A Company Contributing to the Advancement of Society with No. 1 and Only One Monozukuri

JTEKT was born in January 2006 through a merger of Koyo Seiko and Toyoda Machine Works. Blending the passion for innovation and Monozukuri at Koyo Seiko with the world-class manufacturing capability at Toyoda Machine Works, JTEKT has evolved into a global company featuring a myriad of "No. 1 and Only One" technologies in automotive steering systems, driveline, and engine components, as well as bearings, machine tools, and mechatronics.

FY2017 was a year in which we laid the foundations for steady growth through initiatives aimed at strengthening existing businesses such as promoting M&A and newly establishing production bases in the Kingdom of Morocco, Africa.

It was also a year of great accomplishments, such as our announcement of the lithium ion capacitor as a new area.

Orientation of this report
This report was created as a main tool for interacting with our shareholders. It unites both financial and non-financial information to convey the JTEKT approach to creating value, from a long-term perspective.

* Renewal period differs according to each interactive tool, and therefore their respective target periods for renewal may vary.

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EXECUTIVE SUMMARY
03 JTEKT synergy
05 New value created in FY2017
07 FY2017 management results
09 Financial / Non-financial highlights
11 HISTORY

The way of thinking by JTEKT
13 Set of Guiding Principles
15 JTEKT GROUP VISION
17 Value Creation Model

SHAPING A BETTER FUTURE
19 Top Message
27 Officer panel discussion (Building Value and Building Excellent Products for JTEKT)
31 Officer panel discussion (Building Excellent Products and Building Professionals to achieve sustainable growth)
35 Steering business
37 Driveline business
39 Bearing business
41 Machine Tools & Mechatronics business
43 Interview with global overseas officers

WITH SOCIETY
45 Summary
47 Environment
49 Social
53 Governance
57 Outside director interview

59 Management
61 Financial data, Non-financial data
63 Group companies
65 Company and stock information

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Target period: April 2017 - March 2018
Target organizations and scope: All activities of the JTEKT group

For items for which there is no criteria uniform across the JTEKT group, the unconsolidated results of JTEKT are displayed. As a general rule, if there are changes in the tallying scope, we revise data dating back to the past.

Reference guidelines
• IIRC (International Integrated Reporting Council) framework
• Corporate governance code
• The 4th edition of Sustainability Reporting Guidelines (G4 Guidelines)
• ISO26000 (International Standard for corporate responsibility)
JTEKT - KOYO - TOYODA Three brands combined to create synergistic strengths for supporting society in diverse industries including automotive components, steel production, railways, aviation / aerospace, construction equipment, agricultural machinery and wind power generation.

* JTEKT is the brand name of JTEKT Corporation’s automotive components (steering and driveline components).
* Koyo is the brand name of JTEKT Corporation’s bearings (including oil seals).
* TOYODA is the brand name of JTEKT Corporation’s Machine Tools & Mechatronics products.
New value created in FY2017

Steering business
In order to maintain a solid market share amidst intensifying global competition, JTEKT has pushed ahead with comprehensive measures aimed at reducing cost and improving our competitiveness. These measures include strengthening our global customer support capabilities by addressing every phase of customer support from the design stage to more efficient manufacturing processes.

<Outcomes>
• Launch of global RP-EPS production
• Consolidation with SKSS and making Fuji Kiko a wholly-owned subsidiary
• Establishment of a software development base in light of the autonomous driving era
• Expansion of EPS application areas

Bearing business
JTEKT strengthened its competitive advantage in an increasingly competitive business environment by increasing efficiency and launching innovative new products.

<Outcomes>
• Injected new products and technologies such as high-speed rotation deep groove ball bearing and revolving seat bearing for tunnel boring machines
• Promoted full automation of production lines
• Strengthened global production/development structure for NRBs (Construction of the new Kiyohara plant)

Driveline business
By strengthening front-loading and cost reduction activities and forming a more efficient global production footprint JTEKT enhanced our drive system development capabilities becoming a supplier realizing optimal vehicle dynamics performance for auto manufacturers globally.

<Outcomes>
• Driveline: Revised business strategy and achieved thorough cost planning
• AWD systems: Developed Torsen for small trucks and Type B Torsen
• Hydraulic systems: Began mass production of internal gear oil pump (parallel type) for the latest AT exhibiting world-class transmission efficiency

Machine Tools & Mechatronics business
In our Machine Tools & Mechatronics business, JTEKT combined the Group companies strengths to enhance the business structure as a comprehensive production line builder that provides customer support throughout the various lifecycle stages of equipment. We have also launched new products such as grinders and IoE tools to respond to our customers’ needs in a timely fashion.

<Outcomes>
• Rolled out GF50M in response to more advanced needs relating to automobiles
• Rolled out gear skiving center, GS200H, in response to EV needs
• Launched an IoE tool to easily achieve visualization of equipment operating status in response to IoE needs
• Promoted reform towards a business substance more resilient to changes in the business climate

New businesses
<Power assist suit>
In November 2017, JTEKT developed a power assist suit with plans to launch in the Japanese market in FY2018 in response to social issues such as a declining birthrate and aging society, workforce shortage and increase in workplace accidents. The development of the power assist suit leveraged JTEKT’s strengths of assist technology and tribology engineering as well as our insight as a manufacturer with in-house manufacturing shops.

* J-PAS is a registered trademark of JTEKT Corporation.

<High heat resistant Lithium ion Capacitor>
Ready for mass production in FY2019, JTEKT developed its forward-looking, high heat resistant lithium ion capacitor, which alleviates electric power steering power output shortages in large vehicles. This innovative new product has applications as a standby and auxiliary power supply in other industries such as machine tools, construction machinery, rail, power generation and transportation infrastructure.
FY2017 Management Results

JTEKT succeeded in increasing both its income and profit in FY2017 due to a weak yen and increased sales primarily in Japan and China, as well as incorporating the new JTEKT Group members of Sona Koyo Steering Systems (head office: New Delhi, India - changed name to JTEKT India LTD. on Apr. 7 2018) and Fuji Kiko as wholly-owned subsidiaries.

<table>
<thead>
<tr>
<th>Overview by region</th>
<th>Overview by business</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of companies</td>
<td>28</td>
</tr>
<tr>
<td>No. of employees</td>
<td>8,128</td>
</tr>
<tr>
<td>Sales</td>
<td>220.7 billion yen</td>
</tr>
<tr>
<td>No. of companies</td>
<td>27</td>
</tr>
<tr>
<td>No. of employees</td>
<td>8,553</td>
</tr>
<tr>
<td>Sales</td>
<td>146.9 billion yen</td>
</tr>
<tr>
<td>No. of companies</td>
<td>20</td>
</tr>
<tr>
<td>No. of employees</td>
<td>7,130</td>
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<tr>
<td>Sales</td>
<td>298.2 billion yen</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overview by region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia · Oceania</td>
</tr>
<tr>
<td>No. of companies</td>
</tr>
<tr>
<td>No. of employees</td>
</tr>
<tr>
<td>Sales</td>
</tr>
<tr>
<td>South America · others</td>
</tr>
<tr>
<td>No. of companies</td>
</tr>
<tr>
<td>No. of employees</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overview by business</th>
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</thead>
<tbody>
<tr>
<td>TOYOTA</td>
</tr>
<tr>
<td>Machine Tools &amp; Mechatronics business</td>
</tr>
<tr>
<td>11.2%</td>
</tr>
<tr>
<td>JTEKT</td>
</tr>
<tr>
<td>Steering business</td>
</tr>
<tr>
<td>49.4%</td>
</tr>
<tr>
<td>Koyo</td>
</tr>
<tr>
<td>Bearing business</td>
</tr>
<tr>
<td>29.3%</td>
</tr>
</tbody>
</table>

Sales trend by region

| Japan |
| North America |
| Europe |
| Asia · Oceania · South America · others |

| (billion yen) | (billion yen) | (billion yen) | (billion yen) |
| 700 | 1550 | 2300 | 6000 | 1550 | 2300 | 6000 | 6000 |
| 600 | 1450 | 2200 | 5000 | 1450 | 2200 | 5000 |
| 500 | 1350 | 1900 | 4000 | 1350 | 1900 | 4000 |
| 400 | 1250 | 1700 | 3000 | 1250 | 1700 | 3000 |
| 300 | 1150 | 1400 | 2000 | 1150 | 1400 | 2000 |
| 200 | 1050 | 1200 | 1000 | 1050 | 1200 |
| 100 | 0 | 0 | 500 |

* Torsen is a registered trademark of JTEKT Corporation. * ITCC is a registered trademark of JTEKT Corporation.

FY2016 FY2017 Increase/Decrease Increase/Decrease(%) |
| Sales | 1,318.3 | 1,441.1 | 122.8 | +9.3% |
| Operating income | 77.4 | 81.3 | 3.9 | +5.1% |
| Ordinary income | 78.0 | 82.5 | 4.4 | +5.7% |
| Net income attributable to parent company | 47.5 | 49.6 | 2.1 | +4.6% |
| Exchange rate (Through FY2017) | ¥108/USD | ¥111/USD | ¥108/USD | ¥111/USD |
| Dividends | 42 yen | 43 yen | +1 yen |

Dividends

<table>
<thead>
<tr>
<th>FY2017 Management Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>JTEKT succeeded in increasing both its income and profit in FY2017 due to a weak yen and increased sales primarily in Japan and China, as well as incorporating the new JTEKT Group members of Sona Koyo Steering Systems (head office: New Delhi, India - changed name to JTEKT India LTD. on Apr. 7 2018) and Fuji Kiko as wholly-owned subsidiaries.</td>
</tr>
</tbody>
</table>

To support the evolution of monozukuri, we increased the efficiency of manufacturing lines by improving machine tools.

Through innovative technologies, JTEKT cultivated bearings that reduce energy loss, which are now offered to a number of industries.

We boast the world's No. 1 share in the Torque-Sensing Limited Slip Differential (TORSEN) and in the intelligent torque controlled coupling (ITCC), which are used in four-wheel drive vehicles and sports cars, and support a sophisticated driving experience.

We are a favorite of customers around the globe.

Executive Summary

Sales trend by region

| Japan |
| North America |
| Europe |
| Asia · Oceania · South America · others |

| (billion yen) | (billion yen) | (billion yen) | (billion yen) |
| 700 | 1550 | 2300 | 6000 | 1550 | 2300 | 6000 | 6000 |
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| 200 | 1050 | 1200 | 1000 | 1050 | 1200 |
| 100 | 0 | 0 | 500 |

* Torsen is a registered trademark of JTEKT Corporation. * ITCC is a registered trademark of JTEKT Corporation.
### Financial / Non-financial highlights

#### Sales / Operating income

<table>
<thead>
<tr>
<th>FY</th>
<th>Sales (Left axis) (billion yen)</th>
<th>Operating income (Right axis) (billion yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>'13</td>
<td>1,441.1</td>
<td>81.3</td>
</tr>
<tr>
<td>'14</td>
<td>1,250</td>
<td>75</td>
</tr>
<tr>
<td>'15</td>
<td>1,050</td>
<td>60</td>
</tr>
<tr>
<td>'16</td>
<td>950</td>
<td>45</td>
</tr>
<tr>
<td>'17</td>
<td>850</td>
<td>30</td>
</tr>
</tbody>
</table>

#### Interest-Bearing Debt (NET)

<table>
<thead>
<tr>
<th>FY</th>
<th>Interest-Bearing Debt (NET) (billion yen)</th>
<th>D/E Ratio (NET) (Right axis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>'13</td>
<td>139.5</td>
<td>0.32</td>
</tr>
<tr>
<td>'14</td>
<td>120</td>
<td>0.25</td>
</tr>
<tr>
<td>'15</td>
<td>110</td>
<td>0.20</td>
</tr>
<tr>
<td>'16</td>
<td>100</td>
<td>0.15</td>
</tr>
<tr>
<td>'17</td>
<td>90</td>
<td>0.10</td>
</tr>
</tbody>
</table>

#### No. of patents pending / patents acquired for the realization of “Building Value”

<table>
<thead>
<tr>
<th>FY</th>
<th>No. of patents pending</th>
<th>No. of patents acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>'13</td>
<td>190</td>
<td>80</td>
</tr>
<tr>
<td>'14</td>
<td>180</td>
<td>70</td>
</tr>
<tr>
<td>'15</td>
<td>170</td>
<td>60</td>
</tr>
<tr>
<td>'16</td>
<td>160</td>
<td>50</td>
</tr>
<tr>
<td>'17</td>
<td>150</td>
<td>40</td>
</tr>
</tbody>
</table>

#### Level of understanding by employees of own division’s vision in order to realize “Building Professionals”

- **2017**: 67.1%

#### ESG-focused management

- **Mental and physical health of employees**
  - Percentage of vigorous and vibrant workplaces **55.3%**

#### Financial highlights

- **Return on assets (ROA)**: 4.2%
- **Return on equity (ROE)**: 9.7%
- **Capital expenditure / Depreciation and amortization amount**: 66.6 billion yen / 60.4 billion yen
- **R & D costs**: 55.2 billion yen
- **Ratio of sales to R & D costs**: 3.8%
- **Interest-Bearing Debt (NET) / Ratio of sales to operating income**: 0.32 times

#### Non-financial highlights

- **ESG-focused management Improvement of diversity**
  - Female employee ratio / Ratio of foreigners occupying key positions in overseas locations
  - **Female employee ratio**: 8.6%
  - **Ratio of foreigners occupying key positions in overseas locations**: 65.3%

- **ESG-focused management Contribution to the environment**
  - **CO2 emissions in production**: 783,000 t
  - **Contribution to CO2 emissions reduction through products**: 761,000 t

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*1 The percentage that chose “Extremely Good” out of the five levels given in a questionnaire held once a year to assess workplace stress levels with the aim of more effective improvements.

*2 CO2 emissions reduction due to an environmentally-considerate design at the product usage stage. The amount calculated globally is shown for each year. The calculation method changed partially from FY2016.
Through their original technologies, Koyo Seiko and Toyoda Machine Works have supported Japan since the companies’ beginnings. Now, joined together as JTEKT, this top-class technology and passion for monozukuri are passed on ceaselessly, as we continue to produce new No. 1 & Only One value.

**HISTORY**

*TOYODA* is our machine tools brand.

*Koyo* is our bearings brand and

*JTEKT* is our automotive components brand.

