

# CSR Report 2015

# JTEKT

JTEKT CORPORATION



# Working together towards a better future

In FY 2014 we worked to accelerate our mid-term management plan towards the fulfillment of the JTEKT GROUP VISION, yielding a great number of results.

We will continue to pursue the true needs of the world, while keeping in mind the valuable communication we share with our stakeholders.

By focusing on “building value”, “building excellent products”, and “building professionals” within our activities, we JTEKT hope to contribute to a better future.

### Editing policy

- This report aims to inform our stakeholders in straightforward language of JTEKT’s concept and activities surrounding CSR.
- This report is divided into a Message (this leaflet) and a full online report containing both the Message and the Details & Data section.
- For related articles:

M = CSR Management S = Social Report E = Environmental Report

### Target period and target organizations/scope

#### Target period

FY 2014 (April 2014 - March 2015)

\* Some items include content from other periods.

#### Target organizations and scope

All JTEKT Corporation activities

Management of the JTEKT group is carried out on a group-wide basis, including elements such as environmental data measurement and control based on a uniform standard. Some items also show the performance of our domestic affiliated companies and overseas local affiliates. As a general rule, if there are changes in the tallying scope, we revise data dating back to the past.

### Reference guidelines

- © GRI (Global Reporting Initiative)  
“Sustainability Reporting Guidelines 2013 (G4)”
- © Japan’s Ministry of the Environment  
“Environmental Reporting Guidelines (2012 edition)”
- © ISO26000 (International Standard for corporate responsibility)



This mark is used to indicate new actions begun in FY 2014 and information disclosed for the first time in this year’s report. \*This mark has been omitted in pages 6-11 of this leaflet as they include information about new engagements only.

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Results of CSR activities for the past 3 years

<b>Company Profile</b>	Business areas / Company profile	
	Company history / Sales / Ordinary income	
	Number of employees	<b>20</b>

Details & Data

website

### **M** CSR Management

CSR policy / CSR promotion structure  
The foundation supporting CSR

### **S** Social Report

Together with customers / Together with business partners  
Together with employees / Together with local communities  
Together with shareholders and investors

### **E** Environmental Report

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Response to the third-party opinion

### Environmental Data by Operations Base

Domestic plants, operations bases / Global operations bases

This leaflet, as well as Details & Data, is available for viewing on the JTEKT website.

<http://www.jtekt.co.jp/e/csr/>





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## Moving dynamically towards a better future while constantly perceiving environmental changes

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JTEKT Corporation Company President

**Tetsuo Agata**

### Towards a stronger business foundation

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At JTEKT, we practice honest business activities with deep consideration to relations with our stakeholders, in order to fulfill our corporate philosophy of “contributing to the happiness of people and society through product manufacturing.” We believe that it is our corporate social responsibility (CSR) to strive to continuously improve our company value. In following this belief, we JTEKT are working to strengthen our business

foundation of safety, quality, environment, and compliance, as a *monozukuri* company.

First, our most important duty is guaranteeing the safety of our employees. Last year, a large number of workplace accidents occurred, including stumbling and falling during walking. A great percentage of these accidents had reoccurred from previous years. Realizing how critical the situation has become, this year we have formulated the Safety Vision of “‘Safety First’ No.1 JTEKT - We can eliminate all accidents!”. Led by all JTEKT officers, the leaders of each workplace are strengthening activities for building a safe, secure, lively and tidy workplace in order to eliminate work-related accidents, with the firm belief that accidents can be prevented.

Next, we newly established a “TOP Direct Control” system in September 2014 to further improve product quality, aiming for a brand that customers can trust and feel safe using. For our quality control system, we are implementing management of the benchmarks within each step leading up to planning, development, design, production preparation, and production. We are also working to improve the floor management of manufacturing sites. These activities are being developed with the utmost speed.

Regarding global environmental conservation, JTEKT is accelerating the enhancement of a globally based control system aimed at eliminating environment abnormalities at each JTEKT location. We have set new objectives for cutting CO<sub>2</sub> emissions in the time between FY 2016 and FY 2020, and are considering participating in the fulfillment of “halving greenhouse gas emissions by 2050”, which is the goal of international society. We will also continue on with actions to enforce compliance amongst all directors, managing officers, and employees, conducting periodic checks on the status of enforcement to ensure improved awareness amongst all JTEKT members.

### Clarifying the “JTEKT Way” value cherished by each and every employee

In achievement of our 10th year founding anniversary in January 2016, we will be newly formulating a “JTEKT Way” that can be described as an ideological foundation as well. To achieve our ideal, the JTEKT GROUP VISION of “Shaping a Better Future through the Spirit of “No. 1 & Only One”, we shall actively take in the good traditions and culture that have been passed down unbroken to us from our predecessors, Koyo Seiko and Toyoda Machine Works, and incorporate them into a new DNA. We JTEKT believe that, as individual employees are the creators of value, the greatest wellspring of competitiveness is the ability of each employee to work vibrantly with shared values

as a team, based on a relationship of trust born from mutual understanding of various cultures across the globe. As such, we are presently conducting opinion exchanges on a global basis, and working to clarify values that should be shared by all JTEKT members. We believe that widespread, thorough familiarization of these actions will firmly establish a “JTEKT-ness” that cannot be easily imitated, and contribute to improved corporate value, the happiness of people, and an abundant society.

### Steady progression of the mid-term management plan

Although developed countries showed signs of growth stagnation last fiscal year, the slump within the world economy appears to have bottomed out, as seen in the steady recovery maintained by the United States, and the slow continuous recovery in Europe. The Japanese economy has steadily improved overall; however at JTEKT, a decline in demand from the automotive industry, due to backlash from the last-minute surge in demand before the rise in consumption tax, became evident last term. Amidst this situation, the JTEKT group has banded together to accelerate the mid-term management plan. At the end of FY 2014, evaluations regarding the progress of the plan and changes in the external environment were incorporated into and renewed within the plan for the next year onward. (\*)





In this way, we will establish a strong foundation not susceptible to change, and continue to grow as a truly global *monozukuri* company to contribute to the creation of an abundant society. We JTEKT sincerely appreciate your ongoing support.

**\* [Overview of mid-term management plan]**

**Automotive Systems business (Steering/driveline components)**

**Ideal**

Continue to challenge ourselves to become the all-time leading supplier in the market with the spirit of "World No.1" & "Only One", through delivering value to customers

**Main business strategies**

- ① Strengthen capabilities for global projects
- ② Accelerate core components strategy (column/MCU)
- ③ Expand business for downstream assist type electric power steering
- ④ Develop next-generation, high value-added products
- ⑤ Reorganize plants in North/Central America

**Bearing business**

**Ideal**

Follow the growth of the global market and strengthen business constitution

**Main business strategies**

- ① Structural reform / Reorganization of plants in Japan / Reorganization of overseas plants (Europe/China)
- ② Establish productivity and production engineering strength
- ③ Develop next-generation, high value-added products
- ④ Organize sales expansion framework for industrial machinery/marketed areas

**Machine Tools & Mechatronics business**

**Ideal**

- Genuine total production system integrator that is trusted by customers
- Provide values at all phases of *monozukuri*

**Main business strategies**

- ① Groundbreaking cost reduction
- ② Conduct sales activities with defined goal and enhance cooperation with dealers
- ③ Develop next-generation, high value-added products
- ④ Enhance global customer support

**Functional units**

**Financial basis** Cut interest-bearing debt and secure strategic funds

- ① Leveling of global cash
- ② Organization of retained assets and less profitable business assets
- ③ Create appropriate inventory      ④ Cut investment per unit

**Operational reform**

- ① Standardize and upgrade daily work among all the indirect departments of the JTEKT group

**Human resource development**

- ① Formation of a global succession plan (successor training)
- ② Organization of a company training system

**Actions to enforce compliance**

The JTEKT group underwent an inspection by the Fair Trade Commission in July 2011, and was consequently recognized as having violated the Anti-Monopoly Act. We JTEKT take this very seriously, and are engaging in policies to strengthen our compliance framework and raise awareness in each and every employee. The operational status of each policy is periodically checked and ascertained, and improvements are implemented through the reflection of opinions from work sites within the policies.

**Activity progress**

**[ Compliance check ]**

The management situation concerning compliance is periodically checked to elucidate issues within each workplace and each group company and raise awareness in all JTEKT members.

**[ Summary and deployment of case examples of compliance violations ]**

Each month, case examples of compliance violations (accidents/near-misses) which occurred within the JTEKT group are summarized and reported at management meetings. These summaries are rolled out to group companies to be utilized in reoccurrence prevention throughout the entire group.

**[ Training and educational activities ]**

We implement office compliance training (twice a year), rank-based training for promoted personnel, and mobile training for all sales personnel. We also publish a Compliance Letter each month targeting all employees, which includes case examples and quizzes on relevant legal problems. The Compliance Letter is utilized in educational activities within each workplace.

**[ Acquisition of testimonies relating to the observance of laws and regulations ]**

Since November 2011, testimonies regarding the observation of laws and internal regulations have been gathered each year by all personnel from JTEKT and JTEKT group companies. All employees vowed to observe laws and regulations in FY 2014.

**[ Reports concerning contact with competitors ]**

Since November 2011, all sales members are obligated to submit an application before making contact with competitors, and a post fact report after contact (all employees are now obligated as well). The Compliance Promotion Office receives the report and confirms the situation. A workflow was implemented in FY 2014 to streamline the reporting procedure.

**[ Anti-Corruption ]**

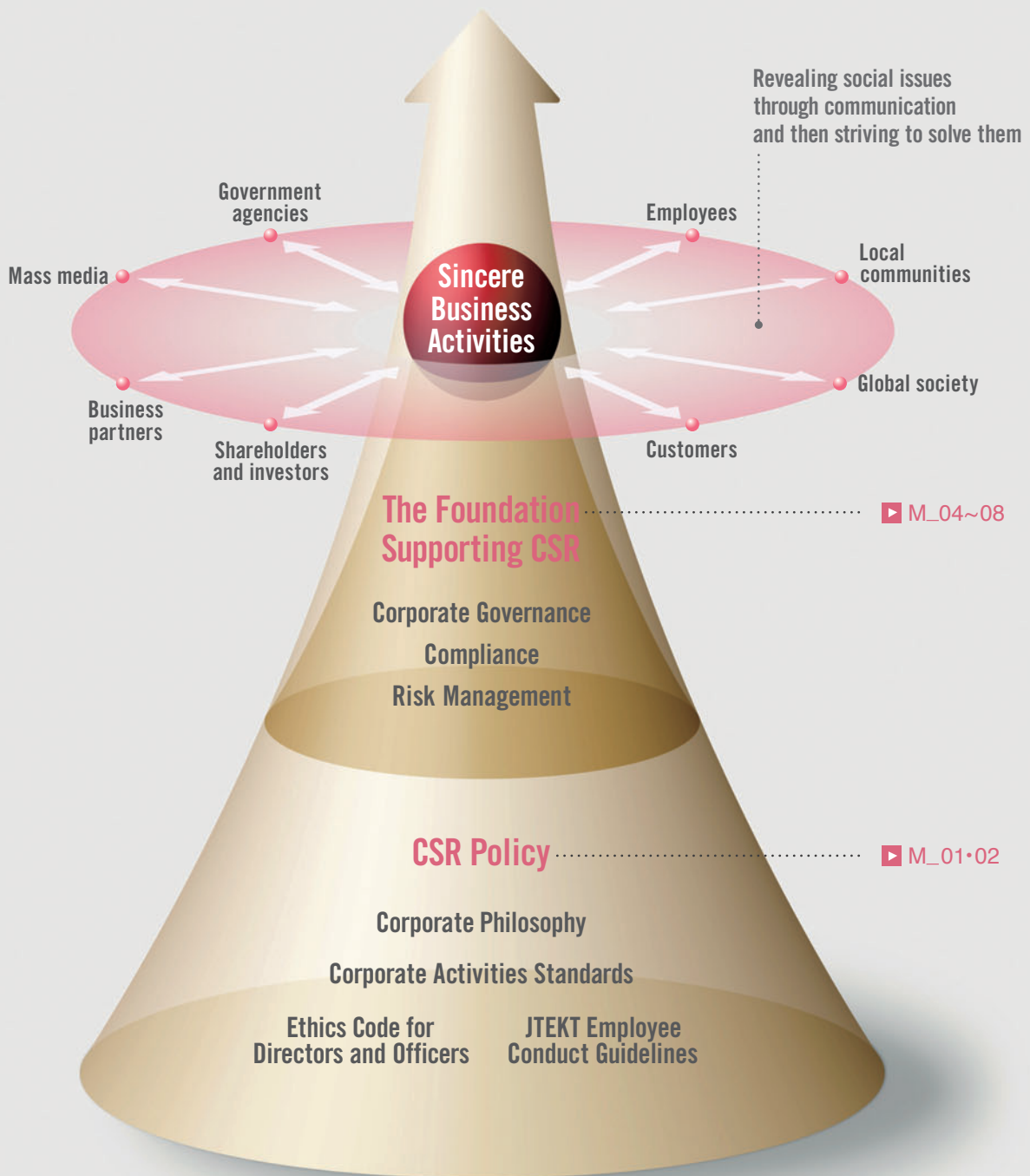
In June 2014, we introduced an Anti-Corruption Regulation, and issued an Anti-Corruption Guideline in January 2015. We work to familiarize all employees with this regulation and guideline through the transmission of administrative messages and instruction in all types of training.

→ [M\\_05 Related article](#)

**Spreading CSR activities capturing the JTEKT essence further throughout society**

JTEKT aims to contribute to the development of a sustainable society and planet through sincere business activities based on our corporate philosophy of "contributing to the happiness of people and the abundance of society through product manufacturing". By valuing communication with each of our stakeholders, we will do our best to uncover social issues. Then, we will create and apply solutions to such issues and spread CSR activities capturing the JTEKT essence further throughout society.

**Contribute to the development of a sustainable society and planet**



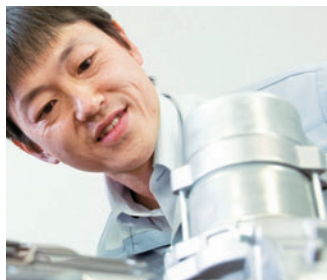




Building value that exceeds expectations  
P6



Global  
P12



CSR Report 2015

# PICK UP 2014

This section introduces the major activities and results from FY 2014, centered on the JTEKT GROUP VISION. We have added to our selection “Disaster Recovery Support”, which we continuously address.

Industrial safety  
P14

Disaster Recovery Support  
P17



Prevention of global warming  
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Intra-company CSR familiarization  
P15

## JTEKT GROUP VISION

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

### Building Value

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

### Building Excellent Products

Astonish the world with “*Monozukuri*,” 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.

**Redundant design column type electric power steering (C-EPS) system**

JTEKT GROUP VISION

Building Value

**Pursuing a higher level of safety through the usage of the world's first redundant design in EPS**

**Developed with a process compliant with Functional Safety standard ISO26262**



Automotive Systems Business Headquarters  
Central JAPAN Technical Center  
System Design Office 1  
Design Group 4

**Tatsuya Kawai**

Automotive Systems Business Headquarters  
Electronics Engineering Dept. 3  
Development Office 1  
Design Group 1

**Tsukasa Murase**

In 2011, our company created a development process in conformance with the international Functional Safety standard ISO26262 for electronic control systems equipped on automobiles. We also organized a system where an internal auditing agency can perform safety audits independent from the design and development departments, and rolled out this system on a global basis. The recently developed C-EPS system is our first product developed and mass-produced using the audit system. This C-EPS system is utilized in Toyota Motor Corporation's redesigned Alphard and Vellfire, and is scheduled to be deployed to automakers both in and outside of Japan.

"We want to continue to give the world even more excellent products by pursuing further miniaturization, weight-saving and comfort while answering ever-increasing demands for safety. This is how we wish to contribute to the future automobile society." (Murase)

Electric power steering (EPS) is equipped on automobiles throughout the world. In 1988, JTEKT succeeded in the first ever development and mass production of column type EPS (C-EPS), and today boasts the top global share in EPS. As a pioneer and leading company in EPS, JTEKT has always regarded the improvement of safety as a top priority in further evolving its technologies and products. In 2014, JTEKT developed a C-EPS system with a redundant design in order to achieve a higher level of safety. Mass production of this new system began in January, 2015.

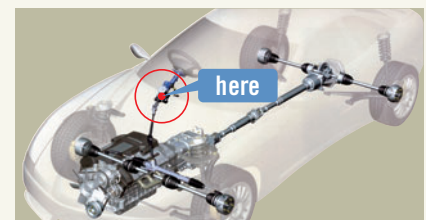
**Assuring a high level of safety through redundant design**

A redundant design has two components with the same role, so that even if one of the components fails, the other can continue its job. Our newly developed C-EPS system employs the world's first redundant design in EPS, within the torque sensor which detects driver operations, and the motor which generates assist torque. If a problem arises in one of the systems during driving, assistance will continue to be supplied to the handle, guaranteeing a high level of safety.

Furthermore, with three-dimensional arrangement of the motor drive integrated circuit, we have achieved a smaller size and weight for the system. Quietness has also been improved through the adoption of a new motor design. "By fusing ideas for both electric and mechanical design, we have optimized the entire system and achieved a high level of quietness and comfort." (Kawai)



Development project members



**Assist continuation rate at failure**

Compared with conventional

Approx. **55%** increase

**Volume**

Compared with conventional

Approx. **28%** smaller

**Quietness**

Compared with conventional

Approx. **40%** reduction



High-pressure hydrogen gas valve and regulator for fuel cell vehicles

JTEKT GROUP VISION

Building Value

Contributing to the birth of hydrogen fuel cell vehicles for the public through unique technology

Automotive Systems Business Headquarters  
FC Business Dept.  
FC Design Office  
Engineering Group 1

**Takuya Suzuki**



Amidst society's excessive dependence on fossil fuels and escalating environmental problems such as global warming, fuel cell vehicles are greatly anticipated as the ultimate eco car due to the fact that they run on hydrogen fuel and emit no CO<sub>2</sub> or air pollutants. In December 2014, Toyota Motor Corporation became the focus of much publicity when it released its fuel cell vehicle MIRAI for purchase by general consumers. A high-

pressure hydrogen gas valve and regulator developed by JTEKT are equipped on the Toyota MIRAI.

Achievement of a high sealing capability to seal 700 bar high-pressure hydrogen

Mounted on the tank storing high-pressure hydrogen fuel, the high-pressure hydrogen gas valve bears the task of stopping and supplying hydrogen.

"Since hydrogen is the smallest element, it can escape through incredibly small gaps. We therefore realized a high sealing capability to seal hydrogen packed at the high-pressure of 700 bar. Furthermore, we implemented safety measures to prevent hydrogen from leaking to the outside air by designing the solenoid valve

to close automatically in the event of an emergency, such as a collision."

The regulator, on the other hand, is a component which depressurizes the highly pressurized hydrogen, supplied by the high-pressure hydrogen gas valve, to a pressure which can be utilized by the fuel cell stack of the power generator.

JTEKT receives the Project Prize from Toyota Motor Corporation

As this was the development of a completely new product rather than the improvement of an existing one, a considerable amount of time was spent on trial and error before the product was ready for mass production.

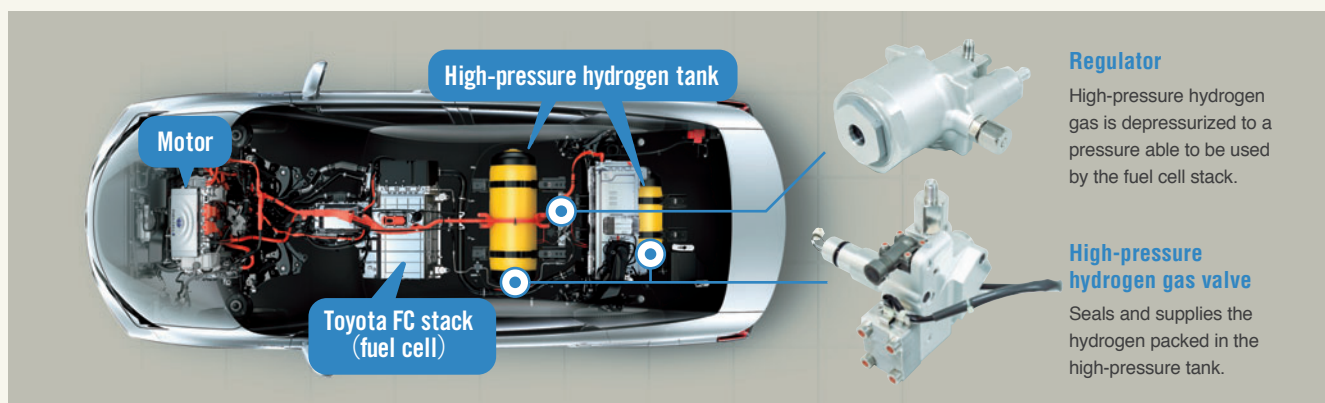
"Because there was no previous technology, we were constantly groping in the dark. I even consulted researchers in related fields. It was a lot of work, but as an engineer it was fun to try my hand at a cutting-edge field. More than anything, I am deeply moved by the thought that we were able to create an entirely new product within JTEKT. It is the result of our determination as a team to never give up."

The high-pressure hydrogen gas valve and regulator were recognized by Toyota Motor Corporation as unique technologies contributing to the improved product competitiveness of the MIRAI, and thus were awarded the Project Prize (in engineering).

"Fuel cell vehicles will become a familiar type of vehicle to everyone, in the near future. We intend to contribute to the widespread usage of these vehicles by continuing to evolve JTEKT products."



Toyota MIRAI



\* MIRAI is a registered trademark of Toyota Motor Corporation.

## Heat-resistant full-time sliding intermediate shaft



### Usage of heat-resistant resin on slide part

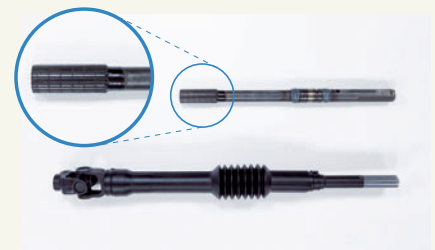
The intermediate shaft is a component which connects the handle side with the tire side and transmits handle operating force to the steering gear. Amidst rising demands for quietness

and comfort within the vehicle interior, JTEKT has developed a product with suppressed noise generation and enhanced steering feeling by coating the slide part with resin. After countless improvements, the product began mass production. Moreover, in March 2015, JTEKT developed and began mass production

of a new intermediate shaft which utilizes heat-resistant resin as the coating.

### Enabling application within the engine room

The resin applied to the new intermediate shaft is a unique product developed through the cooperation of all JTEKT divisions, including research, design, and production. By raising the heat resistance of the resin, its application has been expanded to include automobiles utilizing an intermediate shaft in the engine



Manufactured by Koyo Machine Industries Co., Ltd.

## Needle roller bearing for high speed rotation planetary gears

→ E\_10 Related article



### Resolving challenges through cooperation with group companies

In 2014, our company finished development of a needle roller bearing to be used in planetary gears within automatic transmissions (AT). The strength of the bearing is compatible with conventional high speed rotation, despite its smaller size. This size allows for a

more compact AT, which in turn leads to increased fuel efficiency of the vehicle. Centrifugal force is applied to the bearings of planetary gears. To support high speed rotation, the material of the cage must be thick to increase strength. However, this would cause the cage to become heavier, resulting in an even larger centrifugal force. Therefore, we solved the problem by increasing the thick-

ness only in the necessary portions in order to maintain a light weight. The manufacturing method for the new bearing was developed through cooperation with group company Utsunomiya Kiki, and uses unique machining technology created by the JTEKT group.

“Although the new needle roller bearing is small, its effect is great because of its use in multiple places within the AT. We will work to further evolve and improve this technology.”





JTEKT GROUP VISION **Building Value**

room, such as FR vehicles and SUVs. In addition, the resin is lighter than the conventional type, contributing to reduced fuel consumption of the vehicle.

“Since we hold the number one share, our products greatly influence the automobile society. I hope to continue unfolding products with superior functionality and quality to the entire world.”



**Durability**  
Amount of increased rattle in rotational direction at high temperatures  
Compared with conventional **Approx. 50% reduction**

**Mass**  
Compared with conventional **Approx. 18% lighter**

JTEKT GROUP VISION **Building Value**



Utsunomiya Kiki Co., Ltd.  
Production Engineering Dept.  
Production Engineering Group

**Hajime Kuriki**

The shape of the cage for the bearing was based on a proposal from the manufacturing division with consideration to “creation”, coinciding with demands from the design division for better performance. I feel proud that our proposals lead to the happiness of our customers. I will devote myself to providing the world with even better products.”

Manufactured by **Utsunomiya Kiki Co., Ltd.**

Head office  
585, Suzumenomiya-cho, Utsunomiya, Tochigi

Date founded October 1, 1953

Number of employees  
274 (As of end of March 2015)

Business activities  
Manufacturing/sales of needle roller bearings

**High speed**  
Compared with conventional **5~15% higher**

**Bearing width**  
Compared with conventional **Approx. 10% smaller**

**Hyper coupling (torque limiter)**

JTEKT GROUP VISION **Building Value**



**Supporting the steelmaking industry while nurturing our bond with customers**

Bearing Operations Headquarters  
Industrial Machinery Application Engineering Dept.  
Drive Shaft Engineering Office  
**Akihide Nagayama**

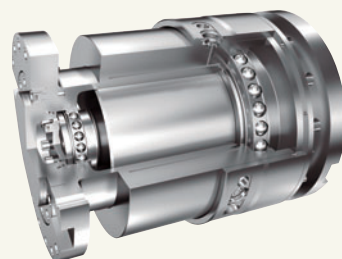
**Safety device which immediately interrupts overload**

In a steel rolling mill, rolled material is sent through the space between the upper and lower rolls, where it is stretched very thinly. When biting occurs in multiple places on rolled material, excessive torque is placed on the entire device, causing breakage in the motor or drive shaft which transmits motor rotation.

In 2014, JTEKT completed development of a safety device which interrupts the load immediately upon the occurrence of overload. Developed for steel rolling mills with large size drive shafts, this new device enables JTEKT to support all drive shaft sizes, as JTEKT has already developed safety devices for small and medium size drive shafts.

**Top share in drive shafts for steelmaking equipment**

The safety device developed by JTEKT employs a hydraulic expansion type method which, compared with the conventional device,



boasts “no need for regular replacement of parts”, “reduction of recovery time”, and “smaller recovery parts”.

In 1967, JTEKT was the first Japanese drive shaft manufacturer to produce and deliver a drive shaft for steelmaking equipment, and to this day maintains the domestic top share.

“I think that our bond with customers is what decides the share of our company. We will continue to listen to the needs of our customers in order to provide them high-quality products and keep contributing to the development of the steelmaking industry.”



Manufactured by **Koyo Machine Industries Co., Ltd.**

Head office 2-34, Minamiuematsu-cho, Yao, Osaka

Date founded August 8, 1961

Number of employees 1,209 (As of end of March 2015)

Business activities Manufacturing/sales of automotive parts, machine tools, precision devices, and FA systems

**Man-hours needed for recovery operation**  
Compared with conventional devices that work by pin-shearing **1/4**

Horizontal machining center FH630SX-i

→ E\_10 Related article

JTEKT GROUP VISION

Building Value



Research & Development Headquarters  
Advanced Process Innovation R&D Dept.  
Processing Elements Sect.

Yuji Sasaki

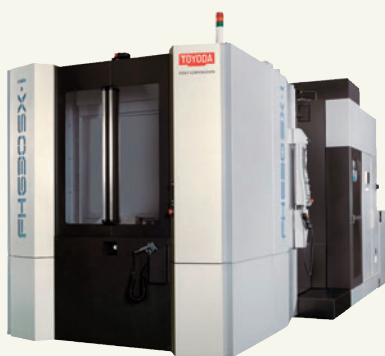
Machine Tools & Mechatronics Operations Headquarters  
Machine Tools Development Dept.  
Standard Machine Development Office  
Cutting Machine Group

Yuji Oka

Contributing to the *monozukuri* of the world through easier machining with higher accuracy

More efficient, higher accuracy, and easier machining of larger workpieces—demands for equipment which manufacture mid-size components used in automobiles, aircraft, agricultural and construction machinery, and energy-related equipment continue to diversify and

increase in sophistication year after year. In response to these demands, we have developed and launched the FH630SX-i. Based on the past FH630SX, the FH630SX-i has greatly increased machining area and load capacity while improving productivity and workability in 2013. Furthermore, we added new functions to the FH630SX-i in 2014 to enable easier machining with higher accuracy.



Dramatic reduction of heat-related machining errors using unique technology

One of the functions newly added in 2014 is a real time thermal displacement compensation function. In the machining of metal components, temperature changes inside the plant

and heat from the machine greatly influence machining accuracy. Therefore, temperature stabilization using warm-up operation and air conditioning, and compensation machining after operation are conducted at manufacturing sites in order to maintain accuracy. The new function of the FH630SX-i renders these troublesome tasks unnecessary by analyzing thermal displacement within the CNC (computer numerical control) unit based on a 3D model of the machine and temperature data of each part of the machine, measured with a temperature sensor. Tool tip displacement is then calculated so that the position can be controlled in real time, dramatically reducing the number of machining errors caused by heat.

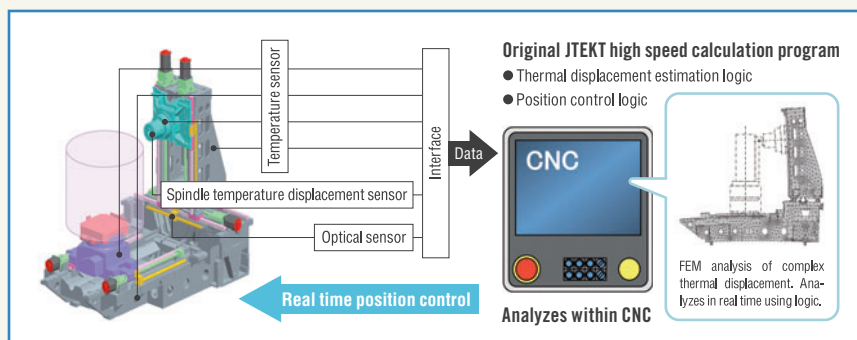
Warm-up operation and compensation unnecessary Achieves improved productivity and energy conservation

Compared with conventional machines, the FH630SX-i has improved machine specifications, machining accuracy, and workability. In addition, it achieves better productivity and energy conservation since warm-up operation and compensation are not needed.

