loans payable and future risk of fluctuation of foreign currency exchange rates with respect to foreign currency receivables and payables.

The following summarizes hedging derivative financial instruments used by the Companies and items hedged:

Hedging instruments	Hedged items
Interest rate swap contracts:	Loans payable
Forward foreign exchange contracts:	Foreign currency trade receivables and trade payables

The Companies evaluate hedge effectiveness by comparing the cumulative changes in cash flows from or the changes in fair value of hedged items and the corresponding changes in fair value of the hedging derivative instruments.

The Companies are required to state derivative financial instruments at fair value and to recognize changes in the fair value as gains or losses unless derivative financial instruments meet the criteria for hedge accounting.

If derivative financial instruments are used as hedges and meet certain hedging criteria, the Companies defer recognition of gains or losses resulting from changes in fair value of derivative financial instruments until the related losses or gains on the hedged items are recognized.

If interest rate swap contracts are used as hedges and meet certain hedging criteria, the net amount to be paid or received under the interest rate swap contract is added to or deducted from the interest on the assets or liabilities for which the swap contract is executed.

If forward foreign exchange contracts are used as hedges and meet certain hedging criteria, hedging instruments and hedged items are accounted for in the following manner:

- ① When a forward foreign exchange contract is executed to hedge an existing foreign currency receivable or payable, (a) the difference, if any, between the Japanese yen amount of the hedged foreign currency receivable or payable translated using the spot rate at the inception date of the contract and the book value of the receivable or payable is recognized in the income statement in the period which includes the inception date, and
  - (b) the discount or premium on the contract (that is, the difference between the Japanese yen amount of the contract translated using the contracted forward rate and that translated using the spot rate at the inception date of the contract) is recognized over the term of the contract.
- ② When a forward foreign exchange contract is executed to hedge a future transaction denominated in a foreign currency, the future transaction will be recorded using the contracted forward rate, and no gains or losses on the forward foreign exchange contract or the forward foreign currency options are recognized.

#### (10) Amortization

Goodwill is amortized using the straight-line method over a period within twenty years. However, if the amount is insignificant, it is expensed as incurred.

Software is amortized using the straight-line method over the estimated useful lives (five years).

#### (11) Research and development costs

Research and development costs are expensed as incurred.

#### (12) Income taxes

The Companies recognize tax effects of timing differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts for tax reporting purpose. Income taxes are comprised of corporation tax, enterprise tax and prefectural and municipal inhabitants taxes.

#### (13) Provision for product warranties

Provision for product warranties is provided to cover the estimated cost for customers' claims relating to after sales repairs.

#### (14) Translation of foreign currencies

Monetary assets and liabilities denominated in foreign currencies are translated into Japanese yen at the year-end rates.

Financial statements of consolidated foreign subsidiaries are translated into Japanese yen at the year-end rates, except that shareholders' equity are translated at historical rates and income statement items resulting from transactions with the Company are translated at the rates used by the Company when the transactions occurred. Foreign currency translation adjustment is reported in net assets.

#### (15) Appropriation of retained earnings

Under the Japanese Corporate law, the appropriation of retained earnings with respect to a given financial period is made by a resolution of the shareholders at the general shareholders meeting held subsequent to the close of such financial period. Therefore, the accounts for that period do not reflect such appropriations.

#### (16) Retirement benefits

The Company and certain consolidated subsidiaries provide two types of retirement and severance benefit plans, unfunded lump-sum payment plans and funded non-contributory pension plans, under which all eligible employees are entitled to benefits based on the level of wages and salaries at the time of retirement or termination, length of service and certain other factors.

- ① Allocation of estimated retirement benefit obligation

  Expected retirement benefits are attributed to the respective fiscal years by a Benefit formula basis.
- ② Past service costs and actuarial gains and losses Past service costs are recognized as expense when incurred, and actuarial gains and losses are recognized as expense from the following fiscal year using the declining-balance method over a certain period (10 years) not exceeding the average of estimated remaining service period.
- ③ Simplified method in small consolidated subsidiaries
  Certain consolidated subsidiaries calculate retirement benefit liabilities and expenses using the simplified method that assumes their benefit obligation is equal to the benefits payable if all employees voluntarily retired at the fiscal year-end.

#### (17) Provision for director's retirement benefits

Certain consolidated subsidiaries accrue liabilities for retirement benefits, which is estimated at the end of the fiscal year, for their directors and corporate statutory auditors based on their internal policies.

#### (18) Earnings per share

The computation of basic net income per share is calculated based on the weighted average number of shares of common stock outstanding during the fiscal year.

Diluted net income per share is calculated based on the weighted average number of shares of common stock after consideration of dilution that securities or other contracts to issue common stock are exercised or converted into common stock, or resulted into issuance of common stock.

Amounts per share of net assets are calculated based on the number of shares of common stock outstanding at the year-end.

Cash dividends per share include interim dividends of the Company proposed by the Board of Directors in addition to year-end dividends approved by shareholders at the general shareholders' meeting held subsequent to the end of fiscal year.

#### (19) Recognition of significant revenues and expenses

Accounting for construction of completions

When the construction work is in progress at the year end and the progress rate of construction work up to that time is deemed certain, the percentage-of-completion method is applied. The progress rate is estimated using cost-to-cost method.

When the above condition is not met, the completed-contract method is applied.

#### 3. Additional Information

Effective from the fiscal year ended on December 31, 2016, "Revised Implementation Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No. 26, March 28, 2016 (hereinafter, "Guidance No.26")) is permitted to be applied. The Company and its domestic subsidiaries adopted Guidance No.26 from the current year.

#### 4. Cash Flow information

#### (Cash and Cash Equivalents)

Reconciliation of cash and time deposits shown in the consolidated balance sheets as of December 31, 2016 and December 31, 2015 and cash and cash equivalents shown in the consolidated statements of cash flows for the year ended December 31, 2016 and for the nine-month period ended December 31, 2015 is as follows:

	(Million:	(Thousands of U.S. dollars)	
	Dec. 2016	Dec. 2015	Dec. 2016
Cash and deposits in the consolidated balance sheets	¥29,946	¥22,068	\$257,067
Time deposits with maturities extending over three months	(166)	(358)	(1,424)
Short-term investment securities	12,000	13,000	103,013
Cash and cash equivalents in the consolidated statements of cash flows	¥41,780	¥34,710	\$358,656

#### (Assets and liabilities of newly consolidated subsidiaries by acquisition of shares)

The company acquired NABCO Systems and its three subsidiaries through purchasing its stocksĐ resulting in scope of consolidation in April 1, 2016. The details of the net cash flow and Assets and liabilities of the acquired companies were as follows:

	(Millions of yen)	(Thousands of U.S. dollars)
	Dec. 2016	Dec. 2016
Current assets	¥12,483	\$107,156
Non-current assets	7,460	64,042
Current liabilities	(8,525)	(73,186)
Non-current liabilities	(2,848)	(24,447)
Non-controlling interests	(1,352)	(11,607)
Negative goodwill	(353)	(3,029)
Gain on step acquisitions	(786)	(6,751)
Previously held equity interest before obtaining control	(2,398)	(20,582)
Acquisition cost of shares	3,681	31,596
Cash and Cash Equivalents	(3,454)	(29,648)
Net cash for acquisition of acquired companies	¥227	\$1,948

Assets and liabilities of newly consolidated subsidiaries through acquisition of shares for the year ended December 31, 2016, other than noted above, were omitted due to immateriality.