Together, these three brands are contributing to the creation of an abundant society with reliable technologies.
Our absolute ambition

JTEKT WAY

This is our ideal: to continue building value that surpasses the expectations of customers, building excellent products that astonish the world, building professionals who think and act autonomously, and producing No.1 & Only One products and services, in order to shape a better future.

Seek to contribute to the happiness of people and the abundance of society through product manufacturing that wins the trust of society.

We, JTEKT have defined the JTEKT GROUP VISION as our ideal and the JTEKT WAY as our common set of values in order to exemplify our Corporate Philosophy.

JTEKT GROUP VISION

No.1 & Only One
Shaping a Better Future through the Spirit of

Building Value
Provide value to customers by delivering products and services that exceed their expectations.

Building Excellent Products
Astonish the world with “Mono-zukuri,” the art of refined craftsmanship and superior quality.

Building Professionals
Develop a team composed of individuals working together, acting with initiative, confidence, pride, and passion as global members of JTEKT.

JTEKT WAY

These are the values shared by all JTEKT members. We engage ourselves in all work with absolute ambition, supported by these five values.

Customer first
We are committed to perceiving matters from our customer’s viewpoint, and sincerely responding to customer’s requests. We are committed to creating values that are new to the world, and to delivering products and services that exceed customer’s expectation.

Ownership
We are committed to grasping the essence of things and taking prompt action. We are committed to grasping the essence of things and taking prompt action.

Continuous Kaizen
We are committed to being self-disciplined, and performing any task with a sense of urgency.

Teamwork and self-discipline
We are committed to actively communicating to unite the power of each other.

Aspiration for innovation and for technique
We are committed to going and seeing for ourselves to thoroughly understand the situation, and identify root causes.

Practical model

In March 2017, we took our set of guiding principles, which has conventionally served as our compass, a step further to establish a practical model for the purpose of accomplishing steady improvements of corporate value.

Stakeholders

- Customers
- Business partners
- Employees
- Regional communities
- Shareholders and investors
JTEKT GROUP VISION Elements

The source of JTEKT’s strength is concentrated in the elements of “Building Value” to exceed customers’ expectations, “Building Excellent Products” to astonish the world and “Building Professionals” who think and act for themselves. By implementing these elements steadily, we will continue to produce No. 1 and Only One products and services and help create a better society of tomorrow.

No.1 & Only One
Shaping a Better Future through the Spirit of

Building Value
Building Excellent Products
Building Professionals

The element of “Building Value” within JTEKT is about creating competitive No. 1 and Only One products and services by further pairing of the “seeds” possessed by JTEKT with the “needs” of the world. To achieve this, JTEKT’s R&D, production engineering and advanced/mass production development groups converge twice annually to hold a Technical Management Meeting to discuss the needs of the world and decide on technical strategies for promotion.

Moreover, in order to actively promote “Building Value” in new areas, we have gathered new business themes on an ongoing basis since FY2017 and run a system of evaluation and promotion.

Regarding the high heat resistant lithium ion capacitor, which is a type of power storage device, JTEKT is promoting development with the aim of commencing mass production in 2019. Leveraging JTEKT’s propriety technology, this product is the first in the world to be able to withstand high temperatures ranging from -40°C to 85°C and can even be used in environments up to 100°C depending on voltage restrictions. As well as expanding sales as an auxiliary power supply when equipping electric power steering (EPS) on large vehicles, we are promoting sales of this capacitor in various areas including machine tools, construction machinery, and railway to contribute to market demand for auxiliary power supply and standby power supply.

“Building Professionals” is the foundation that supports “Building Value” and “Building Excellent Products”. JTEKT firmly believes in supporting and nurturing “people” as our company’s most important management resource. The basic concept of this is to possess a healthy sense of danger and think and act autonomously. As part of “thinking and acting autonomously”, we are strengthening our training systems and management and promotion of policies to focus on global posts. Our ultimate goal is to foster a sustainable culture through deeper knowledge of employees.

At JTEKT’s Technical Training Center, we are promoting training taking automatic lines into consideration.

In order to advance automatic lines, production shop technicians must acquire robot operation skills in addition to conventional skills. At our Technical Training Center, which provides basic training for technicians, we offer a PLC (programmable logic controller) and programming curriculum.

Promotion of high heat resistant lithium ion capacitor development

To create and manufacture products with a competitive edge while doing so with the “Building Value” element, we must be world-class in monozukuri. Since the dawn of the monozukuri era, JTEKT has possessed development technology for bearings, the “backbone of industry” and as well as machine tools, the which are also known as “mother machines.” Now, in the midst of a revolutionary turning point due to the spread of IoT (Internet of Things), JTEKT is promoting IoE (Internet of Everything) to enable ongoing improvements in connectivity, not only between objects to other objects, but objects to people’s movements. As a company that possesses deep knowledge about monozukuri. This is part of our efforts to create a new foundation for monozukuri.

Promotion of full automation/operator reduction at Hanazono Plant

On the rack parallel type EPS production line at Hanazono Plant, JTEKT has installed a fully-automated inspection machine and achieved full automation of its performance inspection process.
In September 2015, 17 Sustainable Development Goals (SDGs) and 169 targets were adopted at the United Nations Sustainable Development Summit. The JTEKT Group is doing its part to achieve SDGs as a member of the international community.

Seek to contribute to the happiness of people and the abundance of society through product manufacturing that wins the trust of society.

Corporate Philosophy

Value Creation Model

At JTEKT, we provide products and services that surpass the expectations of customers through monozukuri that pursues No.1 & Only One technology and superior quality. Through these products and services, which come mainly from our four business realms, we help resolve various issues within society.

Social issues
- The present ~ 20 years from now
  - Energy and environmental issues
  - Water and food shortages
  - Declining birthrate and aging population
  - Changes in car-orientated society

Find new issues

Recognition by society

Industries

Provide value to society
- Reduce greenhouse gases
- Improve energy consumption efficiency
- Abundant lifestyle environments
- Always being motivated to work
- Safe, secure and comfortable society
- Contributing to the 4th industrial revolution

JTEKT’s activities

Building Value

Business areas

Core technology
- Tribology
- Precision machining technology
- Material engineering
- Control technology
- Measurement Technology

Building Excellent Products

Building Professionals

Bearing
Machine Tools & Mechatronics
Steering
Driveline
New

Building Products

Industries

Automobiles / Two-wheeled vehicles
Agricultural / Construction machinery
Railways / Aircraft
Medical
Energy
Steelmaking
Semiconductors / FPDs

The way of thinking by JTEKT

CONCEPT
The Future JTEKT Aims For

JTEKT comprises of Koyo Seiko, founded in 1921, and Toyoda Machine Works, founded in 1941. These two companies merged 12 years ago to form a young company with rich history. In order for our company to survive the next ten, twenty years, the JTEKT group must use its strengths as the driving power to solve the issues that society faces in order to contribute to the advancement of society and grow further itself at the same time.

The planet faces a number of major issues, such as environmental problems typified by global warming, depletion of energy resources and the securing of water and food in line with economic advancement and population growth in emerging countries. Moreover, if we focus on Japan specifically, in addition to environmental and energy-related issues, we also face the “2025 Problem” whereby one-third of Japan’s citizens will be 65 years or older by the year 2025. The environment surrounding JTEKT is changing significantly, but it is important that we convert such change into opportunity. I believe JTEKT must aim for a future in which we contribute to the advancement of society and grow further at the same time.

Reflecting upon FY2017

FY2017 could also be considered a year in which our growth plateaued temporarily due to the significant burden of investment in order to shift to rack assist type electric power steering (EPS) in our steering business. From the second half of FY2017, the commotion caused by this launch began to gradually dissipate and, helped by a favorable exchange rate, we ended the term with net sales of 1 trillion 441.1 billion yen, and an operating income of 81.3 billion yen. These results were +9.3% and +5.1% higher than FY2016 respectively, meaning we succeeded in increasing both profit and income. Meanwhile, FY2017 was also a year in which we challenged ourselves to make various reforms to strengthened competitiveness for our businesses as preparation for realizing the future for which we are aiming.

Overview on FY2017

<table>
<thead>
<tr>
<th>Sales</th>
<th>1,441.7 billion yen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income</td>
<td>81.3 billion yen</td>
</tr>
<tr>
<td>Ordinary Income</td>
<td>82.5 billion yen</td>
</tr>
<tr>
<td>Net income attributable to parent company</td>
<td>49.6 billion yen</td>
</tr>
</tbody>
</table>

5% higher compared to last FY

In our Machine Tools and Mechatronics business, not only did we renew equipment at Kariya Plant, which is our main production base for this business, but we also challenged ourselves on a company-wide level to implement reforms to expel the “old-way” of our business management. For example, in our sales division, rather than merely receiving requests for quotation from customers, we established and promoted a new process of communication. This process allows concerned members assess what kind of materials are being machined in what way and what sort of issues exist therein. This helps us to clarify customer requests and realize how we can contribute by leveraging JTEKT’s technologies.

In regards to our Driveline business, we challenged ourselves to create unmanned operation of mass production lines in order to raise plant productivity and strengthen our cost competitiveness. We are still mid-way through the process, but now clearly understand the challenges we must overcome to accomplish this.

In regards to our Driveline business, we challenged ourselves to lower cost and reduce weight by integrating ITCC. JTEKT’s Only One product, with a differential unit. We will continue these efforts this financial year to further contribute to improved safety and energy-saving performance of automobiles.

In our Bearing business, we challenged ourselves to create a cell/battery and lithium-ion capacitor, and their respective software. We anticipate this will be the foundation for us to realize the maximum extent possible.

Toward FY2018

FY2018 will be a year where we make headway in breaking away from our current plateauing state and get back on track to growth. A degree of obscurity regarding the business climate still exists, including the impact of protectionist policies on world trade and currency fluctuation caused by geopolitical risks affecting Japan. We must maintain a strong
SHAPING A BETTER FUTURE

Message from the President

In our push for automation, it is essential that we maximize our own knowledge and efficiently utilize robots in order to realize automation. For example, we must draw out our knowledge to the maximum extent and establish the on-hand supply and assembly of parts on our current production lines. Afterwards, after that, incorporate robots. This will enable us to install robots to the minimal required size. Currently, at our Steering business' mother plant, Nara Plant, five robots have been installed on the steering assembly and machining line and are in the process of verification. These have achieved around 70 to 80% effectiveness compared to our original estimates, however we will continue efforts to reach 100% effectiveness.

We also need to challenge ourselves in terms of Building Value, Building Excellent Products and Building Professionals. For example, as part of achieving a higher level of Building Excellent Products on the surmise of smart robot installation, we need to secure and nurture professionals who can properly use robots. This fiscal year, JTEKT’s Technical Training Center will continue offering the conventional skill training but also plan on revising the curriculum to incorporate methods for the effective utilization of robots.

Moreover, we will challenge ourselves in the area of Building Professionals through new businesses. As part of training candidates for next-generation top executives of our company, we are producing themes for new business. While we use the term “training” we will adopt any promising themes and assign trainees the task of nurturing the idea into a viable commercial business. The responsibility is great, but by spinning off after a certain extent of progress has been achieved and enabling greater fine-tuned adjustments, we believe we can nurture professionals by supporting them as a company at the same time as enabling them to tap into their strengths.

In our Bearing business, JTEKT members will continue the challenge to achieve unmanned operation of mass production lines. At the same time, in our bearing business for automobiles, I anticipate even further strengthening of front-loading activities for our customers. Members of our Machine Tools & Mechatronics business will challenge themselves to forge relationships with customers through face-to-face interaction. I want to see JTEKT employees building solid relationships with customers on all levels as well as construct a sales system of interaction on a company level that incorporates the next generation and the generation after that. At the same time, I’d like to see members of our design division go to our customers more and speak directly with them in order to identify the true value that JTEKT should be providing.

Strengthening of “Building Value”, “Building Excellent Products,” and “Building Professionals” in order to achieve sustainable growth

In order for JTEKT to continue being trusted by society through solving social issues and realize sustainable growth, we must continue to offer No. 1 & Only One products and services. If we become satisfied with the current state of affairs, just as though we were standing on a descending escalator, we will immediately be overtaken by other companies and no longer be able to contribute to society.

The pillars essential to JTEKT continuing No. 1 & Only One activities are “Building Value”, “Building Excellent Products,” and “Building Professionals.”

“Building Value” is about further pairing of the “seeds” unique to JTEKT and the “needs” of the world. In FY2017, the lithium ion capacitor contributing to safety and energy-saving was conceived as a result of such pairing and, in addition, we completed the formation of a system incorporating the continuous growth of themes for new businesses, evaluation and promotion.

Moreover, there is a need to never be satisfied by the current state of affairs in terms of not only new businesses, but also existing businesses, recognize customers’ issues with greater clarity and offer value. In our B to B world, there are deeply complicated needs that customers are unable to explain in simple terms. We need to properly identify such needs, then think of which of our technologies we can offer as a solution. In our Bearing and Machine Tools & Mechatronics businesses, a challenge theme for this year is front-loading activities which aim at the proper adjustment of these needs.

In terms of “Building Excellent Products,” with the 2025 Problem looming on the horizon, in order to firmly keep monozukuri that surrounds the world in Japan, JTEKT has engaged in activities aimed at the sophistication of our operators’ working styles. By effectively utilizing robots, there is no need for operators to constantly be present on the production line. These operators can instead spend their time teaching robots, making improvements and engaging in maintenance activities. Maintenance workers can shift to manufacturing engineering, manufacturing engineers can shift to engineering management, and process engineers can shift to element development and assisted development. This would make for an overall shift to high-level work and, ultimately giving us the ability to secure personnel relatively easy even amidst a reduced labor force. Additionally,
Sustainability for JTEKT

Nowadays, society on the whole tends to place importance on sustainable growth - a fact which is evident by the widespread acceptance of SDGs and ESG investment in the global community. For JTEKT to secure sustainability and realize long-term growth, we must sincerely address society’s demands and forge relationships of trust with all stakeholders. Amidst such circumstances, the four issues that JTEKT believes we must place particular importance on are coexistence with the environment, effective governance and risk management, development of professionals who “think and act” and promotion of diversity.

Coexistence with the environment

In FY2016, JTEKT established Environmental Challenge 2050, which expresses our goal of minimizing environmental burden and maximizing environmental value across the entire JTEKT Group. Moreover, as part of efforts to achieve our targets, we established Environmental Action Plan 2020, and have set milestones for promoting initiatives aimed at reducing CO2 and waste emissions, as well as the effective utilization of resources.