“Stable, high accuracy machining can be performed by operators even without veteran technology such as compensation, or in plant environments with a large amount of temperature change. We will continue to develop machine tools which contribute to people throughout the world who are involved in *monozukuri*.” (Oka)

“Using an unprecedented idea, we have developed a technology which analyzes complex thermal distortions of a machine at top speed, thereby reducing the number of heat-related errors. This enables easy, highly accurate machining. We aim to create machine tools with which any operator can achieve *monozukuri* more easily.”(Sasaki)

● Real time thermal displacement compensation system



Machining errors cause by room temperature changes  
Compared with conventional **88%** reduction  
Approx.

Power consumption  
Compared with conventional **19%** reduction  
Approx.



Production management system TIPROS-Es100

JTEKT GROUP VISION

Building Value



Machine Tools & Mechatronics Operations Headquarters  
Mechatronics Control Engineering Dept.  
Mechatronics Control System Engineering Office  
Group 1

Satoshi Kato

Supports production improvement by visualizing the entire plant

Our company has developed numerous control system devices with which we have continued to support *monozukuri* sites. These devices include a programmable logic controller (PLC) to control equipment movements, a direct monitor which visualizes equipment status, a specialized PLC for improved safety, and a CNC unit which numerically controls machining processes using a computer. Then, in 2014, we developed the TIPROS-Es100 production management system. This system allows not only visualization of each individual unit of equipment, but realizes the visualization of the entire production line and plant to help support

the further improvement of production.

Unseen weak points are visualized, enabling the reduction of wasted time through countermeasures

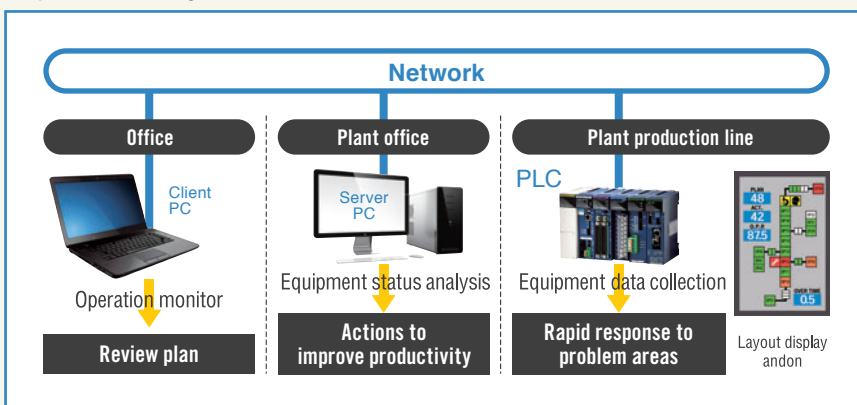
For some reason, the production volume is less than expected. Equipment stops frequently, but it is unclear why. At any *monozukuri* site, we are faced with these kinds of problems, which appear unresolvable. JTEKT has therefore developed the TIPROS-Es100 production management system to aid in the resolution of such problems. With this system, the user can confirm what is happening on which machine using the layout

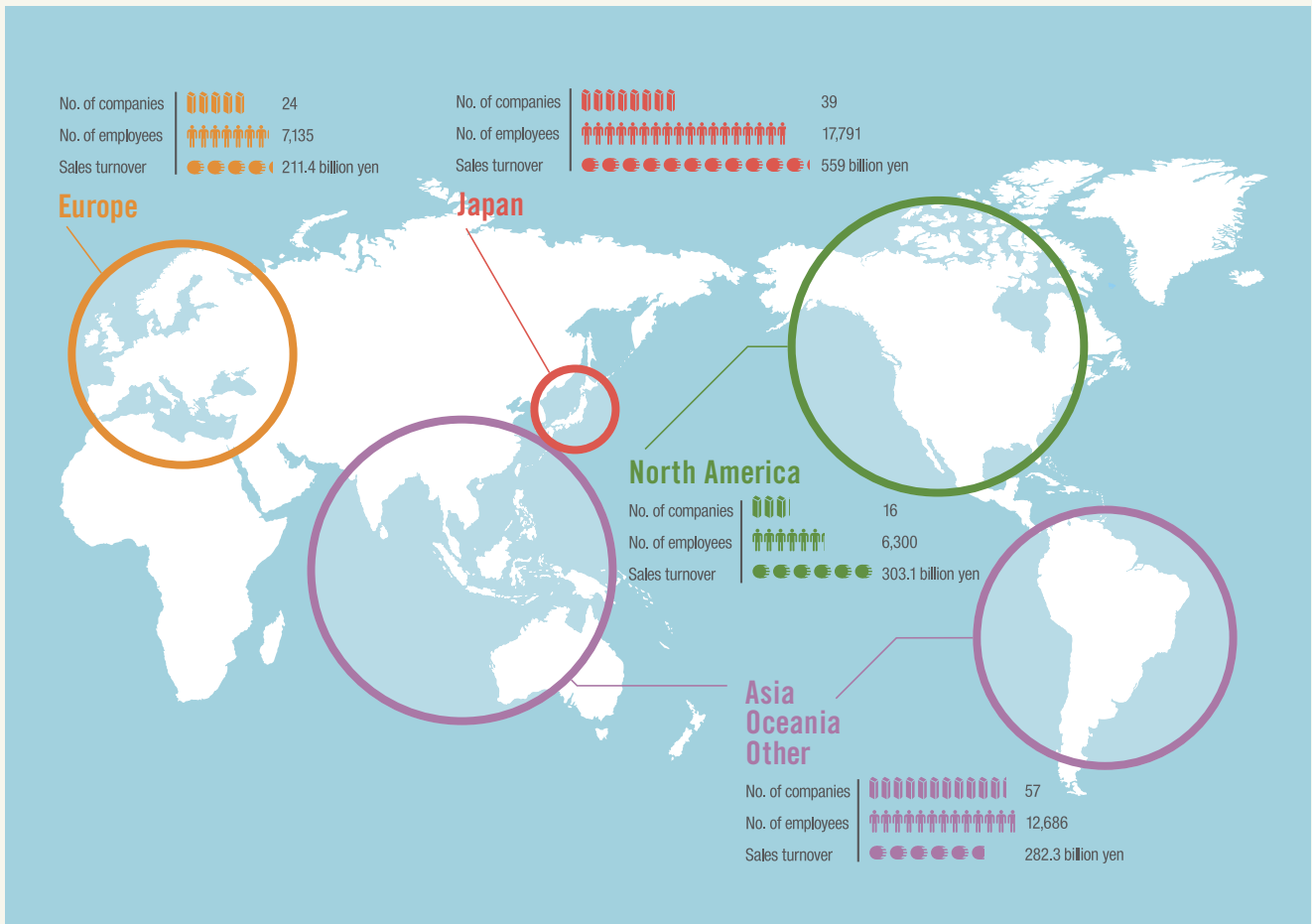
display andon to conduct the appropriate response. The system can also analyze weak points using PLC data accumulated in the server, and can be utilized to read the status of a production site at a remote office for the purpose of reviewing plans. The TIPROS-Es100 system provides a panorama of the entire production line and plant to enable visualization of weak points for countermeasures to reduce wasted time. Furthermore, the system maximizes the capability of all production equipment to contribute to improved productivity.

Utilizing our strength of developing both machine tools and control system devices

JTEKT is a manufacturer of components as well as machine tools, and also develops and manufactures control system devices. "To those of us involved in the development of control system devices, developing and manufacturing machine tools in-house is one of the great strengths of JTEKT. This is because we can listen directly to the detailed views and opinions of the makers of machine tools. I want to use this strength to firmly watch over *monozukuri* sites by developing a production management system that will further satisfy our customers and gain their trust. Our aim is to advance the system so that it will be able to not only respond instantly to equipment errors, but prevent the occurrence of errors altogether.

● System structural design





Global HR

## Organizing a framework where a variety of human resources can work across different countries and regions

### Introduction and acceleration of a global succession plan

The combined JTEKT group has approximately 44,000 employees, in Japan and overseas. Around sixty percent of that number works in overseas countries. We aim to build a global HR management and training system where motivated and capable personnel can work across different countries and regions in an environment most suitable for them, regardless of nationality or race. The introduction and application of a global succession plan is scheduled as one of the activities for achieving this goal.

### Examining the main posts of each global base by interview ★ **New!**

The first step was to examine and clarify what kinds of roles the main posts of each overseas base fulfilled by using discussions and conference calls in FY 2014. For the next step, we will organize and assess information on the careers and capabilities of employees currently holding main posts and employees who are possible candidates for succession, and use this information to discover, train and appropriately assign the successors for each post. Committee meetings are scheduled to be launched in each region for this purpose.

### Global HR meeting: Discussion on future policies

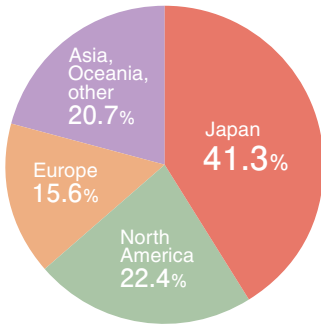
On December 11th and 12th, personnel in charge of HR in Japan and the six main overseas regions gathered for the second global HR meeting since December of last year, held in Kariya city, Aichi. The attendees discussed the progress and future policies of the global succession plan.



2nd Global HR Meeting

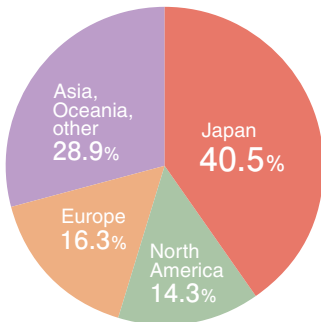
Sales turnover share by location

(FY 2014 consolidated net sales)



Employee percentage by location

(Current as of end of March, 2015)



JTEKT GROUP VISION

Building Professionals

Raising English ability as a part of global HR training

New!

In FY 2014, we introduced training for strengthening problem solving ability as a means of developing human resources capable of working on a global basis.

We are also devoting much of our energy to raising English ability amongst all employees. An internal TOEIC test is conducted twice a year to provide periodic evaluation of English ability. In April 2014, 672 JTEKT members took the test, followed by 928 members in October. In addition, we have introduced a system where the company pays 30 percent of the course fee for all self-development English correspondences courses, if the employee taking the course achieves their target test score. This is designed to help raise motivation for English learning.

→ S\_03-08 Related article

Global management framework

JTEKT GROUP VISION

Building Excellent Products

Unfurling JTEKT quality throughout the world

Assignment of JTEKT directors to six major regions

The JTEKT group assigns directors to six major regions in the world to streamline its global management framework: North America, Europe, China, ASEAN, India, and Central/South America.

Production line creation methods and management systems developed in Japan are rolled out to overseas bases and utilized for worldwide *monozukuri* that guarantees the quality and cost expected by customers.

Enhancing production capability in each country

We believe that laying out a framework that can provide customers with products quickly and reliably is an important responsibility of all manufacturers. In FY 2014, our company raised productivity levels in each country to

respond to vigorous demands for automobiles throughout the world. In June we began local production of pinion type electric power steering (P-EPS) in China, and strengthened the production system for automotive hub units in North America during July.

Total global production volume of electric power steering tops 100 million units

New!

JTEKT electric power steering (EPS), first developed and mass-produced in 1988, reached a total production volume of 100 million units in April 2015.

As our EPS systems are used by automakers throughout the entire world, we have established 14 EPS production bases in 10 different countries in order to respond swiftly and meticulously to the demands of each company.

Starting local production of pinion type electric power steering in China

New!



In recent years, demands have diversified within China, the world's largest market within the automotive industry. In addition to the conventional column steering type (upstream), the production of pinion type electric power steering systems (P-EPS), which are rack assist type (downstream) systems with superior quietness and operability, began in June at group company JSSX in China. We will continue working to enhance our products and raise production capability.

Plant expansion, strengthening production and supply capabilities for hub units in North America

New!



Expansion of the Richland Plant of group company KBNA in South Carolina was conducted during July of this year. The plant is the central base for bearing production in North America. The grounds and buildings of the plant were expanded and a new line was introduced, boosting production capability to approximately twice its original level. Our group aims to respond to vigorous automotive demands in North America by providing customers with excellent products.



Creation of a “safety culture”

→ S\_11・12・13 Related article

Shared belief that “we can eliminate all accidents”



President Tetsuo Agata speaking about safety during director safety training

Urgent need for further countermeasures against workplace accidents

At JTEKT, we believe ensuring the safety of our employees is our most important mission. From FY 2011 onward in particular, we have concentrated on countermeasures for the elimination of “Failure-to-Stop” accidents, which occur when troubleshooting work or repairs are conducted without first stopping the machine. To achieve this, we promoted the establishment of a “safety dojo”, where training is provided through simulated accidents on actual machines so that participants can feel the impor-

tance of obeying work rules. The construction of safety dojos at each plant was completed in FY 2013, and training was conducted for all employees who may possibly enter plants, including administrative personnel. As a result, the number of Failure-to-Stop accidents fell from 15 cases to 10 cases between FY 2013 and FY 2014. However, we have not yet achieved total elimination of this type of accident. On the contrary, the total number of workplace accidents rose from the high number of 36 cases in 2013 to 46 in 2014.

Safety awareness survey for all employees

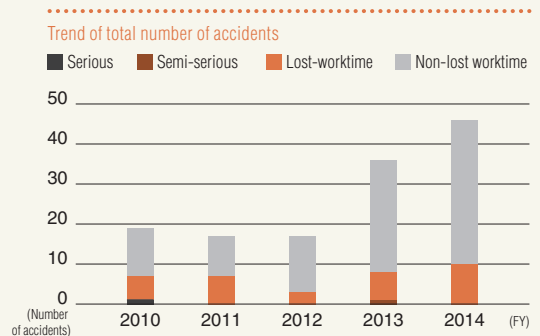
New!

The current trend of increasing work-related accidents at JTEKT is seen as a critical situation, and JTEKT has therefore been receiving consultation from U.S. company DuPont since October 2014, to investigate what is behind the accidents. A safety awareness survey for all employees and plant inspections were conducted. The results of these activities revealed that there is a problem with the safety awareness level of JTEKT employees. For the time being, a variety of actions are currently being taken at each plant and operations center with the aim of raising safety awareness to a state of mutual instruction where employees warn each other about unsafe behavior and are thanked for doing so.

Safety training with all directors present

New!

To exert the strong leadership of managerial personnel needed for creating a safety culture,



Case examples of actions for safety

PKTNS activities

Enforce “no hands in pockets while walking”, “no walking while operating a cellphone”, “using the handrail when going up or down stairs”, “do not cross diagonally”, and “point and call”.



Self-preservation/4S activities

Each Tuesday morning, the plant conducts self-preservation and 4S (Seiri, Seiton, Seiketsu, Seiso) activities in unison for 30 minutes.



Improvement activities against frequent stops

Operators are interviewed about frequent stops, which are mapped for conducting systematic improvement.



Safety guardian activities

An employee is designated to investigate safety activities each month. Workers and employers unite to protect safety with a sense of ownership.



“Ball catching” activities of safety meetings

The results of meetings at each workplace are summarized and displayed on a list. The list is sent to each workplace and information is shared to incite new realizations.



safety training was conducted on January 21st, 2015, with all directors attending. The participants studied and debated the Safety Vision targeted by JTEKT and the commitment to building a safety culture as managing executives. Each director declared their strong will to enforce common knowledge through *genchi genbutsu* and activities to improve motivation for safety.

### Formulating the JTEKT Safety Vision

New!

In FY 2015, we created the basic concept for safety at JTEKT with the formulation of Safety Vision “Safety First’ No.1 JTEKT: We can eliminate all accidents!”. Under this vision, we will strengthen the building of safe personnel and a safe workplace in order to eliminate workplace accidents. In FY 2015, we will first aim for the realization of zero Failure-to-Stop accidents and zero accidents due to tripping and falling.

#### Safety Vision

### “Safety First” No.1 JTEKT

We can eliminate all accidents!

- Safety takes priority over everything
- Strong ambition for ZERO accidents
- Aiming for ZERO risks



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

#### Safety personnel

- ① Can protect him/herself
- ② Does not let others get injured
- ③ Improves unsafe actions and conditions

#### Safe workplace

- ① Equipment is intrinsically safe
- ② 4S is continuously and actively carried out
- ③ The workplace is improved on a daily basis

## Creating opportunities for every employee to think about the connection between work and CSR

### Distributing tools for familiarization to each employee

Since FY 2011, a CSR report has been distributed to all employees and study sessions held at each workplace. In FY 2014, we issued the second round of the leaflet “CSR + YOU: Notes about your social responsibilities” to each employee together with the CSR Report, in order to convey that the ideal of the JTEKT GROUP VISION and the concept of CSR are the same. The leaflet contains information about how the ability to adapt to changes and evolution in society is imperative for companies, and how the workplace and each employee are connected to the three pillars of the JTEKT GROUP VISION. Results reports about the study ses-

sions included comments such as, “I learned that the VISION is important within the workplace as well”, and “it’s important to hold discussions periodically.”

### Continuing inspections concerning the comprehension of CSR policy

The results of the CSR policy comprehension survey in the workplace management questionnaire showed that in FY 2014, 86 percent of employees in administrative positions and 47 percent of general employees understand the CSR policy.

→ S\_10 Related article

### Percentage of people who “understood CSR satisfactorily” and “understood really well”

(Top 2 answers out of 6 options)

	FY 2012	FY 2013	FY 2014
Managers or above	79%	82%	86%
General employees	36%	38%	47%
All employees	43%	45%	53%

### CSR + YOU : Notes about your social responsibilities



First edition created in 2013; utilized at CSR study sessions conducted at all work sites.

→ E\_03-04-11-12-13 Related article

Walkthrough of global warming prevention activities

JTEKT GROUP VISION

Building Excellent Products

Production Engineering Headquarters  
Environment Control Dept.  
**Hiromu Takeuchi**

Pursuing measures for further improvement while emphasizing work sites and conversation



Establishing objectives and promoting scheduled and systematic energy conservation

Every five years, JTEKT formulates an Environmental Action Plan which promotes multiple environmental countermeasures with straightforward policies and objectives. The plan also establishes objectives for the reduction of CO<sub>2</sub> emissions in response to social circumstances and government policy trends. In addition, it has been promoting energy conservation in a scheduled and systematic manner within all processes, including production and logistics.

Perceiving and improving wasted resources through the visualization of energy

We have been accelerating the “visualization” of energy since FY 2011, with the reduction of CO<sub>2</sub> as our main focus. Eco-power meters,

which automatically measure electricity, have been installed in major production lines at all plants, and the data gathered from the meters has been utilized to reduce power for standby machines during stop time and manage basic units. Heat treatment furnaces in particular require a great amount of energy, and we are therefore focusing on energy conservation within furnaces. We are also continuing with scheduled remodeling and maintenance and the introduction of new furnace models at each plant.

Creation of energy conservation matrix and deployment of effective improvement case studies **New!**

From improvement case studies of the industrial associations and entire Toyota Group to which our company belongs, we have organized those deemed effective to our company into the three axes of “power/lighting”, “heat treatment/forging”,

and “manufacturing/assembly line”, and deployed these case studies to all plants. We call this the “energy conservation matrix”. Furthermore, we also provide information on our improvement cases created by each plant to industrial associations in order to share effective techniques with all of industry, while working to reduce our CO<sub>2</sub> emissions.

Towards the achievement of higher objectives

FY 2015 is the last fiscal year of the 5th Environmental Action Plan. Formulation has begun for the 6th plan, which designates FY 2020 as the target fiscal year.

“Since various countermeasures are already being implemented within all plants, it is not easy to further reduce the amount of CO<sub>2</sub> emissions. As the secretariat of the entire company, our department visits each work site to converse with employees and pursue measures for improvement.



Quality improvement and energy saving through the introduction of a new furnace model **New!**

In the roller (bearing rolling element) heat treatment process of the Kagawa Plant, a new model of furnace has been introduced which can further improve product quality while reducing energy usage. A smoke removal apparatus has also been installed in consideration to the environment. Specifications were selected by the Kagawa Plant together with the Bearing Production Engineering Dept. and Heat Treatment Business Revolution Dept. The plant and departments chose the optimal specifications based on their past experiences with improvement.

Process capability value **7.6% improvement**  
from conventional furnace

CO<sub>2</sub> per month **22.6% reduction**  
from conventional furnace



Charity caravan supporting disaster areas

→ S.21 Related article



Provisional school building of Miyagi Kesennuma Koyo High School where the donation presentation ceremony was held



Donation of a net support cover and team bags to Miyagi Kesennuma Koyo High School



Donation of a ball signed by STINGS members

“A yell for restoration” continued from FY 2013

Picking up from last year, JTEKT implemented the “charity caravan supporting disaster areas” support activity in FY 2014 at every plant, operations center, and branch office. All employees can participate in this activity, which uses cafeteria menus and vending machines. The catch phrase for this year was “Support is possible without visiting the devastated areas. Let’s send a yell to restoration now, during the fourth year.” JTEKT adopted the same “matching gift” system as last year, where the com-

pany donated the same amount as was donated by its employees.

Implemented at every plant, operations center, and branch office to further enliven independent projects

Each JTEKT location conducted active planning of unique ideas such as only using rice made in the Tohoku region for the menu during the activity period, and implementing a coffee charity at plant festivals regardless of the activity period. These independent projects, along with the matching gift from JTEKT,

raised a total of 2.62 million 525 yen in donations, roughly 300 thousand yen more than last year.

**Donations** FY 2013 → 2,314,976 yen  
FY 2014 → 2,620,525 yen

\\ Ongoing in FY 2015! /

Presentation ceremony at Kesennuma City : “Be a ray of hope”

The donation presentation ceremony was held on February 6th at Miyagi Kesennuma Koyo High School in Miyagi prefecture. Our company donated money and desired items to ten volleyball teams of six high schools. The school facilities at the high school were completely destroyed during the earthquake disaster, and classes are currently held in provisional buildings. However, the students are moving steadily forward towards the goal of reconstruction. Kazuma Saitoh, leader of the boys’ volleyball team, gave the powerful declaration that the team will “do our best to make our activities a ray of hope to our region.” JTEKT will continue activities to provide assistance to devastated areas hereafter as well.

STINGS volleyball class held once more in Kesennuma city

On September 13th, the JTEKT volleyball team STINGS held a volleyball class at Miyagi Motoyoshihikibi High School. In June of 2011, STINGS held a volleyball class in Kesennuma city, with which the team has long shared a bond, to hearten the devastated region. Since then, the team has held another class in July 2013, making this year the third round. A total of 90 students from six schools worked up a good sweat during the session.



Miyagi Motoyoshihikibi High School Girl's Volleyball Team manager **Miku Komatsu**



The polite way you taught us and the way you celebrated with us when we were successful really made me happy. To everyone at JTEKT, thank you for always supporting us.

Donations in FY 2014

- © JTEKT and group companies in Japan and China donated a total of 4.5 million yen (approx. 270 thousand yuan) in contributions for the earthquake disaster that occurred in Yunnan, China.
- © JTEKT donated 1 million yen in contributions for the torrential downpour disaster in Hiroshima.

→ S.22 Related article

# CSR Report 2015 Company Performance

We have listed the performance data from the CSR activities of the past three years.

- \*1 Calculated using the volume of products designed by JTEKT. Includes approximately half of all products manufactured overseas.
- \*2 Due to the discovery of calculation errors, the number has been revised.
- \*3 In the number of environmental near-miss incidents up until last year, continuity has been lost within the data due to companywide strengthening and enforcement of the report since FY 2014. The data has therefore been erased, and only the number of environmental regulation violations is reported.
- \*4 Research and development expenses including general managing expenses and manufacturing cost for the term.
- \*5 FY 2012 and FY 2013 show the number of female employees. FY 2014 shows the total number of both female and male employees.
- \*6 Due to the discovery of calculation errors, the number has been revised.
- \*7 Number differs from that of previous reports due to a revision of calculation range.
- \*8 From the workplace management questionnaire (6 options).

Section	Item		Unit	FY 2012	FY 2013	FY 2014	
Contributing through monozukuri	<b>Products</b> [Independent]	Reduction of CO <sub>2</sub> as a result of building eco-friendliness into the design of each product	Total		415.5	457.1	466.0
		Example product groups	Steering(*1) Column type electric power steering system	10,000 tons	176.0	184.0	296.0
			Bearings Taper roller bearings for automobiles		79.9	87.0(*2)	89.5
	<b>Environment</b> [Independent]	Prevention of global warming	Amount of CO <sub>2</sub> emissions in production	tons	230,896	240,024	237,147
			Basic unit	t/hundred million yen	147.7	148.1	147.7
			CO <sub>2</sub> emissions in logistics	tons	13,994	14,330	14,301
			Basic unit	t/hundred million yen	2.25	2.24	2.20
		Effective use of resources	Basic unit of waste	t/hundred million yen	6.92	6.71	6.86
		Reduction and management of environmentally burdensome materials	Release/transfer of substances subject to PRTR	tons	42.1	39.9	40.4
		Number of environmental regulation violations(*3)	Incidents	0	2	2	
<b>Research</b> [Consolidated]	Total expense of research and development(*4)		Hundred million yen	363	401	413	
<b>Regional contributions</b> [Independent]	Number of plant festival goers		People	7,045	8,475	8,514	
	Number of regional conferences		Place	12	13	13	
	Number of participants in region cleanup activities		People	3,676	4,879	4,927	
	Number of people attending plant tours		People	1,189	1,051	1,344	
Establishment of a firm management foundation	<b>Employees</b> [Independent]	Percentage of women in administrative positions	Managerial positions	%	0.80	0.82	0.97
			Assistant managers	%	1.78	2.36	2.60
		Percentage of employees with disabilities	%	1.94	2.11	2.17	
		Number of employees with disabilities	People	247	278	292	
		Employees who took childcare leave(*5)	People	25	24	38	
		Employees who took family care leave	People	4	3	5	
		Percentage of lost-day accidents	%	0.14	0.27(*6)	0.34	
		Lost worktime due to a new category for mental illness	Days	Day	4,398	4,022	5,061
	Number		People	65	50	59	
		Percentage of employees with a BMI above normal	%	24.9	25.0	25.5	
		Percentage of smokers(*7)	%	36.9	37.4	36.9	
		Number of employees (Total permanent, fixed-term, part-time, reemployed, and temporary employees)	Total		14,232 (3,688)	14,696 (3,803)	14,842 (3,724)
	Men		People	12,952 (3,148)	13,322 (3,203)	13,442 (3,157)	
	Women			1,280 (540)	1,374 (600)	1,400 (567)	
		Average age			38.9	38.9	38.9
	Men		Age	39.0	38.9	39.0	
Women			38.1	37.9	37.8		
	Years of employment			15.5	15.3	15.3	
Men		Years	15.8	15.6	15.6		
Women			12.2	11.7	11.2		
	Number of employees who quit within 3 years of entering the company [ permanent employees, seasonal recruits, quitting due to personal reasons ]		%	2.03	3.01	3.68	

Section	Item		Unit	FY 2012	FY 2013	FY 2014	
Establishment of a firm management foundation	<b>Employees</b> [Independent]	Persons hired [Seasonal recruitment]	Total	People	326	316	309
			Men	People	306	289	283
			Women		20	27	26
		Administrative	Total	People	38	44	47
			Men		26	27	26
			Women		12	17	21
		Engineering	Total	People	85	94	89
			Men		81	90	89
			Women		4	4	0
		Technical	Total	People	203	178	173
	Men		199		172	168	
	Women		4		6	5	
		Percentage of post-retirement reemployment		%	100	100	100
		Percentage of employees who say they feel fairly or completely satisfied with their personal growth (*8)		%	29	32	32
		Percentage of employees who say they feel their work is worthwhile or mostly worthwhile (*8)		%	32	34	36
		Percentage of employees who say they feel fairly satisfied or completely satisfied with the company (*8)		%	21	24	27
	<b>Financial</b>	Sales	Total		10,675	12,601	13,559
Japan				5,419	5,560	5,590	
Europe			Hundred million yen	1,393	1,983	2,114	
North America				1,836	2,475	3,031	
Asia/Oceania/Other				2,025	2,581	2,823	
Operating profit/loss (% of increase or decrease in sales profits)		Total		291 (△18.2)	582 (99.6)	741 (27.4)	
		Japan		179	333	328	
		Europe	Hundred million yen	△53	△20	48	
		North America		17	68	113	
		Asia/Oceania/Other		177	229	260	
Current term net income			Hundred million yen	138	233	425	
Common equity			Hundred million yen	3,626	3,807	4,111	
Total assets			Hundred million yen	10,269	10,664	11,262	
Net assets		Hundred million yen	3,842	4,188	4,997		
Self-owned current term net margin [ROE]		%	4.0	6.2	9.8		
Dividend per share		yen	16	18	34		
Equipment investment		Hundred million yen	1,096	764	684		
<b>Global development</b>	Number of companies (including JTEKT)	Total		139	140	136	
		Japan		41	40	39	
		Europe		26	26	24	
		North America		17	17	16	
		Asia/Oceania/Other		55	57	57	
	Number of employees (external, average temporary employed personnel)	Total		41,714 (4,971)	43,456 (5,412)	43,912 (5,432)	
		Japan		17,215	17,651	17,791	
		Europe	People	7,150	7,262	7,135	
		North America		5,503	5,881	6,300	
		Asia/Oceania/Other		11,846	12,662	12,686	
<b>Governance</b>	Number of incidents reported within the company [Independent]		Incidents	28	33	39	

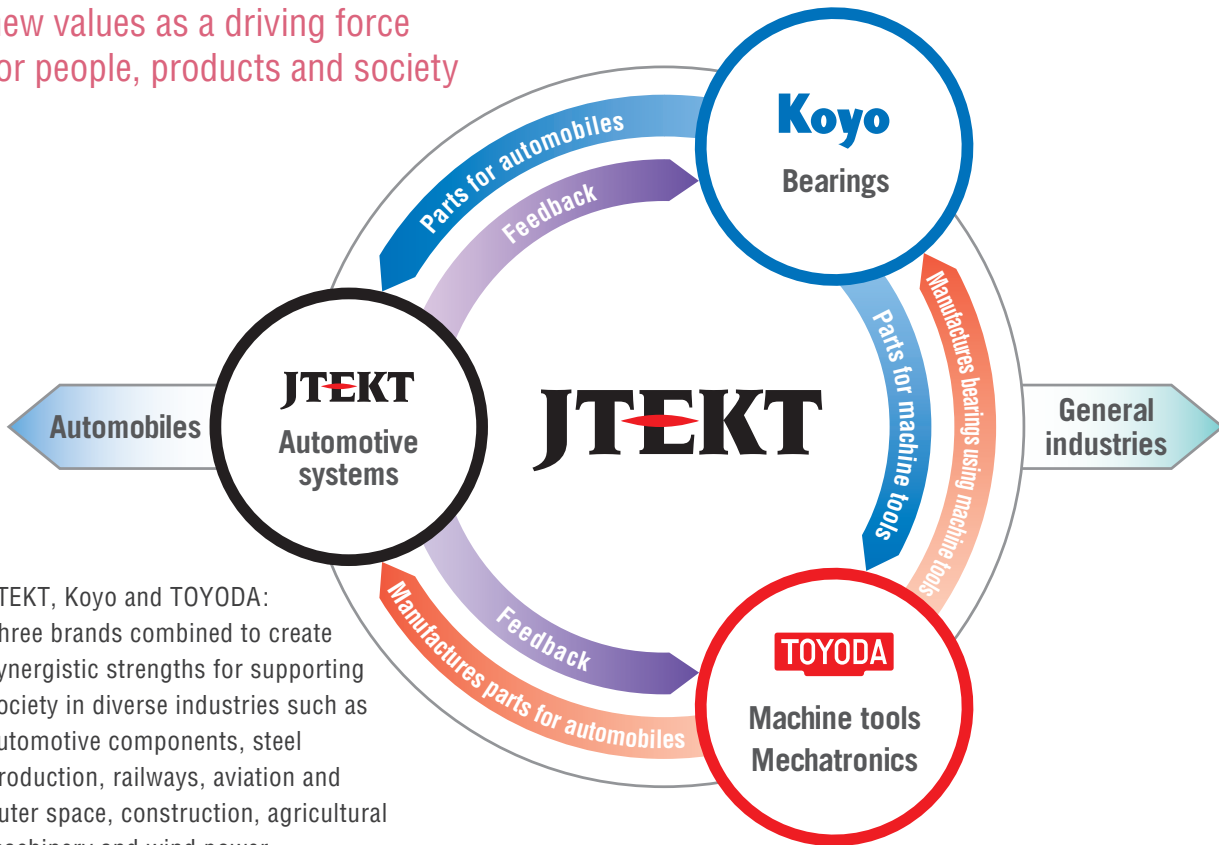


**Shaping a Better Future**

We will be an invaluable partner with our customers, our suppliers, and our team members. We will deliver “No. 1, Only One” products and services through “Building Value,” “Building Excellent Products,” and “Building Professionals.”