#### 5. Financial Instruments

#### (1) Qualitative information on financial instruments

1) Policies for using financial instruments

The Company raises required fund for its business primarily from loans payable and bond issues, and manages surplus funds using financial instruments that carry low or no risk. The Company uses derivatives to mitigate the risk that are described below, and as a matter of policy does not use derivatives for speculative transactions.

② Details of financial instruments used and the exposures to risk and how they arise

Trade notes and accounts receivable are exposed to customer credit risk. In addition, the Company is exposed to
foreign currency exchange risk arising from receivables denominated in foreign currencies. The Company uses
derivative transactions including forward foreign exchange contracts to hedge the risk of exchange fluctuations
associated with receivables denominated in foreign currencies. Short-term investment securities and other
securities mainly consist of held-to-maturity debt securities and securities for strengthening the relationship with
counterparty and exposed to market price risk.

Loans payable and bonds payable are taken out principally for the purpose of making capital investments. The repayment dates of long term loans payable extend up to five years beyond the date of the closing of accounts.

The Company uses foreign exchange forward contracts to reduce the risk of foreign exchange rate fluctuation that arise from receivables and payables denominated in foreign currencies.

3 Policies and processes for managing the risk

(a) Credit risk management (counterparty risk)

The Company has prepared policies for managing its credit exposure and business receivables. The Company manages amounts and settlement dates by counterparties and works to identify and mitigate payment risk that may result from situations including deterioration of the financial condition of counterparties at an early stage. Consolidated subsidiaries are subject to the same risk management rules.

Held-to-maturity debts securities carry low credit risk because they are managed in high liquidation.

The Company conducts only with highly creditworthy financial institution under the risk management policy when using derivatives.

#### (b) Market risk management

The Company and some consolidated subsidiaries use derivative transactions including forward foreign exchange contract to hedge the risk of exchange fluctuations associated with receivables denominated in foreign currencies.

For short-term investment securities, the Company examines fair value and the financial condition of the issuing entities. In addition, for all securities other than those classified as held-to-maturity debt securities, the Company regularly revises its portfolio based on its relationships with issuing entities, and interest rate swap transactions to hedge against interest rate risks on long-term loans payable.

For derivative transactions, the basic policies for executing the derivative transactions are managed by the Board of Directors of the Company. Based on such policies, the finance departments of each company establish the internal policies which prescribe the specified limits and procedures on the derivative transactions. After execution, each finance department reports certain information on derivative transactions to the Board of Directors of the Company.

#### (c) Liquidity risk management

The Accounting Department manages liquidity risk for the Company by making and updating a capital deployment plan based on reports from each division. In addition, the Company manages liquidity risks by keeping high leveled liquidity on hand due to the unstable financial market.

#### 4 Supplemental information on fair values

The fair value of financial instruments is based on market prices, or a reasonable estimate of fair value for instruments for which market prices are not available. Estimates of fair value are subject to fluctuation due to the variable factors and assumptions. In addition, the contractual amounts of the derivative transactions discussed in "Derivative Financial Instruments" below are not an indicator of the market risk associated with derivative transactions.

#### (2) Fair value of financial instruments

Fair value and difference compared to the book value reported in the balance sheets as of December 31, 2016 and December 31, 2015 are as follows. Please note that for those items of which obtaining an estimates fair value is deemed to be extremely difficult, such differences are not shown (Please refer to Note 2).

		(Millions of yen)			
		Dec. 2016			
	Book value	Fair value	Difference		
(1) Cash and deposits	¥ 29,946	¥ 29,946	¥ —		
(2) Trade notes and accounts receivable	65,712	65,712	_		
(3) Short-term and long-term investment securities					
① Held-to-maturity debt securities	12,000	12,000	_		
② Other securities	4,612	4,612	_		
③ Securities issued by affiliated companies	5,764	53,056	47,292		
Assets	¥118,034	¥165,326	¥47,292		
(1) Trade notes and accounts payable	¥ 16,926	¥ 16,926	¥ —		
(2) Electronically recorded obligations	25,635	25,635	_		
(3) Short-term loans payable	5,648	5,648	_		
(4) Current position of long-term loans payable	146	146	_		
(5) Bonds payable	10,000	9,999	(1)		
(6) Long-term loans payable	1,202	1,202	0		
Liabilities	¥ 59,557	¥ 59,556	¥ (1)		
Derivatives	¥ 0	¥ 0	¥ —		

	(Millions of yen)			
	Mar. 2015			
	Book value	Fair value	Difference	
(1) Cash and deposits	¥ 22,068	¥ 22,068	¥ —	
(2) Trade notes and accounts receivable	59,751	59,751	_	
(3) Short-term and long-term investment securities				
① Held-to-maturity debt securities	13,000	13,000	_	
② Other securities	4,741	4,741	_	
③ Securities issued by affiliated companies	5,151	48,293	43,142	
Assets	¥104,711	¥147,853	¥43,142	
(1) Trade notes and accounts payable	¥ 38,643	¥ 38,643	¥ —	
(2) Short-term loans payable	5,257	5,257	_	
(3) Current position of Bonds payable	10,000	10,000	_	
(4) Current portion of long-term debt	77	77	_	
Liabilities	¥ 53,977	¥ 53,977	¥ —	
Derivatives	¥ 5	¥ 5	¥ —	

(Thousands of U.S. dollars)

	Dec. 2016			
	Book value	Fair value	Difference	
(1) Cash and deposits	\$ 257,067	\$ 257,067	\$ <b>—</b>	
(2) Trade notes and accounts receivable	564,102	564,102	_	
(3) Short-term and long-term investment securities				
① Held-to-maturity debt securities	103,013	103,013	_	
② Other securities	39,592	39,592	_	
③ Securities issued by affiliated companies	49,481	455,454	405,973	
Assets	\$1,013,255	\$1,419,228	\$405,973	
(1) Trade notes and accounts payable	\$ 145,300	\$ 145,300	\$ —	
(2) Electronically recorded obligations	220,065	220,065	_	
(3) Short-term loans payable	48,481	48,481	_	
(4) Current position of long-term loans payable	1,256	1,256	_	
(5) Bonds payable	85,844	85,836	(8)	
(6) Long-term loans payable	10,315	10,315	0	
Liabilities	\$ 511,261	\$ 511,253	\$ (8)	
Derivatives	\$ 4	\$ 4	\$ <b>—</b>	

Note: The value of assets and liabilities arising from derivatives is shown at net value.

Note1: Methods for computing the estimated fair value of financial instruments and securities and derivative transactions

#### **Assets**

- (1) Cash and deposits and (2) Trade notes and account receivable

  Since these items are settled in a short period of time and their fair values approximate their book values, the book value is used.
- (3) Short-term and long-term investment securities

  Stocks are valued at the exchange trading price. Bonds are valued at the exchange trading price or at the price provided by the financial institutions. For information on securities classified according to holding purposes, please refer to the note.6 "Securities" section of the notes to the financial statements.

#### Liabilities

- (1) Trade notes and accounts payable, (2) Electronically recorded obligations, (3) Short-term loans payable and (4) Current position of long-term loan payable

  Since these items are settled in a short period of time and their fair values approximate their book values, the book value is used.
- (5) Bonds payable

  Bonds payable is valued at the exchange trading price or at the price provided by the financial institutions.
- (6) Long-term loans payable

  The fair values of long-term bank loans are calculated based on the total present value of future principal and interests expenses discounted by the interest rates that would apply if similar borrowings were conducted anew.