In order to achieve our 2020 milestone, we are taking the approach of not only focusing on our products, but also ensuring more effective ways of making products.

In terms of the product-centric approach, JTEKT’s true task is the creation of environmentally-friendly products, and expanding this directly leads to reduction of environmental burden. For example, fuel consumption can be reduced by 2 to 3% simply by switching from hydraulic to electric power steering. Through pursuing tribology engineering in our Bearing business also, we have led the way in development of low friction torque bearings. Low friction torque means our steering. Through pursuing tribology engineering in our approach of not only focusing on our products, but also ensuring more effective ways of making products.

Further pursuit of tribology engineering

In order to pursue tribology engineering and further reduce environmental burden, we must ramp up our initiatives related to fluid control technology aimed at making lubricant film thinner. By further strengthening this field, arguably one of JTEKT’s strengths, we aim to improve energy efficiency.

On the point of improving the efficiency of how we make products, manufacturing method innovation and supply chain optimization are two issues to be addressed. Insofar as manufacturing method innovation, we are considering a shift to high energy-efficiency manufacturing techniques and process-saving. In regards to changes to process techniques, currently the heat treatment process for bearings uses a heat treatment furnace, however, if this can be changed to induction, which can be completed in a relatively short period of time, it would be possible to drastically reduce energy consumption. Meanwhile, process-saving is the most effective way of reducing environmental burden. However, this is much more challenging than process change, as we must revise all prior common knowledge and rethink how processes should be from scratch.

Even in the supply chain, in order to continue the same business activities we have to date but in less steps and using less time and energy, we must review the entire supply chain and think boldly about the changes we can make. Either way, we need to pursue innovative initiatives in addition to ongoing improvement. In order to achieve this, we believe it is important to continue being a company that constantly doubts the conventional way of working.

Expansion of vehicle types compatible with EPS

JTEKT will further increase the output of our RP-EPS systems, which are being adopted in comparatively large vehicles, and focus on promoting a shift away from hydraulic steering. In order to improve output, there is a need to increase the output of the power sources also. Here, our high heat resistance lithium ion capacitor announced in 2017 plays an active role.

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Effective governance and Risk management

As I also mentioned in the FY2016 Integrated Report, JTEKT has a system whereby its management is monitored by external parties through summoning outside directors and auditors. Effectiveness is a crucial part of governance and JTEKT has poured considerable effort into accurate appraisal of our management status and raising of issues by our outside directors and auditors in the form of Audit & Supervisory Board briefings. Furthermore, auditors cover not only Japan, but also our overseas bases, therefore provide us with many proposals and much advice each month in order to achieve a higher standard of management. The proposals and issues raised, etc. by these outside parties are monitored in monthly progress reports until they are finalized or solved by the director in charge, which ensures a more solid mechanism.

From FY2018, new auditors took the post meaning our management will be examined by fresh eyes, hence I anticipate a further improvement in management quality.

From the perspective of risk management, we have entered an age where the existence of the entire company could be endangered due to risk in one specific business in one specific region. As such, JTEKT has formed a risk management system centered on a Global CRO (Chief Risk Management Officer) in order to respond swiftly to a situation when necessary. We will continue enriching the content of this system so that functions, businesses and regions may unite and enable comprehensive appraisal and response toward risk.

Development of professionals who think and act

In order for JTEKT to secure sustainability and realize long-term growth, it is essential that we develop professionals who “think and act” for themselves. This can only be achieved with efforts by the employees themselves, but, as a company, in order to engage in this initiative persuasively, I think we need to offer support, build mechanisms and foster the right culture to ensure mutual happiness.

To this end, we place emphasis on organization of a training structure, strengthening of policy management and personnel training that utilize global posts.

Organization of a training structure

When I was appointed president, our training system resembled a Buddhist temple, where there was a master, and beneath him were young employees who were nurtured through on-the-job training (OJT). While this style of training is indeed important, in order to nurture professionals with the ability to “think and act”, there is a need to also practice Off-JT as the basis. Here, to strengthen our problem-solving concept, we incorporate problem-solving training and have those in positions of responsibility (supervisors, etc.) engage in training to acquire...
an awareness that they must always, when faced with issues, consider the points of “What is the cause of this problem?”, “Where is the root cause of this problem?”, “How should I solve this problem?” and “How should the solution be incorporated in the mechanism?” For managers and above, we also provide training to teach that it is important to not only identify the root cause of the problem that has occurred, but also practice “back-casting” from the gap between how the situation should be and the reality in order to imagine what issues could exist. Problem-solving training itself is beginning to take root, however as a training system, I believe we have only just reached half-way. As an example of future initiatives, we are promoting JTEKT Business Practice as a guide to JTEKT’s basic approach to work.

**Strengthening of policy management**

In order to effectively leverage the abilities of all employees and be a highly-productive organization, we must all be on the same page as One JTEKT. At JTEKT, our management is based on a mid-term management plan, however, when implementing this, while the activity plans of departments, offices, groups and individuals are being cascaded down, not only the activities expected from high-level policy, but also what can be done for high-level policy is divided into themes and thrown back and forth between superiors and subordinates in a “catchball” process until the concerned parties agree and understand the content, then play catchball again with the outcome until further agreement and understanding is obtained. Through this process, we believe JTEKT Group management should draw out the autonomous actions of each and every employee and it is the ideal we aim for. For this mechanism to function, the premise is that firm department policies exist and I believe that it is the responsibility of management to create such a condition. As president, I am checking the policies of all departments more rigorously than last year. Our policies were insufficient in FY2017 however, I communicated that the design of department policy was extremely important for policy management, and for FY2018, every department produced extremely high quality policies. We will continue aiming for a high level in FY2018 and beyond.

**Professional development utilizing global posts**

As long as we are making a global footprint, we must promote globally-minded professionals. Our overseas bases are enthusiastic about this and boast many outstanding employees. So that these promising workers can gain experience as leaders and various other positions and grow as professionals while they are young, we are formulating succession plans unique to each region incorporating its specific circumstances. Moving forward, I’d like to see increased interaction between employees from different overseas bases and develop professionals with a broad perspective.

**Promotion of diversity**

There are only around seven more years before 2025, when Japan is said to face a situation in which one-third of its citizens are 65 or older. As such, we need to address this situation immediately. JTEKT is already pushing forward with initiatives to improve productivity through the sophistication of operator working styles and task reforms of indirect departments, but in addition, we will focus on the promotion of diversity focusing on utilization of female and senior workers. For example, if we increase the automation of production lines, work such as robot maintenance and programming becomes more important. This type of work can be performed by female employees and senior employees too. We are working to enrich systems so that such people have greater opportunity to contribute.

Furthermore, we are exerting efforts in relation to health so that employees can work for a long period of time. As unique initiatives, we have introduced a walking campaign for all employees and a 2-night, 3-day diet/exercise program targeting employees susceptible to obesity. For the diet/exercise program, there is one health consultant for every 4 or 5 participants. Participating employees learn appropriate dietary intake and exercise habits. Many lose around 4 to 5 kilograms within six months of joining the program, and even I am surprised by the positive result.

The environment surrounding us is changing at an ever-increasing rate. Amidst this, we will constantly possess a healthy sense of danger and further strengthen initiatives aimed at a desirable future. I humbly ask that our stakeholders continue to provide us with their invaluable support and advice.
SHAPING A BETTER FUTURE

Building Value and Building Excellent Products for JTEKT

Four years have passed since we established JTEKT Group Vision. On this occasion, we have held a panel discussion with five engineering-related directors to reflect upon the Building Value and Building Excellent Products components of JTEKT Group Vision and talk about the direction of future initiatives.

A reflection on Building Value and Building Excellent Products for JTEKT

Initiating: Reflecting upon history to date, what are the milestones that JTEKT has accomplished in terms of Building Value and Building Excellent Products? Moreover, in order to realize this Vision moving forward, what are your thoughts on JTEKT’s unique strengths?

Myview: Looking back at our company’s history, which is close to a century long if we include our predecessors, Koyo Seiko was a company founded on the bearing business, but afterwards it came to also offer auto parts and systems, and even production equipment. Furthermore, Toyota Machine Works’ origins lie in the machine tools division of Toyota Motor Corporation, but the company expanded from production equipment into auto parts. JTEKT is a young company conceived through a merger in 2006 but both companies shared a common trait before merging of not being stuck in the status quo and instead expanding business areas by leveraging our respective strengths. Even today, companies that do business in both the auto parts and production equipment fields are few and far between, so this is a unique characteristic of JTEKT and the backbone that has supported our advancement to date. Even in regards to future Building Value and Building Excellent Products, this characteristic is a strength we can leverage and I think there is much value that only JTEKT can offer.

Initiatives and outcomes in recent years

Initiating: To date, each individual business headquarters has leveraged this strength and engaged in initiatives aimed at the realization of JTEKT Group Vision. What do you think some concrete outcomes have been?

Myview: For the creation of new value, we must convert the aforementioned strengths into concrete businesses with greater speed, and deliver them to the market and society. This requires the establishment of an internal platform able to track changes in society. Last year, in our efforts to promote new businesses, we focused on our planning promotion function with small teams and strengthening of our function to monitor new business themes from a multifaceted perspective. The power assist suit is the perfect example of a new business that was conceived from the establishment of this function and I think the fact we have been able to build such a platform that we can utilize moving forward is a major step forward.

Focusing: From the aspect of “foresighting”, I think our Technical Management Committee, which updated its processes last year, is serving a significant role. To date, the Engineering Headquarters has considered which technologies, products and services we should offer in the future with a primary focus on the mid-term management plan established by the business headquarters however we were not sufficiently preparing ourselves as we did not see beyond the scope of this mid-term plan. Hence, as of last year, with Engineering Headquarters taking a central role, roadmaps on future social trends and technologies have been shared and integrated with the Production Engineering Headquarters, Research & Development Headquarters, etc. and we have become able to smoothly consider the preparations required for pursuit of seeds ten years into the future. Collaboration between individual business headquarters is strengthening, and I feel we have created a good, open-minded environment in which we can stimulate each other.

Note: A similar initiative is being promoted by the Production Engineering Headquarters also. From last year, we began holding liaison committees between each business headquarters and the director-general to discuss product development scenarios then work together to make them reality. Our headquarters is one which manifests “Building Excellent Products,” however up until a few years ago, although we would look at the product development scenarios of each business, we were not sufficiently constructing scenarios on the whole and, in some ways, we were taking a passive stance in relation to the business headquarters. Through the aforementioned liaison committee, our headquarters and each business headquarters have shared information, which I think has produced the positive outcome of not overlooking themes for consideration and eliminating any need to backtrack at the mass production stage.

* J-PAS is a registered trademark of JTEKT Corporation.
Once-in-a-century mobility revolution will occur, best automobiles industry specifically, it is predicted that a accelerated rate of technological innovation. In terms of the of our planet's environment.

Another change that I believe requires attention is the era in which even greater energy efficiency will be sought in the automobile industry. This will have a major impact on JTEKT's monozukuri framework and domestic businesses. Furthermore, as has been said for some time, we will enter an era in which each consumer will be entitled to see the engine of our planet's environment.

Another change that I believe requires attention is the accelerated rate of technological innovation. In terms of the automobile industry specifically, it is predicted that a one-in-a-century mobility revolution will occur, best represented by "CASE" (Connected/Autonomous Driving/Shar-ing/Electricity). Even when we look at the manufacturing industry on the whole, remarkable technological innovations are occurring in the form of IoT, AI and so forth. I want to see JTEKT proactively incorporate these as business opportuni-ties.

Another major challenge is human resource management. Currently, the Research & Development Headquarters is pushing ahead with various measures to enhance the knowledge of our approximate 50,000 employees worldwide. Irrespective of the area, the needs of each country differ and we need to strengthen our ability to gather information on such needs.

Future environmental changes requiring attention

1. **Response to environmental problems**
   - **Tasks**: In terms of the environment, I feel issues will grow increasingly difficult moving forward. For example, in regards to CO2 emissions, we are not required to merely suppress the emissions per base unit, but also make reductions based on overall volume. In our Environment Challenge, we declared our global targets of reducing CO2 emissions to one-third by 2020 and one-third by 2030 (both of which being emissions per base unit) however there is a need to respond on the completely different dimension of overall volume reduction and the Production Engineering Headquarters considers this a major challenge.

Future policy and ambitions for the realization of JTEKT Group Vision

1. **Response to population/labor problems**
   - **Tasks**: Already there is a problem of labor shortages in production shops due to a decline in the working population, therefore I feel we need to reconize our monozukuri framework immediately. Particularly in our domestic bases, we urgently need to establish operator-reduced, fully automated lines. Even in regards to production preparation processes, we lack sufficient domestic resources to cover JTEKT's global operations, therefore a crucial point is the extent to which we can utilize production engineering capabilities on a global level. To this end, the Production Engineering Headquarters implements a PDCA cycle as a KPI for the localization percent-age of production preparation. There is a need to standardize production preparation processes globally and optimize resources as one unified JTEKT.

2. **Response to technological innovation**
   - **Tasks**: As for response to technological innovation, we believe it is important to follow trends with agility, therefore began engaging in strategic open innovation from last year in an effort to promote "agile" development. We are strengthening our collaboration with government, universities and public research institutions and will more broadly and proactively promote activities relating to ventures and different industries in the future. To achieve this, we will need to implement internal changes so that we can immediately respond to external environmen-tal changes. Currently, under the "Brilliant R&D Concept", the Research & Development Headquarters is pushing ahead with various measures including reform of research (workplace) culture. We will need to continue being creative and bold in order to make new progress in the area of "Build-ing Value."

In closing,

1. **Response to population/labor problems**
2. **Response to environmental problems**
3. **Response to technological innovation**
4. **Response to broad social/customer needs**

**Future issues**

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<thead>
<tr>
<th>Future issues</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Response to population/labor problems</td>
<td>- Establishment of operator-reduced, fully automated lines in domestic bases</td>
</tr>
<tr>
<td></td>
<td>- Globalization of production preparation</td>
</tr>
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<td>2. Response to environmental problems</td>
<td>- Response to regulations on total allowable volume</td>
</tr>
<tr>
<td>3. Response to technological innovation</td>
<td>- Establishment of an agile development framework utilizing strategic open innovation</td>
</tr>
<tr>
<td></td>
<td>- Reform of research (workplace) culture</td>
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<td></td>
<td>- Organization of human resource management</td>
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**In other words, we have contributed to the advancement of our company and society by interpreting "Building Excellent Products" and "Building Value" as two parts of a whole. More than ever before, we will create a future vision with speed and have all divisions unite to promote activities which incorpo-rate "back-casting" into our issues and innovation activities through collaboration with external parties. As the Engineer-ing Division we will add "Kata-zukuri" (the story behind making things) to our key pillars of "Building Excellent Products" and "Building Value".**
SHAPING A BETTER FUTURE

Building Excellent Products and Building Professionals to achieve sustainable growth

Four officers from sales, production, purchasing and human resources participated in a panel discussion to talk about what JTEKT needed to aim for in terms of Building Excellent Products and Building Professionals in order for our company to survive amidst rapid changes in the business environment.