**Three brands harmoniously creating new values as a driving force for people, products and society**

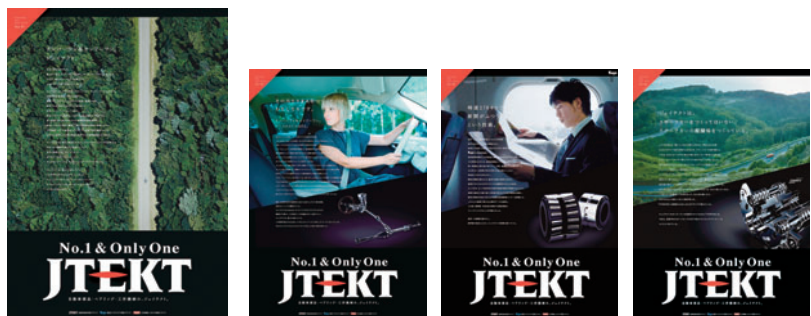


JTEKT, Koyo and TOYODA: Three brands combined to create synergistic strengths for supporting society in diverse industries such as automotive components, steel production, railways, aviation and outer space, construction, agricultural machinery and wind power generation.

**No.1 & Only One**

Serial advertisements introducing the No.1 & Only One technologies and products of JTEKT were deployed in FY 2014.

→ [S\\_04 Related article](#)



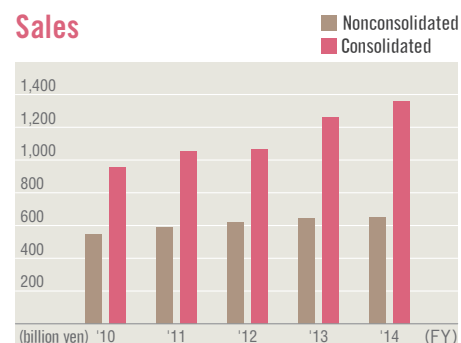
## Company Profile

Company name	JTEKT Corporation	
Headquarters	No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka Japan	
Head Offices	[Nagoya Head Office] 15th Floor, Midland Square, No. 7-1, Meieki 4-chome, Nakamura-ku, Nagoya, Aichi Pref. Japan <hr/> [Osaka Head Office] No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka Japan	
President	Tetsuo Agata	
Capital	45.5 billion yen (As of end of March 2015)	
Number of employees (external, average temporary employed personnel)	43,912 (5,432)	[consolidated] (As of end of March 2015)
	11,227 (2,495)	[nonconsolidated] (As of end of March 2015)
Sales	1,355.9 billion yen	[consolidated] (FY 2014)
	649.4 billion yen	[nonconsolidated] (FY 2014)
Ordinary income	79.3 billion yen	[consolidated] (FY 2014)
	31.6 billion yen	[nonconsolidated] (FY 2014)
Consolidated subsidiaries	135 (38 in Japan, 97 overseas)	

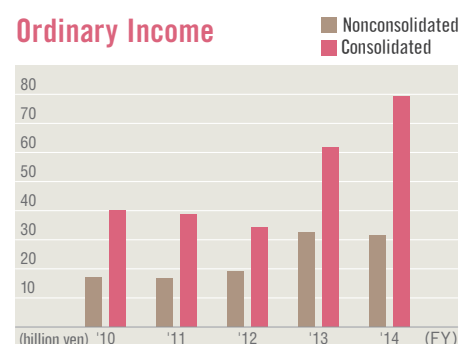
## Company History

<b>2005</b>	Koyo Seiko Co., Ltd. and Toyoda Machine Works, Ltd. signed a merger agreement
<b>2006</b>	JTEKT Corporation established
<b>2007</b>	Development and mass production of large-size insulated ceramic bearings for wind power generation
<b>2008</b>	Development of lightweight, low-torque hub unit bearings
<b>2009</b>	Acquired the needle bearing business of the Timken Company, USA Developed torque-sensitive (TORSEN) limited-slip differential for luxury sports cars Launched high-precision combination grinder
<b>2010</b>	Began manufacturing electric power steering systems in India Launched five-axis horizontal machining center
<b>2011</b>	Started manufacturing electric power steering systems in Indonesia
<b>2012</b>	Opened the Iga Proving Ground

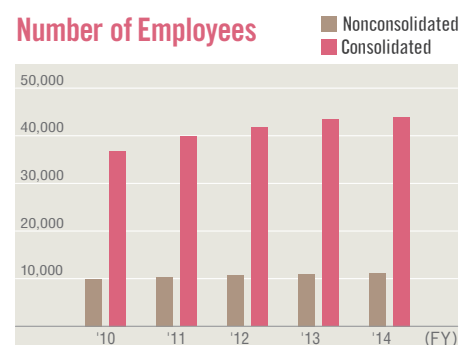
## Sales



## Ordinary Income



## Number of Employees



Dear Readers

Thank you for  
reading.  
We welcome  
your feedback  
regarding this report.

As interests in corporate social responsibility continue to grow, our company has evolved our CSR activities and report contents while keeping a constant eye on social trends. To improve our corporate value, we plan to further enhance our CSR activities and report by incorporating our readers' opinions. You can view the Details & Data section and share your comments about the full report on our website.

## CSR Report 2015 Message

Issued by: Corporate Planning Dept.  
Enquiries: TEL +81-52-527-1905  
FAX +81-52-527-1912  
Date of issue: September 2015  
Next issue: September 2016

<http://www.jtekt.co.jp/e/csr/>

# CSR Management

→ [Message] P4 Related article

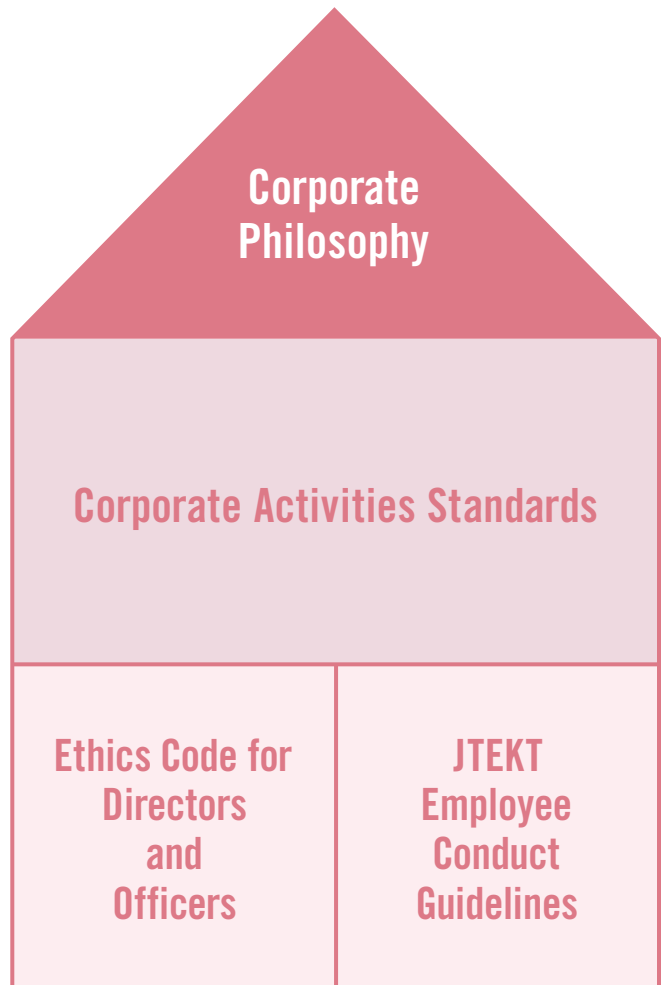
- This report aims to inform our stakeholders in straightforward language of JTEKT's concept and activities surrounding CSR.
- This report is divided into a Message (leaflet) and a full online report containing both the Message and the Details & Data section.
- The Details & Data section emphasizes objectiveness, completeness and continuity.
- For related articles:  
M = CSR Management S = Social Report  
E = Environmental Report
- In this section, "CSR Management", we have organized the JTEKT CSR concept and the important points of corporate governance, beginning with "CSR Policy".

**New!** This mark is used to indicate new actions begun in FY 2014 and information disclosed for the first time in this year's report.

<b>CSR Policy</b>	<b>M_01</b>
Corporate Philosophy	
Corporate Activities Standards	
Ethics Code for Directors and Officers	
JTEKT Employee Conduct Guidelines	
<b>CSR Promotion Structure</b>	<b>M_03</b>
<b>The foundation supporting CSR</b>	<b>M_04</b>
Corporate Governance	
Compliance	
Risk management	

## CSR Policy

JTEKT's CSR Policy is comprised of the Corporate Philosophy, Corporate Activities Standards, Ethics Code for Directors and Officers, and Employee Conduct Guidelines.





## CSR Policy

### CSR Policy

The JTEKT group, in order to fulfill its mission of “contributing to the happiness of people and the abundance of society through product manufacturing,” seeks to carry out business activities in harmony with the economy, society, and the environment. As a good corporate citizen, we will continue activities to obtain the further trust of stakeholders and contribute to the sustainable development of society and the environment. We also share this idea with our business partners in the anticipation they will follow our lead.

#### Corporate Philosophy

##### Corporate Purpose

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

##### Management Stance

1. Create new value and provide society with joy and inspiration on a broad scale.
2. Aim for growth in harmony with society through innovative operations on a global basis.
3. Create a bright, energetic corporate atmosphere based on respect for people.
4. Strive toward the realization of safer, more abundant living circumstances.

#### Corporate Activities Standards

1. Follow proper business practices and engage in fair, transparent and free competition based on a respect for the law.
2. Derive concepts from the market, provide the best in quality, technology and service, and obtain the satisfaction and trust of customers.
3. Carry out global environmental improvement activities proactively and aggressively with deep awareness of their being an important corporate mission.
4. 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.
5. Maintain close communication not only with shareholders but also with society at large and disclose corporate information properly.
6. As a good corporate citizen, aggressively pursue activities that contribute to society.
7. Follow international rules, observe the laws, cultures and customs of countries and regions where we have operations, and seek to contribute to their growth.

#### Ethics Code for Directors and Officers

The Ethics Code for Directors and Officers was established in April, 2008. It is the equivalent to conduct guidelines for directors and corporate officers. This ethics code comprises of 11 clauses including “Ethical conduct in good faith”, “Compliance with laws and regulations” and so on to ensure that laws are complied with. Moreover, another objective of this ethics code is to encourage employees to observe laws by directors setting examples.

##### Configuration of the Ethics Code for Directors and Officers (excerpt)

- |           |  |
|-----------|--|
| Article 5 | Ethical conduct in good faith              |
| Article 6 | Compliance with laws and regulations       |
| Article 8 | Reporting of illegal and unethical actions |
| Article 9 | Responsibility to comply with the Code     |

#### JTEKT Employee Conduct Guidelines

These guidelines are organized to make the basic mental attitudes and guidelines for work easy to understand for employees, focusing on putting the JTEKT corporate philosophy into practice and making our goal status into a reality. The guidelines were formulated in April 2006 and revised in June 2008, November 2011, and August 2014. The wording of each section was simplified to promote familiarization throughout employees, and the guidelines have been uploaded onto the internal JTEKT intranet. A portable “pocket edition” has been distributed as well to help enforce CSR among all employees.

##### Configuration of the JTEKT Employee Conduct Guidelines

- |           |                               |
|-----------|-------------------------------|
| Section 1 | Relationship with the company |
| Section 2 | Activities within the company |
| Section 3 | Relationship with society     |
| Section 4 | Personal activities           |

# CSR Promotion Structure

## Systematic promotion of CSR activities

Regular inspections of CSR activity status are conducted by the CSR Promotion Committee. The CSR Promotion Committee is chaired by the company president and was established to systematically promote CSR activities on a companywide and group-wide basis. This organization also discusses how best to accomplish the missions of fulfilling the corporate philosophy and controlling risk through CSR activities from many angles. We, the JTEKT group, formulated the JTEKT GROUP VISION and the mid-term management plan (\*1) in April 2014, and defined CSR as one of our business foundations.

**\*1 Mid-term Management Plan** Implements an evaluation of results and a scheduled renewal each year through constant anticipation of the next five years. The FY 2014 plan corresponds to the period until FY 2018, and the FY 2015 plan corresponds to the period until FY 2019.

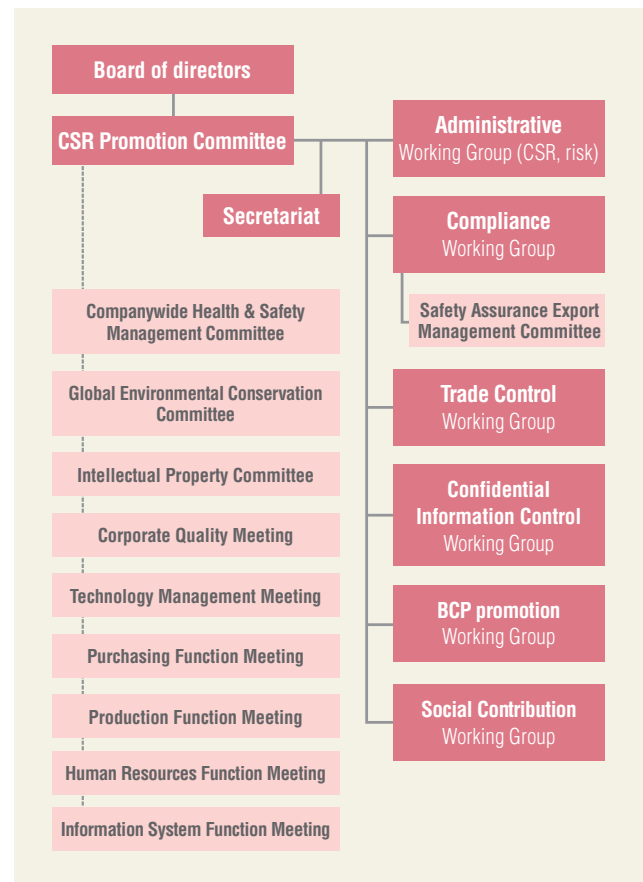
## New establishment of two meetings ★ **New!**

We established the “Production Function Meeting” and “Information System Function Meeting” in FY 2014 to further enhance the framework supporting the CSR Promotion Committee. The Production Function Meeting holds discussions on actions for the preparation and stages of production restoration, and the Information System Function Meeting discusses the establishment of IT governance within the JTEKT group.

## Specialized working groups

Specialized working groups are established to create and promote activity plans for compliance, trade control, confidential information control, BCP (business continuity planning) promotion, and social contribution, all of which are important themes.

Outline of the structure



● <b>Administrative Working Group</b>	Plan and monitor the progress of CSR activities, regularly assess risk management status and evaluate risks.
● <b>Compliance Working Group</b>	Raise awareness and reinforce the need for compliance with laws, internal rules and business ethics.
● <b>Trade Control Working Group</b>	Propose and promote measures for securing compliance with foreign rules concerning imports and exports.
● <b>Confidential Information Control Working Group</b>	Assess and improve in accordance with guidelines and strengthen structures and systems concerning information security.
● <b>BCP Promotion Working Group</b>	Protect human lives and lifelines, reinforce buildings and equipment in preparation for disasters, and prepare and review an early recovery manual.
● <b>Social Contribution Working Group</b>	Promote social contribution and volunteer activities.

## Companywide CSR activities in each department

JTEKT promotes CSR activities through an expert committee belonging to the “CSR Promotion Committee” and specialized working groups. For our fiscal year goal, we plan to incorporate our CSR objectives into each company department, and promote CSR activities consistently by implementing the PDCA cycle (\*2). Through the construction of this type of system, we aim to jumpstart and enhance CSR activities throughout JTEKT and JTEKT group companies. In FY 2014, activities emphasizing CSR were incorporated into global company policies and performed by each department as part of their annual action plan.

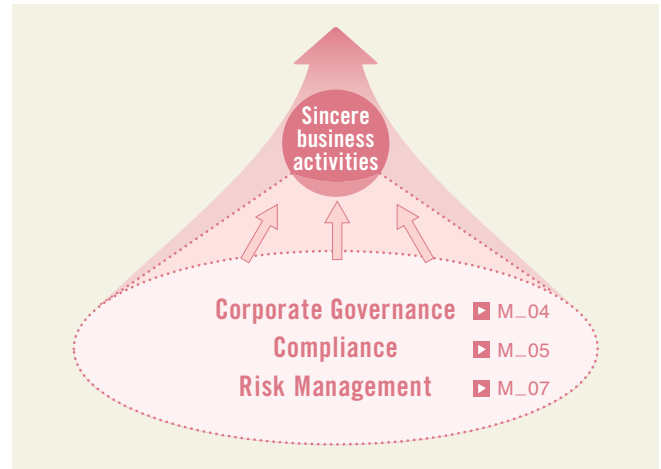
**\*2 PDCA cycle** PDCA is a management tool for continuously improving work by repeating a Plan-Do-Check-Action cycle.



# The foundation supporting CSR

## The 3 pillars of sincere business activities

At JTEKT, we believe that the continual implementation of sincere business activities is important for the promotion of CSR. One thing that is essential to sincere business activities is a highly transparent, healthy management style that observes statutory and social norms. The three pillars, “Corporate governance”, “Compliance” and “Risk management”, are positioned as important mechanisms to achieve this. All of these three have been emphasized in recent years in all corporations however the important thing is whether they are actually being implemented or not. In order to use these 3 pillars effectively, JTEKT makes numerous improvements such as ongoing revisions to the CSR Promotion Structure.



## Corporate Governance

### Basic concept

#### For sustainable growth and mid to long-term improvement of corporate value **New!**

In order to fulfill our social responsibility and continuously improve our corporate value, we have established an internal control system. We strive to improve our management transparency and secure ample accountability for all our stakeholders. In addition, we have implemented a corporate governance code (enacted June 2015) to transform our corporate constitution.

### Promotion structure

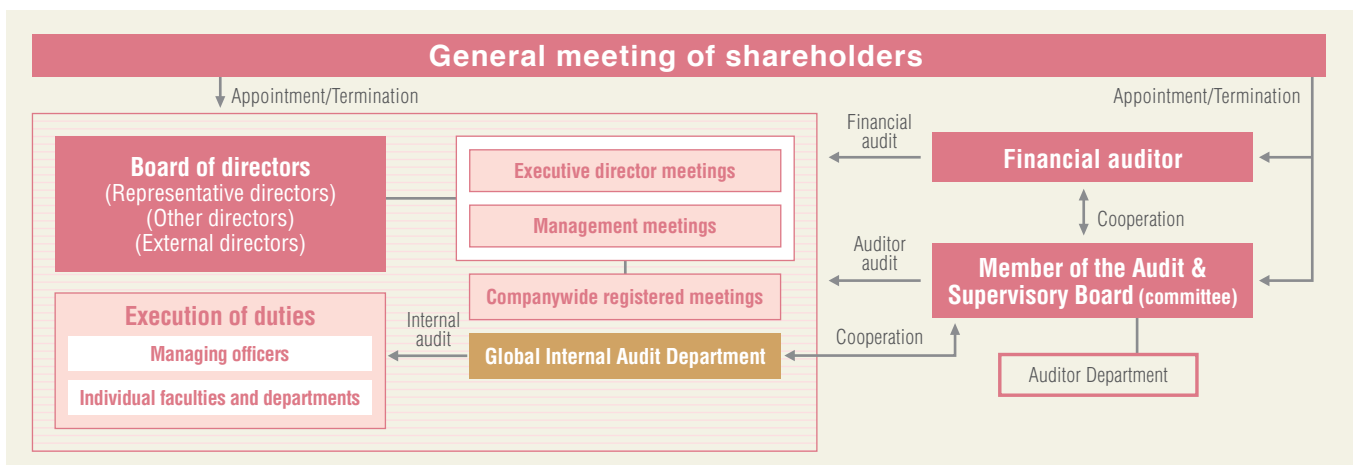
#### Towards governance on a global scale **New!**

At JTEKT, the board of directors meets every month to make management decisions and monitor directors' performance of duties. Furthermore, two independent directors were appointed outside the company in June 2015 so as to strengthen the monitoring function of the board of directors. Also, sub-mechanisms of board meetings, such as executive director meetings, management meetings

meetings and companywide registered meetings (\*), are held to fulfill individual deliberations and monitor the duty performance of managing officers. As a way of monitoring management, we have adopted an auditing system to inspect the directors' duty performance, consisting of five members of the Audit & Supervisory Board, three of whom are external. 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 conference periodically (see the below figure). In addition, we maintain and operate an internal control system in line with both the Financial Instruments and Exchange Act and the Companies Act. In FY 2014, we revised our Corporate Management Guidelines with the aim to raise awareness for management control, especially among executive personnel in overseas group companies.

The auditing departments responsible for each region, including North America, Europe, ASEAN, India, China, and Central and South America, conducted audits on a global scale to augment the group's internal control.

\* **Companywide registered meeting** Meeting authorized by officers' meetings (board of directors, executive director meeting, management meeting) to deliberate and approve matters in order to ensure specialized and in-depth deliberation and proper, more efficient decision-making.





## The foundation supporting CSR

### Compliance

→ [Message] P3 Related article

#### Basic concept

##### Each individual behaves and makes correct decisions according to Corporate Ethics

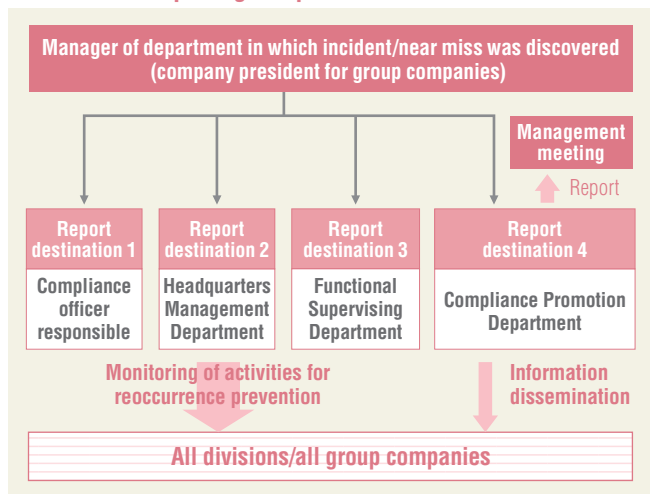
JTEKT regards compliance as the premise and foundation supporting CSR, and essential to the realization of the corporate philosophy. Without limiting compliance to mere law observance, JTEKT has established an “Ethics Code for Directors and Officers”, “Employee Conduct Guidelines” and “Compliance Standard” in order to fulfill corporate ethics and societal obligations.

#### Promotion structure

##### Time and appropriate reporting to top management

Compliance violations that occurred within the JTEKT group, including near miss case examples, are regularly reported at management meetings in which top executives participate. To avoid delayed response after the occurrence of a compliance incident, we are currently enforcing the habit of “bad news first” in order to ensure that, as a general rule, any compliance violations (including near miss case examples) are reported within 24 hours of their occurrence.

##### Procedure for reporting compliance violations



##### Progress control by the CSR Promotion Committee

In the CSR Promotion Committee, which takes place twice a year, the progress of compliance promotion activities and the results of semiannual activity plans and compliance checks are reported to grasp how deep these activities are instilled and to clarify the direction of promotion.

##### Education and inquiry by compliance officers

Compliance officers have been newly appointed, mainly from among managing officers. Their role is to promote business ac-

tivities in line with compliance in every department, facility and overseas region, and perform periodic compliance checks on the departments and facilities they supervise. Compliance officers must also understand compliance familiarity, risks and issues, and engage in efforts towards compliance improvement.

##### Group company promotion structure

This same promotion structure is adopted by our group companies, both in Japan and around the world, and activities are promoted in response to the characteristics of each country, region and company.

#### Training and educational activities

##### Promoting and reinforcing awareness among employees

We engage every day in activities which aim to raise awareness among all employees, so that they may reflect compliance within their daily conduct.

##### ◎ Anti-corruption activities **New!**

During FY 2014, our company emphasized activities for the prevention of corruption (bribery), which has surfaced as an international problem in recent years. In June 2014, we enacted an internal “Anti-Corruption Regulation”, and in January 2015 we published an FAQ for the regulation which includes explanations and concrete examples. This FAQ, titled the “Anti-Corruption Guidelines”, was distributed throughout the company.

In conjunction with the publishing of the guidelines, we are enforcing awareness about basic knowledge, the latest social circumstances, and precautions concerning corruption within training for officers, directors and employees.

##### ◎ Compliance Strengthening Month

JTEKT has designated July as “Compliance Strengthening Month”, in which educational activities are provided for all employees. These activities were promoted throughout all of JTEKT during FY 2014, including group companies.

Activities spanned multiple aspects and included e-learning for all employees (a printed medium was given to employees who had not yet been lent computers), compliance training for officers and directors, awareness messages upon PC startup, hanging of educational posters, and placement of table top notices.



Officer and director compliance training held in July

##### ◎ Compliance Letter

The 20th of each month is designated as the “Day of Compliance Communication” so that employees at each workplace can discuss everyday compliance problems and deepen their understanding of compliance.

##### ◎ Deployment of examples of compliance incidents and near miss case examples **New!**

To help prevent reoccurrence of compliance incidents, we have created a collection of easy-to-understand case examples using four-panel comic strips as a reference for compliance violations which have occurred at JTEKT and group companies.

##### ◎ Rank-based compliance education

Training programs for officers, new managers, and personnel promoted to managerial positions were held in the form of group discussions.

## The foundation supporting CSR

### Internal reporting system

#### Establishment of three consultation desks specializing in different fields of problems

To provide a more comprehensive response to each case, a “corporate ethics consultation desk”, “anti-monopoly consultation desk”, and “harassment helpline” have been established as the three main pillars of the internal reporting system.

The corporate ethics consultation desk is comprised of an employee opinion box, the harassment helpline, and a “corporate ethics helpline” operated by an external lawyer.

#### Actively spreading awareness about the consultation desks ★ New!

To increase employee awareness about the internal reporting consultation desks, we have created table top signs and posters which have been displayed throughout the entire company in easily visible locations. As a result, the number of consultation cases has risen, allowing us to pick up on voices that were previously unheard. Our company will continue to organize an environment which facilitates consultation, aiming for a goal of 100 percent employee knowledge of the system.



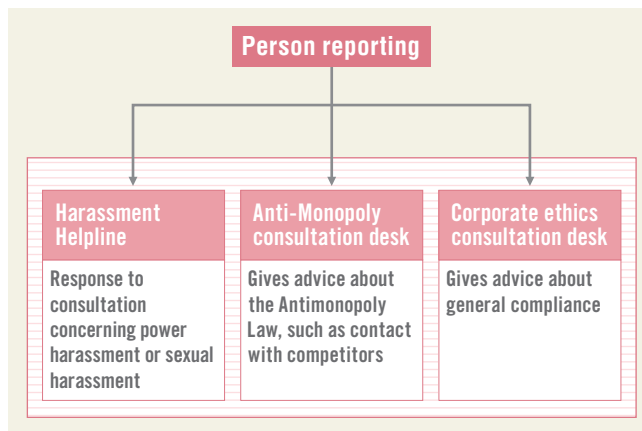
**My CSR**

**Megumi Harada**  
Personnel and General Administration Division  
Legal Dept.  
Overseas Legal Affairs Group

**Be mindful of mutual communication**

Two-way communication between each department and group company is an important element within legal tasks. Our objective is to support the development of a sound business based on compliance by assessing the needs of the requestor and considering solutions which benefit both parties. As the Overseas Legal Affairs Group is currently concentrating its efforts on the promotion of a global law system, I would like for those in charge to pursue mutual understanding through active communication with one another and implement support suited to each region in order to gain the trust of local employees.