#### Derivatives

Please refer to the note. 16 "Derivatives" section of the notes to the financial statements.

Note 2: Items for which obtaining an estimated fair value is deemed to be extremely difficult

	(Million:	(Thousands of U.S. dollars)	
	Dec. 2016	Dec. 2015	Dec. 2016
Items		Book value	
Unlisted stocks	¥ 172	¥ 158	\$ 1,477
Securities issued by affiliate companies	10,195	13,007	87,518

The unlisted stocks and securities issued by affiliate companies in the above table are not included in "(3) Short-term and long-term investment securities, Other securities and Securities issued by affiliated companies" because there is no fair value available.

Note 3: Scheduled redemption of monetary claims and short-term and long-term investment securities at December 31, 2016 and December 31, 2015.

	(Millions of yen)				
	Dec. 2016				
	Within 1 year	Over 1 year but within 5 years	Over 5 years but within 10 years	Over 10 years	
(1) Cash and deposits	¥ 29,946	¥—	¥—	¥—	
(2) Trade notes and account receivables	65,712	_	_	_	
(3) Short-term and long-term investment securities					
① Held-to-maturity debt securities					
Certificate of deposit	12,000	_	_	_	
Total	¥107,658	¥—	¥—	¥—	

	(Millions of yen)				
	Dec. 2015				
	Within 1 year	Over 1 year but within 5 years	Over 5 years but within 10 years	Over 10 years	
(1) Cash and deposits	¥22,068	¥—	¥—	¥—	
(2) Trade notes and account receivables	59,751	_	_	_	
(3) Short-term and long-term investment securities					
<ol> <li>Held-to-maturity debt securities</li> </ol>					
Certificate of deposit	13,000	_	_	_	
Total	¥94,819	¥—	¥—	¥—	

	(Thousands of U.S. dollars)				
	Dec. 2016				
	Within 1 year	Over 1 year but within 5 years	Over 5 years but within 10 years	Over 10 years	
(1) Cash and deposits	\$257,067	\$—	\$—	\$—	
(2) Trade notes and account receivables	564,102	_	_	_	
(3) Short-term and long term investment securities					
① Held-to-maturity debt securities					
Certificate of deposit	103,013	_	_	_	
Total	\$924,182	\$—	\$—	<b>\$</b> —	

Note 4: Maturities of bonds payable and long-term loans payable at December 31, 2016 and December 31, 2015.

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	Dec. 2016					
	Within 1 year	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years	Over 5 years
Bonds payable	¥ —	¥ —	¥ —	¥ —	¥10,000	¥ —
Long-term loans payable	146	102	162	144	144	649
Total	¥146	¥102	¥162	¥144	¥10,144	¥649

#### (Millions of yen)

		Dec. 2015					
	Within 1 year	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years	Over 5 years	
Bonds payable	¥10,000	¥—	¥—	¥—	¥—	¥—	
Long-term loans payable	77	_	_	_	_	_	
Total	¥10,077	¥—	¥—	¥—	¥—	¥—	

#### (Thousands of U.S. dollars)

	Dec. 2016						
	Within 1 year	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years	Over 5 years	
Bonds payable	\$ -	\$ —	\$ —	\$ —	\$85,844	\$ —	
Long-term loans payable	1,256	877	1,389	1,238	1,239	5,572	
Total	\$1,256	\$877	\$1,389	\$1,238	\$87,083	\$5,572	

#### 6. Securities

Information on securities at December 31, 2016 and December 31, 2015 are shown below.

The following tables summarize acquisition costs, book values and fair values of securities with available fair values as of December 31, 2016 and December 31, 2015:

(Held-to-maturity debt securities)

		(Millions of yen)		
		Dec. 2016		
Туре	Fair value	Book value	Difference	
Certificate of deposit	¥12,000	¥12,000	¥—	
Total	¥12,000	¥12,000	¥—	
		(Millions of yen)		
		(Millions of yen) Dec. 2015		
Туре			Difference	
Type Certificate of deposit	Fair value ¥13,000	Dec. 2015	Difference ¥—	

	[Thousands of U.S. dollars]		
		Dec. 2016	
Туре	Fair value	Book value	Difference
Certificate of deposit	\$103,013	\$103,013	<b>\$</b> —
Total	\$103,013	\$103,013	<b>\$</b> —

#### (Other securities)

(1) Securities with book values exceeding acquisition costs:

	(Millions of yen)  Dec. 2016		
Туре	Acquisition cost	Book value	Difference
Equity securities	¥1,707	¥4,542	¥2,835
Total	¥1,707	¥4,542	¥2,835

		(Millions of yen)		
		Dec. 2015		
	Туре	Acquisition cost	Book value	Difference
Equity securities		¥1,638	¥4,731	¥3,093
Total		¥1,638	¥4,731	¥3,093

	(The	(Thousands of U.S. dollars)			
	Dec. 2016				
Туре	Acquisition cost	Book value	Difference		
Equity securities	\$14,657	\$38,989	\$24,332		
Total	\$14,657	\$38,989	\$24,332		

#### (2) Securities with book values not exceeding acquisition costs:

		(Millions of yen)		
			Dec. 2016	
	Туре	Acquisition cost	Book value	Difference
Equity securities		¥74	¥70	¥(4)
Total		¥74	¥70	¥(4)

		(Millions of yen)		
			Dec. 2015	
	Туре	Acquisition cost	Book value	Difference
Equity securities		¥12	¥9	¥(3)
Total		¥12	¥9	¥(3)

		(Thousands of U.S. dollars)			
			Dec. 2016		
Ту	ре	Acquisition cost	Book value	Difference	
Equity securities		\$632	\$602	\$(30)	
Total		\$632	\$602	\$(30)	

The Companies recognize impairment loss on the securities, whose available fair values decline more than 50% of the carrying amount, based on the Japanese accounting standard for financial instruments and guidelines concerning the accounting for financial instruments.

Total sales of other securities and the related gain and loss for the year ended December 31, 2016 and nine-month period ended December 31, 2015 are as follows:

	(Millions of yen)		(Thousands of U.S. dollars)	
	Dec. 2016	Dec. 2015	Dec. 2016	
Sales of other securities	¥120	¥3,314	\$1,034	
Gain on sales of other securities	6	2,064	55	
Loss on sales of other securities	_	1	_	

#### 7. Inventories

Inventories at December 31, 2016 and December 31, 2015 consisted of the followings:

	(Millions of yen)		(Thousands of U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Finished goods	¥ 6,368	¥ 5,579	\$ 54,668
Works in process	14,325	11,622	122,975
Raw materials and supplies	11,926	11,221	102,376
Total inventories	¥32,619	¥28,422	\$280,019

#### 8. Long-term Debt

Long-term debt at December 31, 2016 and December 31, 2015 consisted of the followings:

	(Millions of yen)	(Thousands of U.S. dollars)
	Dec	. 2016
Loans, principally from banks		
due within 1year	¥ 146	\$ 1,256
due over 1 year but within 2 years	102	877
due over 2 years within 3 years	162	1,389
due over 3 years within than 4 years	144	1,238
due over 4 years within 5 years	144	1,238
due more than 5years	650	5,573
Straight bonds		
due more than 4 years, less than 5 years	10,000	85,844
Total	¥11,348	\$97,415
Less current portion	(146)	(1,256)
Long-term debt, net	¥11,202	\$96,159

	(Millions of yen)
	Dec. 2015
Loans, principally from banks	
due October 2016	¥ 77
Straight bonds	
due December 2016	10,000
Total	¥ 10,077
Less current portion	(10,077)
Long-term debt, net	¥ —

Maturities of long-term debt at the year-end are shown in "Note 5 Financial Instruments".