Environmental changes affecting JTEKT, the ideal vision JTEKT aims for

The business environment affecting JTEKT is changing significantly. Amidst such change, what is the ideal vision we need to aim for in order to ensure our ongoing survival as a company?

As was mentioned in the first half of this session, our business environment is undergoing significant changes, such as CASE and IoT (IoE) which are predicted to transform the automobile industry. Moreover, another defined issue is the 2025 Problem. In order to overcome these kinds of environmental changes, we need to gather the total abilities of all JTEKT employees and take a united stance more than ever more. To achieve this, we need to “sophisticate work styles of direct and indirect tasks” to “raise the standard of our professionals and shift to the front line” and ensure we can secure enough employees capable of engaging in work with high added-value. Moreover, from various perspectives, in order to identify and solve issues within JTEKT, we need to promote diversity in the workplace to promote participation by not only women and senior citizens, but also foreign nationals. It is also essential that our professionals can think and act for themselves even without any instruction from the company.

Within Japan domestically, the 2025 Problem is a grave concern. China is facing a similar problem. Meanwhile, it seems that population increase trends in North America, ASEAN and India differ to those of Japan and China. JTEKT is a company with a global footprint. While responding to problems here in Japan goes without saying, we must also contemplate how we will aim for Building Excellent Products and Building Professionals by taking a global perspective.

Initiatives and outcomes to date

What kind of initiatives and outcomes exist relating to realization of our ideal vision not only in Japan but also on a global level?

On a production aspect, we have particularly focused efforts on responding to the declining birth rate and aging population problem in Japan. This problem has led to the secondary problems of a reduced work force on production lines and aging of workers engaging in production tasks, however JTEKT is responding to both of these with the automation and sophistication of equipment and utilization of diversity. To address the former problem, through automation including utilization of IoT, we are pushing ahead with reform so that all workers can shift to work a step higher than what they were doing, i.e. some operators on the line shift to maintenance, some maintenance workers shift to technician work and so forth. We aim for this initiative to produce a certain level of outcomes by 2022. For the latter problem mentioned, we have launched a project called “S & W” (seniors and women), whereby we assign numerical values to the concrete tasks on the production shop floor that are “difficult” or “hard-to-do” for seniors and female workers. We then also assign values to express the degree to which these tasks are either “difficult” or “hard-to-do”. Although it is possible to generally visualize what tasks are “difficult” or “hard-to-do” for seniors and women, it is not possible to express these in quantitative terms. By assigning numerical values to tasks we can assess in a concrete way the differences between senior/female workers versus male workers.

Currently, we have begun allocating numerical values to work in Nara Plant as model cases and are steadily achieving the quantification of differences between senior/female workers and male workers. Moving forward, we will use the results to separate the two categories of “difficult” or “hard-to-do” tasks that need to be addressed with infrastructure/equipment modifications, etc. and “difficult” or “hard-to-do” tasks that need to be addressed with personnel training.

In the Sales & Marketing Headquarters, we have rolled out initiatives both in Japan and overseas. In Japan, we have promoted indirect work task reform in order to maintain and improve customer satisfaction as well as increase the efficiency of sales activities, even amidst a population decline. In concrete terms, this means we have focused efforts on the automation of indirect work tasks and multi-skill development enabling one person to attend to multiple work tasks, in order to shift sales personnel closer to the front line. We are gradually beginning to see results but we need to persevere with this initiative.

Overseas, the speed of business talks is increasing at a more rapid rate than Japan, therefore we focused on responding to that change. For the short term, we are proactively hiring overseas personnel who possess firsthand experience of the speed at which business is conducted overseas.

At the same time, in terms of a mid-to-long term strategy, we are increasing the number of young Japanese employees posted overseas with the aim of professional development so that they may come to understand this latest speediness in the business world and new values. To this end, we established a system whereby it is easier for young employees to choose stationed posts within the professional development context and easier for rotation to occur between Japan and overseas bases. As a result, compared to before, I feel that more young employees are proactively putting their hand up and challenging themselves overseas.

In the Purchasing Division, collaboration with the purchasing functions of our overseas subsidiaries is important, therefore we have held a Global Procurement Committee annually since 2004. We have to communicate with overseas purchasing members during this meeting, therefore we began accepting overseas employees at an early stage to achieve this goal. Interaction with our overseas colleagues is stimulating for us Japanese purchasing members. Particularly people from the EU and U.S. are not convinced regarding supplier evaluation and price valuation without solid rationale. I think having to explain this in a language other than Japanese is extremely good experience for our Japanese team members.

In terms of rotation also, we have created a mid-term rotation plan targeting young employees both in Japan and overseas and this is updated on an ongoing basis. In terms of supplier management, there is an issue regarding successors. In order for JTEKT to sustain growth, it is essential that we continue doing business with competitive and trustworthy suppliers so I think it is important that we interview suppliers and ask them if there is anyway in which we can support this issue.

In the Human Resources Department, we have provided support to each headquarters. As has already been mentioned, we cooperate with each region to create a global human resources succession plan. Moreover, we are also concentrating on hiring foreign nationals. This includes not only people who can speak English, but also those from non-English speaking regions who speak Chinese, Spanish and Portuguese.

We are promoting support for work task reforms in indirect divisions. Work task reforms require a long-term process.
whereby we must complete each step of work task hayajinka (visualization), work task standardization and reduction of work task time by utilizing IT. Rather than aim for major reforms from the outset, we place important on small yet definite outcomes such as utilizing RPA (the automation and increased efficiency of work tasks using robots) to shorten a task that conventionally took several hours to just 1 hour so that our shop floor members can sense the benefits of reducing work task time even a little. We think that it is first important for members to realize that if they do their best, their work load will get lighter. We are also promoting efforts to develop management-level professionals. Under a scheme called JPSR (core personnel development scheme), four or five selected personnel form a team, study a new business and present the results to an audience comprising of directors. Previously, this had ended at the presentation stage, but now we ask the teams who present sound proposals to conduct concrete studies aimed at commercialization. This is being extremely effective as it is really helping participants strengthen their awareness of basic business management such as finance, even if it is not their field of specialty.

Issues to resolve to achieve our ideal vision

Moderator I have understood that each division is engaging in a variety of initiatives. What issues do you think JTEKT on the whole needs to resolve in order to achieve our ideal vision?

Kaijima Establishment of systematic personnel training

See We, to date, the general approach was "learning on the go" (OJT) but there was the issue of establishing systematic training that also incorporated Off-JT. To overcome this, the Production Engineering Headquarters has endeavored to establish systematic training based on JPS (JTEKT Production System) and we are currently incorporating this training to the rank-based training. Meanwhile, we cannot neglect OJT. To deepen our understanding of logic, we believe it is important to learn theory at the same time as putting that theory into practice. This is why we run a training dojo called GPC (Global Production Center). This Center features a miniature production shop meaning that trainees can immediately put the theory they have learnt into practice. Through simultaneous learning of theory and practice, trainees are learning monozukuri concepts based on JPS and this is beginning to take root. This initiative began two years ago and we are still promoting it for the development of professionals who will be the drivers of production.

Kaijima Training is also necessary for sales operations. Even in the Sales & Marketing Headquarters, there are many people who believe their way of doing things is best, but I think this needs to change. Through systematic training, people must first learn that there are many different ways of doing things, which is true of sales methods.

See As part of systematic training, one challenge that needs to be addressed immediately is the establishment of a training curriculum for the sophistication of the skilled workers’ working styles. We are currently compiling a training curriculum for line operators to shift to other fields and job types, however there was already a curriculum for line operators to shift to maintenance. Meanwhile, a curriculum for technicians involving shifts from maintenance personnel to process engineering and process engineering to production engineering is still incomplete. Currently, we are considering a curriculum in liaison with the Human Resources Department and we hope to complete this as soon as possible in order to commence theory and practical training based on a training curriculum.

Kaijima Further strengthening of global diversity

See As a company with a global footprint, JTEKT promotes a policy of leaving important overseas posts up to non-Japanese members including people from the region where the relevant operations base is located, however I believe our approach to management at our Japan headquarters also needs to change. Beyond 2025, it will no doubt be even more difficult to run headquarters primarily with Japanese nationals considering the growing seriousness of the declining birth rate and aging society. Furthermore, business will become more globalized therefore, I believe, a change is needed whereby outstanding foreign professionals are included in JTEKT’s management-related decision-making along with Japanese members more than ever before. For example, even in regards to work task reform, I’d like to see the standardization of work tasks performed in Japan then the global deployment thereof. When standardizing work tasks in Japan, it is important that we not only see things from Japan’s perspective, but also consider whether or not the content would be accepted globally. It is extremely important that we hire outstanding foreign professionals who foster such a perspective at our Japan headquarters and reflect their opinion in decision-making.

Kaijima I think this issue also applies to purchasing operations. We are already allocating foreign nationals to our domestic purchasing tasks. Meanwhile, many important posts at our overseas subsidiaries are occupied by Japanese expatriates and it is difficult for outstanding foreign professionals to acquire such posts. Furthermore, personnel interaction between overseas bases is limited. As the purchasing function, I’d like to see purchasing members from overseas subsidiaries assigned to management posts in Japan’s procurement divisions by 2025. To achieve this, I want to properly establish a training system inclusive of management. Unless we start immediately, I don’t believe we will produce results by 2025.

Kaijima If this can be accomplished, I think members in the overseas bases will realize that they have an opportunity to work in Japan if they try hard, which will attract more outstanding professionals to our domestic bases. In terms of sales operations also, there are more overseas personnel with practical capabilities than there are in Japan. We are currently contemplating the timing at which we should launch such an initiative.

See We understand that succession plans including overseas personnel are important for the Personnel Department as well. From here on, we will collaborate with the related divisions in order to execute such plans.

Future policy and ambitions for each headquarters in order to realize JTEKT’s ideal vision

Moderator Broadly-speaking, two issues were raised. What sort of initiatives will be promoted by each headquarters this period to address these?

Kaijima For the sales divisions, it is important that we develop professionals with broad points of view, including an understanding of the speed of business transactions and culture in overseas regions. To achieve this, it is important that we strengthen our hiring of outstanding overseas professionals, but we must also work on raising the standard of our Japanese personnel simultaneously. This period, in addition to personnel interaction with overseas subsidiaries, we will promote interaction with group companies where each employee has a high work load and responsibilities.

See Within Japan, we are steadily progressing with automation and other countermeasures for the declining birth rate/aging population issue. Meanwhile, measures such as automation at our overseas plants, which account for over half of our net sales, are insufficient. We will strengthen our development of professionals who can instruct the automation and sophistication of Building Excellent Products.

Kaijima In 2025, employees who are now in their thirties will be the primary driving force of our company, therefore increasing the speed at which these employees make decisions is important for JTEKT’s future, I believe. We are currently considering a training system for this reason. Furthermore, we will promptly study visualization of needs for supplier business continuity as well as JTEKT’s support in this regard.

See As the human resources function, it is important that we first systematically organize what is being done or attempted in business and function aspects, then create systems as a company, therefore we will continue liaising with each headquarters.

Future Issues

Response to the 2025 Problem
- Hiring of foreign nationals
- Establishment of a systematic personnel training system
- Utilization of rotation between Japan and overseas bases
- Strengthened development of next-generation management professionals on a global level

Building Excellent Products and Building Professionals on a global perspective
- Active participation of senior female workers
- Indirect work task reform/multi-skill development
- Automation of Building Excellent Products
- Development of professionals who can provide instruction to achieve sophistication and organization of a training system
- Support for supplier business continuity

Vitalization of rotation between Japan and overseas bases

Managing Officer Ueda, could I ask you to wrap up this discussion, please?

Ueda Addressing the 2025 Problem will give our company fundamental strength. I also believe there is a need to create a system that can address issues beyond 2025.

For this reason, the creation of systems and mechanisms is important but I believe the key point is to consider matters as simplistically as possible. I think if we implement countermeasures to the challenges we face at an early stage, we can overcome the 2025 Problem and continue sustainable growth beyond this.
With the No.1 share in the world, steering is our flagship business. This business is already contributing to the improvement of the environment (energy-saving), safety and convenience through offering electric power steering (EPS) primarily for passenger vehicles. With the No.1 share in the world, steering is our flagship business. In FY2017, we strengthened our rack assist type EPS lineup and realized a full lineup from column type to rack parallel and dual pinion type. In FY2018, we will mature our rack parallel and dual pinion type, and concentrated our efforts on sales expansion and continue refining our steering business to support our No.1 global share status. As we head towards an era of autonomous driving, JTEKT will apply and propose the technologies we have cultivated in the EPS area not only to passenger vehicles, but also to commercial vehicles, in order to continue contributing to the realization of a safer and more comfortable automotive options.

**Offering a steering device that shares the “turning function” which is one of the basic functions of a car.**

Offering the column assist type (mainly column type EPS - hereinafter C-EPS) and the high-power rack assist type (rack parallel type EPS, dual pinion type EPS - hereinafter RP-EPS, DP-EPS)

**Strengths**

**Business environment analysis**

Advancement to EPS for large vehicles due to society’s increasing demands for fuel efficiency

- We anticipate the further popularization of EPS to achieve greater fuel efficiency in large vehicles.

Intensification of C-EPS cost competitiveness

- Cost competitiveness will intensify from here on due to advancement in the commoditization of products and participation by Chinese manufacturers, etc. in the C-EPS market.

Changing needs due to the expansion of autonomous driving

- We predict that steering-related needs will change in the context of autonomous driving.

**Expansion of the rack assist type EPS business**

- Expand sales of high power DP-EPS/RP-EPS in line with the shift to EPS for medium to large-sized vehicles.

- Development of an RP-EPS system equipped with a lithium ion capacitor as an auxiliary power source to apply EPS to large vehicles with certainty.