#### Structure of the internal reporting system



\* The internal reporting system has expanded to include group companies overseas.

#### FY 2014 breakdown

Harassment Helpline	Sexual harassment	1
	Power harassment	11
	<b>Total</b>	<b>12</b>

Anti-monopoly consultation desk	Contact with competitors	11
	Collection and handling of information	5
	<b>Total</b>	<b>16</b>

\* No events corresponding to those that must be reported

Corporate ethics consultation desk	Violation of laws and rules	4
	Personnel system	10
	Workplace communication	4
	Power harassment	10
	Health and safety	3
	Other	8
	<b>Total</b>	<b>39</b>

#### Number of problems reported to the corporate ethics consultation desk for the last five years

FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
29 cases	21 cases	28 cases	33 cases	39 cases

## The foundation supporting CSR

### Risk management

#### Basic concept

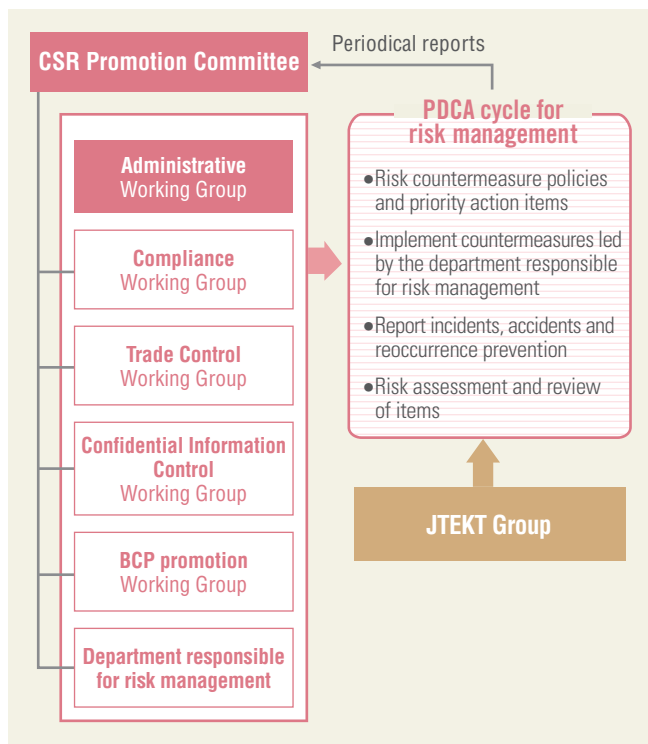
##### Responding to the expectations of society

JTEKT is working to strengthen management in order to minimize damage due to the occurrence of accidents and incidents. Strengthening management will also enable JTEKT to conduct business activities in harmony with the economy, society and the environment by preventing risks which disturb these three elements.

#### Promotion structure

##### Promote countermeasures based on a companywide organization

The CSR Promotion Committee, which is a companywide cross-departmental organization, selects risks expected to affect business activities, society, and the environment, and each working group and the department responsible for risk management formulate activities to prevent the occurrence of risks, measures against them, and recovery plans. In addition, they constantly review and improve them by keeping track of changes in the external environment. Each company of the JTEKT group is also promoting these activities.



#### Ongoing revision of risk management

##### Implemented in FY 2013

- Reviewed risk management framework and operations
- Regularly reported CSR-related problems and measures against them to the management meeting
- Established an organization dedicated to maintaining the disaster prevention promotion system

##### Implemented in FY 2014

- Rolled out Corporate Management Guidelines for the entire JTEKT group
- Enacted a basic policy for the JTEKT group BCP (Business Continuity Plan)

##### FY 2015 plan

- Enhance risk management within group companies based on the Corporate Management Guidelines
- Promote measures to reduce large-scale disasters and initial measures (in the technical/human aspects)

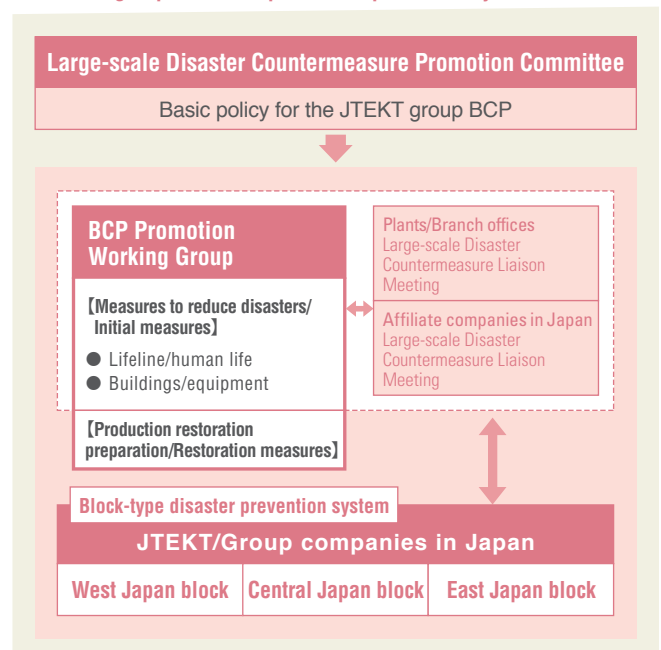
#### Stepping up approaches to risks at each department

At JTEKT, each department and headquarters formulate an annual action plan based on the Global Company Policy and adopt a policy control system for regularly checking the progress of achievement. Since FY 2013, individual departments and headquarters have described in their annual plans factors that would hinder the plans as risks, and have begun activities to consider measures at the planning stage in case of risk occurrence.

#### Promoting measures against large-scale disasters

JTEKT divides Japan into three blocks and promotes measures to reduce disasters as well as initial measures so that each block will be able to autonomously take action.

#### The JTEKT group's disaster prevention promotion system





## The foundation supporting CSR

### Promotion of safety assurance export management **New!**

To preserve the peace and safety of international society, we collaborate with other countries to conduct management of exports in order to prevent products able to be diverted to military use from entering countries with security concerns or being obtained by terrorists. Management and regulations are based on the Foreign Exchange and Foreign Trade Act in Japan.

We have also established the specialized Export Control Department to ensure that safety assurance export management is accomplished. This organization enforces the observance of the Foreign Exchange and Foreign Trade Act throughout JTEKT group companies.

### Promotion of confidential information control **New!**

JTEKT has established “Security Guidelines” which explain specific rules and regulations to be obeyed within confidential information control. These guidelines have been deployed at group companies in Japan and overseas as a means of preventing confidentiality leaks.



**My CSR**

**Kotaro Doi**  
 Personnel and General Administration Division  
 General Administration Dept.  
 Head Office  
 Planning Group

**Banding together as a company to prevent information leaks**

Confidential information concerning topics such as technology, production, and sales are highly valuable assets to a *monozukuri* company. Leakage of such confidential information externally can cause great damage to the company and lead to a loss of competitive power. At the General Administration Department, we are promoting a system to prevent confidential information from leaking outside the company. We are also expanding activities throughout all group companies including JTEKT to ensure that the confidential information control system can sustain changes within the outside environment.

**TOPICS**

### Course on safety assurance export management **New!**

JTEKT group company Nippon Needle Roller Manufacturing Co., Ltd. produces needle rollers and cylindrical rollers for bearings. Although these items are not applicable to list control (\*), on June 9th the company implemented a short course on safety assurance export management for personnel in charge of exports, as a measure to prevent the diversion of products to military use.

\* **List control** Stipulates the objects and technologies for which approval from the Minister of Economy, Trade and Industry must be obtained.



Photograph taken during the course

# Social Report

- This report aims to inform our stakeholders in straightforward language of JTEKT's concept and activities surrounding CSR.
- This report is divided into a Message (leaflet) and a full online report containing both the Message and the Details & Data section.
- The Details & Data section emphasizes objectiveness, completeness and continuity.
- For related articles:  
M = CSR Management S = Social Report  
E = Environmental Report
- In this "Social Report" section, we have summarized the overall activities for FY 2014 by stakeholder. This report has been consistently configured in the same way since the 2008 CSR Report, in order to make it easy to read on a continuous basis.

## Target period and target organizations/scope

### Target period

FY 2014 (April 2014 - March 2015)

\* Some items include content from other periods.

### Target organizations and scope

All JTEKT Corporation activities

Management of the JTEKT group is carried out on a group-wide basis, including elements such as environmental data measurement and control based on a uniform standard. Some items also show the performance of our domestic affiliated companies and overseas local affiliates. As a general rule, if there are changes in the tallying scope, we revise data dating back to the past.

## Reference guidelines

- ◎ GRI (Global Reporting Initiative)  
"Sustainability Reporting Guidelines 2013 (G4)"
- ◎ Japan's Ministry of the Environment  
"Environmental Reporting Guidelines (2012 edition)"
- ◎ ISO26000 (International Standard for corporate responsibility)

**New!** This mark is used to indicate new actions begun in FY 2014 and information disclosed for the first time in this year's report.

Together with customers	S_01
Together with business partners	S_05
Together with employees	S_07
Together with local communities	S_17
Together with shareholders and investors	S_23

# Together with customers

## Social background

Awareness of consumers' rights is rising on a global scale, exemplified by the ISO26000 positioning consumer issues as one of the central themes, and the 4th version of the GRI Guidelines (G4) establishing a section on product responsibility. Moreover, there is a trend emerging which emphasizes dialogue with stakeholders amidst an expectation of corporations to incorporate sustainable interaction with society into their management strategies.

## JTEKT's concept

### Considering the entire society as customers

In order to provide customers with the highest quality products, JTEKT naturally searches for value as a supplier but at the same time aims to be considered as having value as a partner that can be relied upon. Moreover, JTEKT's products are used in various industries, such as automotive, railway, steel, aviation and space and are deeply and widely involved with society and environmental issues. We JTEKT have a strong awareness of our social responsibility, and constantly strive to improve technology and quality, regarding our customers to be not only those who we directly do business with, but also the society at large.

[→ \[Message\] P6~11 Related article](#)

### Quality policy and quality assurance system

▶ Figure-01

Establishing a quality policy with the motto of "Customer First", we are involved in a variety of quality improvement activities. We also maintain and constantly improve a quality assurance system based on this policy.

In 2013, the wording of the quality policy was partially changed. The phrase "product quality" was changed to a more specific expression, "design quality and manufacturing quality". We believe that seeking quality at each stage of design and manufacturing allows us to improve overall product quality and gain our customers' trust.

**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

## Together with customers

### Major activities in FY 2014

#### [ Quality ]

##### Establishment of a Quality BR Office ★New!

In September of 2014, the Quality BR (Business Revolution) Office was established as an organization which reports directly to top management. This section aims to eliminate the root causes of major quality problems and revise systems. In 2015, the section has been establishing and implementing activities for floor management targets and emphasizing cultural reform.

##### Implemented QG (\*)-20 activities (milestone control)

JTEKT has begun a control meeting using 20 milestones for all stages, from planning, design, development and production preparation to full-scale production. The required quality is properly reflected in the product. \* QG is the abbreviation for Quality Gates.

##### Improvement through periodic inspections

JTEKT actively pursues the obtainment of reviewed quality management system certification through third parties. JTEKT continues to receive periodic inspections once or twice a year and uses the results to further revise and improve its quality control system.

##### Major obtained certifications

- ISO9001 (International quality management system standard)
- TS16949 (Quality management system for the automotive industry)
- AS9100 (Quality management system for the aviation/aerospace industries)



19th quality month poster in May 2015

##### Raising awareness through quality months

For the purpose of raising quality awareness, we have set May and November as “quality months”. During these months, we engage in various activities such as collecting and displaying posters and quality slogans, and discuss improvements for each department.

For the May 2015 quality month, we increased awareness of “Quality First” and “Customer First” and emphasized “Improvement of Field Power (Floor Management)”, as efforts to further improve quality.

##### Management and reduction of chemical substances in products

[→ E\\_18 Related article](#)

#### [ Training ]

##### A group of technicians who proactively consider JTEKT's development ★New!

In FY 2012, the JTEKT Engineers Association was formed to provide an opportunity for engineers of JTEKT's respective areas to work hard together to improve their technical ability and leadership abilities in the name of solving societal issues.

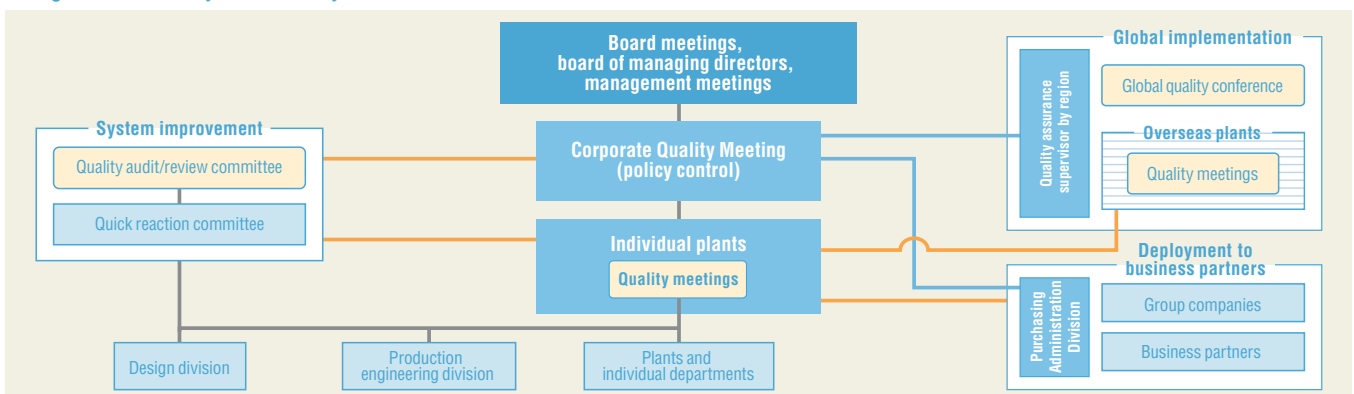
In FY 2014, the third year since the association was formed, we established three new domestic branches in East, Central and West Japan as an initiative to further enhance communication between engineers.

The JTEKT Technical Presentation is held annually, and in FY 2014, it was held for the first time at our Kokubu Operation Center on December 1st, a change from the usual venue at our Kariya Operation Center. The session was divided into the three specialty fields of electric/electronics, material/tribology/mechanical elements, and machining/production engineering, and live connection to each of our operating centers enabled a total of approximately 500 people companywide to engage in discussion on 17 themes.



JTEKT Technical Presentation

▶ Figure-01 Quality assurance system





## Together with customers

### Commencement of problem-solving training

In order to spread the concept of problem-solving as a basis to all work, JTEKT began conducting problem-solving training in FY 2014. The aim is for employees to acquire problem-solving skills which they can utilize to assist our customers. In FY 2015, this training was carried out for line leaders. JTEKT plans to widen the scope of this training from FY 2015 onwards to also include managerial positions and people externally assigned either domestically or abroad.

[→ \[Message\] P13 S\\_08](#) Related article

### Activities to improve engineering and quality at each workplace

Each workplace is working to improve engineering and quality by promoting TQM activities and implementing the SQC method.

[→ S\\_08-09](#) Related article

### [ Communication ] Conducting a customer satisfaction survey

As in previous years, in FY 2014 we conducted customer satisfaction surveys targeting our main customers. In order to improve satisfaction in the five areas of quality, delivery, technical response capability, cost response capability and technical/sales service, we shared the issues revealed by these surveys and are exerting efforts to solve them promptly and appropriately.

### Merger and acquisition of Koyo Sales Co., Ltd. **New!**

On October 1st, JTEKT merged and acquired Koyo Sales (consolidated subsidiary). By integrating with Koyo Sales, which sells bearings and precision devices, we are able to utilize the locations of both our companies and eliminate duplicate functions regarding the sale of all our domestic group products. Through strengthening our sales framework, strengthening our immediate delivery framework and enhancing our product lineup, we aim to meet our customers' requirements and alleviate any troubles they may be facing.

### Exhibitions in Japan and abroad

Each year, our company exhibits at many exhibitions both in Japan and abroad in order to enhance communication with customers other than those we do business with on a regular basis. We endeavor to introduce our products and technologies to an even higher number of potential customers and more thoroughly assess the needs of the market.

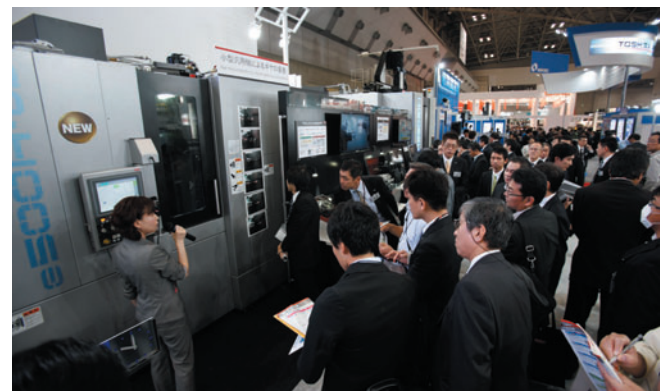
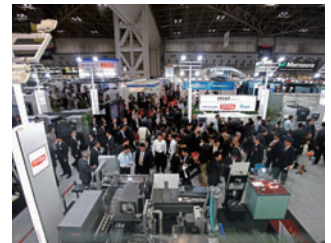
### Auto China 2014

At Auto China 2014 held at the China International Exhibition Center from April 20th to 29th, JTEKT introduced products which responded to the needs of the Chinese market.



### Japan International Machine Tool Fair (JIMTOF)

At JIMTOF 2014, held at Tokyo Big Sight from October 30th to November 4th, we made proposals for contributing to the improvement of customers' manufacturing capabilities, and introduced the new products in our machine tool and mechatronics business, as well as products from each of the JTEKT group companies. Our gear skiving center attracted attention from many exhibition goers.



## Together with customers

### Corporate advertising campaigns

We introduced JTEKT's No.1 & Only One technologies and products through corporate advertisements in various media, particularly newspapers. Results of a corporate image survey showed viewers of the advertisements thought they had impact and conveyed a global image.

### Newspaper advertising

With the establishment of the JTEKT GROUP VISION, we ran a series of advertising to introduce JTEKT's No.1 & Only One technologies and products. Using straightforward language, these advertisements described the No.1 & Only One features of products and technologies for automotive systems, bearings, machine tools and mechatronics and demonstrated how they contribute to the lifestyles of society and customers.

[→ \[Message\] P20 Related article](#)



### Television commercials ★ **New!**

We created a 15-second TV commercial delivering the key message that electric power steering systems, which JTEKT was the first in the world to successfully develop and mass produce, now have a deeply-established presence throughout the world. Focusing on students as our main target, the advertisement was aired on Japanese television from February to March, and aimed at vitalizing our hiring activities.



### Awards from customer companies

JTEKT received awards from customer companies in recognition of various quality improvement activities. We received the Award of Excellence for Quality from Aichi Machine Industry five years running.

#### Major awards in FY 2014

Customer name	Award	Awarded company
Toyota Kirloskar Auto Parts Private Ltd.	Quality Award/Delivery Award	KBIN (India)
PSA Peugeot Citroën	Supplier's Award	JEU (France)
Aichi Machine Industry Co., Ltd.	Award of Excellence for Quality	JTEKT Corporation
Jaguar Land Rover Automotive PLC	Quality Award	KBE (U.K.)
General Motors	Supplier Quality Excellence Award	KBNA (U.S.A.) KBCA (Canada) KRA (Romania) JTC (Thailand) JTEKT Corporation Daibea Co., Ltd.

**Kazunori Morisawa**  
Sales & Marketing Headquarters  
Corporate Sales Management Dept.  
Management Office 2  
Human Resources & Administration Group

My  
CSR



### Aiming for Customer Satisfaction

The Corporate Sales Management Dept. engages in its work with the mission of “visualizing Sales & Marketing Headquarters issues with a customer-first perspective and establishing structures and frameworks within the department to provide support.” While this department does not have direct contact with customers, it aims to improve the level of customer satisfaction in all avenues, by developing policies for quality, price, delivery, product development and so on.

# Together with business partners

## Social background

As CSR continues to gather interest throughout the world, the implementation of procurement activities in addition to the conventional QCD (quality/cost/delivery) has come to be expected of companies. These include global compliance to laws and regulations, labor conditions, environmental and safety concerns of purchased materials and parts, and activities concerning the value chain.

## JTEKT's concept

### Promoting fair business

JTEKT regards business partners as equals and aims for mutual development and growth based on strong relationships of trust. JTEKT has stipulated policies for open and fair business practices in its Corporate Activities Standards and its Purchasing Philosophy regardless of country or company size and including companies with no experience supplying to JTEKT. On the company website, JTEKT has outlined procedures for becoming a business partner, as a means of providing fair, equal opportunities for all.

**“Follow proper business practices and engage in fair, transparent and free competition based on a respect for the law.”**

(from JTEKT Corporate Activities Standards)

### 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 by a strong supplier chain.

### Green Purchasing activities

Our company promotes companywide Green Purchasing activities in order to contribute to the creation of a sustainable recycling-based society. For this purpose, we have issued Green Purchasing guidelines and have requested the cooperation of business partners.

#### Requests to our business partners

We make the following requests to our business partners under the Green Purchasing Guideline.

- Construction of an environmental management system based on obtainment of external certification such as ISO14001.
- Observation and reinforcement of environmental laws and regulations
- Prohibit or restrict use of environmentally burdensome substances
- Improve environmental performance by reducing CO<sub>2</sub> emissions, etc.
- Promote actions to conserve biodiversity

## Major activities in FY 2014

### Purchasing Policy Briefing

On April 19th, 2015, the Purchasing Policy Briefing was held at the Hotel New Otani Osaka, attended by 253 companies and 277 people. As FY 2015's purchasing policy, we requested the strengthening of CSR and thorough safety, which are major premises of business. At the same time, we explained our major implemented items for the fiscal year. We also awarded our business partners who had demonstrated outstanding performance in regards to quality, technology and cost price improvement for the year overall.

#### Major Implementation Items for FY 2015

- Strengthen efforts to solve significant quality problems
- Achieve superior international cost competitiveness
- Respond to global optimal production

### Quality Management Convention

The Quality Management Convention was held on November 12th, 2014 at Osaka Matsushita IMP Hall, and was participated in by around 360 people from all 210 member companies of the JTEKT Supplier Association(\*). Six companies presented improvement case studies and in addition to a presentation by Kawaguchi Plant's QC circle, there was a lecture relating to QC circles and a talk from a visiting lecturer.

#### \*The JTEKT Supplier Association

The JTEKT Supplier Association is comprised of 210 companies (as of FY 2014). It is intended to foster mutual trust among members and raise their capabilities through activities such as quality management conventions, workshops, and lectures.



## Together with business partners

### JTEKT Supplier Association Workshop

The JTEKT Supplier Association participated at the Midland Hall in Nagoya on January 29th, 2015. A workshop was held focusing on the three themes of labor compliance, safety management and BCP (Business Continuity Plan).

### [CSR Activity Item Guidelines]

We issued the CSR Activity Item Guidelines for our business partners, in order to share with them the purpose of our CSR Policy and clarify items that we would like our business partners to observe. We request our business partners deploy these guidelines upstream as well.

#### 1. Management-related initiatives

- Legal compliance
- Risk management

#### 2. Initiatives for stakeholders

- Securing quality
- Fair trade
- Good labor-management relations
- Protection of human rights/respect for diversity
- Observance of corporate ethics
- Initiatives for local communities

#### 3. Initiatives for the global environment

- Environmental management
- Environmentally friendly business activities

### Initiatives for the conflict minerals issue

We enlightened our business partners on the conflict minerals issue in a briefing session. We also urged our business partners to continue cooperating with upstream investigations of their supply chain to ensure it was problem-free.

Hiroki Shinba  
Purchasing Headquarters  
Purchasing Planning Dept.  
Global Purchasing Planning Office  
Administration Group

My  
CSR



### Enlightening business partners on green purchasing

The Purchasing Headquarters aims for observance of green purchasing practices by having business partners respond to regulations for environmentally burdensome substances and acquire environmental management systems. We wish to continue enlightenment activities aimed at business partners, thus contributing to the formation of a sustainable society.

# Together with employees

## Personnel-related actions

### Social background

Amidst heightened interest in the role of corporations within society and sustainable management, various rules are being established such as the Ten Principles of the United Nations Global Compact, ISO26000, GRI G4 Guidelines and the <IR> Framework. As clearly indicated by the repeated reference to human rights and labor in many rules, corporations are now strongly expected to place more emphasis on observance of human rights in their business activities.

### JTEKT's concept

#### Creating a friendly work environment for all

JTEKT fosters discrimination-free workplaces where human rights and diversity are respected and where employees can strive to achieve high goals. We promote the creation of a workplace in which all of our employees find it easy to work, considering various aspects such as human development, respect for diversity and safety and hygiene. Our company believes that, as we expand globally, it will become even more important to deepen understanding towards human rights and share this with group companies both domestically and overseas.

#### Respect for human rights and utilization of diverse human resources

Included in JTEKT's Corporate Activities Standards and Employee Conduct Guidelines is the following: "Respect the individuality of employees, create workplaces that motivate employees and enable them to fulfill their potential, and strive to provide each with abundant living circumstances." We give explicit instructions regarding the prohibition of discrimination based on race, gender, age, nationality, etc., and share and enforce this thinking with our group companies both in Japan and overseas. Additionally, we engage in various actions to utilize diverse human resources.

#### Main actions

- Hiring foreign employees
- Assisting female employees' career development
- Employing persons with disabilities
- Changing fixed-term employees to permanent employees
- 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.

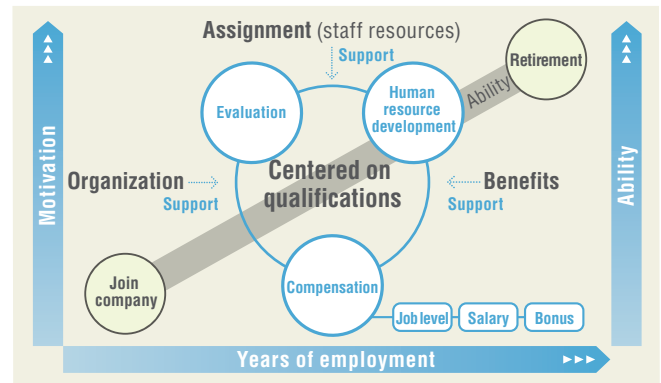
#### Direction of human resource development

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 sensible, and have an international perspective.

#### Maintaining high motivation and enhancing abilities

Our human resource development system, consisting of training, evaluation and compensation, enables employees to continually improve their skills and provides them with a motivating working environment during their years in the company.



### Major activities in FY 2014

#### [ Labor-management relations and employment ] Emphasizing labor-management communication

JTEKT places importance on labor-management communication and facilitates numerous opportunities for direct dialogue between workers and management on a companywide and individual plant basis. These include various social gatherings and discussion sessions. Workers and management exchange opinions on company development and stabilizing/improving employee quality of life and strive to deepen mutual trust and understanding by building even firmer relationships.

#### Labor-management discussion opportunities (held in FY 2014)

- Central Production Subcommittee Meetings (annual)
- Central Labor-Management Meetings (annual)
- Labor-Management Meetings (4 times)
- Labor-Management Committee Meetings (9 times)
- Labor-Management training (annual)
- Plant Production Section Meetings (monthly at each plant)
- Business Facility Labor-Management Discussions (monthly at each business facility)
- Workplace Discussions (as required at each workplace)

## Together with employees

### Actions to improve the paid leave usage rate

JTEKT aims to create a workplace in which employees find it easy to use paid leave. Labor and management cooperate together to periodically check the usage status of paid leave in order to improve the usage rate.

#### Labor condition transition (Average per each workers union member)

	2010	2011	2012	2013	2014
Total work hours (hours)	2,170.6	2,077.2	2,074.7	2,115.3	2,107.2
Work outside of regular hours (hours)	306.1	321.8	316.0	351.7	345.7
Percentage of paid leave consumption (%)	58.6	62.1	63.2	65.6	67.4

### Maintain employment

In FY 2014, JTEKT continued to exert efforts to maintain employment through various measures such as reassignment from the perspective of effectively utilizing resources. JTEKT observed the relevant laws and internal regulations for managing the employment of fixed-term workers. In FY 2014, 99 fixed-term workers were appointed as permanent employees.

#### Transition from fixed term workers to permanent employees

	2011	2012	2013	2014
Number of transitions made (people)	205	167	184	99

#### Composition of employees as of end of March, 2015

	Male	Female	Total
Permanent employees	10,285	833	11,118
Fixed-term employees (*1)	3,157	567	3,724
Total	13,442	1,400	14,842

	Male	Female	Average
Years of employment	15.6	11.2	15.3
Job turnover rate (*2)	0.8%		
Job turnover rate within the first 3 years (*3)	3.6%		

\* 1 Total fixed-term, part-time, reemployed, and temporary employees

\* 2 Voluntary early retirement rate

\* 3 Permanent employees, seasonal recruits, voluntary early retirement

### [ Human resource development ] Training held by job type and rank

We are working on further enhancing the training programs for office and engineering staff as well as production staff.

#### Human resource development for office and engineering staff

The JTEKT training system is composed of three pillars: rank-based, function-based, and workplace-based training. We are also focusing on supporting the acquisition of qualifications and self-study efforts. From FY 2014, we have implemented special rank-based training to enhance problem-solving skills. For the first few years, this program will be led by an external instructor while we develop in-house trainers. Later on, we will establish our own trainers for conducting training. We plan to expand this training program to our bases in each region of the world.