#### 9. Leases

#### (Operating leases)

Future minimum lease payments (including the interest portion thereon) subsequent to January 1, 2017 and January 1, 2016 under non-cancelable operating leases are summarized as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Under non-cancelable operating leases:			
Payments due within one year	¥363	¥167	\$3,114
Payments due after one year	538	530	4,620
Total	¥901	¥697	\$7,734

#### 10. Income Taxes and Deferred Income Taxes

#### (1) The details of the significant portion of the deferred tax assets and liabilities

The tax effects of temporary differences, which give rise to a significant portion of the deferred tax assets and liabilities at December 31, 2016 and December 31, 2015, are summarized as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Deferred tax assets:			
Liability for retirement benefit	¥ 2,756	¥ 2,105	\$ 23,658
Provision for directors' retirement benefits	81	45	697
Other accrued expenses	883	613	7,584
Loss on valuation of inventories	149	175	1,279
Accrued employees' bonuses	636	623	5,459
Net operating loss carry forwards	2,308	1,542	19,812
Allowance for doubtful receivables	32	19	272
Loss on valuation of investments in securities	6	8	53
Loss on valuation of investments in affiliates	132	174	1,131
Loss on valuation of golf club membership rights	56	58	481
Provision for product warranties	164	128	1,412
Provision for loss on order received	_	2	_
Impairment loss	501	528	4,300
Others	796	783	6,829
	8,500	6,803	72,967
Less valuation allowance	(2,925)	(2,333)	(25,112)
Total deferred tax assets	5,575	4,470	47,855
Deferred tax liabilities:			
Deferred taxation on government contributions for acquisition of property, plant and equipment	¥ 1,526	¥ 1,145	\$ 13,097
Valuation difference on other securities	921	1,000	7,909
Unrealized gains on real properties	971	_	8,334
Adjustments to taxable income from inventories	276	_	2,372
Adjustments to taxable income from investments	425	_	3,653
Effect of differences between tax rates in Japan and other countries on undistributed earnings of foreign subsidiaries	1,261	1,347	10,828
Others	244	723	2,095
Total deferred tax liabilities	5,624	4,215	48,288
Deferred tax assets (liabilities), net	¥ (49)	¥ 255	\$ (433)

#### (2) The details of the significant differences between the effective tax rates and the actual tax rates

The following table summarizes the significant differences between the effective tax rates and the actual tax rates for financial statements for the years ended December 31, 2016 and for the nine-month period ended December 31, 2015:

	Dec. 2016	Dec. 2015
Effective tax rate	33.1%	33.1%
Different tax rates applied to consolidated overseas subsidiaries	(1.2)	0.3
Unrecognized tax benefits from losses of subsidiaries	2.7	5.7
Changes in valuation allowances	(1.1)	3.4
Non-deductible expenses for tax purpose such as meals and entertainment, etc.	0.9	0.4
Per capita inhabitant tax	0.3	0.4
Equity in earnings of affiliates	(1.4)	(3.7)
Tax credit for R&D costs	(1.8)	(2.7)
Foreign tax credit	(0.1)	(0.2)
Tax credit for salary growth	_	(1.6)
Amortization of goodwill	1.2	3.5
Decrease in deferred tax assets resulting from changes in the statutory tax rates	0.3	_
Transfer of retained loss from merged subsidiary	[1.9]	_
Others	0.5	(1.2)
Actual tax rate	31.5%	37.4%

#### (3) The reestimation of the deferred tax assets and liabilities by the change in statutory income taxes

On March 29, 2016, amendments to the Japanese tax regulations were enacted into law. Based on the amendments, the statutory income tax rates utilized for the measurement of deferred tax assets and liabilities expected to be settled or realized from January 1, 2017 to December 31, 2018 and on or after January 1, 2019 were changed from 32.3%to 30.9% and 30.6%, respectively, as of December 31, 2016.

Due to these changes in statutory income tax rates, net deferred tax assets (after deducting deferred tax liabilities) decreased by 49 million yen, net unrealized gains on securities increased by 46 million yen, remeasurement of defined benefit plans decreased by 12 million yen as of December 31, 2016 and deferred income tax expense recognized for the fiscal year ended December 31, 2016 increased by 82 million yen.

#### 11. Business Combinations

Business combinations resulting from acquisitions during the year ended December 31, 2016

#### (1) Outlines of the transaction

(a) Name and business of acquired companyNABCO Systems Co., Ltd.Sale, design, construction and maintenance of automatic doors

#### (b) Purpose of the acquisition

The Company has decided to acquire additional shares in NABCO Systems, which is currently an equity-method affiliate and became a consolidated subsidiary, with a view to further strengthening the business relationship between the two companies and accelerating the movement of unification of value chains across the country. Based on the view that such measures will contribute to the further development of the automatic doors business, the agreement that shares in NABCO Systems Co., Ltd. will be transferred to the Company was agreed between the Company and Mr. Taizo Yamamura, as a major shareholder of NABCO Systems Co., Ltd., Taiei Limited Liability Company, of which Mr. Taizo Yamamura is a major shareholder, and six other companies.

# (c) Effective date of the business combination April 1, 2016

- (d) Legal form of the business combination Share Acquisition
- (e) Name of the company after the business combination NABCO Systems Co., Ltd.

#### (f) Share of the voting rights acquired

Before the acquisition 37.9% Additional acquisition 48.0% After the acquisition 85.9%

(g) Description of how the Company obtained control of acquired company The Company acquired shares by cash.

# (2) Period of operation of the acquired company included in the accompanying consolidated financial statements From April 1, 2016 to December 31, 2016

#### (3) The details of the consideration of the acquired company

	(Millions of yen)	U.S. dollars)
	Dec.	2016
Fair value of shares acquired prior to the date of the business combination	¥3,184	\$27,333
Fair value of shares acquired on the date of the business combination	3,681	31,596
The total of the consideration	¥6,865	\$58,929

(Thousands of

#### (4) Acquisition cost

Advisory cost 51 million yen (439 thousand U.S. dollars)

#### (5) Difference of total value of acquisition and individual acquisition costs

Gain on step acquisition 786 million yen (6,751 thousand U.S. dollars)

#### (6) Negative goodwill and the reason for recognizing native goodwill

- (a) Negative goodwill 353 million yen (3,029 thousand U.S. dollars)
- (b) The reason of the recognition

The Company recognized the difference between the consideration and the assets and liabilities of the acquired company as the negative goodwill.

#### (7) Assets and liabilities of the acquired company as of the date of the business combination

	(Millions of yen)	(Thousands of U.S. dollars)
	Dec.	2016
Current assets	12,483	107,156
Non-current assets	7,460	64,042
Total assets	19,943	171,198
Current liabilities	8,525	73,186
Non-current liabilities	2,848	24,447
Total liabilities	11,373	97,633

# (8) Estimated impact on the consolidated financial results if the business combination had been completed at the beginning of the fiscal year (January 1, 2016)

Sales 4,956 million yen (42,545 thousand of U.S. dollars)

The estimated sales above was calculated based on the difference between the assumption that the business combination was completed at the beginning of the fiscal year and the acquired company's sales on the consolidated statement of income.