**Improved EPS cost competitiveness**

- In addition to existing cost reduction activities, concentrate efforts on optimization of purchasing cost through in-house production of major parts (MCU) and reduction of manufacturing cost through automation of production.

**R&D considering autonomous driving**

- Promote development of a steer-by-wire steering system in preparation for the realization of autonomous driving.

**Launch of global RP-EPS production**

- After commencing mass production in Japan in December 2016, also commenced mass production in North America in FY2017. Plan to start production in China in the future (Dec. 2019).

**Strengthening of business foundation**

- Through consolidation with Indian company, Sona Koyo Steering Systems, (currently JTEKT India LTD.), we have strengthened our presence in the Indian market.

- Through making Fuji Kiko a wholly-owned subsidiary, we have strengthened our system response ability, including those related to manual columns.

**Establishment of a software development base considering the autonomous driving era**

- Establishment of JTEKT IT Center Akita Corporation as a software development base.

**Expansion of areas for EPS application**

- Development and mass production of “I-EPS”, electric power steering for multi-purpose vehicles used in the agricultural field in North America for carrying loads or transportation (adopted on Kubota’s UTV “RTV-XG850”).

**Solutions for social issues (from the perspective of SDGs)**

- Supporting realization of a society free of road accidents through autonomous driving

- Contributing to the greater fuel efficiency of cars, including not only passenger vehicles, but also commercial vehicles

- Establishment of global development bases and nurturing of developers to contribute to enhanced technological capabilities in each country
Driveline business

The Driveline Systems business offers products for the automotive industry such as drive shafts, propeller shafts, ITCC, Torsen and oil pumps. In FY2017, we engaged in activities to strengthen our business foundation such as thorough cost-reduction activities and front-loading activities.

In FY2018, we will escalate these activities as businesses and pave the way to further growth. Through the energy-saving, improved travelling safety and other benefits provided by our driveline parts, we will contribute to the creation of a safer society for people.

Offer driveline products for vehicles, torque control device (TCD), hydraulic unit, valve unit for fuel cell vehicles (FCV), etc.

Mid-term Plan

With the aim of exponentially advancing our position as a driveline system supplier, we will accelerate strengthening of our system development capabilities and engage in product development for vehicle electrification (EV, FCV, etc.).

Strengthen development of driveline systems

Our products have been held in high regard at vehicle test drive sessions in cold regions and we have improved our ability to make system proposals through dialogue with customers. By evolving from a module supplier to a system supplier and responding to all development processes as a system, we will endeavor to further improve our ability to present proposals to customers.

Drive shaft

Next generation ITCC

Electrical oil pump

Strengthen development of driveline systems

- Strengthen product appeal such as weight reduction, low loss and rigidity optimization.
- Promote higher efficiency of electrical oil pumps (small, lightweight, high flow volume, high output) responding to applications emerging as a result of vehicle electrification/series development
- Full-scale mass production of parts for FCV and future expansion of areas including trucks, rail and vehicles for industrial machines.

Progress in FY2017

Drive shaft

Next generation ITCC

Electrical oil pump

- New series development, thorough cost competitiveness.
- Began equipping FF vehicles with Torsen Type-B as a product that achieves a safer and more comfortable driving experience.
- Development of Torsen for small trucks capable of performing in harsh operating conditions.

Hydraulic system

- Promote higher efficiency of electrical oil pumps (small, lightweight, high flow volume, high output) responding to applications emerging as a result of vehicle electrification/series development
- Full-scale mass production of parts for FCV and future expansion of areas including trucks, rail and vehicles for industrial machines.

Solutions for social issues (from the perspective of SDGs)

- Contributing to the realization of a safer automotive industry by producing high-quality, innovative parts that enhance automobile turn and stop capabilities.
- Offering driveline systems that create higher fuel-efficiency cars
- Contributing to the sustainable development of an industry overall by providing products that respond to the needs of EVs
**Strengths**

- Low-torque technology
  - Overwhelming low-torque technology represented by the LFT (Low Friction Torque) series.
- Broad product lineup
  - Responding to a wide-variety of industrial machine applications.
- Technique for evaluation and analysis
  - Enables evaluation and analysis in an environment closely resembling actual cars at the Iga Proving Ground or actual machines at the Large Size Bearing Engineering Development Center.

**JTEKT Group strengths**

- The ability to execute comprehensive development projects from our customers’ perspectives due to having both an auto parts business and machine tool business within the JTEKT Group.

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**Business environment analysis**

**(Automotive bearing) Advancement of electrification and autonomous driving**

- Acceleration of product development/product release considering needs surrounding changes to cars.
- (Industrial machine bearings) Further diversification of the environments in which bearings are used
  - Timely development and market release of products, technologies and services responding to further sophistication of robots and automation.

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**Mid-term Plan**

**Strengthening response to electrification and autonomous driving**

- Deepening of low-torque technology, which is our strength, development of a super light weight hub unit bearing specifically for EV and development of technologies to support the needs of higher speed, lighter weight, better electrolytic corrosion resistance and improved quietness.
- Contributing to autonomous driving through vehicle integrated control technology utilizing the hub unit’s sensing function (Fig. X).

**Strengthening response to industrial machine field**

- Development of solution proposal-type business.
- Offer value/service throughout product lifecycle.

**Sophistication of creation**

- Promotion of operator reduction/automation in production processes through the utilization of machine tool-related IoE also (Fig. Y).
- Promote sophistication of working styles, a shift to “small-numbers/exceptional talent”, and sophistication of plants.

**Strengthening of business structure**

- Reorganization of global production bases and further strengthening of production capabilities (Japan, China, ASEAN, Europe, North America).
- Strengthening of global development system in Japan, America and Europe.

**Progress in FY2017**

**Released new products and technologies**

- Released the high-speed rotation deep groove ball bearing, machine tools, revolving seat bearing for tunnel boring machines and a bearing for special environments

**Promoted operator reduction/full automation**

- Expanded operator-reduced/fully-automated lines (automation of appearance inspections/conveyance/packaging and utilization of IoE)

**Strengthened production/development systems**

- As part of strengthening global production/development systems for the needle roller bearing, the new Kiyohara plant was built at Utsunomiya Kiki (commenced operations June 2018)

**Solutions for social issues (from the perspective of SDGs)**

- Contributing to reduced energy loss in all fields by better low-torque technology and supporting electrification
- Offering products on a broad basis including tunnel boring machines, railway, planes, robots, farming/construction machinery and medical devices
- Supporting industrial advancement and helping to maintain/improve abundant life environments for people by making proposals to the global market that foresee needs for
The Machine Tools & Mechatronics business supports our customers in “Monozukuri” through the provision of machine tools and mechatronic products such as grinders, machining centers, and control systems.

In FY2017, we promoted front-loading activities to strengthen our ability to present proposals to customers parallel to efforts to streamline our production processes.

In FY2018, we concentrated our efforts on development of new products responding to a shift towards EVs expected to entail next-generation downsized engines and market growth. Moving forward, as a group of monozukuri professionals, we lead our customers in the transition to IoE and smartification of managing lines overall, we will continue supporting the development of the world’s manufacturing industry, starting with automotive.

**Strengths**

- High-accuracy and high-efficiency grinders equipped with TOYODA STATBEARING
  - Adapt-in-house made, easy-to-use CNCs specifically designed for grinders. World-class practical ability with our cam/crankshaft grinders
- High-rigidity machining centers good at machining difficult-to-machine material
  - Support a broad variety of production, ranging from automotive-related to farming and construction machinery
- Control systems that have advanced hand-in-hand with car production lines
  - Visualization reflecting feedback from production shop floors covering everything from plant management to line control
- In-house development and manufacturing of control systems and high-functionality of machine tools

**Business environment analysis**

**Changing trends of vehicle powertrains**

- Engine downsizing and increased motors and batteries.

**Reduction in working population**

- Increased labor-saving and automation needs.

**Mid-term Plan**

**Strengthening response to changes in automobile trends**

- Slimmed-down machining systems supporting engine downsizing.
- High-accuracy grinding contributing to the quietness of EVs.
- Strengthening production/sale mechanisms in the expanding regions of China, India and ASEAN.

**Shift to fields of growth**

- Higher added-value for motors, batteries, semiconductors, robots, aircraft components and equipment components.
- Creating a next-generation gear machining system.
- Commercializing new machining technology such as additional machining.

**Contributing to maintenance and advancement of society’s production activities**

- A future shortage of skilled workers, proposing high-efficiency production systems incorporating machine smartification and IoE technology.

**Progress in FY2017**

**Response to sophistication of automotive-related needs**

- Released the GS55M Series - twin wheel crankshaft grinders with improvements in terms of high accuracy, high productivity and flexibility.

**Response to EV-related needs**

- Released GS200H - a gear skiving center realizing groundbreaking downsizing for easy insertion into mass production lines as a machine processing motor reducer components for EVs.

**Response to related IoE needs**

- Released JTEKT-SignalHop - an easy additional IoE tool that monitors the status lamps which indicate the operating status of machines for the visualization of operating status.

**Promotion of business structure reforms**

- Began sale of used machines. By strengthening after-market service, offer new value throughout the life cycle of our customers’ machines to create a business substance resilient against economic fluctuation.
- As the third pillar of business, rolled out IoE-focused on monozukuri, turned three in-house plants into showrooms and expanded use cases.

**Solutions for social issues (from the perspective of SDGs)**

- Promoting efficient, energy-saving equipment to produce the optimal amount in the optimal location
- In regards to production environment, realizing smart factories with safe work environments, etc. leveraging IoE
- In order to improve the productivity of workers, thoroughly eliminating muda (waste) that does not produce added value to achieve efficient production with limited resources. Evolving monozukuri itself through the smartification of machines and plants.
- Achieving higher accuracy/lighter/smaller element parts, evolving high-accuracy grinders and gear skiving centers and realizing production activities with higher energy efficiency

**Grinders**

**Machining Centers**

**Control systems**

**GF55M**

**GS200H**

**JTEKT-SignalHop**

* JTEKT-SignalHop is a registered trademark of JTEKT Corporation.
Towards a “Global One JTEKT”

JTEKT is promoting a “Global One JTEKT” to realize our Vision. Recently, we spoke with two managing officers from overseas subsidiaries in charge of regional headquarters regarding this “Global ONE JTEKT” theme.

The ideal for regional management and JTEKT Group’s growth

Moderator: From your positions at regional headquarters, what sort of ideal should the respective regional management bodies be aiming for? Please tell us your answer in relation to the growth of JTEKT Group overall.

Davidson: We would like to see regional management achieving independency from global headquarters (self-reliance) and being a reliable entity. This “independency” (self-reliance) is a key message for local management. In many cases, the management executives sent from Japan return to their country in three to five years however, naturally, we need to continue operations and grow stronger as a business beyond this timeframe. In order to swiftly respond to the constantly changing needs of customers and markets, as well as seize business opportunities, I think strong and reliable regional management is essential. JTEKT may be a Japanese company when you look at its home office, but it is a global company in reality. There is a need to establish independent strategies led by the region.

Fortin: Please tell us the specific initiatives and outcomes relating to the ONE JTEKT movement.

Moderator: An important part of promoting a shift to ONE JTEKT is instilling an awareness that even though regions may differ, they are all part of one single region and have this interpreted in a positive light. To this end, the European regional headquarters provides opportunities to make business investigations for Europe on the whole and mutual understanding that are attended by the top management executives of each overseas subsidiary under our jurisdiction. We are also strengthening the management of our employees and inter-regional interaction.

In recent years, we have offered a seminar called “JTEKT Academy” which is held over a number of days and involves new employees from each overseas subsidiary and each business in the European region coming together under the one roof. JTEKT Academy is an opportunity for participants to share information and discuss matters beyond the business they are assigned to such as what type of company JTEKT is, what environment JTEKT is surrounded by in the context of Europe, what JTEKT should aim for and what it should change. While one aim of these activities is the interaction of JTEKT colleagues from different countries and businesses who would have much less of an opportunity to see each other once they enter their respective workplaces, we also believe these activities are contributing significantly to the reform of employee consciousness on a long-term basis as well as helping them consider their career path design.

Issues faced by regional management

Moderator: What kind of issues stand in the way of achieving the ideal you mentioned just now?

Davidson: The primary purpose of regional headquarters is to receive policies from global headquarters, translate these into content suited to the respective region, provide guidance to solutions for overcoming each country’s unique issues and maximize the capabilities that each of these countries possesses. However, I constantly sense that, in order to fulfill this mission, the unique characteristics of European regions in particular pose a challenge. Mainly because European regional headquarters must oversee countries such as England, France, Germany and Holland, which all have differing histories, languages and cultures. The level of market maturity for each country also differs, meaning that each country within Europe faces different business issues.

For regional headquarters, accepting the different market characteristics and values of each country at the same time as binding the capabilities of each overseas subsidiary together as “ONE JTEKT” and establishing a strong conglomerate is as much of a major issue as it is a challenge.

Fortin: Mr. Fortin’s assertion of “a strong region makes for a strong JTEKT” is particularly applicable to North America. In order to achieve strong regions, one major issue is developing next-generation leaders. It is our urgent mission to develop systems for swift and flexible decision-making in the locality without relying on global headquarters, as well as nurture leaders with such qualities. These days, it is becoming increasingly complicated to develop next-generation leaders. The requirements and experience in order to become a regional manager are diversifying and, in order to execute a succession plan, there is a need to develop candidates from a more long-term and strategic perspective. Each employee has different grounds for motivation, and in regards to developing leaders like this specifically, I think there is a need to establish independent strategies led by the region. Meanwhile, looking at the business on the whole, it is a fact that independency can’t solve everything. Particularly in recent years, there has been a decline in the number of business transactions that only apply to one specific region. Our customers operate business on a global scale and JTEKT must be able to follow such movements or I feel we will lose our competitive edge.

For example, we need to not only pick up on our customers’ needs in regards to a specific region, but also their global needs through actions such as consolidation of a global customer point of contact or in terms of design and pricing aspects. In addition, we need to possess a global perspective and push ahead with optimization for supply chains. In other words, the balance between overall global optimization and independency is important and, particularly in regards to the former, ONE JTEKT activity on a global level is precisely what is needed.

Initiatives and outcomes for “Global ONE JTEKT”

Moderator: Please tell us the specific initiatives and outcomes relating to the ONE JTEKT movement.