→ [\[Message\] P13 S\\_03](#) Related article

#### Human resource development for production staff **New!**

The JTEKT training system is composed of the three pillars of companywide training, workplace-based training and self-study. Regarding companywide training, apart from a career development program (rank-based) which is based on training at the JTEKT Technical Training Center (\*1), we carry out supervisor training, 10 specialized skill training courses, TWI supervisor trainer development courses (\*2) and TWI 10-hour courses. Regarding workplace-based training, we implement OJT training (\*3) covering the specialized skills necessary to pass down to future generations, as well as special training and skill courses for the obtainment of certifications necessary in the line of work. We support the self-study of employees so they may attempt the National Trade Skills Test, QC Test, Voluntary Conservation Officer recognition, etc. In FY 2015, we launched floor management education, which involves workshops for leaders and supervisors. This will be rolled out overseas from FY 2016.

\*1 **JTEKT Technical Training Center** Provides vocational training approved by the prefectural governor of Aichi. Focuses on developing excellent production personnel.

\*2 **TWI supervisor trainer development course** TWI is an abbreviation for "Training Within Industry". It is internal training for supervisors.

\*3 **OJT** Abbreviation for "On the Job Training," or training carried out during actual work.

#### Rank-based training types and main content

	Training	Main content	Attendees
Managers	Training for new department managers and manufacturing assistant managers	CSR, workplace management	31
	R3 training for new managers	CSR, policy management, daily task control	116
Office & engineering staff	R4 training for new office & engineering staff	CSR, leadership, planned fulfillment of tasks	195
	R5 training for office & engineering staff	Business communication skills	209
	R6 training for office & engineering staff	Problem solution methods and concepts	201
	Training for mid-career new employees	CSR, JTEKT employee basic knowledge and mindset	24
	Training for office & engineering new employees	CSR, JTEKT employee basic knowledge and mindset	145
Production staff	Training for newly appointed production managers	Acquisition of an internal human resource development framework and JPS (*4) production system	10
	Training for new Chief Leaders	CSR, Management basics and planned fulfillment of tasks	57
	Training for new Group Leaders	Problem solutions based on QC concept	139
	Training for new production employees	CSR, JTEKT employee basic knowledge and mindset	107

\*4 **JPS** JTEKT Production System

#### Promoting TQM activities

JTEKT promotes TQM (Total Quality Management) activities based on the three pillars of "Customer First", "Endless Improvements" and "Participation by All". At workplaces, which are the frontline, we strive to foster mutual instruction and the handing down of unique techniques through small group activities (QC Circle activities). On November 21st, "HIKARI Circle" of our Kokubu Plant and "CARTRIDGE A Circle" of our Kagawa Plant participated in the 44th Nationwide QC Circle Contest held at Tokyo Big Sight.

→ [S\\_03](#) Related article



## Together with employees

### SQC(\*) Improvement Case Study Companywide Presentation

In R&D, design, production activities and so on, JTEKT proactively incorporates the SQC method to be able to make scientific judgments based on data and consider the variation of materials, parts and properties. In order to share case studies which utilize SQC throughout the company and learn from one another to improve skills, JTEKT holds a SQC Improvement Case Study Companywide Presentation each year. In FY 2014, approximately 467 members attended the event.

→ S\_03 Related article

\* SQC SQC is the abbreviation for Statistical Quality Control.

### Creative ideas proposal exhibitions ★ **New!**

From November until February, we held creative ideas proposal exhibitions in 12 plants which were participated in by approximately 6,700 people. The exhibitions introduced outstanding proposals which had been awarded Creative Ideas Merit Awards from the Minister of Education, Culture, Sports, Science and Technology. Detailed explanations of focus points and creative ideas were given so that other employees may leverage proposals to improve their own work. In FY 2014, a total of 29 JTEKT employees from all of our plants received the Creative Ideas Merit Award from the Minister of Education, Culture, Sports, Science and Technology.

### [ Respect for diversity ]

#### Promoting diversity

In the midst of an ever-changing management environment, represented by globalization, accepting and utilizing personnel with diverse values and personalities is essential for a company to grow. JTEKT positions the promotion of diversity as an important management strategy for the achievement of the JTEKT GROUP VISION and engages in various initiatives accordingly.

### Assisting female employees in developing ★ **New!** their careers

JTEKT has already established a dual support system, but in order to

further accelerate female participation in the workplace, we conducted an actual condition survey targeting all female employees and all management personnel in FY 2014. We investigated the environment surrounding female employees, consciousness towards female employees' work and the nurturing/assessment by superiors of subordinates. Based on the issues brought to light through this survey, we established initiative policies based on the below four elements.

<b>1. Reform consciousness</b>	Implementation of management-level training aimed at teaching methods for nurturing, instructing and managing female employees
	Implementation of training for women aimed at long-term career design and fostering career-orientated consciousness
<b>2. Dual support</b>	Creation of systems and environments enabling employees with limitations to continue working
	Introduction of systems aimed at supporting career development for female employees
<b>3. Strengthen hiring</b>	Proactive hiring of women who are strongly career-oriented
<b>4. Foster culture</b>	Fostering of a culture in which women can become more active through methods such as diversity training targeting all employees, and spread of a diversity mindset

### Hiring of women and promotion of women to managerial positions

	2010	2011	2012	2013	2014
<b>Total no. of women hired through seasonal recruitment</b>	6	20	20	27	26
(Total no. of employees hired through seasonal recruitment)	(175)	(289)	(326)	(316)	(309)
<b>No. of women managers</b>	8	11	12	13	16
(Total no. of managers)	(1,386)	(1,446)	(1,491)	(1,577)	(1,645)
<b>No. of women assistant managers</b>	20	20	21	29	34
(Total no. of assistant managers)	(1,204)	(1,240)	(1,183)	(1,228)	(1,304)

#### TOPICS

### 2nd QC Circle Kaizen Activity Global Convention

On September 4th, the 2nd QC Circle Kaizen Activity Global Convention was held at the JTEKT Corporate Pension Fund Hall [Wiz] in Kariya city, Aichi. Daily activity results were presented by six selected circles from a total of 49 overseas group companies representing the six regions of Europe, North America, Central/South America, China, ASEAN and India. The convention served as a valuable opportunity for each of the participating circles to take back with them what they had learnt, deploy such knowledge to their respective regions and further vitalize QC circle activities.



First prize – China representative (JSSX) PLUS-ENERGY Circle



Presenter Huang Qi Chao (left) and interpreter Xiao Li Fang (right)

### My CSR



Tomoyuki Kawamura  
Personnel and General Administration Division  
Technical Training Center

### Human resource development through the National Skills Test!

The National Skills Test Secretariat runs and supports the National Skills Test. Currently, the number of JTEKT employees sitting the test is decreasing and the pass rate is also declining. Being involved in human resource development through the National Skills Test, my job is to think daily about what we can do as the Secretariat to support the examinees who are exerting all their effort into study.



Competition to assemble distribution boards and control panels

## Together with employees

### Enhancement of dual support systems

JTEKT is exerting efforts to enable all employees, regardless of gender, to balance child-raising or caregiving with work. To this end we are enhancing the systems and creating workplace environments in which employees can easily utilize such systems.

#### Number of employees who took childcare leave and number of employees who took family care leave

	2010	2011	2012	2013	2014
Number of employees who took childcare leave	26	19	25	24	38
Number of employees who took family care leave	2	4	4	3	5

### Reemployment of retired employees

To allow highly motivated retired employees with abundant knowledge and experience to continue working, JTEKT established a post-retirement reemployment system in April 2006. As of the end of March 2015, 759 persons reemployed by JTEKT and related companies were working at various workplaces and training younger employees who will one day become the leaders of JTEKT.

#### Application of the post-retirement reemployment system in FY 2014

Number of those who are applicable			219
Number of applications [a]			181
Number of re-employed [b]	JTEKT	166	181
	Group companies	15	
Rate of employment [b/a]			100%

### Establishment of an Asset Building Exploratory Labor-Management Committee

In FY 2011, an “*Iki-iki* 60 Committee” was formed for employees and management to jointly investigate various measures enabling employees 60 years and above to work with enthusiasm and vigor. As a result, a re-employment system clarifying expectations and roles was launched in FY 2014. Moreover, we have newly established an Asset Building Exploratory Labor-Management Committee. Labor and management hold discussions regarding pre-retirement asset building so that employees may retire with a sense of reassurance.

### Enhancement of life career plan training content

JTEKT had already been holding life career plan training for employees aged between 50 and 55 as an opportunity to think about their career and post-retirement life design. From FY 2014, we also began covering the topic of health in this training.

#### Life career plan training participants (FY 2014)

50 years old Career 50 training participants	115
55 years old Career/life 55 training participants	202
Total	317

### Employment of people with disabilities

JTEKT actively participates in joint-employment seminars aimed at people with disabilities and strives to provide as many people as possible with interviews and opportunities to apply. Currently we have employees with disabilities working mainly as shop floor support and general administration staff. We are also enhancing initiatives by expanding job categories, etc.

#### Number of disabled persons employed (Average for 2014)

No. of employees with disabilities	292
No. of employees according to legislation	270
No. over or short	+22
Employment rate	2.17%

\* In accordance with legislation, employees with severe disabilities are counted twice (as 2 people) in the above table.

### [ Employee satisfaction improvement ] Workplace management questionnaires

Each year, JTEKT conducts a workplace management questionnaire for all employees, from January through February. In FY 2014 as well, we collected comments from employees in both managerial and non-managerial positions at each workplace through questions regarding the “understanding of the workplace mission”, “common perception of the upper management policies”, and “understanding of the connection between the upper management policies and personal themes”, etc. This allowed us to understand management status, such as whether the progress of daily operations is properly controlled and whether company policies are steadily communicated. We aim to create a better workplace by incorporating issues found through this questionnaire into the plan for the following fiscal year.

[→ \[Message\] P15 Related article](#)

### Confirming the level of satisfaction through morale surveys

JTEKT conducts a morale survey from January through February each year, along with a workplace management questionnaire, in order to confirm the level of employee satisfaction/dissatisfaction towards the organization and policies, and their associated reasons. Incorporating the results into the plan for the following fiscal year will lead to improvement in employee satisfaction.

[→ \[Message\] P19 Related article](#)

### Adoption of Cafeteria Plan for benefits

JTEKT has adopted a selection-based benefit program (Cafeteria Plan). Employees can freely select from the benefit menu, including food, travel, and family care, according to points received. In FY 2014, the point usage rate was 96 percent. We support our employees in having a fulfilling life through various programs and facilities such as the employee savings scheme, employee shareholding association, dormitories, and gym.

## Together with employees

### Safety and health-related initiatives

#### Social background

The ISO26000 positions work habits as one of its central themes, and as such safety and health at work has been raised as an issue, and corporate safety and health management has been set in detail. Moreover, according to the Ministry of Health, Labor and Welfare, the number of people who take four days or more off work due to injury or illness has reached 110,000 per year and companies are now expected to find feasible solutions to this problem.

#### JTEKT's concept

##### Aiming to create a safe and comfortable workplace environment

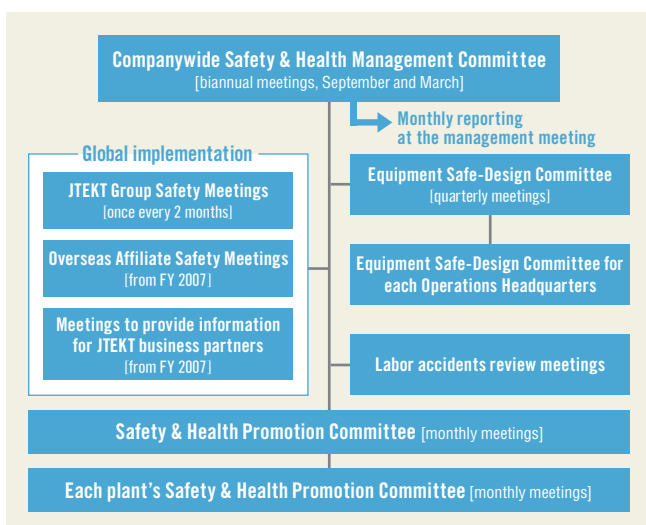
All JTEKT employees unite to engage in safety and health activities and create a comfortable workplace environment under our Companywide Safety & Health Policy.

##### Promoting activities under a centralized control system

▶ Figure-01

In order to systematically and consistently promote the formation of a safe and comfortable workplace environment, we established a Companywide Safety & Health Management Committee and have formed a centralized control system which covers group companies both in Japan and overseas. JTEKT is rolling out its safety and health activities on a global scale.

▶ Figure-01 Safety, health control system



#### Major activities in FY 2014

##### [JTEKT's safety activities]

Activities based on the safety & health management system

By FY 2007, 11 plants and the Higashi-kariya Operation Center had acquired "JISHA OSHMS Standards Certification", certification by the Japan Industrial Safety & Health Association concerning occupational safety and health management systems with an emphasis on risk management. Since then, activities have been ongoing in accordance with the management system. In FY 2014, the Sayama Plant also acquired certification.

##### JISHA OSHMS Standards Certification

**FY 2014** Renewals at Kokubu Plant, Kagawa Plant and Kameyama Plant, as planned. New acquisition for Sayama Plant.

**FY 2015** Renewals are planned for Okazaki Plant, Tokyo Plant and Kariya Plant.

##### Aiming for zero work-related accidents

▶ Figure-02

→ [Message] P14-15 Related article

At JTEKT domestic plants and operation centers, we continuously promote various safety and health activities aimed at achieving zero work-related accidents. Such activities include establishing 6 Major Accidents (\*1) which can easily lead to death or impairment and the establishment of safety dojos (\*2) to prevent work-related accidents through improving work and equipment. Since FY 2011 we have placed particular emphasis on countermeasures for "Failure-to-Stop Accidents" (\*3) and continued in FY 2014 to focus on eradicating these as an issue of utmost importance. As a result, we were able to reduce the number of failure-to-stop accidents from 15 in FY 2013, to 10 in FY 2014; however unfortunately, we were unable to fully eradicate them. Moreover, the number of accidents due to tripping and falling appears to be rising, resulting in the number of all accidents and lost-worktime accidents increasing from the previous year. We are working to thoroughly identify the reasons for such accidents and achieve our Safety Vision of "Safety First' No. 1 JTEKT - We can eliminate all accidents!" by accelerating our efforts in developing safety personnel and safe workplaces. In FY 2015, we will aim for zero Failure-to-Stop Accidents and zero tripping and falling accidents.

\*1 **6 Major Accidents** Accidents arising through pinching/entanglement, heavy objects, vehicles, falling, electric shock and hot surfaces.

\*2 **Safety Dojo** A place where accidents on actual machinery are simulated and employees learn the importance of observing work rules through physical experience.

\*3 **Failure-to-Stop Accidents** Accidents which occur when troubleshooting work or repairs are conducted without first stopping the machine.

##### "Safety Vision" as the pillar of safety activities since FY 2015 ★ New!

**"Safety First" No.1 JTEKT**  
-We can eliminate all accidents!-

- Safety takes priority over everything
- Strong ambition for ZERO accidents
- Aiming for ZERO risks

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

Safety personnel	Safe workplace
① Can protect him/herself	① Equipment is intrinsically safe
② Does not let others get injured	② 4S is continuously and actively carried out
③ Improves unsafe actions and conditions	③ The workplace is improved on a daily basis

## Together with employees

### [Safety activities of domestic group companies]

Figure-02

#### Bi-monthly Safety Meetings ★ **New!**

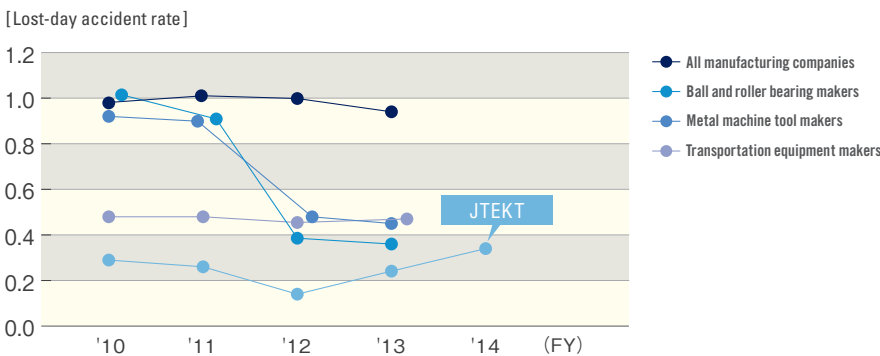
Bi-monthly safety meetings are held on a rotation-basis at JTEKT group companies in Japan in order to share a variety of information. The company who hosts the meeting picks up safety hazards through a safety patrol and then follows through on their improvement. Moreover, accidents which occur frequently during set-up changeover work are identified from past accident analysis results and all of the companies worked together on assessing all set-up changeover work and revising work procedures. As a result, a total of 993 tasks were covered.

#### Special support activities for companies with frequent accidents ★ **New!**

Failure-to-Stop Accidents are the greatest concern for not only JTEKT, but also JTEKT group companies in Japan, and these have been increasing in number since FY 2012. However, JTEKT has continuously conducted special support activities through the *genchi genbutsu* approach for those companies with a high number of accidents, including Failure-to-Stop Accidents. As a result, the number of accidents at the targeted group companies is declining.

Figure-02

### Change of industrial accident frequency rate

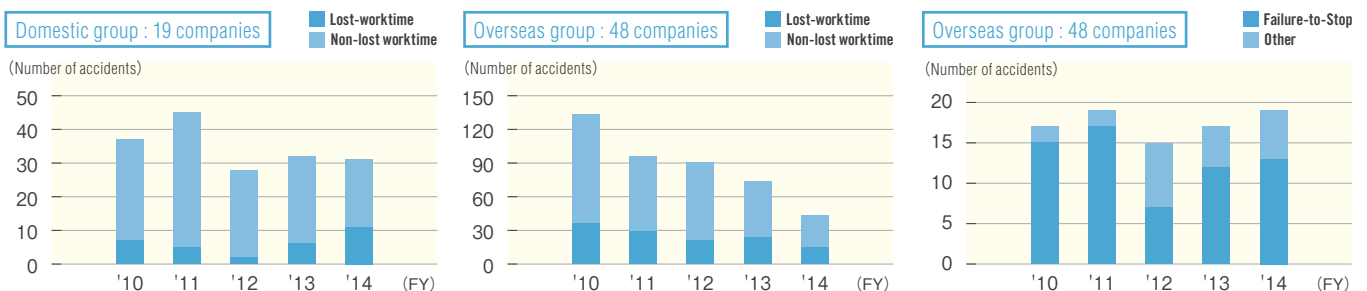


\* The FY 2014 section of the graph only shows the lost-day accident rate for JTEKT.

$$\text{Lost-day accident rate} = \frac{\text{Number of lost-day accidents}^{(*)}}{\text{Total work hours}} \times 1 \text{ million}$$

\* **Lost-day accidents** : JTEKT defines lost-day accidents as work-related accidents resulting in work absence of 1 day or more.

### Trend of total number of accidents



\* The consolidated management scope differs between the Safety & Health Activities Report and Environmental Report. As such, the number of group companies in individual graphs also changes.

Figure-02

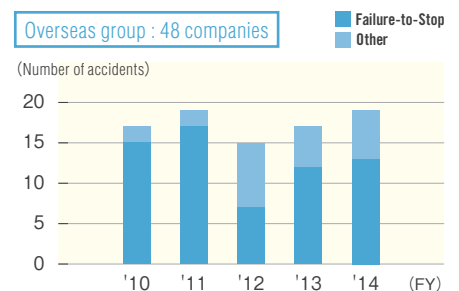
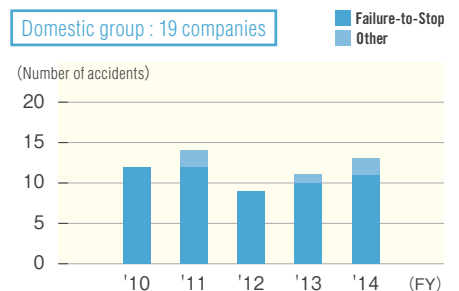
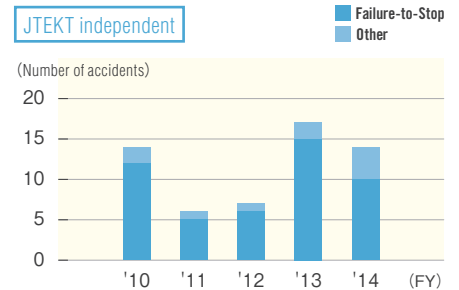
### [Safety activities of overseas group companies]

We also promote risk assessment at our overseas group companies in the same way as we do in Japan. Information from Japan was proactively incorporated and the establishment of safety dojos promoted. By FY 2014, safety dojos were established in all group companies of North America, where accidents had a tendency to frequently occur. Moreover, in order to assess conditions using the *genchi genbutsu* approach and implement support activities, the JTEKT member in charge of overseas operations visited six North American group companies, proactively exchanging opinions and sharing safety values.

#### Improving safety level on a global basis ★ **New!**

Regarding the status of work-related accidents occurring at overseas group companies, 43 accidents occurred in 2014, compared to a total of 96 accidents in 2011. However, Failure-to-Stop Accidents have been on the rise since 2012, demonstrating that overseas group companies faced the same problem as JTEKT domestic group companies. We will proactively assess conditions using the *genchi genbutsu* approach and implement support activities in order to raise the safety level globally and achieve zero accidents across JTEKT.

### Trend of the 6 Major Accidents





## Together with employees

### Summary of safety activities for FY 2014

#### Major items

- ① Eradication of frequently-stopping equipment
- ② “Pledging Zero Accidents” Day (Memorial Day)
- ③ Enforcement of PKTNS(\*1)    ④ Enforcement of “Stop and Confirm” activity
- ⑤ Red equipment(\*2) countermeasures

#### Standardization of difficult work

- Assessed and implemented countermeasures for troubleshooting work on frequently-stopping equipment.
- Countermeasures and standardization of work were conducted for 922 of the total 1,210 pieces of equipment that were registered, with the remainder planned for completion in the first half of FY 2015.

#### Created workplaces where safety awareness is shared and workers warn each other about unsafe behavior

- Reinforced safety checks using the pointing and calling method, targeting 100 percent execution.
- Promoted proposals for near misses (\*3).
- Countermeasures were completed for all 102,093 proposals.
- Actions during safety reinforcement months.
- Conducted a safety awareness survey in the form of a questionnaire twice during the year for half of the employees at a time. Analyzed the questionnaire results and shared the contents with other plants.
- Established safety dojos and shop-based safety dojos(\*4).
- Conducted an actual-condition assessment through a safety diagnosis by DuPont.

#### Global deployment

- Rolled out domestically deployed items to our overseas group companies.
- Held investigations when accidents occurred and promoted countermeasures. Promoted monthly safety themed activities. Conducted autonomous safety audits, promoted establishment of safety dojos.

\*1 PKTNS This approach entails the following:

1. Do not walk with hands in pockets
2. Do not walk while using a cell phone
3. Use the handrail when walking up/down stairs
4. Do not cross the road diagonally
5. Pointing and calling

\*2 Red equipment Equipment without covers which still have the risk of trapping hands.

\*3 Near misses A safety and health activity involving gathering and sharing of information on near misses and the devising of reoccurrence prevention measures.

\*4 Shop-based Safety Dojo A safety dojo targeting risk sources and equipment specific to a certain workplace or production line.

Katsuhiko Sakai  
Management TOP Direct Control  
Safety & Health Control Dept.

My  
CSR



#### Special focal point support activities for group companies

I am the point of contact for matters relating to safety activity and serve as the facilitator between group companies and JTEKT. I would like to leverage my experience which I gained working on the production floor up until one year ago in order to support the individual group companies. The circumstances and concerns of each company differ and I feel great satisfaction when I confirm these one at a time through the *genchi genbutsu* approach, assess the situation and put my head together with the company to reach a solution. Sincerely vowing to put safety first and believing in our motto of “We can eliminate all accidents!”, I will contribute to the happiness of all JTEKT group employees and their families.

### Improving awareness and knowledge through safety & health education

One of the key requirements of workplace safety & health activities is the planned implementation of education and training. Our main forms of education are rank-based training based on job level and special training based on job type, while our main forms of training are Basic KYT 4R training(\*5), danger-sensing training, and skill training.

\*5 Basic KYT 4R training KYT stands for Kiken (danger), Yochi (recognition), and Training. The term “4R” means “4 rounds.” This is danger-recognition training through 4 phases.

#### Main training types (number of attendees in FY 2014)

Rank-based training	Safety management training	118
	Group Leader training	153
	New employee training	142
	Training Center student training	79
Special training	Grinding wheel replacement	77
	Low-voltage handling	77
Others	All-Toyota training for those overseeing outside workers	406
	All-Toyota training for those overseeing construction	156
	Elevated-work training	837
	Electric shock prevention training	705
	Risk assessment training	17
		2,767

### [Creating a comfortable workplace environment]

#### Workplace noise countermeasures

Our company had been engaging in improvements to eliminate all Noise Level 3 Classification areas (workplaces requiring improvement by law). However, some workplaces which had been improved were once again categorized as Noise Level 3 zones, and therefore we prepared a new plan for which we are promoting improvement activities.

#### Creating a workplace environment considerate of senior and female workers

To promote the creation of a workplace environment considerate of senior and female workers, we had been conducting posture weight point assessments to numerically assess the risk of developing lower back pain. From FY 2015, we introduced an original ergonomics assessment which makes clear assessment easier and will begin rolling this out to all of our domestic plants.

#### Improving high temperature workplaces

From the perspective of worker protection, JTEKT revised work environment measurement standards and began WBGT-based(\*6) assessments in FY 2010. JTEKT’s index is WBGT 30° C. The FY 2014 assessment showed that improvements were necessary in eight plants therefore we will continue implementing countermeasures in FY 2015.

\*6 WBGT (Wet-Bulb Globe Temperature) An indicator incorporating humidity, radiant heat and temperature, which significantly impact a person’s heat balance. Calculated using dry-bulb temperature, wet-bulb temperature and globe temperature.

#### WBGT (Wet-Bulb Globe Temperature) calculation method

Outdoors: WBGT = 0.7 × wet-bulb temp. + 0.2 × globe temp. + 0.1 × dry-bulb temp.

Indoors : WBGT = 0.7 × wet-bulb temp. + 0.3 × globe temp.

## Together with employees

### Health-related initiatives

#### Social background

According to the Ministry of Health, Labor and Welfare, there is an increasing number of people who experience strong anxiety or stress due to work, and mental health countermeasures are becoming increasingly important in the workplace. In June 2014, the Industrial Safety and Health Act was partially revised, and employers are now under obligation to provide stress checkups for their employees.

#### JTEKT's concept

##### 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.

#### Major activities in FY 2014

##### [ Achieving mental health ]

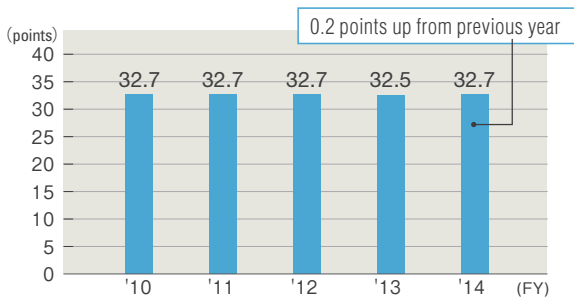
##### Ongoing promotion of mental health countermeasures

Figure-01

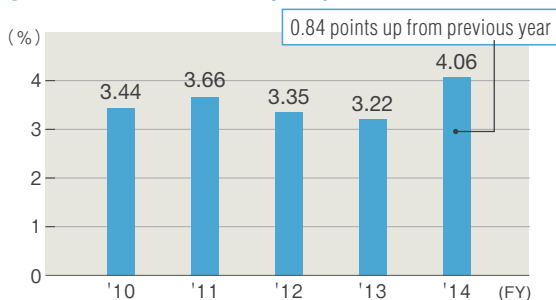
In FY 2014, we continued to promote mental health countermeasures which focused on preventing depression but unfortunately, the number of people experiencing high stress increased and the number of workers who took time off for mental reasons, along with the overall number of days taken off, rose. In particular, the number of employees in their 20s and 30s taking time off work increased, with the number of people who experienced stress less than three years after entering employment at JTEKT increasing from 12 in FY 2013 to 21. While there are some factors due to personal reasons, such as not becoming accustomed to the workplace or not properly being able to handle stress, we also thought it necessary to establish support systems to respond to this issue in the workplace for people who are easily stressed or have maladjustment problems. From FY 2015, we will roll out response with a central focus on establishing workplace systems as a mental health countermeasure.

Figure-01

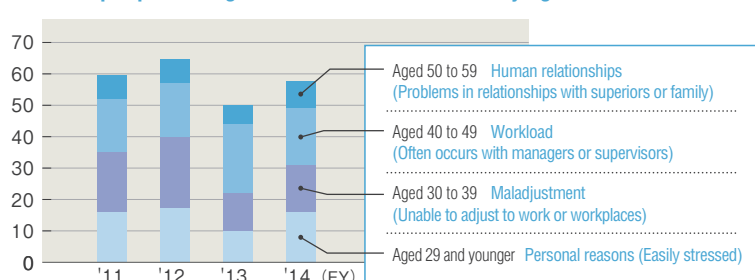
##### Transition of average stress levels (\*1)



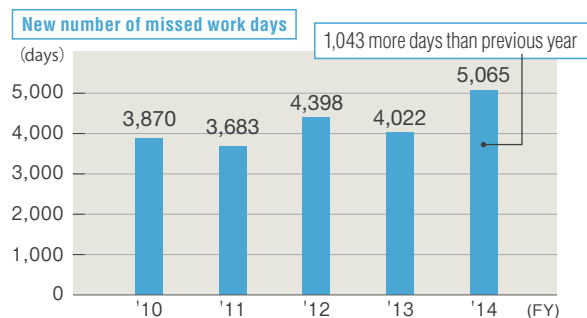
##### High-stress individual ratio yearly transition (\*2)



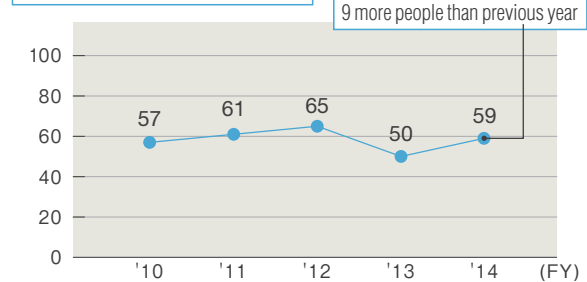
##### No. of new people taking time off work and reason by age



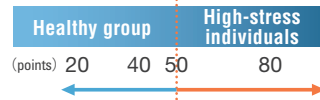
##### Number of work absences due to mental disorders



##### Number of newly absent employees



##### Stress level



\*1 **Stress level** Stress level = depression scale. Indicates the mental state and stress at the time the survey was conducted. Individuals with a stress level of 50 points or over are classed as "high-stress". Individuals with 60 points or over are suspected of suffering from depression.