The estimated impact has not been audited by the Company's independent auditor.

#### 12. Net Assets

Under the Japanese Corporate Law, upon issuance of common stock, the entire amount of the issue price is required to be accounted for as common stock, although companies may, by resolution of the Board of Directors, account for an amount not exceeding one-half of the issue price of the new shares as additional paid-in capital, which is included in capital surplus.

Under the Japanese Corporate Law, in cases where dividend distribution of surplus is made, the smaller of an amount equal to 10% of the dividend or the excess, if any, of 25% of common stock over the total of additional paid-in-capital and legal earnings reserve must be set aside as additional paid-in-capital or legal earnings reserve. Legal earnings reserve is included in retained earnings in the accompanying consolidated balance sheets.

Under the Japanese Corporate Law, legal earnings reserve and additional paid-in capital could be used to eliminate or reduce a deficit by a resolution of the shareholders' meeting.

Additional paid-in capital and legal earnings reserve may not be distributed as dividends. Under the Japanese Corporate Law, however, all additional paid-in-capital and all legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends.

The maximum amount that the Company can distribute as dividends is calculated based on the non-consolidated financial statements of the Company in accordance with the Japanese Corporate Law.

#### 13. Employee's Severance and Retirement Benefits

The liabilities for severance and retirement benefits included in the liability section of the consolidated balance sheets as of December 31, 2016 are consisted of the followings:

Retirement benefit obligations

#### (1) Movement in retirement benefit obligations, except for the plan applying the simplified method

	(Millions of yen)		(Thousands of U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Balance at the beginning of the period	¥21,804	¥20,120	\$187,178
Service cost	1,994	1,303	17,116
Interest cost	195	221	1,673
Actuarial loss	931	195	7,996
Benefits paid	(507)	(258)	(4,352)
Past service cost	(697)	5	(5,981)
Increase through business combinations	4,370	288	37,512
Effect of change from simplified method	696	_	5,972
Decrease by the end of plan	(354)	_	(3,042)
The effect of changes in foreign exchange rates	(893)	(69)	(7,668)
Balance at the end of the period	¥27,539	¥21,805	\$236,404

#### (2) Movement in plan assets, except for the plan applying the simplified method

	(Millions of yen)		(Thousands of U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Balance at the beginning of the period	¥15,691	¥14,661	\$134,701
Expected return on plan assets	144	187	1,240
Actuarial loss (gain)	20	(42)	169
Contributions by the employer	697	439	5,987
Contributions by the employee	380	513	3,266
Benefits paid	(169)	(1)	[1,447]
Increase through business combinations	2,888	_	24,793
The effect of changes in foreign exchange rates	(868)	(66)	(7,472)
Balance at the end of the period	¥18,783	¥15,691	\$161,237

#### (3) Movement in liability for retirement benefits plan applying the simplified method

	(Millions of yen)		(Thousands of U.S. dollars)	
	Dec. 2016	Dec. 2015	Dec. 2016	
Balance at the beginning of the period	¥1,022	¥ 997	\$ 8,774	
Retirement benefit costs	138	128	1,185	
Benefits paid	(57)	(74)	(494)	
Contributions to the plans	_	(26)	_	
Effect of change into principle method	(696)	_	(5,972)	
The effect of changes in foreign exchange rates	3	(2)	24	
Balance at the end of the period	¥ 410	¥1,023	\$ 3,517	

# (4) Reconciliation from retirement benefit obligations and plan assets to liability (asset) for retirement benefits

	(Millions of yen)		(Thousands of U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Funded retirement benefit obligations	¥ 20,289	¥ 15,871	\$ 174,173
Plan assets	(18,783)	(15,691)	(161,237)
	1,506	180	12,936
Unfunded retirement benefit obligations	7,660	6,955	65,747
Total Net liability (asset) for retirement benefits at the end of the period	9,166	7,135	78,683
Liability for retirement benefits	9,343	7,340	80,205
Asset for retirement benefits	(177)	(205)	(1,522)
Total Net liability (asset) for retirement benefits at the end of the period	¥ 9,166	¥ 7,135	\$ 78,683

## (5) Retirement benefit costs

	(Millions of yen)		(Thousands of U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Service cost, excluding contributions by employees	¥1,613	¥ 790	\$13,849
Interest cost	195	221	1,673
Expected return on plan assets	(144)	(187)	(1,240)
Net actuarial loss amortization	46	(437)	392
Past service costs amortization	(697)	5	(5,981)
Retirement benefit costs calculated by the simplified method	138	128	1,185
Total retirement benefit costs at the end of the period	¥1,151	¥ 520	\$ 9,878

# (6) Remeasurements of defined benefit plans (before tax effects)

	(Millions of yen)		(Thousands of U.S. dollars)	
	Dec. 2016	Dec. 2015	Dec. 2016	
Actuarial gains and losses	¥867	¥674	\$7,443	
Total	¥867	¥674	\$7,443	

# (7) Cumulative remeasurements of defined benefit plans (before tax effects)

	(Millions of yen)		(Thousands of U.S. dollars)	
	Dec. 2016	Dec. 2015	Dec. 2016	
Actuarial losses that are yet to be recognized	¥1,858	¥992	\$15,953	
Total	¥1,858	¥992	\$15,953	

### (8) Plan assets

### 1. Plan assets comprise:

	Dec. 2016	Dec. 2015
Bonds	42%	50%
Equity securities	27%	34%
Cash and deposits	4%	4%
Others	27%	12%
Total	100%	100%

## 2. Long-term expected rate of return

Current and target asset allocations, historical and expected returns on various categories of plan assets have been considered in determining the long-term expected rate of return.

## (9) Actuarial assumptions

The principal actuarial assumptions at December 31, 2016 and December 31, 2015 (expressed as weighted averages) are as follows:

	Dec. 2016	Dec. 2015
Discount rate:	0.5%—1.1%	0.8%-1.1%
Long-term expected rate of return:	0.5%—1.1%	0.8%-1.1%

# 3. Defined contribution plan

(Retirement benefit costs)

	(Millions of yen)		(Thousands of U.S. dollars)	
	Dec. 2016	Dec. 2015	Dec. 2016	
Contributions to a defined contribution plan	¥1,085	¥799	\$9,314	

# 14. Research and Development Costs

Research and development costs included cost of sales and selling, general and administrative expenses for the years ended December 31, 2016 and the nine-month period ended December 31, 2015, amount to ¥7,362 million (\$63,199 thousand) and ¥5,800 million, respectively.

# 15. Other Comprehensive Income

Amounts reclassified to net income in the current period that are recognized in other comprehensive income in the current or previous periods and tax effects for each component of other comprehensive income are as follows:

	(Million	(Millions of yen)	
	Dec. 2016	Dec. 2015	Dec. 2016
Valuation difference on other securities			
Increase (decrease) during the year	¥ (226)	¥ 94	\$ (1,937)
Reclassification adjustments	(6)	(2,064)	(55)
Sub-total, before tax	(232)	(1,970)	(1,992)
Tax effect	95	702	816
Sub-total, net of tax	(137)	(1,268)	(1,176)
Deferred gains or losses on hedges			
Increase during the year	0	5	4
Reclassification adjustments	(5)	4	(47)
Sub-total, before tax	(5)	9	(43)
Tax effect	2	(3)	16
Sub-total, net of tax	(3)	6	(27)
Foreign currency translation adjustments			
Decrease during the year	(3,579)	(1,772)	(30,727)
Remeasurements of defined benefit plans			
Adjustments arising during the year	(913)	(241)	(7,835)
Reclassification adjustments to profit or loss	46	(432)	392
Sub-total, before tax	(867)	(673)	(7,443)
Tax effect	226	151	1,942
Sub-total, net of tax	(641)	(522)	(5,501)
Share of other comprehensive income of associates accounted for using equity method			
Decrease during the year	(111)	(67)	(952)
Total other comprehensive income	¥(4,471)	¥(3,623)	\$(38,383)
Total other comprehensive income	T(+,+/1)	T(U,UZU)	ψ(30,303)

### 16. Derivative Financial Instruments

According to the accounting standards for derivative financial instruments, forward foreign exchange contracts which qualify for hedge accounting and such amounts of which are assigned to hedged assets or liabilities and are recorded on the balance sheets at December 31, 2016 and December 31, 2015, are not subject to disclosure of market value information.