Fortin: One example is uniting our technical centers, which is one function of a regional headquarters company, as a cross-business function. By hiring employees in the one location with the one system, I want to make it possible to flexibly deploy and reshuffle personnel throughout the lifecycle of our businesses and technologies.

Moreover, in terms of the aftermarket, I would like to see us develop a united aftermarket brand as the JTEKT Group not dependent on the mother business of bearings, steering, etc. Moreover, moving forward, I would also like to pursue synergy between businesses within the region. For example, if Japan headquarters and other regions also.

In closing,

Moderator: Please tell us your future ambitions.

Fortin: In overseas bases, ONE JTEKT is an essential activity, and I feel that its necessity and urgency is even greater than in Japan.

To date, there are already many initiatives originating from Europe and America, however I would like to see these activities further accelerated and escalated to Global ONE JTEKT activities that are not specific to any given region, but include Japan headquarters and other regions also.
JTEKT Group focuses on fulfilling its mission of “Seek to contribute to the happiness of people and the abundance of society through product manufacturing”, and engages in business activities in line with the economy, society and the environment based on our Corporate Activities Standards.

**Corporate Activities Standards**

**Responsibility to our customers and business partners**
- We follow proper business practices and engage in fair, transparent and free competition based on respect for the law.
- We derive concepts from the market, provide the best in quality, technology and service, and obtain the satisfaction and trust of customers.

**Responsibility to our shareholders**
- We maintain close communication not only with shareholders but also with society at large and disclose corporate information properly, while at the same time working to improve our corporate value on a continuous basis.

**Responsibility to our employees**
- We respect the individuality of employees, create workplaces that are motivating to employees and enable them to fulfill their potential, and strive to provide each with abundant living circumstances.

**Contributing to regional societies and to global society**
- As a good corporate citizen, we aggressively pursue activities that contribute to society.
- We follow international rules, observe the laws, cultures and customs of countries and regions where we have operations, and seek to contribute to their growth.
- We carry out global environmental improvement activities proactively and aggressively with deep awareness of their being an important corporate mission.

**Global Conduct Guideline**

**Responsibilities in line with global-level business activities**

JTEKT has established the Global Compact Guideline in an effort to fulfill its social responsibility as a company conducting business activities on a global scale. This guideline is updated and revised on an ongoing basis to appropriately reflect changes in international affairs and the social environment and expectations of society on corporations.

**CSR promotion**

**Implementation of CSR activities in each division on a company-wide basis**

At JTEKT, we believe CSR is a core corporate activity and, as such, each of our divisions formulates an annual CSR activity plan. A PDCA cycle is then applied to this plan in accordance with monthly management based on policy control. Through this type of mechanism to achieve goals, we are incorporating concrete initiatives in company policy and business/function policies to achieve the steady promotion of CSR activities.

* A management technique involving ongoing work improvement based on repeating a PDCA cycle (Plan, Do, Check, Act)
Aiming for a sustainable society and world

The JTEKT group has positioned the environment as one of our main management issues. In March of 2011, we formulated the JTEKT Group Environmental Vision comprising of our Environmental Philosophy and Environmental Policy, and have been promoting activities that contribute to a sustainable society and world under the company and group-wide promotion structure.

Revision of Environmental Policy

In January 2017, JTEKT revised its Environmental Policy. In addition to introduction of renewable energy in our plants and recycling of resources including water, we contribute to reduce CO2 emissions through our business as one of the top runner companies providing environmentally-friendly products.

Moving forward, JTEKT will strive to establish our Environmentally-friendly products.

Environmental Philosophy

The JTEKT group is aiming for “ZERO” environmental burden of business activities and products throughout their life-cycle in order to conserve the global environment for future generations and realize a sustainable society.

In relation to environmental issues such as global warming and resource depletion, the JTEKT Group has established an environmental philosophy in order to take a united approach to finding solutions.

Environmental Action Plan 2020

In order to realize our Environmental Challenge 2050, which is a guideline to minimize environmental burden by the year 2050, JTEKT formulated the Environmental Action Plan 2020 that provides policies and specific targets. The entire JTEKT Group worked together towards the targets, and in FY2016, we achieved some targets ahead of schedule.

Global Environmental Conservation Committee

JTEKT promotes environmental management, led by the Global Environmental Conservation Committee which is chaired by the company president. Under the guidance of this committee, each subcommittee deploys activities to achieve high goals.

Global Environmental Management

We are working to further strengthen our environmental management not only for JTEKT, but also for 19 domestic group companies as well as 38 global group companies (As of the end of March 2017).

Environmental Action Plan 2020 Targets, FY2017 Activity Results

<table>
<thead>
<tr>
<th>Category</th>
<th>Implemented by</th>
<th>Item</th>
<th>Base year</th>
<th>FY2020 targets</th>
<th>FY2017 results</th>
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<tbody>
<tr>
<td>Products / Technologies</td>
<td>Global</td>
<td>Product-based CO2 reduction contribution*</td>
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<td>761,000 t</td>
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<td>Creation of a low-carbon society</td>
<td>JTEKT-independent</td>
<td>CO2 emissions</td>
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<td>Target basic unit for FY2020</td>
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<td>Basic unit of CO2 from distribution</td>
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<td>11.6% reduction</td>
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<td>CO2 basic unit</td>
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<td></td>
<td>Global</td>
<td>Basic unit of water usage</td>
<td>FY2012</td>
<td>8% reduction</td>
<td>7.3% reduction</td>
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</table>

* Contribution towards reducing CO2 emissions equivalent or greater than overall CO2 emissions through products

Activities

All for One Earth

In relation to environmental issues such as global warming and resource depletion, the JTEKT Group has established an environmental philosophy in order to take a united approach to finding solutions. This philosophy indicates the direction of our environmental activities as well as our desire to both directly and indirectly contribute to society through our environmental activities in the name of ongoing advancement for mankind.

Initiatives concerning production technology innovation

- Small and minimal
  - Make equipment small and compact
- High efficiency, load following
  - High efficiency devices, ability to follow load fluctuation
- Load reduction
  - Reducing load
  - Load following
  - Extremely small
  - Highly small

Towards our CO2 reduction goal for FY2020 (reduction of 15% compared to FY2008), we are improving productivity and reducing CO2 through production technology innovation. In FY2017, under the activity directive of “Monozukuri = energy/CO2” (proportion of produced goods vs. CO2 emissions), we engaged in activities such as new installations, modifications and the reduction of CO2 in all production processes.
Forging sustainable relationships with stakeholders

The JTEKT Group has grown into what it is today with the support of our various stakeholders.

We believe the opinions and requests of such stakeholders are important references when making decisions relating to our business activities and we are working to increase opportunities for productive dialogue.

We will respect the personality and individuality of our employees and create safe workplaces and train management to value potential and motivate so each and every associate feels respected in his/her working lives.

Employees

Create environments in which all employees can work with ease

JTEKT encourages the creation of workplaces in which employees can work with ease from a variety of aspects, including professional development, respect for diversity, and safety and health. As we promote global expansion, we believe it will become even more important to deepen our understanding of human rights and share this with group companies both in Japan and overseas.

Respect for human rights and utilization of diverse human resources

In our Corporate Activities Standards, JTEKT declares that it “respects the personality and individuality of our employees and creates safe workplaces valuing potential and motivation so that each and every employee may feel abundance in their working lives.” We also clearly state in writing that we forbid unfair discrimination based on race, gender, age, nationality, etc. as well as child labor or forced labor. This is shared and enforced at group companies both in Japan and overseas. With this as the basis, we are promoting various initiatives in order to utilize diverse human resources.

Major initiatives

- Hiring foreign employees
- Promoting people with disabilities
- Providing assistance for those engaged in childcare or family care
- Reduction of work outside regular hours and encouragement of paid leave usage
- Providing post-retirement employment opportunities
- Various education concerning human rights, etc.

Direction of human resource development

Based on the following 3 points, JTEKT constructed a systematic human resource development system to enable all employees to grow while achieving a sense of accomplishment.

1. Develop employees who understand the Corporate Philosophy and are professional, creative, highly skilled, and able to achieve management goals.
2. Develop employees who have confidence, pride, and passion, think for themselves, and act as a member of the JTEKT group.
3. Develop employees who respect human rights, live in harmony with the environment, observe social rules, are sensitive, and have an international perspective.

Formation of a global human development

Around 60 percent of the approximate 44,000 employees of the JTEKT Group work overseas. JTEKT promotes the formation of a global human development/management framework with the aim of creating the optimal environment for employees and the company alike so that motivated and capable people, regardless of nationality or race, may perform to their fullest transcending national and regional borders.

Promoting diversity

We position diversity promotion as one of the important management strategies for realizing JTEKT GROUP VISION.

Assisting female employees in developing their careers

We made steady progress with such activities.

Safety and health-related Initiatives

Aiming to create a safe and comfortable workplace environment

All JTEKT employees unite to engage in safety and health activities and create a comfortable workplace environment under our Companywide Safety & Health Policy.

“Safety Vision” as the pillar of safety activities

We need to become a company which employees and their families are happy with and proud of.

- Safety personnel
- Safe workplace

We want to protect him/herself

- Does not let others get injured
- Improves unsafe actions and conditions

The workplace is improved on a daily basis

JTEKT has established a Companywide Safety & Health Management Committee for the systematic promotion of safe and comfortable workplace environments and has created a centralized management system encompassing group companies both in Japan and overseas. We roll out safety and health activities on a global level.

Promotion of activities based on a centralized management system

JTEKT has established a Companywide Safety & Health Management Committee for the systematic promotion of safe and comfortable workplace environments and has created a centralized management system encompassing group companies both in Japan and overseas. We roll out safety and health activities on a global level.

Health-related initiatives

Promoting healthy minds and bodies for every employee

JTEKT values the health of each and every one of its employees and as such, conducts health management activities so that employees may enjoy and go about their daily work with vitality. As an initiative to promote healthy minds and bodies, we proactively promote mental health activities and activities for the prevention of lifestyle-related diseases.

Achieving mental health

JTEKT promotes mental health countermeasures focusing on preventing depression and other mental illnesses. We conduct mental health training and stress level checks for all employees and provide support such as counseling for workplaces or individuals with high stress levels. Furthermore, we are endeavoring to prevent cases of over-working through doctor interviews/guidance for employees who work long hours. We also implement a return-to-work support program focusing on recurrence prevention for those employees who have taken leave due to mental illness.

Achieving physical health

JTEKT places importance on the prevention, early detection and early treatment of illnesses such as lifestyle-related diseases and proactively supports the health management of its employees.

Certified as an Excellent Health Management Company

For two consecutive years (2017/2018), JTEKT has been certified as an Excellent Health Management Company (White 500) in recognition of its proactive initiatives promoting the emotional and physical health of our employees.
Forging sustainable relationships with stakeholders

Customer

We derive concepts from the market, provide the best in quality, technology and service, and obtain the satisfaction and trust of customers.

Together with business partners

We follow proper business practices and engage in fair, transparent and free competition based on a respect for the law.

Quality policy and quality assurance system

With our “Customer First” philosophy being the foundation of our quality policy, we engage in various quality improvement activities. Moreover, we have established a quality assurance system based on our quality policy and are endeavoring to implement further improvement.

Quality policy

Adhering to the theme of “Quality First”, we offer products which earn the trust and satisfaction of our customers.

- Making decisions and taking swift action from the standpoint of our customers
- Improving design and manufacturing quality through the ingenuity of all members

Quality assurance system

Promotion of fair and equal business transactions

JTEKT respects our business partners and aims to develop and grow mutual trust.

In our Corporate Activities Standards and Purchasing Philosophy, we have clearly stated our policy of practicing open and fair business regardless of nationality, company scale, and experience doing business with JTEKT. Moreover, in order to offer fair and equal opportunities to trade with us, we publically disclose the preliminary steps to establishing trade with JTEKT on our website.

Purchasing Philosophy

Fair and transparent business transactions

We provide open, fair and equal opportunities to all regardless of nationality or company size, including companies with no experience doing business with JTEKT.

Purchasing Basic Policy

Mutual trust

Build mutual trust through close communication with business partners.

Coexistence and co-prosperity

Achieve harmonious relationships with business partners based on mutual trust.

Long-term, stable business relationships

Achieve stable procurement meeting JTEKT’s quality, cost, volume, and delivery requirements through continuous business.

Global purchasing

Achieve optimal purchasing from a global viewpoint and improve international competitiveness with a strong supplier chain.

Local Communities

As a good corporate citizen, we aggressively pursue activities those contribute to society.

Our ideal

By forging good relationships through social contribution activities, JTEKT aims to be a company trusted and loved by local communities, as well as a company that advances hand-in-hand with the community.

Principal activities

Local community

We appraise the needs and evaluation of local community and continue appropriate contribution activities.

Youth development

Through Senior High School students and younger

JTEKT leverages its experience and knowledge related to culture, sports and business to provide opportunities for the healthy development of our youth, who will be leaders of the future, on an ongoing basis.

Support for disaster-stricken regions

All employees will understand the aims of JTEKT’s social contribution activities and as many employees as possible will participate in activities once a year.

Employee participation

In order to be a company that continues contributing to society, we promote grassroot activities such as community beautification, harmonization with nature, youth development and road safety. We will also further promote activities related to welfare, support for the disabled, etc.

Shareholders and investors

We maintain close communication not only with shareholders but also with society at large and disclose corporate information properly, while at the same time working to improve our corporate value on a continuous basis.

Aiming for highly-transparent management

We strive to secure transparency in our management and build long-term relationships of trust with all our shareholders and investors.

In terms of information disclosure relating to management, naturally we comply with rules relating to legal disclosure and timely disclosure, in order to increase the transparency of our management and help shareholders and investors to deepen their understanding of JTEKT and the JTEKT Group, we also proactively disclose information voluntarily in a fair, timely and appropriate manner through various IR activities.

JTEKT bond ratings

<table>
<thead>
<tr>
<th>Rating institution</th>
<th>Long-term rating</th>
<th>Short-term rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan Rating Agency</td>
<td>A+</td>
<td>J-1</td>
</tr>
<tr>
<td>Rating &amp; Investment Information, Inc.</td>
<td>A</td>
<td>-</td>
</tr>
</tbody>
</table>

* “EDER” is an abbreviation of “Early Detection Early Resolution”.

Discover market problems from the customers’ perspective at an early stage and implement the EDER* activity to roll out countermeasures.

Implement annual customer satisfaction surveys to lead to higher customer satisfaction.