\*2 **High-stress individual ratio** Number of high-stress individuals against the total number of employees who submitted stress surveys.

## Together with employees

### Implementation of a stress survey

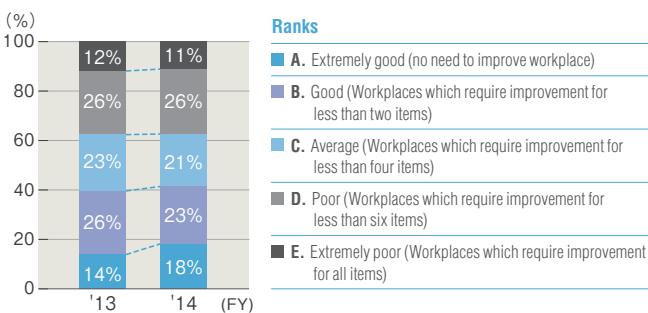
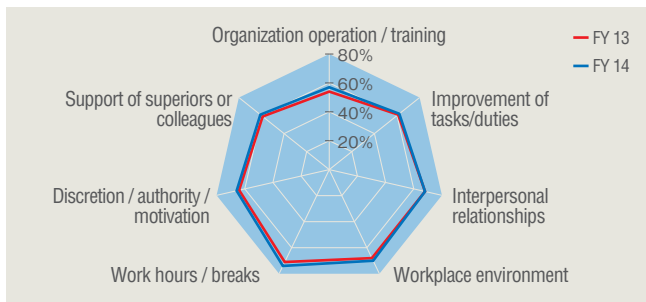
JTEKT conducts stress surveys as part of a health checkup so that employees may be aware of their own stress levels and know their level of psychological burden. This survey is in accordance with the Industrial Safety and Health Act revised in June 2014 (commonly referred to as the mandatory Stress Check Test).

### Implementation of a mental health workplace diagnosis

From August to September, a questionnaire relating to mental health was held targeting all employees, and the return rate was 75 percent. Compared with FY 2013, Rank A (extremely good) workplaces had increased, while Rank E (extremely poor) workplaces had decreased slightly. We believe that the smoother dissemination of information through companywide deployment of compliance activities and an increased number of opportunities for employees to receive training based on a human resource development plan led to employees feeling motivated towards their work, thus improving the workplace environment.

### Results of the mental health workplace questionnaire

#### Comparison of FY 2013 and FY 2014 ★ **New!**



### Implementation of mental health training

We conducted mental health training of occupational rank-related content.

#### R4 mental health training

Theme [Preventing and responding to mental illness sufferers]

- Held in a lecture style (via video conference)
- Attended by approximately 1,800 people

#### Content

1. Recent status of mental health
2. Definition of a mental illness sufferer
3. Response if a workplace member becomes mentally ill

### Support for employees taking off work due to mental disorders in returning to work

JTEKT supports the return of employees taking off work due to mental disorders, based on the Guidelines for Maintaining and Improving Workers' Mental Health established by the Ministry of Health, Labor and Welfare. Our return to work support program focuses on reoccurrence prevention and cooperates with external organizations such as vocational centers for persons with disabilities. The reoccurrence rate dropped from 0.34 percent in FY 2009 to 0.21 percent in FY 2014.

### Implementation of a "one word from each person" activity

We have been promoting an activity where everyone gives a few remarks according to a monthly theme during morning or afternoon assembly in the workplace. The aim of this activity is to create an opportunity for sharing each other's feelings and thoughts within the workplace and supporting one another. We have received positive feedback from the various workplaces such as "The workplace is cheerier.", "I am in a department which provides overseas support so I gave a speech in English and it helped improve my language ability.", "Workplace communication got better." and "It was an opportunity to get to know one another."

### Trend of excessive work measures

It is a company's obligation to have employees working long hours interviewed by a doctor to ensure health maintenance. During the interview, an industrial physician checks the employee's degree of fatigue and work situation. Employees diagnosed to have accumulated fatigue are given guidance on overtime work restrictions for the next month and on lifestyle.

### Awareness activities

There is a high possibility that excessive work may lead to cerebral vascular disturbance and ischemic heart disease. As such, JTEKT takes into account the health risks related to working long hours and engages in awareness activities which emphasize points to observe concerning "correction of frequent overtime, working weekends, and non-stop working stretches" and "assessing and controlling work time".

However, unfortunately in FY 2014, the number of people who received health checkups due to working long hours increased for both managers and general employees. In FY 2015 we will engage in activities to make duties more efficient and improve management methods of equalization countermeasures and long hour workplaces.

#### Transition of number of employees receiving checkup for working long hours

Managers		Staff	
FY 2010	Approx. 2,558 (Average : 213/month)	FY 2010	Approx. 1,898 (Average : 158/month)
FY 2011	Approx. 2,511 (Average : 209/month)	FY 2011	Approx. 2,231 (Average : 186/month)
FY 2012	Approx. 2,523 (Average : 210/month)	FY 2012	Approx. 1,563 (Average : 130/month)
FY 2013	Approx. 2,767 (Average : 231/month)	FY 2013	Approx. 1,753 (Average : 146/month)
FY 2014	Approx. 3,004 (Average : 250/month)	FY 2014	Approx. 2,312 (Average : 193/month)

\* Health checks for employees who work long hours apply to employees who have worked over 45 hours of overtime a week for 3 months consecutively, including management and general employees as well as employees who have worked over 70 hours of overtime in a single month.

## Together with employees

### [ Achieving physical health ] Proactively supporting health management

Beginning with lifestyle-related diseases, we focus on the prevention, early detection and early treatment of illnesses, and actively support the health management of our employees.

#### Special health guidance

The program that JTEKT began in April 2008 for special health checkups and healthcare guidance is gradually taking hold. JTEKT is taking assertive action towards the objective of eradicating metabolic syndrome. In FY 2014, the company implemented training for individuals with high health risks (employees under 40 years of age with metabolic syndrome).

#### FY 2014 healthcare guidance implementation

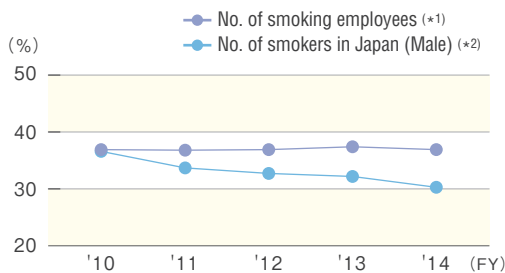
	Special health checkups	Education for employees with high health risks
No. of those applicable [a]	1,148	176
People screened/people participating [b]	1,137	176
% of total	Result [b/a]	99%
	Target	80%
		100%

#### Quit Smoking campaign

The Quit Smoking campaign is an activity that supports people who wish to quit smoking, with detailed assistance from an industrial doctor and a nurse. In FY 2014, 39 employees participated and 51 percent were able to successfully quit. The overall number of smokers among employees dropped 0.5 points from 37.4 percent last year to 36.9 percent.

We will continue to support employees in quitting smoking.

#### Transition of percentage of smokers



\*1 The calculation scope has been revised, and therefore values differ from those appearing in reports released up until last year.

\*2 From an investigation by JT

### 1st walking campaign **New!**

From March 1st to 25th, JTEKT conducted a “Walking around Operation Centers in Japan—Aichi/Shizuoka Edition” campaign with the aim of providing employees with an opportunity to walk and further promote the maintenance of their health. This was a virtual walking campaign which, by setting a target of walking an average of 10,000 steps a day, equated to walking the 175 km from JTEKT’s Nagoya Head Office to our Tokai Branch Office and Nakanihon Branch Office. A total of 232 employees completed the 175 km stretch.



#### Natsuko Morimoto

Personnel and General Administration Division  
Personnel Dept.  
Personnel Office  
Health Promotion Group



#### Health is the foundation for a fulfilling life

I myself am a mother and I know just how important my health is in order to stay on top of family life and work. I want to do my best in health promoting activities so that all employees can feel energetic and vital every day and maximize their capabilities.



# Together with local communities

## Social background

The importance of participating in and contributing to the local community is one of the seven core themes of ISO26000. The 4th version (G4) of the GRI Guidelines touches on local community development programs based on the needs of local community. As “corporate citizens”, companies are expected to contribute to the local society in a variety of ways.

## JTEKT’s concept

### “Social contribution activities” as one of the Corporate Activities Standards

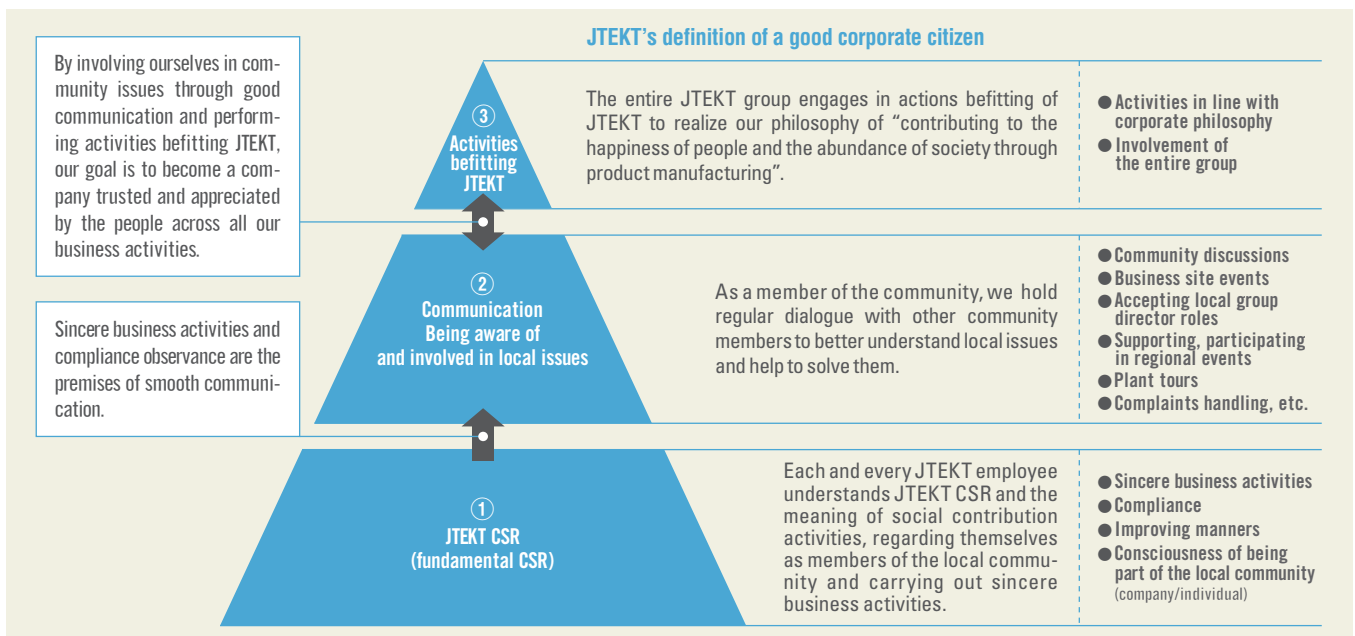
JTEKT has established “actively promoting social contribution activities as a good corporate citizen” as one of its seven Corporate Activity Standards. The Social Contribution Working Group under the CSR Promotion Committee leads in expanding a variety of social contribution activities, supported by activities rooted in the local community, proactive individual activity towards building nature and culture, and activities to support the affected areas of the Great East Japan Earthquake.

#### What we want to achieve

JTEKT promotes activities for social contribution as a good corporate citizen, with the aim of developing alongside the local community. For activities befitting JTEKT, each plant and operation center actively interacts with their local communities, uncovers local needs, and engages in actions rooted in the local community.

▶ Figure-01

▶ Figure-01



## Major activities in FY 2014

### Activities rooted in the local community

JTEKT is immersed in social contribution activities at each plant and branch office throughout Japan. In FY 2014, there were a total of 622 (166 new) activity reports from 458 plants and 164 branch offices.

### [ Communication ]

JTEKT believes that ascertaining the needs of the surrounding people through interaction is the first step in locally rooted activities. Community discussions and plant festivals are held at each plant and operation center to further communication with the local community.

### Holding community discussions at all plants

We periodically invite local government officials and community members to participate in community discussions at each plant and operation center. At these discussion sessions, we report achievements and exchange opinions concerning environmental conservation activities, and conduct plant tours, etc., to build a good relationship with the local community. During FY 2014, sessions were held at all 12 plants and at the Higashi-kariya Operation Center.

➔ E\_19 Related article

### Deepening friendships through plant festivals

Each of JTEKT’s plants and operation centers hold festivals every year, with stage shows, games, employee-run stalls and more. The aim is to promote friendship between employees, families and the local community. Festivals were held at 12 plants and at the Higashi-kariya Operation Center in FY 2014, counting a total of 8,514 visitors.

## Together with local communities

Introduction of activities

### Holding a community discussion

Kokubu Plant (Kashiwara city, Osaka)

On February 14th, 2015, Kokubu Plant invited eight members of the local community to participate in a community discussion. This occasion involved a plant tour, exchange of views and a Q&A session, with the aim of deepening the guests' understanding of JTEKT. There were no complaints or requests made relating to the environment.



Introduction of activities

### Participation in the 50th anniversary event of a local industry association ★ **New!**

Sayama Plant (Sayama city, Saitama)

On September 28th, Sayama Plant participated in a 50th anniversary ceremony and event for the Kawagoe Sayama Industry Association. At the event, JTEKT ran a *karaage* (fried chicken) stall and exhibited a booth introducing JTEKT's products and history in an effort to deepen communication with the local community.



Introduction of activities

### Over 350 visitors at a JTEKT family festival

Kameyama Plant (Kameyama city, Mie)

A family festival was held and over 350 visitors attended, comprising of employees, their families and related persons. Visitors enjoyed mini live performances by local stars, rock-paper-scissors competitions, workplace arm wrestling contests, handmade bouldering and many other forms of entertainment. All proceeds from the bazaar were donated to the victims of the Great East Japan Earthquake.



Introduction of activities

### Interacting with many people at a community event ★ **New!**

Iga Proving Ground (Iga city, Mie)

On November 3rd, JTEKT participated in a community event, Kenzui Festival 2014. We set up a booth introducing our products and a booth introducing JTEKT and the Iga Proving Ground through a video. We interacted with many local community members while handing out cookies featuring the JTEKT logo.



## [ Nurturing of young community members ]

Through activities such as *monozukuri* classes and sporting events, JTEKT contributes to the nurturing of young community members.

Introduction of activities

### A visiting lesson at a local junior high school ★ **New!**

Tokushima Plant (Itano ward, Tokushima)

On February 16th, employees of Tokushima Plant held a visiting lesson for second year students of Oujin Junior High School in Tokushima city. As well as introducing the mechanism and role of bearings in a straightforward way, employees also gave students the opportunity to experience assembling a bearing themselves. We received a letter of thanks from the Tokushima Prefecture Education Committee saying our lesson was a valuable opportunity to increase students' motivation to learn.



My CSR



**Tetsuya Higashimori**  
Bearing Operations Headquarters  
Kokubu Plant  
Administration Dept.  
General Affairs Section

### Kokubu Plant - Growing with the community

Situated in Kashiwara city in the southeastern part of Osaka Prefecture, Kokubu Plant was established in 1938 and boasts over 70 years of history. Once a year, the plant invites members of the local community to a family festival, and in return, we are invited to the local summer festival. The plant has enjoyed a strong relationship with the region from long ago and is growing with the mutual cooperation of local residents. We would like to continue growing while placing even greater value on coexistence with the community.



## Together with local communities

Introduction of activities

### Initiatives in improving sanitary conditions for elementary school students ★ New!

JRDC (China)

JRDC participated in a social contribution activity hosted by Binhu district of Wuxi city and helped to improve the sanitary conditions of elementary schools in Guizhou province. In 2014, JRDC donated a shower room and toilet to elementary schools and in December, JRDC employees attended the inauguration ceremony.

**Voice of the elementary school** | The toilet is flushable, which has improved our sanitary conditions. Moreover, the children used to wash themselves in a tub or the river but thanks to the donated shower room, they can now bathe conveniently and hygienically. This is really pleasing and we are so grateful to JRDC for their generosity.



### [ Welfare support ]

JTEKT supports the socially vulnerable, such as sick persons and those with disabilities, in many ways.

Introduction of activities

### Volleyball class at Okazaki School for the Deaf ★ New!

STINGS

On August 1st, five players from JTEKT's volleyball team, the STINGS, visited Okazaki School for the Deaf. The JTEKT players received a big round of applause from the 31 members of the junior high/senior high school student volleyball team when they greeted them using sign language. Players spoke slowly and used gestures to teach volleyball tips. The students watched carefully with the utmost sincerity and took the new knowledge in through their entire bodies.



Introduction of activities

### Weeding volunteer work at an orphanage ★ New!

Hanazono Plant (Okazaki city, Aichi)

Hanazono Plant conducts regular volunteer activities at Okazaki Heiwa Gakuen, an orphanage in Okazaki city. On September 21st, the plant employees volunteered to weed the school grounds and flower beds. After weeding, they planted the seeds they had donated together with the children in the orphanage. After the work was done, the employees stayed and played with the children, making for an enjoyable day filled with laughter.



### [ Road safety and fire prevention ]

Our company actively promotes a number of road safety activities, including "risho" (\*). We also believe that fire prevention is very important to maintaining a relationship of trust with the community and as such implement through fire prevention measures.

\* **Risho** A practice unique to Japan where, on the morning of a specific day every month, employees of automotive-related companies promote road safety awareness amongst drivers. This activity aims to reduce the number of road accidents.

Introduction of activities

### Preventing accidents involving children and the elderly

Higashi-kariya Operation Center (Kariya city, Aichi)

JTEKT performed a road safety (risho) activity four times in FY 2014, in spring, summer, autumn and at the end of the year, as a part of efforts to achieve road safety and prevent accidents involving children and the elderly. A total of 259 employees participated in the four risho activities carried out.



My CSR



Ryouichi Tokioka  
Research & Development Headquarters  
Advanced Creative Technology Research Dept.  
Advanced Mobility Sect.

### Contributing to the traffic society through safety and eco-driving

Each member of Nara Plant's Motor Sports Club, JTEKT (MSCJ) has a strong awareness of their role in contributing to a safe traffic society and strives to improve safe driving skills. In addition to safe driving, the club also engages in efforts to achieve smooth traffic conditions through eco-driving with no strain, waste or inconsistency. Moreover, through maintenance on club cars, the members build a mindset of treating things with care. MSCJ will continue to expand its activities to not only within the club, but also throughout the company and externally.

## Together with local communities

Introduction of activities

### Contributing road safety goods **New!** to Okazaki city

Okazaki Plant (Okazaki city, Aichi)

A portion of proceeds from the Okazaki Plant Friendship Festival was donated to Okazaki city. Upon receiving a request for road safety goods from the Okazaki City Citizens Lifestyle Club, JTEKT donated 530 reflectors (reflective key holders). Due to the fact that the number of accidents involving the elderly is increasing in Okazaki city, we donated four patterns of reflectors popular amongst elderly people.



### [ Community clean-up and beautification ]

Every year JTEKT holds community beautification activities to raise company environmental awareness. Employees proactively participate in cleaning up around plants to enhance coexistence with the community. In FY 2014, all 12 plants, the Higashi-kariya Operation Center, seven branch offices and the Nagoya Head Office implemented such activities.

Introduction of activities

### Clean-up activity together with **New!** local residents

Tadomisaki Plant (Takahama city, Aichi)

From March 2014, Tadomisaki Plant has been conducting clean-up activities around their plant on the third Wednesday of every month. After introducing initiatives at the community discussion held in December, members of the Tadomisaki citizens committee began joining us in this effort from the following month. In the clean-up activity held on January 21st, 2015, five kilograms of garbage was collected in a joint effort between four town committee members and seven JTEKT employees.



### [ Environmental preservation ]

JTEKT considers environmentally-orientated social contribution to be of great importance. Each plant and operation center engages in a variety of environmental preservation activities with community members.

Introduction of activities

### A “clean-up the coastline” activity with local elementary students

Toyohashi Plant (Toyohashi city, Aichi)

On October 18th, “friendly walk on the beach” was held again this year, following on from last year, at Tahara city’s Dodo Coast. This time, the employees of Toyohashi Plant and their families, as well as students from the local Fujimi Elementary School and their families, participated and a total of 150 people helped to clean up the coastline. After the clean-up, group net-hauling was held, as well as a lecture on sea turtles.



**Voices of the parents of participating schoolchildren** | One of the parents of a participating elementary school student commented that their son said he felt sorry for the sea turtles when he saw the mountain of trash which had been collected from the coastline during the clean-up activity and they think this activity made their son realize the importance of the natural environment.



Introduction of activities

### Contributing recycle planters to **New!** an elementary school

Kariya Plant (Kariya city, Aichi)

Every year since 1999, Kariya Plant has donated planters made by employees using recycled waste material from the plant to two elementary schools in Kariya city. On March 12th of FY 2014, the plant donated 20 planters to Futaba Elementary School and 18 planters to Asahi Elementary School. Both schools were soon to hold graduation ceremonies and were pleased to receive the planters, saying they wanted to grow flowers to line where the graduates would walk during the ceremony. We plan to continue making this contribution.



My CSR



**Kazushige Mabuchi**  
Bearing Operations Headquarters Tokyo Plant  
Administration Dept. General Affairs Section

### Participating as security volunteers at a summer festival

The Hamura Summer Festival is held every year in Hamura city, where the Tokyo Plant is located, and JTEKT employees participate as security volunteers. At Tokyo Plant, workers and management cooperate to recruit volunteers, and in 2014, a total of 56 people participated. The Samba Carnival held in the main street outside of Hamura Station always draws in large crowds, and ensuring security is an extremely important responsibility. We will leverage the power we receive from the festival and continue activities close to the local community.



## Together with local communities

### Building nature and culture through each employee's active participation

Each year, JTEKT conducts a questionnaire survey concerning individual volunteer activities for all employees, geared towards building an environment where volunteering is easier. The results of the questionnaire will be used to build a framework which encourages volunteer activities. In FY 2014, 5,362 volunteer activity participations were logged.

### [ Collection activities ]

▶ Figure-01

JTEKT is devoting efforts to the collection of PET bottle caps, erroneous postcards, used ink cartridges, and other items, as an activity that anyone can easily participate in.

Introduction of activities

### Providing scholarships to a Thai junior high school through collection activities New!

Companywide

In FY 2014, JTEKT provided three Thai junior high school students with scholarships through a collection campaign held around the New Year period which involved contributing used ink cartridges and erroneous postcards. The three students who received the scholarships live in Udon Thani in Thailand's northeast, and are studying diligently in order to advance to senior high school.



▶ Figure-01

Campaign	Time period	Collection items	Collection results	Conversion	Beneficiary
Nihokai Collection of goods for East Japan recovery support	August–October	Erroneous postcards, bell marks (cards for funding education for poor children), unused stamps, all types of coupons		Equivalent to 428,572 yen	Nihokai
Collection at year-end and New Year	December–January	Used ink cartridges	5,984	Equivalent to 20,330 yen	EDF-Japan
		Erroneous/unused postcards	950	Equivalent to 37,313 yen	
		Election postcards/stamp sheets	26 stamp sheets		

Introduction of activities

### Used chopsticks as a base ingredient for paper New!

Toyota Branch Office (Toyota city, Aichi)

From September 2014, Toyota Branch Office has been conducting a used chopsticks collection activity. The collected chopsticks were sent to Oji Paper Company to be used as the base ingredient for paper. In FY 2014, the branch sent a total of 40 kg of used chopsticks (equivalent to 2,664 postcards).



### Great East Japan Earthquake disaster area support activities

It has been four years since the Great East Japan Earthquake, yet devastated areas are still in the midst of recovery and reconstruction. JTEKT has designated the support for disaster areas as a pillar of our societal contribution activities, and our employees continue to participate in support activities. Moreover, in FY 2014, we provided a variety of support to the devastated areas of the Hiroshima landslides.

Introduction of activities

### Charity caravan supporting disaster areas Companywide

JTEKT created a framework for raising donations by utilizing the cafeteria menu and vending machines and has implemented this in all plants, operation centers and branch offices around Japan again this year, following on from last year. Together with the independent charity projects of each plant, etc., we collected a total of 2,620,525 yen which was donated in the form of cash and requested goods to ten volleyball teams from six senior high schools in Kesennuma city and Minamisanriku town of Miyagi prefecture. → [Message] P17 Related article



## Together with local communities

Introduction of activities

### Participation in the Tohoku University **New!** Qatar Science Campus

Research & Development Headquarters R&D Planning  
Dept. Advanced Process Innovation R&D Dept.

For the successful recovery of disaster-struck areas, the ongoing educational support of children, who are the future leaders of such efforts, is necessary. The Tohoku University's Qatar Science Campus, backed by support from Qatar, is a project run by the Tohoku University Graduate School of Engineering involving events related to manufacturing and scientific experiments aimed at school students in Miyagi prefecture. On August 23rd, JTEKT held an experimental type science class entitled "Let's learn from a mini 4WD contest" in which volunteers from JTEKT conveyed the fun of making things while thinking to 34 fifth and sixth year elementary school students.



### Voices from participating employees

#### I would like to continue activities without forgetting the feeling of togetherness

Kunihiko Itou  
Engineering Headquarters Engineering Administration Dept. Engineering Administration Office

I helped with farming oysters at Rikuzentakata and field support for the bicycle race, Tour de Sanriku. On the last day, I visited the temporary housing area and helped the residents harvest buckwheat. This buckwheat had been planted by volunteers from Toyota Group in the summer. I would like to continue activities without forgetting the feeling of togetherness (Duration: October 31st – November 3rd).



Introduction of activities

### Participation in the Toyota group's recovery support volunteer activities

Employees

Toyota group is conducting recovery support volunteer activities, in which its employees participate. In FY 2014, two employees from JTEKT also participated.

### Voices from participating employees

#### I was reawakened to the importance of daily risk management

Katsuji Washio  
Automotive Systems Business Headquarters Okazaki Plant Administration Dept. General Affairs Section

This is the second time I have participated, the first time being in 2011. When I went to the disaster-struck regions for the first time in three years, I was painfully conscious of how slow recovery is there. I also held discussions with the director of a museum in Ofunato which teaches about the tsunami and members of a discussion group from Rikuzentakata city and through these encounters, realized what was necessary and what should be done in the event of a disaster. I was reawakened to the fact that daily risk management is important in order to be as prepared as possible for unpredictable disasters. (Duration: October 31st – November 3rd)



Introduction of activities

### Support for victims of the Hiroshima **New!** landslides

Hiroshima Branch Office, Nishinohon Branch Office  
(Hiroshima city, Hiroshima)

JTEKT donated 1 million yen to the victims of the landslides which occurred in Hiroshima city as a result of heavy rainfall. On September 19th, a presentation of the donations as gift certificates was conducted at Hiroshima City Hall. Also, on September 12th, three JTEKT employees participated in volunteer activities in the disaster-struck area. The Hiroshima Branch Office and Nishinohon Branch Office would welcome the opportunity to participate in support activities again.



### Voices from participating employees

I helped to remove the mud created by the landslides from the parks and homes in Kabe district, Hiroshima. I was shocked that such a large-scale landslide could occur in one night, and it really made me think of how scared the local residents must have been. Working together with many other volunteers, I really felt how the small power of one can amount to a big power and experienced firsthand the importance of helping one another. I sincerely hope many people will continue to help each other so that the victims of this disaster may regain strength as soon as possible and return to life as normal.

# Together with shareholders and investors

## Social background

The transparency of company management is scrutinized, making it increasingly important to disclose information in an accurate and timely manner and establish accountability. Moreover, in the financial sector as well, it is becoming more commonplace to emphasize ESG(\*1) information when assessing a company's value. Therefore, it is important for a company to be able to balance earning power with business sustainability.

\*1 ESG Abbreviation for Environment, Social and Governance; the matters a company is expected to consider as their responsibility when conducting business activities.

## JTEKT's concept

### Aiming for highly transparent management

At JTEKT, we make "communication with not only shareholders but also the community at large and the fair disclosure of corporate information" part of our Corporate Activities Standards. Based on this concept, we guarantee transparent management, and strive to construct a long-term relationship of trust with shareholders and investors.

## Major activities in FY 2014

### Information disclosure and IR activities

JTEKT not only observes rules on legislated disclosure and timely disclosure, but also strives to increase the transparency of its management. In addition, in order to deepen understanding of JTEKT and the JTEKT group by shareholders and investors, the company also actively discloses information that is both well-timed and appropriate voluntarily and in a fair manner, through various IR activities.

### Progress report on the mid-term management plan at the end-of-period IR results briefing

At the end-of-period IR results briefing for analysts and institutional investors held in May, 2015, we conducted the first review

and revision(\*2) and announced the mid-term management plan up until FY 2019. A vigorous and grueling Q&A session was held and we were able to deepen understanding of JTEKT's current status and future developments.

\*2 Review and revision Regularly revising a plan to suit changes in the management environment.

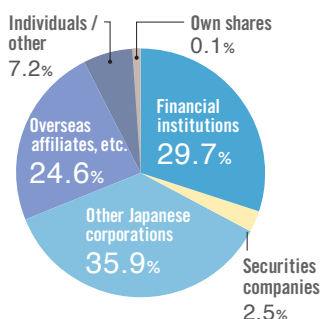
### Main IR activities

- Hold IR results briefing and small meetings
- Individual interviews
- Company information sessions for individual shareholders and investors
- Conduct plant tours
- Issue annual reports
- Disclose information on HP

## Shareholder status

Current as of end of March, 2015, the number of shares issued was 343,286,307 and the breakdown of shareholders is as follows.