There is no derivative financial instrument, for which hedge accounting is not applied, and therefore there is no derivative financial instrument subject to disclosure of market value information as of December 31, 2016 and December 31, 2015.

# (Foreign exchange forward contracts)

Derivative financial instruments for which hedge accounting is applied as of December 31, 2016 are as follows:

				(Millions of yen)	
Hedge accounting method	Type of derivative, etc	Main hedged items	Contract amount	Portion over 1 year	Fair value
Deferral hedge method	Foreign exchange forward contract Sold option U.S. dollars	Trade notes and account receivable	¥47	¥—	¥0
				Thousands of U.S. dollars	

			rs)		
Hedge accounting method	Type of derivative, etc	Main hedged items	Contract amount	Portion over 1 year	Fair value
Deferral hedge method	Foreign exchange forward contract Sold option U.S. dollars	Trade notes and account receivable	\$400	\$—	\$4

Note 1: Fair values are stated at the price provided by financial institutions etc.

Derivative financial instruments for which hedge accounting are applied as of December 31, 2015 are as follows:

			(Millions of yen)		
Hedge accounting method	Type of derivative, etc	Main hedged items	Contract amount	Portion over 1 year	Fair value
Deferral hedge method	Foreign exchange forward contract Sold option U.S. dollars	Trade notes and account receivable	¥293	¥—	¥5
Allocation method	Foreign exchange forward contract Sold option U.S. dollars	Trade notes and account receivable	1,657	_	Note 2

Notes 1: Fair values are stated at the price provided by financial institutions etc.

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<sup>2:</sup> Since amounts in foreign currency forward contracts treated by the allocation method are handled together with accounts receivable that are subject to hedging, the estimated fair value of such accounts receivable is shown as the estimated fair value in the table above.

# 17. Earnings per Share

Earnings per share for the year ended December 31, 2016 and the nine-month period ended December 31, 2015 are as follows.

	(Million	(Millions of yen)	
	Dec. 2016	Dec. 2015	Dec. 2016
Basic earnings per share			
Net income attributable to owner of parent	¥ 17,585	¥ 11,059	\$150,957
Weighted average number of shares issued (thousands)	123,518	124,471	123,518
	(Y	(en)	(U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Basic earnings per share	¥142.37	¥88.85	\$1.22
	Dec. 2016	Dec. 2015	Dec. 2016
Diluted earnings per share			
Increase in common shares (thousands)			
Stock option rights	213	144	213
	(Y	(en)	(U.S. dollars)
	Dec. 2016	Dec. 2015	Dec. 2016
Diluted earnings per share	¥142.12	¥88.75	\$1.22

# 18. Stock Based Compensation Plan

# (1) Stock based compensation plans as of December 31, 2016 are as follows.

	Share subscription rights-1	Share subscription rights-2	Share subscription rights-3	Share subscription rights-4	Share subscription rights-5
Date of grant	July 30, 2009	July 30, 2010	July 29, 2011	July 31, 2012	July 31, 2013
Number of shares granted	Common stock 99,000	Common stock 70,000	Common stock 70,000	Common stock 77,700	Common stock 64,500
Grantee	Directors and corporate officer of the Companies				
Exercisable period	August 22, 2009 through August 21, 2034	August 21, 2010 through August 20, 2035	August 20, 2011 through August 19, 2036	August 21, 2012 through August 20, 2037	August 21, 2013 through August 20, 2038
Outstanding at the end of the fiscal year (shares)	12,000	9,000	28,600	32,300	36,000

	Share subscription rights-6	Share subscription rights-7	Share subscription rights-8	Share subscription rights-9
Date of grant	July 31, 2014	May 28, 2015	July 31, 2015	April 28, 2016
Number of shares granted	Common stock 55,500	Common stock 3,000	Common stock 29,300	Common stock 53,000
Grantee	Directors and corporate officer of the Companies			
Exercisable period	August 21, 2014 through August 20, 2039	June 15, 2018 through June 14, 2025	August 21, 2015 through August 20, 2040	May 21, 2016 through May 20, 2041
Outstanding at the end of the fiscal year (shares)	34,000	3,000	25,300	53,000

## Price information

Date of grant	July 30, 2009	July 30, 2010	July 29, 2011	July 31, 2012	July 31, 2013	July 31, 2014
Exercise price	¥ 1	¥ 1	¥ 1	¥ 1	¥ 1	¥ 1
Average stock price upon exercise	¥2,327	¥2,327	¥2,327	¥2,327	¥2,327	¥2,327
Fair value at grant date	¥1,026	¥1,285	¥1,529	¥1,393	¥1,978	¥2,241

Date of grant	May 28, 2015	July 31, 2015	April 28, 2016
Exercise price	¥ 1	¥ 1	¥ 1
Average stock price upon exercise	¥ –	¥2,327	¥ —
Fair value at grant date	¥2,980	¥2,420	¥2,564

### (2) Valuation technique used for estimating fair value of stock option granted in the fiscal year

(April 28, 2016)

Valuation technique: Black-Scholes option-pricing model Principal parameters used in the option-pricing model:

Expected volatility	32.272 %	Calculated based on the actual stock prices from May 12, 2013 to May 20, 2016.
Average expected period	3.002 years	It is estimated assuming that the options were exercised at the midpoint of the exercise period.
Expected dividends	¥44 per share	Expected dividends are based on the actual dividends for the fiscal Year ended December 31, 2015.
Risk-free interest rate	-0.223%	Japanese government bond yield corresponding to the average expected period

## (3) Method of estimating number of stock option vested

Only the actual number of forfeited stock option is reflected since a reasonable estimate is not possible.

## 19. Investment and Rental Property

Information about fair value of investment and rental property included in the consolidated financial statements at December 31, 2016 and December 31, 2015 are as follows:

	(Millions of yen)			
	Book value as of January 1, 2016	Increase/(decrease)	Book value as of December 31, 2016	Fair value as of December 31, 2016
Purpose of use				
Rental property	¥2,877	¥ 1,369	¥4,246	¥6,693
Idle property	321	(321)	_	_
Total	¥3,198	¥1,048	¥4,246	¥6,693

	(Thousands of U.S. dollars)			
	Book value as of January 1, 2016	Increase/(decrease)	Book value as of December 31, 2016	Fair value as of December 31, 2016
Purpose of use				
Rental property	\$24,699	\$11,754	\$36,453	\$57,453
Idle property	2,759	(2,759)	_	_
Total	\$27,458	\$ 8,995	\$36,453	\$57,453

Notes 1: The book value of each property on the balance sheet is its acquisition cost less accumulated depreciation.