Participate in exhibitions both in Japan and overseas in order to introduce JTEKT’s technologies and products and acquire market needs.

FY2017), Quality Control Meeting (attended by 253 companies in FY2017), and the JTEKT Cooperation Council Workshop once a year.

Hold a Purchasing Policy Meeting (attended by 348 companies in FY2017), Quality Meeting (attended by 253 companies in FY2017), and the JTEKT Cooperation Council Workshop once a year.

Principal actions in FY2017

1. Strengthening of initiatives addressing major quality issues, realization of excellent international cost competitiveness and response to global optimal purchasing.

2. In order to be a company that continues contributing to society, we promote grassroot activities such as community beautification, harmonization with nature, youth development and road safety. We will also further promote activities related to welfare, support for the disabled, etc.

3. We have dispatched a charity caravan to support disaster-stricken regions, etc. We promote grassroots activities such as community beautification, harmonization with nature, youth development and road safety. We will also further promote activities related to welfare, support for the disabled, etc.

4. In addition to financial results briefings for institutional investors, IR conferences for overseas investors, etc., we hold company briefings for private investors so that a broader range of investors can gain an understanding of JTEKT.

At our financial results briefings, our president and the General Chief of each business department provide information for securities analyst and institutional investors.

We hold plant tours for shareholders, investors and securities analysts so that they may make contact with our actual products and deepen their understanding of JTEKT rather than rely on financial information alone.

We have established an internal Council of Public Disclosure to deliberate on content and timing of disclosures to ensure the appropriate and timely dissemination of important management information other than financial results.

We appraise the needs and evaluation of local community and continue appropriate contribution activities.

We continuously participate in environment-building activities so that all living creatures may coexist in harmony.

In order to allow a repeat of what happened after the Great East Japan Earthquake, we will increase the participation awareness of each and every employee.

We assess and disclose the JTEKT bond ratings each year.

JTEKT leverages its experience and knowledge related to culture, sports and business to provide opportunities for the healthy development of our youth, who will be leaders of the future, on an ongoing basis.

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We continuously participate in environment-building activities so that all living creatures may coexist in harmony.
Promotion structure

At JTEKT, the board of directors meets every month to make management decisions and supervise directors’ performance of duties. Furthermore, two independent directors outside the company were appointed in June 2015 so as to strengthen the supervising function of the board of directors. In addition, sub-mechanisms of board meetings such as executive director meetings, manage- ment meetings, and companywide registered meetings are held to fulfill deliberations on individual matters and supervise the performance of duties by managing officers. As a way of monitoring management, we have adopted an auditing system to inspect directors’ performance of duties, which consists of five members of the Audit & Supervisory Board, three of whom are outside personnel. Internal audits are conducted by an independent Global Audit Department, who inspects the validity and lawfulness of overall operations and procedures. The members of the Audit & Supervisory Board, financial auditors and Global Audit Department liaise together and hold conferences when necessary. In addition, we maintain and operate an internal control system in line with both the Companies Act and the Financial Instruments and Exchange Act.

Corporate governance system

- Appointment/Termination
- General meeting of shareholders
- Executive director meetings
- Management meetings
- Companywide registered meetings
- Internal audit
- Financial audit
- Member of the Audit & Supervisory Board
- Auditor Department

Corporate governance

We JTEKT work to continuously enhance our corporate governance in order to fulfill our corporate social responsibility and continuously improve our corporate value.

Outside directors

JTEKT appoints outside directors who fulfill requirements for independent directors (*) and possess experience and insight within their field. They are also selected based on the excellence of their character and viewpoints, and for their high ethical standards, in accordance with the JTEKT policy for appointing directors. Furthermore, JTEKT conducts the appointment of outside members of the Audit & Supervisory Board from a perspective of audit neutrality and objectivity. These members are also selected based on their experience and viewpoints, as shown in Fig. 02.

Remuneration for directors and members of the Audit & Supervisory Board

Remuneration for Directors consists of monthly amounts and bonuses, and is conducted through a remuneration system that reflects the work responsibilities and performance, and is linked to company performance. Bonuses are paid based on the consolidated operating income of each term, and are determined by comprehensively taking into account dividends, the level of bonus for employees, the trends of other companies, mid- to long-term business performance, and amounts paid in the past. A concrete plan for remuneration is deliberated by the Executive Remuneration Meeting, which is comprised of representa- tive Directors and Outside Directors. Remuneration for the Member of the Audit & Supervisory Board consists of monthly payments, and does not include bonus payments. This system for remuneration is not greatly influenced by company performance and is therefore ensured independence from management. Monthly amounts of remuneration for directors and officers and other remuneration are set within the upper limit for total remunerations based on the decision of the Annual Meet- ing of Shareholders on June 27th, 2012. Monthly amounts of remuneration for each Director are decided by the board of directors, and monthly amounts of remuneration for each Member of the Audit & Supervisory Board are decided through consultation with the members. The total amount paid for Director bonuses is approved by the Annual Meeting of Shareholders which meets regularly, after which the bonus amount paid to each Director is decided by the board of Directors in consideration of the performance of their individual duties and responsibilities.

Appointment of independent Outside Directors and independent Outside Member of the Audit & Supervisory Board

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Main reasons (experience, insight, etc.) for appointment</th>
<th>Independent Director</th>
<th>Attendance record in FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td>Takeshi Uchiyamada</td>
<td>Abundant experience and high level of insight regarding monozukuri, obtained as a managing director of a trade organization.</td>
<td>○</td>
<td>16/16 –</td>
</tr>
<tr>
<td>Director</td>
<td>Iwao Okamoto</td>
<td>Held key positions within the Ministry of Economy, Trade and Industry, and for an incorporated foundation, obtaining ample experience and a high level of insight regarding industry and economic activities within Japan and overseas.</td>
<td>○</td>
<td>16/16 –</td>
</tr>
<tr>
<td>Director</td>
<td>Takeshi Ushiyama</td>
<td>Rich experience and deep insight relating to Monozukuri as a manufacturing business executive</td>
<td>–</td>
<td>– –</td>
</tr>
<tr>
<td>Member of the Audit &amp; Supervisory Board</td>
<td>Takeshi Yoshida</td>
<td>Considerable knowledge relating to financial and accounting matters as a certified public accountant</td>
<td>–</td>
<td>– –</td>
</tr>
<tr>
<td>Member of the Audit &amp; Supervisory Board</td>
<td>Hisayuki Wakahayashi</td>
<td>Rich experience and broad insight relating to corporate governance as a manufacturing business executive</td>
<td>–</td>
<td>– –</td>
</tr>
</tbody>
</table>
Risk management

Basic concept
Enhancing corporate value and meeting the expectations of society

So that we may maintain and strengthen our fundamentals (corporate foundation), promptly respond to changes in the business environment and continuously improve our corporate value, we work to enhance a risk assessment promotion system that enables us to assess the major risks to the entire JTEKT group, evaluate these risks, and promote suitable countermeasures.

Promotion structure

The Council for Enhancement of Corporate Value is a company-wide cross-department organization that regularly reviews risks with the potential of affecting business activities as well as society and the environment. In October 2017, JTEKT established a new system to strengthen its initiatives for risk prevention which involved a shift from CO (Compliance Officer) to RO (Risk Management Officer). In addition to rolling out risk management to individual departments and group companies, we also aim to merge risk management activities with activities relating to corporate governance and compliance to increase effectiveness and efficiency and control risk on a global level.

Clarification of risk appraisals and response

At JTEKT, we allocate risk management departments depending on the specific item of risk. Risk management department promotes formulation of response plans and polices to prevent and reduce the manifestation of risks through the risk management working group, which is an organization directly under the supervision of the Council for Enhancement of Corporate Value.

Enforcement of immediate reporting

From FY2015, we broadened the scope of our immediate reporting system which requires prompt reporting after appraisal of a compliance issue and are enforcing a rule to ensure the initial report after a risk is appraised is made swiftly.

Strengthening of each division’s risk perspective

For each division to autonomously handle risks, the annual execution plan formulated on a division level incorporates response to potential risks that may inhibit the fulfillment of the said plan and this promotes prevention of risk manifestation and remedial measures by each division independently.

Compliance

Basic concept
All employees exhibit correct judgment and conduct in line with corporate ethics

JTEKT positions compliance as the premise and foundation of corporate value, therefore essential to realizing our corporate philosophy. Believing that compliance is not merely about observing laws, but also fulfilling our social responsibility in accordance with corporate ethics, JTEKT has established the Ethics Code for Directors and Officers, Compliance Rules, etc.

Training and awareness-raising activities

JTEKT conducts ongoing training and awareness-raising activities targeting its directors, employees and all group companies regarding how compliance is deeply intertwined with our operations. We conduct annual workshops targeting our key corporate compliance officers (directors, auditors, managing officers, etc.). The themes for our FY2017 workshop were protection of personal information and protection of small-to-medium businesses (SMBs), which are topics attracting particularly high interest from society in recent years, and provided participants with the opportunity to refresh their awareness on these issues through a lecture by an external lawyer, etc. Moreover, we have established every July as “Compliance Strengthening Month” (currently “Risk Management Strengthening Month”), during which our president sends out a message to all JTEKT employees, including group companies both in Japan and overseas, and compliance training materials are distributed for e-learning and workplace perusal, etc. in an effort to support compliance activities in each workplace. Even regarding internal training planned by our HR department, etc., compliance is addressed so that each employee can take the necessary cautions suitable to their rank and job type.

Internal reporting consultation desks

To enable fine-tuned response to each matter of consulta-
tion, JTEKT has established the Corporate Ethics Consulta-
tion Desk and several other consultation desks aimed at the prevention, early detection and recurrence prevention of scandals. Consultation desks have been individually established across the JTEKT Group, including overseas group companies.

Role of the internal reporting consultation desks

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tion Desk and several other consultation desks aimed at the prevention, early detection and recurrence prevention of scandals. Consultation desks have been individually established across the JTEKT Group, including overseas group companies.

No. of internal reports made in past 5 years

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of reports</td>
<td>50</td>
<td>51</td>
<td>51</td>
<td>45</td>
<td>50</td>
</tr>
</tbody>
</table>

Compliance inspections

At JTEKT, we carry out regular inspections targeting all internal departments and domestic/overseas JTEKT Group companies to assess the management status regarding compliance affecting our operations.

Antimonopoly law, corruption prevention

With consideration to the global trend of placing impor-
tance on fairness in JTEKT Group businesses, products and business transactions, in addition to increasingly stricter laws and exposure cases, JTEKT places particular importance on compliance with antimonopoly laws, competition laws of each country, and laws relating to corruption and bribery.

Initiative for appropriate tax payment

At JTEKT Group, we believe that the appropriate payment of taxes in the countries and regions where we do business is important in order to support corporate value and realize our corporate philosophy. Based on this belief, we adhere to each relevant country’s and region’s laws concerning tax payment and uphold this spirit of compliance.
Please tell us what your impression of JTEKT’s governance.

Okamoto
I have served as an Outside Director for JTEKT three years running and I feel that its governance has become extremely robust. Monthly governance sessions on areas for improvement by members of the Audit & Supervisory Board were begun three years ago as a new experiment and this is followed up in monthly management meetings and those on the exaction side of management respond well. This is an activity that leverages the deep knowledge of the members of the Audit & Supervisory Board and I feel it is an extremely effective mechanism. Furthermore, even when I, as an Outside Director, put forward proposals, they are firmly received by the Chairman and President, and I feel as a company JTEKT wants to leverage the capabilities of its Outside Directors to the maximum extent possible.

Miyatani
In terms of JTEKT’s governance, first and foremost, I really feel that the Audit & Supervisory Board function is enriched. Audits by members of the Audit & Supervisory Board, accurate guidance and sincere follow-up by those with executive power have taken root. Prior to the monthly Board of Directors, we Outside Directors are briefed by executive officers on major matters which is an opportunity for us to point out any issues we may notice at that point in time as well as prepare for the discussions that will take place at the Board of Directors’ meeting. JTEKT’s executive officers receive and respond to our feedback on issues requiring attention with sincerity and, depending on the result of their discussions, sometimes the headquarters who initiated the debate reconsider. In terms of risk management, with the automotive industry facing a so-called once-in-a-century change and a variety of risks, both small and large, being predicted, JTEKT has established a risk management system primarily run by a CRO (Chief Risk Management Officer). I feel management is highly sensitive to important matters and primarily run by a CRO (Chief Risk Management Officer). I predicted, JTEKT has established a risk management system change and a variety of risks, both small and large, being automotive industry facing a so-called once-in-a-century attention with sincerity and, depending on the result of their Board of Directors’ meeting. JTEKT’s executive officers well as prepare for the discussions that will take place at the point out any issues we may notice at that point in time as effective mechanism. Furthermore, even when I, as an Outside Director, put forward proposals, they are firmly received by the Chairman and President, and I feel as a company JTEKT wants to leverage the capabilities of its Outside Directors to the maximum extent possible.

Please tell us what you think of JTEKT’s current condition.

Miyatani
Regarding overall management, I feel both the 5-year mid-term management plan that comes out each year on a rolling basis and the policy management incorporated in these plans are becoming more and more matured, partly due to the fact that President Agata checks them himself. From a business aspect, cost reduction is the key amidst increasing commoditization of existing business. There is no doubt that JTEKT is a member of the Toyota Group that sets a high standard, but I want to see it not become concealed and continue to pursue initiatives on a deeper level. For example, monthly factory inspections of domestic factories are conducted by board members and these aim at checking safety, quality, productivity and energy-saving elements. In addition to this, I feel that inspections to verify cost reduction activities such as automation and efficiency increases would be effective in achieving groundbreaking cost reductions to answer customers’ needs.

Meanwhile, JTEKT inherits overwhelmingly high-level core technologies from the combined capabilities of its predecessors, Koyo Seiko and Toyota Machine Works, which have been developed ambitiously. One example of new products conceived from high-level core technology is J-PAS (power assist suit). However, I feel there is still ample room to leverage these technologies more, so I’d like to see the relevant initiatives being expanded.