### Shareholder distribution status



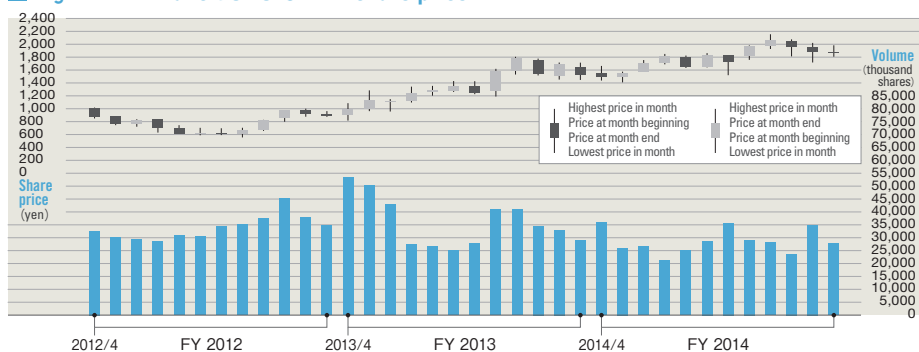
Financial institutions	101,860	thousand shares
Securities companies	8,753	thousand shares
Other Japanese corporations	123,336	thousand shares
Overseas affiliates, etc.	84,336	thousand shares
Individuals / other	24,734	thousand shares
Own shares	264	thousand shares
<b>Total</b>	<b>343,286</b>	<b>thousand shares</b>

As of end of March, 2015  
(anything less than 1,000 rounded down)

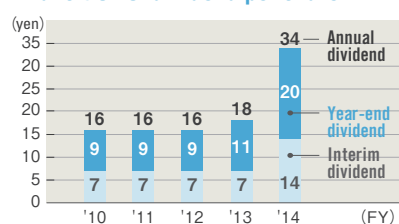
## Business performance and return of profits

Our consolidated sales for FY 2014 were 1 trillion 355.9 billion yen, 7.6 percent higher than the previous year. Our consolidated operating profit was 74.1 billion yen, while our combined ordinary income was 79.3 billion yen and combined current net earnings were 42.5 billion yen. As a result, the annual dividend per share is 34 yen, an increase of 16 yen from last year. For FY 2015, the world economy is predicted to continue steadily on the whole, however it remains unclear how the situation will progress in developing countries. Even still, we will strive towards the achievement of "Shaping a Better Future through the Spirit of 'No.1 & Only One'" as part of the JTEKT GROUP VISION, for which activities were begun in April 2014. We will further strengthen cooperation between group companies and work to establish a strong management foundation and revenue base not susceptible to change.

Figure-01 Transition of JTEKT share price



## Transition of dividend per share



## JTEKT bond ratings

Rating institution	Long-term rating	Short-term rating
Japan Rating Agency	A+	J-1
Rating & Investment Information, Inc	A	



## Details &amp; Data

# Environmental Report

- This report aims to inform our stakeholders in straightforward language of JTEKT's concept and activities surrounding CSR.
- This report is divided into a Message (leaflet) and a full online report containing both the Message and the Details & Data section.
- The Details & Data section emphasizes objectiveness, completeness and continuity.
- For related articles:

M = CSR Management S = Social Report

E = Environmental Report

- This section, the Environmental Report, summarizes environmental aspects of FY 2014 based on the JTEKT 2015 Environmental Action Plan.

## Target period and target organizations/scope

### Target period

FY 2014 (April 2014 - March 2015)

\* Some items include content from other periods.

### Target organizations and scope

All JTEKT Corporation activities

Management of the JTEKT group is carried out on a group-wide basis and includes elements such as environmental data measurement and control based on a uniform standard. Some items also show the performance of our domestic affiliated companies and overseas local affiliates. As a general rule, if there are changes in the tallying scope, we revise data dating back to the past.

## Reference guidelines

- ◎ GRI (Global Reporting Initiative)  
"Sustainability Reporting Guidelines 2013 (G4)"
- ◎ Japan's Ministry of the Environment  
"Environmental Reporting Guidelines" (2012 edition)
- ◎ ISO26000 (International Standard for corporate responsibility)
- ◎ A calculation standard stipulated by GHG Protocol Initiative
- ◎ Ministry of the Environment and Ministry of Economy, Trade and Industry  
"General Guidelines on Supply Chain GHG Emission Accounting"

**New!** This mark is used to indicate new actions begun in FY 2014 and information disclosed for the first time in this year's report.

Environmental management	E_01
Environmentally considerate development and design	E_10
Prevention of global warming	E_11
Effective use of resources	E_14
Control and reduction of environmentally burdensome substances	E_18
Biodiversity conservation	E_20
Appendix	E_22

Environmental data for each operation base of the JTEKT group can be viewed on the JTEKT website.

[http://www.jtekt.co.jp/e/csr/env\\_data.html](http://www.jtekt.co.jp/e/csr/env_data.html)

## Environmental Report

# Environmental management

## Social background

Corporate activities as a global company influence the world environment on a wide scale. As is written in the GRI "Sustainability Reporting Guidelines 2013 (G4)", the disclosure of both good and bad information, as well as environmental consideration from a comprehensive perspective, is progressively demanded of companies.

## JTEKT's concept

### For sustainable development of the planet

To realize our Corporate Philosophy of "contributing to the happiness of people and the abundance of society through product manufacturing", we as a group have positioned the environment as one of our main management issues and are involved in actions which contribute to the sustainable development of society and the planet. We are greatly aware of the impact corporate activities have on the environment, and are working proactively to tackle matters of high importance.

### JTEKT Group Environmental Vision

▶ Figure-01

Based on the CSR Policy, we have established the JTEKT Group Environmental Vision comprised of an environmental philosophy and policy defining global environmental conservation actions. We aim to achieve a sustainable society, establishing an action plan and promoting activities to achieve this goal.



## Promotion structure

### Under the Global Environmental Conservation Committee

▶ Figure-02

JTEKT engages in environmental management led by the Global Environmental Conservation Committee, which is chaired by the company president. The committee is divided into five specialized environmental subcommittees to be able to flexibly address issues relating to business activities. The subcommittees set targets based on company policies, discuss and decide upon measures, and control progress.

### Promotion of global environmental management

Target companies were expanded to include the 21 group companies in Japan, and 38 group companies overseas. We are currently working to further strengthen our environmental management.

→ E\_22 Appendix-01



# Environmental management

▶ Figure-01 JTEKT Group Environmental Vision

### Environmental Philosophy

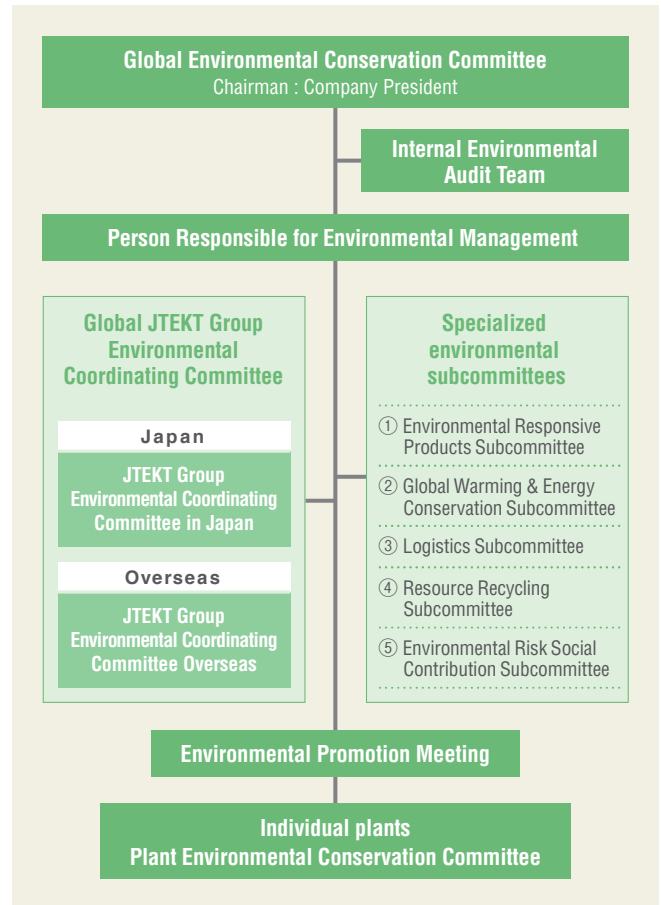
The JTEKT group is aiming to reduce the environmental load of business activities and products throughout their life-cycle in order to conserve the global environment for future generations and realize a sustainable society.

### Environmental Policy

JTEKT, based on a deep awareness of the importance of global environmental conservation, will proactively pursue environmental conservation in all business activities in the fields of bearings, driveline components, steering systems, and machine tools & mechatronics at all plants, head offices and sales offices with the active participation of all employees.

1. Continuously improve our environmental management system to harmonize our business activities with the environment and promote the cooperation of all suppliers of raw materials, etc.
2. Comply with all requirements of environmental laws, regulations, treaties, agreements, etc., related to our business activities and strive to prevent environmental pollution. Also, contribute to society by accurately grasping technical needs related to global environmental conservation and developing products to meet such needs.
3. Raise the environmental awareness of all employees and pursue the following as important environmental management objectives in relation to all our business activities, products and services
  - (1) Develop and design environmentally friendly products
  - (2) Reduce CO<sub>2</sub> emissions through effective energy utilization
  - (3) Reduce waste
  - (4) Thoroughly control chemical substances and reduce environmentally burdensome substances
  - (5) Reduce primary materials and secondary materials
  - (6) Reduce CO<sub>2</sub> emissions in logistics
  - (7) Maintain and improve community environments
4. Maintain an environmental conservation promotion structure, clarify the purposes and targets of environment conservation activities, conduct periodic reviews, and pursue environmental conservation activities with the participation of all employees.
5. Maintain an awareness of the community surrounding each business site, maintain good communication with concerned government agencies and local residents, and publicly disclose information on our environmental management activities as necessary.

▶ Figure-02 Organizational chart



## Environmental management

### Targets and results

#### JTEKT Environmental Action Plan 2015 Environmental Action Plan

▶ Figure-01

We JTEKT have formulated a 2015 Environmental Action Plan stating initiatives and concrete objectives to promote the environmental preservation activities of our company, JTEKT group companies, and JTEKT suppliers. In FY 2014, our entire group improved CO<sub>2</sub> emission basic units by 3.1 percent compared with FY 2012, achieving our target. However, we were unable to achieve the independent target CO<sub>2</sub> emission basic units for JTEKT alone. As FY 2015 is the final fiscal year within the Envi-

ronmental Action Plan, we are accelerating activities aimed at achieving the targets for all action items. At the same time, we have established the mid-term plan ending in FY 2020 for next term as the mid to long-term pathway for activities directed at international society's goal of halving greenhouse gases by 2050, and are lowering greenhouse gas emissions within the entire JTEKT group.

→ [\[Message\] P16](#) Related article

▶ Figure-01 2015 Environmental Action Plan

Area	Action items	Targets and initiatives	FY 2014 results of activities	Evaluation	Related pages
Environmental management	(1) Strengthen and promote consolidated environment management	(1) Share the JTEKT Group Environmental Vision	(1) Continued activities with group companies in Japan and overseas (2) Held Environmental Coordinating Committee sessions	○	E_01 E_02 E_07
	(2) Promote environmental activities in cooperation with business partners	(1) Further promote green purchasing (2) Roll out environmentally friendly purchasing guidelines to business partners	(1) Expanded Green Purchasing Guidelines		S_05
	(3) Promote sustainable plant activities	(1) Introduce reusable energy (2) Promote plant greenification	(1) Introduced 465 kW of solar power generation to our Kagawa Plant		E_13
	(4) Promote environmental education activities	(1) Promote education with the objective of improving environmental awareness	(1) Environmental education during Environmental Month (2) Rank-based education		E_09
Develop and design environmentally friendly products	(1) Develop new technology and new products leading to environmental burden reduction	(1) Reduce the environmental burden of new products through an environmental efficiency basic formula	(1) Needle roller bearing for high speed rotation planetary gears (2) Horizontal machining center FH630SX-i	○	Message P8~10 E_10
	(2) Reduce resource consumption				
	(3) Promote recycle design considering effective resource use	(2) Promote recycle design (3) Promote life cycle assessment (LCA) activities			
	(4) Roll out environmental assessments in the design and development phases				
	(5) Control and reduce environmentally burdensome substances contained in products	(1) Promote response to chemical substance regulations	(1) Response to individual country's chemical substance regulations		

# Environmental management

\* Values in square brackets are comparisons with the base year

Area	Action items	Targets and initiatives	FY 2014 results of activities	Evaluation	Related pages																
Reduce CO <sub>2</sub> emissions	(1) Reduce CO <sub>2</sub> in production and logistics ● Global reduction of CO <sub>2</sub> ● Reduction of CO <sub>2</sub> in logistics	<b>Production</b> (1)Promote CO <sub>2</sub> reduction activities through the development and introduction of low CO <sub>2</sub> production technologies and daily improvements (2)Horizontal deployment of energy-saving improvement case examples (3)Visualization of energy	<table border="1"> <thead> <tr> <th>Item</th> <th>FY 2015 target</th> <th>FY 2014 target value</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>CO<sub>2</sub> emissions</td> <td>FY 2015 basic unit target × production volume</td> <td>235,343 t-CO<sub>2</sub></td> <td>237,147 t-CO<sub>2</sub> [ - ]</td> </tr> <tr> <td>Emissions by in-house production volume</td> <td>145.2 t/100 mill yen Down 7% from FY 2008</td> <td>146.6 t/100 mill yen</td> <td>147.7 t/100 mill yen [Down 5.4%]</td> </tr> <tr> <td>Global emissions by in-house production volume</td> <td>167.1 t/100 mill yen Down 3% from FY 2012</td> <td>169.0 t/100 mill yen</td> <td>167.0 t/100 mill yen [Down 3.1%]</td> </tr> </tbody> </table>	Item	FY 2015 target	FY 2014 target value	Results	CO <sub>2</sub> emissions	FY 2015 basic unit target × production volume	235,343 t-CO <sub>2</sub>	237,147 t-CO <sub>2</sub> [ - ]	Emissions by in-house production volume	145.2 t/100 mill yen Down 7% from FY 2008	146.6 t/100 mill yen	147.7 t/100 mill yen [Down 5.4%]	Global emissions by in-house production volume	167.1 t/100 mill yen Down 3% from FY 2012	169.0 t/100 mill yen	167.0 t/100 mill yen [Down 3.1%]	△	E_06 E_11 ~13
		Item	FY 2015 target	FY 2014 target value	Results																
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<b>Logistics</b> (1) Reduce CO <sub>2</sub> through transportation improvements	<table border="1"> <thead> <tr> <th>Item</th> <th>FY 2015 target</th> <th>FY 2014 target value</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>CO<sub>2</sub> emissions</td> <td>13,300 t-CO<sub>2</sub> Down 16% from FY 1990</td> <td>13,430 t-CO<sub>2</sub></td> <td>14,301 t-CO<sub>2</sub> [Down 10%]</td> </tr> <tr> <td>Emissions by sales</td> <td>2.39 t/100 mill yen Down 15% from FY 2006</td> <td>2.42 t/100 mill yen</td> <td>2.20 t/100 mill yen [Down 22%]</td> </tr> </tbody> </table>	Item	FY 2015 target	FY 2014 target value	Results	CO <sub>2</sub> emissions	13,300 t-CO <sub>2</sub> Down 16% from FY 1990	13,430 t-CO <sub>2</sub>	14,301 t-CO <sub>2</sub> [Down 10%]	Emissions by sales	2.39 t/100 mill yen Down 15% from FY 2006	2.42 t/100 mill yen	2.20 t/100 mill yen [Down 22%]	△	E_13						
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(2) Promote reusable energy	(1) Introduction of reusable energy	(1)Introduced 465 kW of solar power generation at our Kagawa Plant	○	E_13																	
Reduce waste	<b>Production</b> (1) Promote thorough reduction of waste through countermeasures focusing on the source of the waste (2) Achieve zero emissions in all JTEKT group plants (JTEKT itself achieved zero direct landfill waste in FY 2009 and is continuing to aim for zero waste production in other areas)	<b>Production</b> (1) Reduction of emissions through countermeasures focusing on the source (2) Promotion of a shift to valuable resources (3) Reduction of emissions through using less and reusing	<table border="1"> <thead> <tr> <th>Item</th> <th>FY 2015 target</th> <th>FY 2014 target value</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>Emissions by in-house production volume</td> <td>7.1 t/100 mill yen Down 15% from FY 2008</td> <td>7.27 t/100 mill yen</td> <td>6.86 t/100 mill yen [Down 18%]</td> </tr> <tr> <td>Direct landfill waste</td> <td colspan="2">Zero</td> <td>Zero</td> </tr> </tbody> </table>	Item	FY 2015 target	FY 2014 target value	Results	Emissions by in-house production volume	7.1 t/100 mill yen Down 15% from FY 2008	7.27 t/100 mill yen	6.86 t/100 mill yen [Down 18%]	Direct landfill waste	Zero		Zero	○	E_14 E_15				
		Item	FY 2015 target	FY 2014 target value	Results																
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Direct landfill waste	Zero		Zero																		
<b>Logistics</b> (1) Reduce packaging material consumption through simpler packaging, using more returnable containers, etc.	<b>Logistics</b> (1) Transition to returnable (2) Simplification of packaging by changing packing style	<table border="1"> <thead> <tr> <th>Item</th> <th>FY 2015 target</th> <th>FY 2014 target value</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>Emissions by sales</td> <td>0.84 t/100 mill yen Down 15% from FY 2006</td> <td>0.85 t/100 mill yen</td> <td>0.81 t/100 mill yen [Down 18%]</td> </tr> </tbody> </table>	Item	FY 2015 target	FY 2014 target value	Results	Emissions by sales	0.84 t/100 mill yen Down 15% from FY 2006	0.85 t/100 mill yen	0.81 t/100 mill yen [Down 18%]	○	E_16									
Item	FY 2015 target	FY 2014 target value	Results																		
Emissions by sales	0.84 t/100 mill yen Down 15% from FY 2006	0.85 t/100 mill yen	0.81 t/100 mill yen [Down 18%]																		
Effective use of resources	(1) Reduce materials discarded in production/water usage and effectively use resources	<b>Materials discarded</b> (1) Reduce stock removal and improve yield through design and technique changes (2) Countermeasures targeting point of origin, reduction	Materials discarded by in-house production volume <b>Results</b> 37.3 t/100 mill yen	-	E_14 E_17																
		<b>Water usage</b> (1) Promote recycling, water conservation and waste reduction	Water usage by in-house production volume <b>Results</b> 1.58 t/100 mill yen																		
Reduce primary materials and secondary materials	(1) Reduce environmentally burdensome substances in production activities	(1) Substitution with products that do not contain substances subject to PRTR	(1) Release and transfer of substances subject to PRTR: 40.4 t	○	E_18																
Preserve and improve the global environment, forge communication	(1) Enforce preventative measures for environmental problems and observe regulations	(1) Ongoing efforts for zero environmental regulation violations and claims from residents through the strengthening of daily control tasks	Environmental accidents: 2	×	E_08																
	(2) Build good relationships with local residents	(1) Promote environmental conservation activities around plants (2) Build good relationships with local residents and councils	(1) Clean-up activities around plant (2) Held environmentally-related discussions with local community		E_19 S_17 ~20																
	(3) Proactive disclosure of environmental information and enhancement of communication activities	(1) Enhance and continue issuance of CSR reports (2) Provide more environmental information	(1) Issued CSR report 2014		S_17																
	(4) Action for biodiversity	(1) Promote activities based on our Biodiversity Conservation Action Guidelines	(1) Activities for preservation of woodland areas (2) Tree planting		E_20 E_21 S_20																

## Environmental management

### Environmental impact on business activities

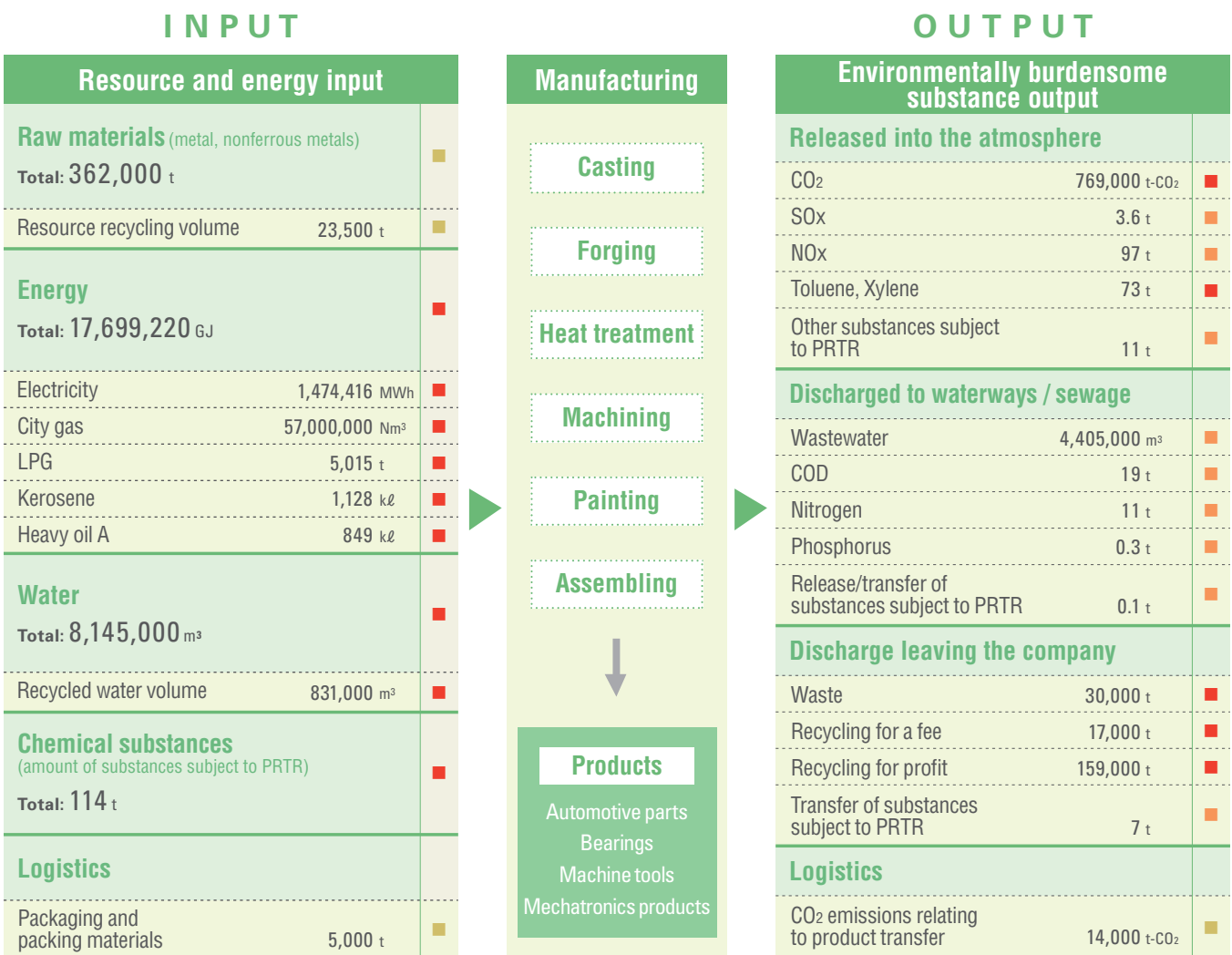
#### Reduction of environmental burden in all stages

JTEKT strives to quantitatively assess overall resource and energy amounts used (input) and amounts discharged into the environment (output) in order to reduce environmental burden in all business activity stages.

#### Resource and energy input versus environmentally burdensome substance output ▶ Figure-01

The table below shows the resource and energy input versus environmentally burdensome substance output for FY 2014. To minimize the impact our business activities have on global warming, we are working to reduce the amount of energy used in all processes, including casting, forging, heat treatment, machining processes and so forth. We also make efforts to convert to more efficient energy such as electricity and city gas.

▶ Figure-01 Resource and energy input versus environmentally burdensome substance output



- Tally of the 21 JTEKT and domestic group companies and the 38 overseas group companies
- Tally of the 21 JTEKT and domestic group companies
- JTEKT independent

Heavy oil A: Among the three classes (A, B, C) of heavy oil, heavy oil A is the closest to kerosene and is used as fuel for boilers or heating.

GJ: Giga-joule (heat quantity unit), G=10<sup>9</sup>

PRTR regulation: "PRTR" is an abbreviation for Pollutant Release and Transfer Register, which is a system created by the government for reporting the amount of chemical substances released or transferred.

COD: Chemical Oxygen Demand (water quality index)

Recycling for a fee: A processing fee is paid in order to recycle.



## Environmental management

### CO<sub>2</sub> emissions for the overall supply chain ▶ Figure-02

JTEKT has calculated the amount of CO<sub>2</sub> emissions based on guidelines established by the Ministry of the Environment and Ministry of Economy, Trade and Industry (\*1). We are currently working to reduce CO<sub>2</sub> emissions from the supply chain, JTEKT business activities, and the use and disposal of products sold. Results for the entire JTEKT group in FY 2014 are shown in the below table.

→ [E\\_11 Related article](#)

→ [E\\_22 Appendix-02](#)

\*1 Guidelines established by the Ministry of the Environment and Ministry of Economy, Trade and Industry General Guidelines on Supply Chain GHG Emission Accounting.

### ▶ Figure-02

#### CO<sub>2</sub> emissions for the overall supply chain

Scope(*2)	Emissions (t-CO <sub>2</sub> )	Remarks
Scope 1 (Self-produced direct emissions)	116,000	Self-produced emissions through using city gas and other fuels
Scope 2 (Indirect emissions produced by own energy source)	653,000	Emissions produced due to using electricity purchased by JTEKT
Scope 3 (Other indirect emissions)	6,794,000	Emissions produced by related activities such as raw material purchasing, disposal and distribution

\*2 Scope The calculation scope for greenhouse gas emissions stipulated by the GHG Protocol Initiative which prepares the global guidelines for calculating and reporting greenhouse gas emissions.

## Environmental accounting

### Assessment of cost and results ▶ Figure-03

By quantitatively assessing the costs and results of environmental conservation, we continue to make both effective and efficient improvements. We use environmental accounting to help familiarize our stakeholders with our environmental conservation activities, and publicly disclose related information. The tally system is in accordance with the Ministry of the Environment's Environmental Accounting Guideline.

### Environmental accounting results for FY 2014

Environmental conservation costs for FY 2014 were 1.39 billion yen in investments and 3.62 billion yen in management costs, adding up to a total of 5.01 billion yen. This was an increase of 80 million yen (1.6 percent) from the previous year. The main investments were in measures to prevent underground seepage of oils and establish energy-saving countermeasures.

### ▶ Figure-03

#### Environmental conservation costs

(Million yen)

Type	Details	Investment	Cost
[1] Business on-site costs	● Service & upkeep of environmental equipment	173	244
① Pollution prevention costs			
② Environmental conservation costs	● Measures for energy conservation	143	103
③ Resource recycling costs	● Waste processing, recycling	58	391
[2] Upstream and downstream costs	● Green purchasing	—	37
[3] Management activity costs	● Environmental monitoring, measurements, etc.	4	153
[4] R&D costs	● R&D of environmentally friendly products	1,010	2,612
[5] Social activities costs	● Disclosure of environmental information, greenification, etc.	—	78
[6] Environmental damage costs	● Soil and groundwater restoration	—	0
<b>Total</b>		<b>1,389</b>	<b>3,618</b>
<b>Gross amount</b>		<b>5,007</b>	

#### Economic benefit of environmental conservation measures

(Million yen)

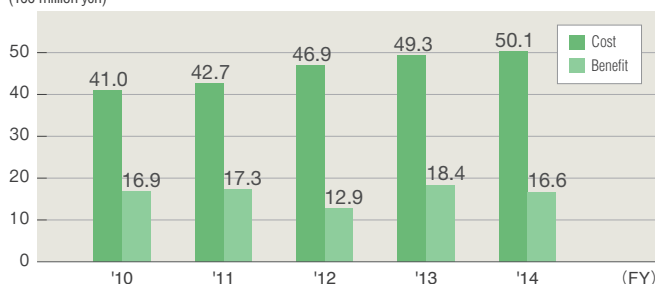
Details of benefits	Economic benefit
Profit from recycled material sales	1,044
Energy-cost reduction from promoting energy conservation	558
Reduction of waste processing costs	63
<b>Total</b>	<b>1,664</b>

#### Benefits towards material amount reduction from environmental conservation measures

Details of benefits	Benefits towards material amount reduction
Energy consumption (t-CO <sub>2</sub> )	20,700
Waste output (t)	3,133

#### Cost and benefits of environmental conservation measures

(100 million yen)



We have not calculated the economic benefits brought about by environmental conservation measures such as increased product value, avoiding environmental risk and improving corporate image. We have only calculated items which can be accurately appraised such as energy-savings benefits, etc. Depreciation costs are not included. Expenses with multiple purposes are proportionately distributed.

Scope of calculation: JTEKT Corporation (including some group companies working at JTEKT)  
Calculated period: FY 2014 (April 2014 to March 2015)

## Environmental management

### Major activities in FY 2014

#### JTEKT Group Environmental Coordinating Committees

In FY 2014 we hosted the JTEKT Group Environmental Coordinating Committee at domestic and overseas group companies. Each year, policies and targets are shared within the overall group in order to strengthen our efforts.

#### Domestic JTEKT Group Environmental Coordinating Committee

The Environmental Coordinating Committee is held three times a year with all 21 group companies in Japan to promote activities for CO<sub>2</sub> reduction, waste reduction, and environmental disturbance prevention.

In April 2014, a committee session was held for the executives in charge of the environment at domestic group companies, and action policies for achieving the 2015 targets of the 2015 Environmental Action Plan were shared. In July and December of 2014, in addition to reporting and discussing our performance up until now and future efforts, risk countermeasures for environmental equipment and the like were checked during plant tours as a means of improving environmental conservation countermeasures.