<sup>2:</sup> Main rental properties are rental land and building in Tokyo, land in Kobe and land and building in Ehime prefecture.

<sup>3:</sup> Increase is mainly the rental property of NABCO Systems, which was purchased as a subsidiary on April 1, 2016 and decrease is mainly a sale of the land where old Yokohama factory once stood in Kanagawa prefecture.

<sup>4:</sup> Fair value of property as of December 31, 2016 is primarily calculated based on real estate appraisal standards provided by the external licensed appraiser.

		(Millions of yen)			
	Book value as of April 1, 2015	Increase/(decrease)	Book value as of December 31, 2015	Fair value as of December 31, 2015	
Purpose of use					
Rental property	¥3,899	¥(1,022)	¥2,877	¥5,224	
Idle property	321	_	321	989	
Total	¥4,220	¥(1,022)	¥3,198	¥6,213	

Notes 1: The book value of each property on the balance sheet is its acquisition cost less accumulated depreciation.

- 2: Main rental properties are rental building in Tokyo, land in Kobe and land and building in Ehime prefecture.
- 3: Main idle properties are vacant land of the old Yokosuka factory in Kanagawa prefecture.
- 4: Decrease is mainly a sale of a rental building in Tokyo.
- 5: Fair value of property as of December 31, 2015 is primarily calculated based on real estate appraisal standards provided by the external licensed appraiser.

Revenue and expense related to investment and rental property are as follows:

[Mil	linns	of VA	nl

Dec. 2016					
Rental revenues	Rental expenses	Net	Other expenses		
¥434	¥183	¥251	¥10		

	(Millions of yen)					
	Dec. 2015					
Rental revenues	Rental expenses	Net	Other expenses			
¥259	¥153	¥107	¥10			

#### (Thousands of U.S. dollars)

Dec. 2016					
Rental revenues	Rental expenses	Net	Other expenses		
\$3,725	\$1,573	\$2,152	\$83		

Notes 1: Rental expenses are mainly depreciation, repair, insurance, tax and dues related to the rental properties.

## 20. Impairment loss

The Companies recognized impairment loss on fixed assets for the following subsidiary for the nine-month period ended December 31, 2015.

CGU	Location	Nature of the asset		(Millions of yen)
Shanghai Nabtesco Hydraulic Co., Ltd.			Buildings and structures	¥ 410
	Shanghai,	Doodystian	Machinery and equipment	1,649
	China	Production	Others	52
			Total	¥2,111

The Company classified an in-house company in the Company and each subsidiary as a CGU. Hydraulic equipment business has been affected by the sluggish market condition in China in this fiscal period. As a result, the subsidiary recognized impairment loss for its fixed assets to a recoverable amount and recorded the impairment loss in extraordinary loss. The recoverable amount was calculated based on a value in use. The future cash flow was discounted by interest rate of 14.0%.

<sup>2:</sup> Other expenses are mainly depreciation, repair, insurance, tax and dues related to the idle properties.

## 21. Business structure improvement expenses

The business structure improvement expenses include mainly loss on disposal of property, plant and equipment and property relocation expenses due to production reorganization in Oil hydraulic equipment business for the nine-month period ended December 31, 2015.

## 22. Segment Information

## (1) General information about reportable segments

Reportable segments are components of the Companies for which discrete financial information is available, and whose operating results are reviewed regularly by the board of directors to make decisions about resources to the segment and assess performance.

The Companies manufacture and sale products based on motion control technology and their segments are divided into four reportable segments, "Precision Equipment", "Transport Equipment", "Aircraft and Oil Hydraulic Equipment" and "Industrial Equipment".

Main products and main industries of each reportable segment are as follows:

Segment	Main products	Main industries
Precision Equipment	High precision reducers and actuators, wafer transfer unit, vacuum pumps, vacuum valves, vacuum devices, rapid prototyping systems, solar tracking equipments and actuation units for wind turbine	ndustrial robots, machine tools, factory automation systems, electronic devices, semiconductor manufacturing equipment automobiles and home electronic appliances
Transport Equipment	Automatic door drive unit, automobile air brake system, automatic testing and training equipment, remote control systems for marine vessels.	Railway vehicle, automobile and marine vessels
Aircraft and Oil Hydraulic Equipment	Flight control systems, various types of actuators, oil hydraulic drive motors, and various types of motors for winches	Aircraft, space, construction equipment, agricultural and other vehicles
Industrial Equipment	Automatic door systems, prosthetic products, automatic measuring and packing machines, multi-forming machines and constant velocity joint processing machines	Building and general industry, welfare, food, medicine, cleaning material, chemicals, precision equipment, automobiles, and home electronic appliances

# (2) Basis of measurement for reportable segment profit or loss, segment assets, segment liabilities and other material items

The basis of measurement for reportable segment profit or loss, segment assets, segment liabilities and other material items is basically consistent with the description in "Summary of significant accounting policies". Intersegment transactions are based on current market prices.

(3) Information about reportable segment profit or loss, segment assets, segment liabilities and other material items Reportable segment information as of and for the fiscal year ended December 31, 2016 and the nine-month period December 31, 2015 is as follows:

				(Millions of yen)						
	Dec. 2016									
	Precision	Transport	Aircraft and Oil Hydraulic	Industrial	Tatal	Adiustosant	Canadidated			
Sales	Equipment	Equipment	Equipment	Equipment	Total	Adjustment	Consolidated			
External sales	¥56,932	¥61,075	¥47,806	¥78,806	¥244,619	¥ —	¥244,619			
Intersegment sales	148	293	3,109	142	3,692	(3,692)	_			
Total sales	57,080	61,368	50,915	78,948	248,311	(3,692)	244,619			
Operating income or loss	8,617	10,336	(27)	4,546	23,472	_	23,472			
Total assets	43,780	47,597	52,916	84,442	228,735	30,221	258,946			
Total liabilities	18,021	15,800	14,516	29,673	78,010	22,415	100,425			
Depreciation	1,788	1,472	2,036	1,401	6,697	710	7,407			
Amortization of goodwill	32	30	356	1,006	1,424	_	1,424			
Capital expenditures	4,328	1,935	4,697	3,114	14,074	456	14,530			

	(Millions of yen)									
	Dec. 2015									
	5	<b>-</b>	Aircraft and Oil							
	Precision Equipment	Transport Equipment	Hydraulic Equipment	Industrial Equipment	Total	Adjustment	Consolidated			
Sales										
External sales	¥45,328	¥46,849	¥39,524	¥55,300	¥187,001	¥ —	¥187,001			
Intersegment sales	67	222	1,244	271	1,804	(1,804)	_			
Total sales	45,395	47,071	40,768	55,571	188,805	(1,804)	187,001			
Operating income or loss	6,824	7,891	(2,030)	2,610	15,295	_	15,295			
Total assets	52,197	41,922	48,376	64,410	206,905	26,476	233,381			
Total liabilities	17,926	14,061	13,467	19,631	65,085	19,372	84,457			
Depreciation	1,068	1,179	2,457	1,200	5,904	460	6,364			
Amortization of goodwill	_	_	267	1,341	1,608	_	1,608			
Capital expenditures	3,556	1,229	1,650	1,661	8,096	887	8,983			