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Okamoto
In addition to factory inspections of domestic bases, JTEKT also has a Group Top Committee during which top management executives from domestic group companies meet once a year to deliberate. These mechanisms not only facilitate communication between management and production shop floors, promote improvement activities and the horizontal deployment of outstanding initiatives, they are also excellent mechanisms as they contribute to increasing the motivation of young people in charge who need to give explanations and respond to Q&A. Also through participating in factory inspections and the Group Top Committee myself, I am always impressed when I see concrete cases of improvement such as shorter work time, labor-saving, stable/ improved quality and more, and this convinces me that JTEKT is the backbone to Japan’s manufacturing industry. Moreover, recent years has seen even greater advancements in productivity and quality through utilization of IoT and AI and smart factories are beginning to emerge. I have expectations that JTEKT will deploy these outcomes to its production bases both in Japan and overseas at an early stage and, given the right conditions, translate these to new pillars of its Machine Tools & Mechatronics Business. There are also remarkable aspects of JTEKT’s annual rolling-type mid-term management plan. JTEKT shares the status of autonomous driving, electrification and other existing business responses and new business developments such as structural transformation of the automotive industry through its entire company and, at the same time, firmly possesses the basic policy of developing and offering products with reduced cost and high added-value based on the line of thinking that the company can only acquire the ability to respond to future changes if it firmly increases the revenue of existing businesses.

Miyatani
In regards to overall management, I feel both the 5-year mid-term management plan that comes out each year on a rolling basis and the policy management incorporated in these plans are becoming more and more matured, partly due to the fact that President Agata checks them himself. From a business aspect, cost reduction is the key amidst increasing commoditization of existing business. There is no doubt that JTEKT is a member of the Toyota Group that sets a high standard, but I want to see it not become concealed and continue to pursue initiatives on a deeper level. For example, monthly factory inspections of domestic factories are conducted by board members and these aim at checking safety, quality, productivity and energy-saving elements. In addition to this, I feel that inspections to verify cost reduction activities such as automation and efficiency increases would be effective in achieving groundbreaking cost reductions to answer customers’ needs.

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Please tell us what you think of JTEKT’s future.

Miyatani
In regards to overall management, I feel both the 5-year mid-term management plan that comes out each year on a rolling basis and the policy management incorporated in these plans are becoming more and more matured, partly due to the fact that President Agata checks them himself. From a business aspect, cost reduction is the key amidst increasing commoditization of existing business. There is no doubt that JTEKT is a member of the Toyota Group that sets a high standard, but I want to see it not become concealed and continue to pursue initiatives on a deeper level. For example, monthly factory inspections of domestic factories are conducted by board members and these aim at checking safety, quality, productivity and energy-saving elements. In addition to this, I feel that inspections to verify cost reduction activities such as automation and efficiency increases would be effective in achieving groundbreaking cost reductions to answer customers’ needs.

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### Financial data

#### Unit: 100 million yen

<table>
<thead>
<tr>
<th>Fiscal year ending March 31st</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>13,999</td>
<td>13,183</td>
<td>14,411</td>
</tr>
<tr>
<td>Operating income</td>
<td>819</td>
<td>774</td>
<td>813</td>
</tr>
<tr>
<td>Ordinary income</td>
<td>812</td>
<td>780</td>
<td>825</td>
</tr>
<tr>
<td>Net income attributable to parent company</td>
<td>516</td>
<td>503</td>
<td>496</td>
</tr>
<tr>
<td>Net assets</td>
<td>4,800</td>
<td>5,129</td>
<td>12,770</td>
</tr>
<tr>
<td>Total assets</td>
<td>10,758</td>
<td>11,178</td>
<td>5,725</td>
</tr>
<tr>
<td>Interest-bearing liabilities (NET)</td>
<td>1,303</td>
<td>1,147</td>
<td>1,395</td>
</tr>
<tr>
<td>Equipment investment</td>
<td>631</td>
<td>664</td>
<td>666</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>584</td>
<td>560</td>
<td>604</td>
</tr>
<tr>
<td>R&amp;D costs</td>
<td>462</td>
<td>482</td>
<td>552</td>
</tr>
</tbody>
</table>

#### Current year

- **Cash flows from operating activities**: 1,101 → 992 → 1,000
- **Cash flows from investing activities**: △999 → △680 → △999
- **Cash flows from financing activities**: △493 → △221 → △602
- **Cash and cash equivalents**: 616 → 702 → 1,326

#### Financial indicators

- **Operating profit on sales**: 5.9 → 5.9 → 5.6
- **Ratio of ordinary income to net sales**: 5.8 → 5.9 → 5.7
- **ROA**: 4.4 → 4.3 → 4.2
- **ROE**: 10.5 → 10.1 → 9.7
- **Capital adequacy ratio**: 42.32 → 42.04 → 41.7
- **Debt equity ratio (NET)**: 0.29 → 0.24 → 0.32
- **Inventory turnover period (months)**: 1.4 → 1.3 → 1.4

#### Information on shares, etc.

- **Total market value**: 5,011 → 5,935 → 5,410
- **No. of outstanding shares (1,000 shares)**: 343,286 → 343,286 → 343,286
- **Dividend per share (yen)**: 42 → 42 → 43
- **Dividend payout ratio (%)**: 29.6 → 30.3 → 29.7
- **No. of employees (people)**: 43,938 → 44,528 → 49,589

#### Exchange rate (against JPY)

- **USD**: 120 → 108 → 111
- **EUR**: 132 → 119 → 130

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### Non-financial data

#### Contributing through monozukuri

- **Products [consolidated]**: Contribution to CO₂ emissions reduction[^1] → Total
- **Product group examples**: Steering[^2] → C-EPS
- **Bearing[^1]**: Tapered roller bearings for automobiles

#### Environment [independent]

- **Prevention of global warming**: CO₂ emissions for internal production: 1,000 t → 761 → 769
- **Prevention of CO₂ emissions for internal production**: 1,000 t → 761 → 769
- **Prevention of CO₂ emissions per in-house production volume**: 1,000 t → 762 → 761
- **Prevention of CO₂ emissions per in-house production volume**: 1,000 t → 762 → 761
- **Prevention of CO₂ emissions per in-house production volume**: 1,000 t → 762 → 761

#### Quality [independent]

- **No. of visitors to quality exhibitions (total)**: People → 7,072 → 11,110

#### Establishment of a firm management foundation

- **Employees [consolidated]**: Ratio of foreigners occupying key positions in overseas locations: % → 62.2 → 62.9 → 65.3
- **Employees [independent]**: Level of understanding by employees of own division’s vision: % → 85.5 → 60.2 → 67.1
- **Female employee percentage**: % → 8.3 → 8.4 → 8.6

[^1]: CO₂ emissions reduction due to an environmentally-considerate design at the product usage stage. The amount calculated globally is shown for each year.
[^2]: Figure is calculated based on the number of products designed by JTEKT therefore products produced overseas are included.
[^3]: Independent
[^4]: R&D costs included in general and administrative costs and manufacturing costs.
[^5]: Calculation method has been revised for past portions also.
Group companies

Japan

Koyo Machine Industries Co., Ltd.
- Manufacture and sale of machine tools, mechanical parts, and automotive components.

Toyo-Kage Co., Ltd.
- Manufacture of cylindrical and spherical bearings, manufacture and sale of machine tools and automotive components.

Koyo Sealing Technology Co., Ltd.
- Manufacture and sale of seals.

CMC Co., Ltd.
- Manufacture and sale of automotive components, manufacture of bearings and precision devices.

Koyo Thermo Systems Co., Ltd.
- Manufacture and sale of industrial heat treatment equipment, manufacture of bearings and precision devices, and FEP heat treatment apparatus.

Koyo Electronics Industries Co., Ltd.
- Manufacture and sale of electronic and optical products.

Digitek Co., Ltd.
- Manufacture and sale of bearings.

HOKKO Co., Ltd.
- Manufacture of bearings.

Toyoa Van Moppe Ltd.
- Manufacture and sale of dressmaking machines.

Kayanetoh Co., Ltd.
- Fusing of bearings, manufacture of select parts, and sales.

KIKI Co., Ltd.
- Lather turning of bearings.

Denpco Nippon Needle Roller Mfg Co., Ltd.
- Manufacture and sale of needle rollers and cylindrical rollers.

Koyo Heat Treatment Co., Ltd.
- Manufacture and sale of metal heat treated parts.

Toyo Seko Corporation
- Manufacturing of bearings and related products.

Yamato Seko Co., Ltd.
- Roller turning, grinding, etc.

Toho Co., Ltd.
- Lather turning of bearings.

Koyo Steering Service Co., Ltd.
- Manufacture and sale of industrial components.

FORMEC Co., Ltd.
- Manufacture and sale of sheet metal products.

Takr Engineering Co., Ltd.
- Manufacture and sale of parts for the automotive industry.

Tama Manufacturing Co., Ltd.
- Manufacture and sale of parts for the automotive industry.

Koyo Nishiju Co., Ltd.
- Manufacture of various bearings.

KYOBEARING CO., LTD.
- Sale of various bearings, machine tools, heat treatment furnaces, precision devices, automation devices, turning tools, environmental devices, etc.

Melas Shouko Co., Ltd.
- Sale of various bearings, machine tools, heat treatment furnaces, precision devices, automation devices, turning tools, environmental devices, etc.

SHUNDOCHA KOYO CO., LTD.
- Sale of various bearings, machine tools, heat treatment furnaces, precision devices, automation devices, turning tools, environmental devices, etc.

YUTAKA HIGH-TECH LTD.
- Design, drawing creation and software development.

JTEKT Service Co., Ltd.
- Technical center

Fuji Kiko Co., Ltd.
- Technical center

Fuji Kiko Auto Tech-Takex Co., Ltd.
- Technical center

Europe

France

JTEKT EUROPE S.A.S.
- European regional headquarters

JTEKT AUTOMOTIVE DUOON SAINTE-ETIENNE S.A.S.
- Manufacture and sale of automotive components.

JTEKT AUTOMOTIVE LYON S.A.S.
- Manufacture and sale of automotive components.

JTEKT HPI S.A.S.
- Manufacture and sale of automotive components.

KOYO FRANCE S.A.
- Sale of bearings.

China

JTKDTHN CO., LTD.
- Chinese headquarters, sale of automotive components and bearing components.

JTK DESIGN SYSTEMS (SHAEN) CO., LTD.
- Manufacture and sale of automotive components.

JTEKT AUTOMOTIVE (TAIWAN) CO., LTD.
- Manufacture and sale of automotive components.

JTEKT AUTOMOTIVE (HONG KONG) CO., LTD.
- Manufacture and sale of automotive components.

JSK KOYO BEARING (SHANDONG) CO., LTD.
- Manufacture and sale of bearings.

DKY KOYO (WUXI) AUTOMOBILE BEARING CO., LTD.
- Manufacture and sale of bearings.

KOYO BEARING (DALIAN) CO., LTD.
- Manufacture and sale of bearings.

North America

USA

JTEKT NORTH AMERICA CORPORATION
- North American regional headquarters

South America

Brazil

JTEKT AUTOMOTIVE BRASIL LTDA.
- South American regional headquarters, manufacture and sale of automotive components.

KOYO ROLAMENTOS DO BRASIL S.A.
- Manufacture and sale of bearings.

TOYODA KOYO DO BRASIL INDUSTRIA E COMERCIO DE MÁQUINAS LTDA.
- South and sale of machine tools.

JTEKT AUTOMOTIVE BRASIL LTDA. TECHNICAL CENTER
- Technical center

Argentina

JTEKT AUTOMOTIVE ARGENTINA S.A.
- Manufacture and sale of automotive components.

Koyo Latin America S.A.
- Manufacture and sale of bearings.
Company Profile

Company name: JTEKT Corporation

Headquarters: No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka Japan

Head Office: [Nagoya Head Office] 15th Floor, Midland Square, No. 7-1, Maisaki 4-chome, Nakamura-ku, Nagoya, Aichi Pref. Japan
[Osaka Head Office] No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka Japan

Phone number: [Nagoya Head Office] 052-527-1900
[Osaka Head Office] 06-6271-8451

President: Tetsuo Agata

Capital: 45.5 billion yen (As of the end of March 2018)

Number of employees: 49,589 [consolidated] (As of the end of March 2018)
11,763 [nonconsolidated] (As of the end of March 2017)

Sales: 1,441.1 billion yen [consolidated] (Fiscal Year Ending March 2018)
647.1 billion yen [nonconsolidated] (Fiscal Year Ending March 2018)

Ordinary income: 82.5 billion yen [consolidated] (Fiscal Year Ending March 2018)
32.9 billion yen [nonconsolidated] (Fiscal Year Ending March 2018)

Consolidated subsidiaries: 149 (34 in Japan, 115 overseas)

Stock information

Total number of shares: 1,200,000,000 shares
Total number of shares issued: 343,286,000 shares

Number of shareholders: 22,044 Shareholders

Distribution by ownership (Percentage of total shares issued)

- Own shares: 274 thousand shares (0.1%)
- Individuals / other: 25,607 thousand shares (7.5%)
- Overseas affiliates, etc.: 70,191 thousand shares (20.4%)
- Other Japanese corporations: 122,453 thousand shares (35.7%)
- Securities companies: 117,443 thousand shares (34.2%)
- Financial institutions: 7,316 thousand shares (2.1%)

Largest shareholders (Top 10)

<table>
<thead>
<tr>
<th>Shareholder name</th>
<th>Number of shares</th>
<th>ratio of shareholding (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toyota Motor Corporation</td>
<td>77,235,000</td>
<td>22.5</td>
</tr>
<tr>
<td>The Master Trust Bank of Japan, Ltd. (Trust account)</td>
<td>29,097,000</td>
<td>8.5</td>
</tr>
<tr>
<td>DENSO CORPORATION</td>
<td>18,371,000</td>
<td>5.4</td>
</tr>
<tr>
<td>Japan Trustee Services Bank, Ltd. (Trust account)</td>
<td>17,655,000</td>
<td>5.1</td>
</tr>
<tr>
<td>Nippon Life Insurance Company</td>
<td>10,013,000</td>
<td>2.9</td>
</tr>
<tr>
<td>Toyota Industries Corporation</td>
<td>7,813,000</td>
<td>2.3</td>
</tr>
<tr>
<td>Sumitomo Mitsui Trust Bank, Limited</td>
<td>7,635,000</td>
<td>2.2</td>
</tr>
<tr>
<td>Resona Bank, Limited</td>
<td>6,749,000</td>
<td>2.0</td>
</tr>
<tr>
<td>Sumitomo Mitsui Banking Corporation</td>
<td>6,366,000</td>
<td>1.9</td>
</tr>
<tr>
<td>Toyota Tsusho Corporation</td>
<td>5,969,000</td>
<td>1.7</td>
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