				Dec. 2016			
	Precision Equipment	Transport Equipment	Aircraft and Oil Hydraulic Equipment	Industrial Equipment	Total	Adjustment	Consolidated
Sales							
External sales	\$488,726	\$524,290	\$410,391	\$676,506	\$2,099,913	\$ <b>—</b>	\$2,099,913
Intersegment sales	1,271	2,518	26,685	1,214	31,688	(31,688)	_
Total sales	489,997	526,808	437,076	677,720	2,131,601	(31,688)	2,099,913
Operating income or loss	73,968	88,728	(229)	39,027	201,494	_	201,494
Total assets	375,823	408,597	454,254	724,888	1,963,562	259,345	2,222,907
Total liabilities	154,696	135,633	124,618	254,731	669,678	192,416	862,094
Depreciation	15,352	12,635	17,475	12,028	57,490	6,091	63,581
Amortization of goodwill	270	257	3,057	8,643	12,227	_	12,227
Gain on negative goodwill	_	_	_	(3,029)	(3,029)	_	(3,029)
Capital expenditures	37,156	16,615	40,323	26,731	120,825	3,915	124,740

Notes: Adjustment is referred to below:

- (1) Adjustment of intersegment sales represents elimination of intersegment transactions.
  (2) Adjustment of total assets primarily represents corporate assets.
  (3) Adjustment of total liabilities primarily represents corporate liabilities.
  (4) Adjustment of capital expenditures represents capital expenditures of corporate assets.

### (Related information)

## (1) Information about products and services

Since the segments of products and services are the same as the reportable segments, information by products or services is omitted.

## (2) Information by geographical area

Information by geographical area for the fiscal year ended December 31, 2016 and December 31, 2015 is as follows:

(Note) Sales are divided into country and region based on the locations of the customers.

(Millions of y	en)
----------------	-----

				Dec. 2016			
	Japan	China	Asia (Others)	North America	Europe	Other areas	Total
Sales	¥141,412	¥27,837	¥16,779	¥20,706	¥37,229	¥656	¥244,619
Property, Plant and equipment	54,567	6,446	1,734	2,080	2,996	_	67,823

### (Millions of yen)

	Dec. 2015									
	Japan	China	Asia (Others)	North America	Europe	Other areas	Total			
Sales	¥93,550	¥19,111	¥16,875	¥21,471	¥35,107	¥887	¥187,001			
Property, Plant and equipment	42,815	6,484	2,014	2,179	2,424	_	55,916			

## (Thousands of U.S. dollars)

	Dec. 2016									
	Japan	China	Asia (Others)	North America	Europe	Other areas	Total			
Sales	\$1,213,940	\$238,968	\$144,035	\$177,751	\$319,591	\$5,628	\$2,099,913			
Property, Plant and equipment	468,426	55,334	14,888	17,853	25,720	_	582,221			

### (3) Information about major customers

Information about major customers is omitted, since there is no major customer that makes up more than 10% of consolidated net sales.

## (Information about impairment loss in reportable segments)

Information on impairment loss in reportable segments for the nine-month period ended December 31, 2015 is as follows:

		(Millions of yen)									
		Dec. 2015									
	Precision Equipment	Transport Equipment	Aircraft and Oil Hydraulic Equipment	Industrial Equipment	Total	Adjustment	Consolidated				
Impairment loss	¥—	¥—	¥2,111	¥—	¥2,111	¥—	¥2,111				

## (Information about goodwill in reportable segments)

Information on amortization of goodwill and unamortized balance in reportable segments for the fiscal year ended December 31, 2016 and December 31, 2015 is as follows:

	[Millions of yen]								
	Dec. 2016								
	Precision Equipment	Transport Equipment	Aircraft and Oil Hydraulic Equipment	Industrial equipment	Eliminations and General Corporate	Total			
Goodwill									
Amortization	¥32	¥30	¥ 356	¥ 1,006	¥—	¥ 1,424			
Balance at year-end	_	_	2,225	14,806	_	17,031			

		(Millions of yen) Dec. 2015							
	Precision Equipment	Transport Equipment	Aircraft and Oil Hydraulic Equipment	Industrial equipment	Eliminations and General Corporate	Total			
Goodwill									
Amortization	¥—	¥—	¥ 267	¥ 1,341	¥—	¥ 1,608			
Balance at year-end	_	_	2,581	16,843	_	19,424			

	(Thousands of U.S. dollars)  Dec. 2016						
	Precision Equipment	Transport Equipment	Aircraft and Oil Hydraulic Equipment	Industrial equipment	Eliminations and General Corporate	Total	
Goodwill							
Amortization	\$270	\$257	\$ 3,057	\$ 8,643	<b>\$</b> —	\$ 12,227	
Balance at year-end	_	_	19,105	127,100	_	146,205	

# (Information about negative goodwill in reportable segments)

The Company purchased NABCO Systems as a part of Industrial Equipment segment on April 1, 2016. As a result, the Company recognized negative goodwill ¥353 million (\$3,029 thousand) for the year ended December 31, 2016.

## 23. Appropriation of retained earnings

The following appropriation of retained earnings on a non-consolidated basis, which has not been reflected in accompanying consolidated financial statements, was approved at the general shareholders' meeting held on March 28, 2017:

	(Millions of yen)	(Thousands of U.S. dollars)
Cash dividends (¥26 (= \$0.22) per share)	¥3,229	\$27,718

## 24. Subsequent events

The Company acquired 100% of the shares of OVALO GmbH on March 1, 2017.

### (1) Outlines of the transaction

- (a) Name and business of acquired company
  - OVALO GmbH
  - Development, manufacturing, and Sale system products with the wave gears for the automobile industry.
- (b) Purpose of the acquisition
  - The Company decided this acquisition to ensure the European market and to accelerate development of mechatronics systems.
- (c) Effective date of the business combination

March 1, 2017

- (d) Legal form of the business combination
  - Share Acquisition by cash
- (e) Name of the company after the business combination OVALO GmbH
- (f) Share of the voting rights acquired
  - 100%
- (g) Main reason determining the acquiring company The Company acquired by the cash.

## (2) The details of the consideration of the acquired company

( <del>-,</del>	(Thousands of EUR)
Consideration given (Cash)	€82,000*
Consideration received	82,000

 $<sup>{}^{*}\</sup>mathsf{This}$  figure includes the amount of the loan from its previous parent company.

# (3) Acquisition cost

Not yet settled on the reporting date.

(4) Goodwill and the reason for recognizing goodwill

Not yet settled on the reporting date.

(5) Assets and liabilities of the acquired company as of the date of the business combination

Not yet settled on the reporting date

### **Independent Auditor's Report**

To the Board of Directors of Nabtesco Corporation:

We have audited the accompanying consolidated financial statements of Nabtesco Corporation and its consolidated subsidiaries, which comprise the consolidated balance sheets as at December 31, 2016 and 2015, and the consolidated statements of income, statements of comprehensive income, statements of changes in net assets and statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

### Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatements, whether due to fraud or error.

### **Auditor's Responsibility**

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Nabtesco Corporation and its consolidated subsidiaries as at December 31, 2016 and 2015, and their financial performance and cash flows for the years then ended in accordance with accounting principles generally accepted in Japan.

## **Emphasis of Matter**

Without qualifying our opinion, we draw attention to the below Note to the consolidated financial statements,

1. As stated in the note of subsequent events, the Company acquired 100% of the shares of OVALO GmbH on March 1, 2017.

### **Convenience Translation**

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 2016 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 to the consolidated financial statements.

KPMG AZSA LLC

May 12, 2017 Tokyo, Japan