JTEKT Group Environmental Coordinating Committee in Japan held on July 22nd

#### Overseas JTEKT Group Environmental Coordinating Committee

In March 2015, an Environmental Coordinating Committee was held in which the representatives of JTEKT overseas Group companies participated.

As with the committee gathering in Japan, the participants bolstered improvement activities for achieving 2015 targets and continued with the consolidated environmental audit system to bring the enforcement of compliance to a new level. Furthermore, we have rolled out the draft for the mid-term plan ending in FY 2020 for next term as a way of sharing group goals.

#### North America Safety, Health, Environment and Maintenance (MESH) Conference ★ **New!**

A conference committee for maintenance, environment, safety and health (MESH) was launched in 2013 at a group company in North America, and the MESH conference was held in October 2014. The environmental team members of each business location participated in the conference, where they reported improvement measures for reducing the environmental burden.



MESH team conference at the KBNA (U.S.A.) Richland Plant

In addition, a discussion on current environmental problems within the entire

North America region was held by the MESH team, which checks the progress of measures being promoted to lower CO<sub>2</sub> emissions, waste materials, and water usage at each business location every three months. Furthermore, changes within environmental regulations and environmental objectives of the JTEKT group were presented along with case examples of improvements. Each business location will continue working together to enforce the observance of environmental regulations, lower the environmental burden associated with manufacturing, and achieve the environmental objectives of the JTEKT group.

#### China Safety and Health Environment (EHS) Section Meeting

JTEKT held a meeting in China concerning safety, health and the environment during August 2014 and January 2015. Participants reported environmental activities and issues at each group company in China, and case examples of improvement were rolled out to each company. By implementing inspection tours both inside and outside of plants, we enhanced the specialized knowledge and skills of employees and improved mutual environmental awareness.



China EHS Section Meeting held on January 29th

Michael H. Hobbs  
JNA (U.S.A.)

My  
CSR

**Aiming for zero work-related accidents and zero environmental burden!**



A MESH team for maintenance, environment, safety and health was launched at JNA, our North American headquarters, to protect the health of employees and the regional environment. The team checks the policies and schedule of each plant to ensure their conformity to safety, environmental and legal requirements, maintains ISO14001 certification, and promotes activities for reducing the environmental burden. As a member of the team, I tour all plants in North America to support activities for achieving our targets. By performing activities based on *genchi genbutsu*, we can find the best plan for realizing zero work-related accidents and zero environmental burden. If we can eliminate all safety and environmental hazards from the work environment and improve and maintain awareness among all 6,200 employees in the North America region, I believe we can achieve our goals. Our team will continue to support activities that protect the happiness and health of employees while reducing and eliminating the burden we place on the environment.

## Environmental management

### Reducing environmental risk

#### Environmental accident prevention activities

To prevent environmental accidents, we share countermeasures implemented in response to incidents occurring both inside and outside the company for similar equipment. Moreover, in order to comply with environmental legislation, treaties and convention levels, we have set internal standards (\*1) more stringent than regulations, which we manage thoroughly.

**\*1 Internal standards** JTEKT's internal effluent standards are 80 percent of regulatory requirements.

#### Legal compliance with environmental legislation

A leakage of sewage from pipes around the JTEKT property border occurred in FY 2014, causing sewage to leak outside company grounds. Furthermore, another accident occurred when industrial wastewater leaked from the sewage system into the adjacent rain-water system. JTEKT reported these incidents to the local authorities, identified the causes, and implemented countermeasures. In addition to the sharing of such information with other plants and group companies, the details of the countermeasures are deployed to prevent the reoccurrence of similar accidents.

#### Cooperative study group on environmental disturbances and near misses ★ **New!**

In FY 2014, we organized a new cooperative study group on environmental disturbances and near misses to take in case examples of environmental near misses (\*2) other than environmental accidents and enforce countermeasures and deployment items throughout the company. Held once every two months, the study group is comprised of personnel in charge of environment at each plant, who gather at the plant where the accident occurred to perform *genchi genbutsu* and confirm the environmental near miss case example. Then, the efficacy of countermeasures is examined, and items to be rolled out companywide are discussed with all employees as a means of reoccurrence prevention.

**\*2 Environmental near misses** Incidents that had only a slight impact on the environment and were handled within the area they occurred in.



Cooperative study group on environmental disturbances and near misses (Tokyo Plant)

#### Environmental patrol by the plant manager

As part of our Environmental Month every June, managers of each plant conduct environmental patrols. In FY 2014, we examined the status of preparations for abnormal weather such as typhoons and torrential rain, control conditions including legal

compliance in the storage of hazardous materials and legal compliance regarding the preservation and usage of secondary materials by departments such as Production, and the rectification status of items indicated during past patrols.



Environmental patrol (Sayama Plant)

#### Emergency drills

In preparation for various environmental accidents, emergency training is carried out regularly at each plant. Following FY 2013, emergency training assuming abnormal occurrences, such as tank oil leaks, was carried out in FY 2014 as well. Emergency training was also carried out for nightshift workers, in the assumption that emergency situations could also occur at night.



Emergency drills (Nara Plant)

### Environmental audits

#### Internal audits

Our company conducts internal audits annually to confirm the operational status of our environmental management system and observance of legislation. We correct all issues identified in this audit.

#### External audits (ISO14001)

JTEKT was subjected to a renewed ISO14001 inspection in April 2015. As a result, there were zero cases of non-conformity, and our environmental management system was deemed as congruent with standard requirements and having been effectively implemented. However, six cases were identified as having room for improvement, and therefore the departments in charge of handling these cases have been specified and corrections are being made.



ISO14001 external audit



## Environmental management

### Environmental audits of overseas group companies **New!**

The JTEKT group has constructed a consolidated auditing system and since FY 2014 has been conducting environmental audits on overseas group companies, focusing on legal compliance activities aimed at preventing environmental disturbances and complaints. In FY 2014, audits were conducted at three bases in ASEAN countries, one base in China, and three bases in North America. Environmental audits in overseas group companies will be systematically implemented from FY 2015 onward as well.



Environmental audit (JAMY: Malaysia)



Environmental audit (KBNA: U.S.A.)

### Environmental education

#### Environmental awareness education

During Environment Month in June of 2014, environmental awareness training was held for all employees through e-learning. The theme for this year's course was "Eco-change: Think and act autonomously and challenge yourself (Enforcement of environmental compliance)", and roughly 6,100 JTEKT members attended the session.

### VOICE Turning waste into valuable resources

JID (Indonesia) received ISO14001 certification in April 2014. To achieve certification, a special team had been established by the personnel responsible for each division. Efforts to accomplish success in the environmental management program also paid off when objectives were achieved after six months' worth of activities. I will continue to apply the knowledge and experience gained from these activities. For environmental actions, I believe that improvements can be made by each employee thinking on their own and increasing their own capability. I will continue training for all employees on the relationship between daily work and the environment as a means of raising each individual's awareness and capability.



JID (Indonesia)  
Saiful Bahri



ISO14001 registration certificate



# Environmentally considerate development and design

## Social background

The influence of product usage on the environment is deeply related to the development and design phases of the product. To lower our environmental burden, our company must oversee products from material purchase through usage by the customer, all the way until disposal. We must also work on developing environmentally friendly designs which can be easily reused and recycled.

## JTEKT's concept

### Improve each product from every angle

We JTEKT, in line with our Corporate Philosophy of “contributing to the happiness of people and the abundance of society through product manufacturing”, develop and design environmentally friendly products. We believe that our products and technologies provide environmental countermeasures for our customer’s products and manufacturing processes and as such, greatly contribute to the environment. Therefore, we strive to improve the environmental performance of each product throughout the entire product life cycle, and are producing results which will contribute to the prevention of global warming and the effective use of resources.

## Promotion structure

### Promotion by the Environmental Responsive Products Subcommittee

Under the guidance of the Global Environment Conservation Committee, which unites companywide environmental conservation activities, the Environmental Responsive Products Subcommittee is promoting the development of environmentally friendly products together with group companies in Japan. Innovative technology is used in the development and design stages to make products smaller, lighter, and



**My CSR**

**Masaki Okajima**  
Engineering Headquarters Engineering Administration Dept.  
Product Environmental Management Group

**Promotion of development activities aimed at environmentally responsive products**

Our company conducts product development with consideration to the development concept stage and throughout the entire product life cycle. As the management department within the engineering division, our group operates working activities for reducing environmentally burdensome substances, runs the Environmental Responsive Products Subcommittee, and promotes CO<sub>2</sub> reduction and 3R (Reduce, Reuse, Recycle) activities. At the same time, we hold technical training lectures to familiarize employees with design conscious of CO<sub>2</sub> reduction. Through these activities, we are working together with each engineering department to give the world more products which are better for the environment.

more efficient, and reduce the amount of environmentally burdensome substances and raw material usage. In this way, JTEKT is engaging in environmental conservation on a global scale.

### Evaluation method

JTEKT has established an original environmental efficiency basic equation to serve as an index in quantitatively assessing environmental load reduction benefit. The larger the value, the greater the environmental load reduction benefit is. Each year JTEKT sets higher environmental efficiency targets and works to reach them within product development.

#### Environmental efficiency basic equation and environmental efficiency value calculation

Environmental efficiency is a value calculated based on the degree of lightness, compactness, energy-savings, etc. The environmental efficiency value is calculated by dividing the environmental efficiency of the assessed product by that of the standard product.

#### Environmental efficiency

$$\frac{\text{Product performance}}{\text{Product environmental load}} = \frac{1}{\sqrt{W^2 + T^2 + E^2}}$$

W : Mass T : Loss E : Energy

#### Calculation of environmental load reduction effect

As the environmental load reduction effect, it is possible to seek environmental load reduction ratio more than the environmental efficiency value. For example, if the environmental efficiency value was 1.25, that product’s environmental load reduction benefit would be 20%. A reduced environmental load is sought as the reverse of the environmental efficiency value.

#### Environmental efficiency value

$$\frac{\text{Environmental efficiency of assessed product}}{\text{Environmental efficiency of standard product}}$$

#### Environmental load reduction ratio

$$\left( 1 - \frac{1}{\text{Environmental efficiency value}} \right) \times 100$$

### Evaluation of the two products shown in “Message”

→ [Message] P8~10 Related article

Developed product name	Percentage of environmental burden reduction
Needle roller bearing for high speed rotation planetary gears	4.0%
Horizontal machining center FH630SX-i	15.0%

### Group company activities

JTEKT conducts environmental design activities with intimate interaction between each operations headquarters and all group companies. Through creative ideas from the design stage, products of the JTEKT group are contributing to the world environment.

#### Main measures

Group companies in Japan **Toyoda Van Moppes Ltd.**

#### Reducing CO<sub>2</sub> by reusing wheel bases

Vitrified CBN wheels are superabrasive grinding wheels used in high-efficiency grinding. At Toyoda Van Moppes, the continuous recycling of the wheel bases of these vitrified CBN wheels has been widely recognized for high accuracy in reproduced products and merits of reduced management costs. In FY 2014, reproduced products accounted for 58.6 percent of the entire production volume of superabrasive wheels, and the percentage of actual reuse of wheels eligible for recycling exceeded 98.5 percent. As a result, the amount of iron used as a material was reduced, adding up to a reduction of 157.6 tons of CO<sub>2</sub> per year when converted.



# Prevention of global warming

## Social background

In 2014, the UN Intergovernmental Panel on Climate Change (IPCC) published its Fifth Assessment Report, which stated the estimation that changes in world average surface air temperature bear a proportional relationship with the total cumulative amount of CO<sub>2</sub> emissions. To prevent global warming from progressing any further, companies must improve efforts to cut both CO<sub>2</sub> emissions from both direct and indirect sources. [→ E\\_06 Related article](#)

## JTEKT's concept

### Reducing CO<sub>2</sub> emissions within all processes

In order to help prevent global warming, JTEKT engages in activities to reduce emissions of CO<sub>2</sub>, a major greenhouse gas, in the production and transportation of products. All group companies, both in Japan and overseas, promote energy-saving methods and the use of reusable energy throughout all processes from product design to delivery. [→ \[Message\] P16 Related article](#)

### Stabilization of power supply and demand

To continuously implement countermeasures for power shortages, we must further conserve power consumption by installing more energy-saving equipment, in addition to introducing in-house power generation. Our power generation capacity (\*) in FY 2014 stood at 16.2 percent. By supplying our own power, we enable stable business activities, suppress demand for purchased

power, and contribute to the stabilization of supply and demand.

\*In-house power generation percentage Internal power generation capacity/FY 2010 peak power

## Reducing CO<sub>2</sub> emissions in production

### Reducing domestic CO<sub>2</sub> emissions

▶ Figure-01

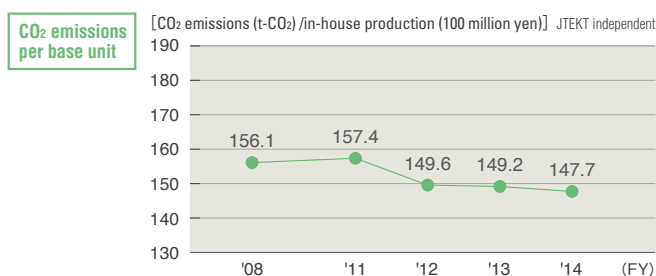
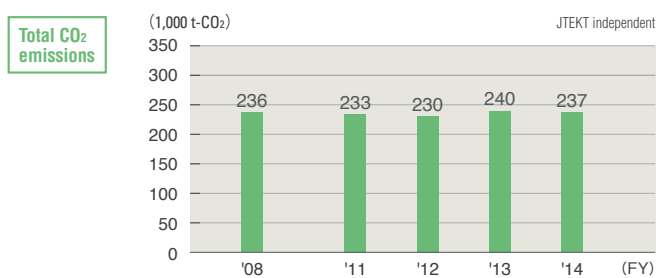
Our company is working to reduce the basic units of CO<sub>2</sub> emissions by 7 percent compared with FY 2008, the target we have set for FY 2015. Although we reduced our CO<sub>2</sub> emissions by 3,000 tons during FY 2014 due to improved energy saving methods, we did not reach our target basic unit of CO<sub>2</sub> emissions, achieving only 147.7 tons/100 million yen. In FY 2015, we will promote activities to guarantee the achievement of targets in the Environmental Action Plan by enforcing the reduction of power supplied to machines in standby during non-operation, reducing equipment and process saving through productivity improvement activities, and further improving the efficiency of heat treatment furnaces, which account for a large amount of energy usage.

### Reduction of global CO<sub>2</sub> emissions

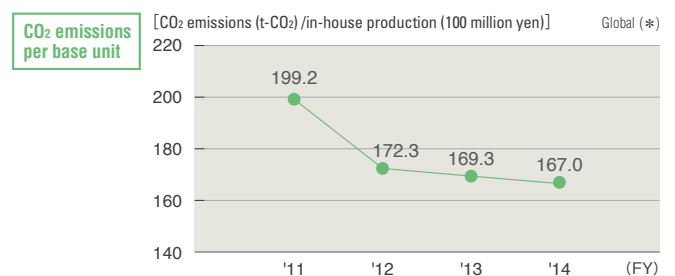
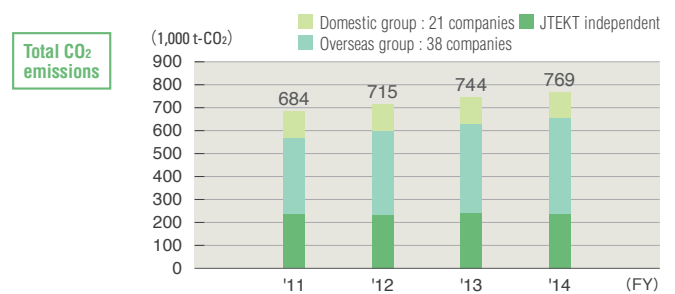
▶ Figure-02

With an aim to minimize the impact of global production operations on global warming, JTEKT is working to reduce CO<sub>2</sub> emissions not only within the company but also at all JTEKT group companies in Japan and overseas. In FY 2014, we accomplished a 3.1 percent basic unit reduction in CO<sub>2</sub> emissions compared with FY 2012. We will continue to improve productivity in order to prevent global warming and improve production efficiency as an entire group.

▶ Figure-01 Transition of total and per base unit CO<sub>2</sub> emissions in production



▶ Figure-02 CO<sub>2</sub> emissions (global and base unit)



\*JTEKT + 21 domestic group companies + 38 overseas group companies

\* There were 17 group companies in Japan until FY 2011.

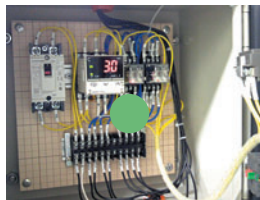
## Prevention of global warming

### Main measures

Group companies in Japan	Koyo Thermo Systems Co., Ltd.
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#### Energy saving through automation of air conditioning in clean rooms

At Koyo Thermal Systems, an output switching function was activated in the clean room air conditioning unit, which previously had been set at a fixed output. By implementing 50, 80 and 100 percent through manual switching, it was discovered that the clean room could be kept at a constant temperature by running at 80 percent output when the outside temperature is high, and 50 percent output during seasons other than summer when the temperature is lower. Using this knowledge, a circuit was installed which automatically switches the air conditioning output between 50 and 80 percent depending on the outside temperature. As a result, the total energy expenditure for the air conditioning unit and heater in the year between December 2013 and November 2014 was reduced by 14.3 percent (113 MWh) from the previous year, cutting costs by 1,921,000 yen (17 yen/kWh).



Temperature controller



**My CSR**

**Atsushi Sagami**  
Koyo Thermo Systems Co., Ltd.  
Safety, Health & Environment Control Dept.

**Promotion of energy saving in clean rooms**

Koyo Thermo Systems manufactures and markets versatile heat treatment equipment in the fields of automobile components, semiconductors, and electrical components. Although energy conservation is promoted within all production processes, the company has focused especially on improving energy conservation within clean rooms for semiconductors, as these consume the most energy. This achieved a certain amount of improvement, however there are still many machines using vast amounts of energy, and therefore the company is working on improving energy saving by other means, such as switching lighting to LED bulbs.

→ [Message] P16 Related article

### Main measures

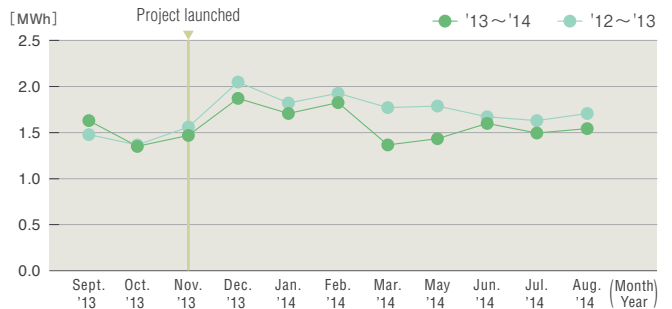
Overseas group companies	KBE (England)
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#### Actions to reduce electricity and gas consumption

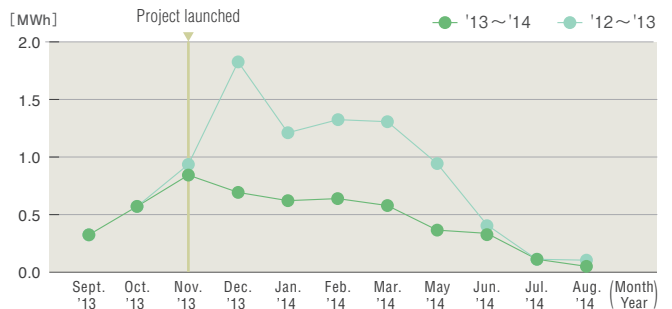
With the objective of conserving energy and lowering costs, in November 2013 KBE launched a project for reducing electricity and gas usage within plants. The number of heat treatment furnaces was scaled down for furnace integration, compressors, coolant pumps, and lighting were reduced, and temperature control was reviewed and enforced. All employees were asked to cooperate with these actions. Employees struggled at first as they were not used to cutting off power and compressor air after a production line stops. However, through systematic training, KBE was able to raise employee awareness about energy conservation. As a result, the electricity usage for FY 2014 shrank to 89 percent (18,588 MWh) of that of the previous year, gas usage was improved by 59 percent (4,725 MWh), CO<sub>2</sub> emissions were lowered to 5,797 tons, and costs were trimmed by approximately 300 GBP.

→ [Message] P16 Related article

#### Electricity usage



#### Gas usage



## Prevention of global warming

### Main measures

#### Efforts towards renewable energy

JTEKT is proactively introducing renewable energy with small environmental burden. At the end of March 2014, 465 kW of solar power generation was newly introduced at the Kagawa Plant. Following the introduction of renewable energy with solar power generation in 2001 and wind power generation in 2006, JTEKT has reduced annual CO<sub>2</sub> emissions by roughly 200 tons.

In October 2014, JDI (China) installed solar water heating equipment which utilizes solar heat. Combined with steam heating which has been utilized up until now, solar water heating is expected to save an annual 248 tons in CO<sub>2</sub> emissions.

JTEKT had independently introduced 676 kW of renewable energy before FY 2014, and has already surpassed the target of introducing over 500 kW by 2020. Renewable energy will continue to be introduced in order to promote the creation of JTEKT plants in harmony with nature.



Solar power generation (Kagawa Plant)



Solar water heater JDI (China)

## Reducing CO<sub>2</sub> emissions in logistics

### Reducing CO<sub>2</sub> by integrating product delivery shipments

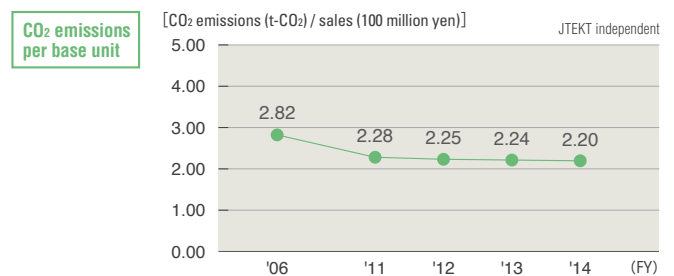
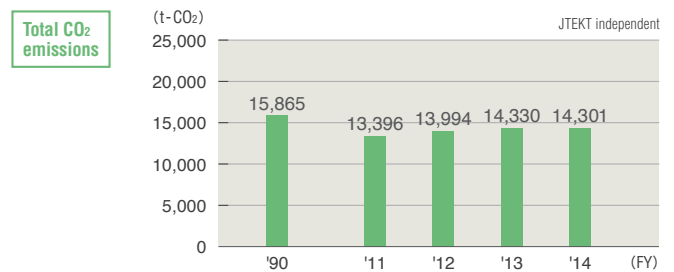
▶ Figure-01

In FY 2014, the CO<sub>2</sub> emission basic unit was approximately 1 percent less than the previous year at 2.20 tons/100 million yen. By integrating and consolidating product delivery shipments, JTEKT reduced annual CO<sub>2</sub> by 278 tons. We will continue to reduce CO<sub>2</sub> emissions in the future through further integration.

→ [Message] P16 Related article

▶ Figure-01

#### Transition of total and per base unit CO<sub>2</sub> emissions in logistics





# Effective use of resources

## Social background

Preservation of the world's resource foundation is a major theme of the GRI "Sustainability Reporting Guidelines 2013 (G4)", and is the objective of the many sustainability strategies of the companies which comprise the board of directors for the Organisation for Economic Co-operation and Development. These strategies strongly demand that companies lessen their usage of raw materials and recycle parts.

## JTEKT's concept

### Responsibility as a *monozukuri* company

At JTEKT, we consider the effective use of resources as one of the responsibilities of an environmentally friendly *monozukuri* company. By making improvements and devising ideas for the production processes of each product, we strive to reduce material usage and waste output, as well as recycle and save valuable resources.

## Saving resources in production

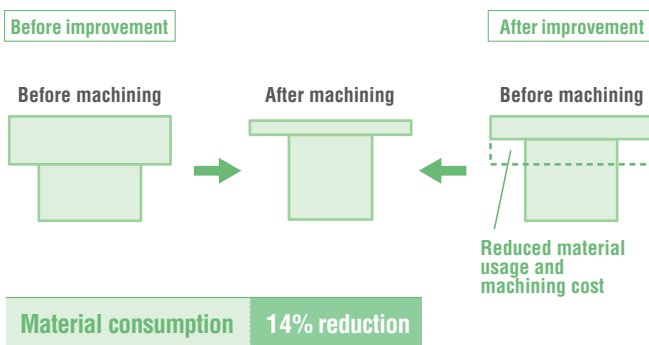
### Reduction of primary material consumption

JTEKT is working to transition to net shape (reduction of machined portions) by improving forging and casting technologies, and reduce the amount of materials used.

#### Main measures

##### Reduction of materials for forged workpieces

In companion flanges, which are automotive components, we have reduced the number of machined portions by improving die accuracy in the forging process and the level of condition control. This has drastically reduced material usage and machining cost.



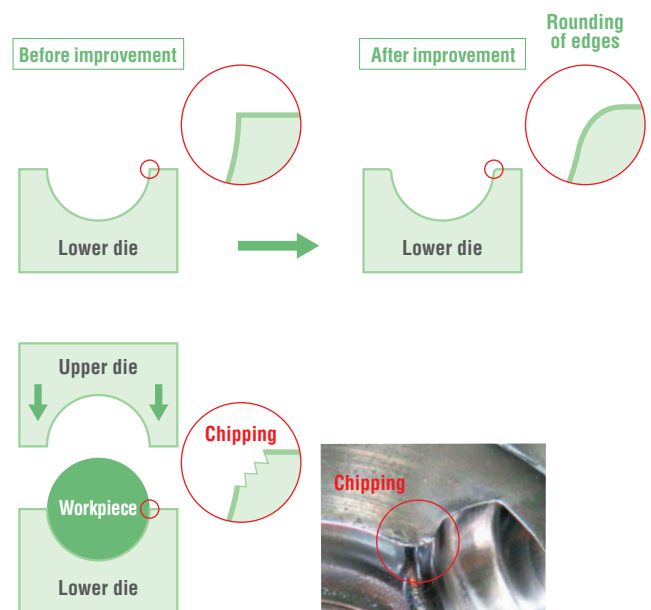
### Reduction of secondary material consumption

We succeeded in reducing consumption by revising the material, shape, hardness and other specs of secondary material for products such as grinding wheels, cutting tools and dies and further increasing their durability. Also, we strove to promote recycling by reusing oil, grinding wheels, cutting tools and jigs.

#### Main measures

##### Improved die service life through modified edges

During forging, excessive force is applied to the die used due to the workpiece shape, negatively affecting die life. We have therefore improved the die structure and lengthened die life by rounding the edges as much as possible.



Die service life 7 times longer

## Effective use of resources

### Waste reduction

#### Efforts to reduce the amount of all discharged materials

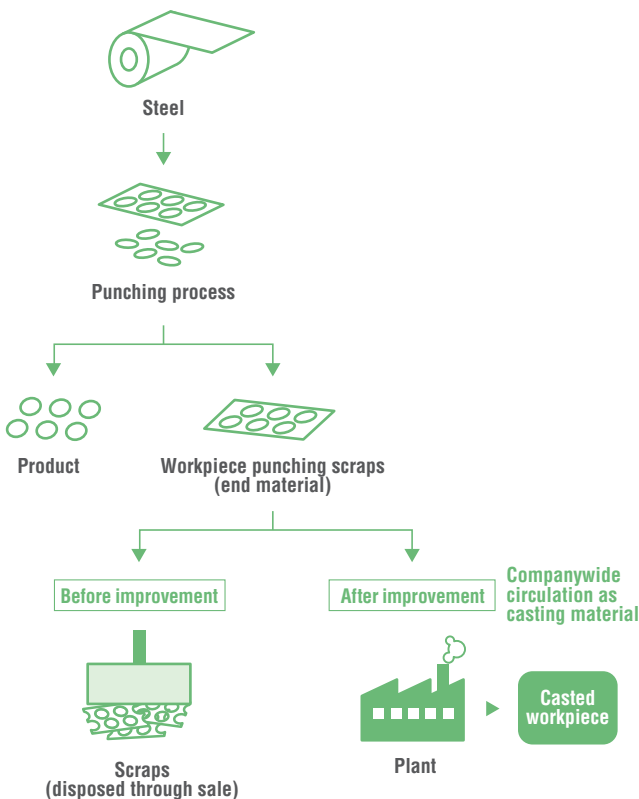
▶ Figure-01

JTEKT has been engaging in activities based on 3R (Reduce, Reuse, Recycle) to achieve a 100 percent recycling rate for the effective use of resources regarding all discharged materials, including waste. The result was the achievement of a 100 percent recycling rate in November 2012, which has been maintained ever since. JTEKT will continue to promote 3R and conduct activities to cut the total amount of discharged materials.

#### Main measures

##### Recycling iron scraps (end material) in-house

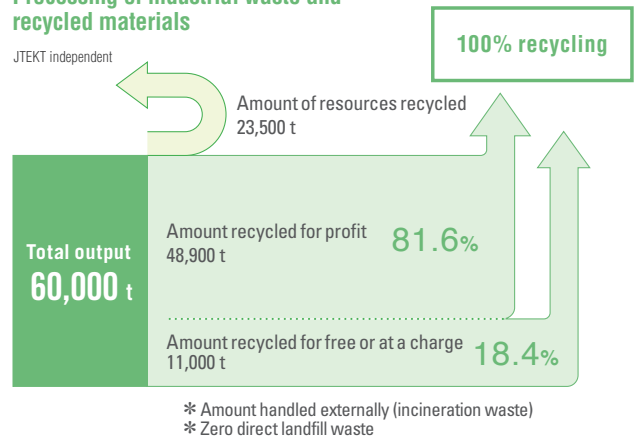
At JTEKT, we have been promoting the recycling of raw materials within casting processes since FY 2006. In FY 2014, we produced 8,500 tons (13 percent of our independent total discharge amount) of iron scraps (end material) left over from steel from which bearing cage material had been punched out. From these scraps, 5,800 tons were able to be recycled (8 percent of total discharge amount). We will continue to promote companywide recycling and the efficient use of resources.



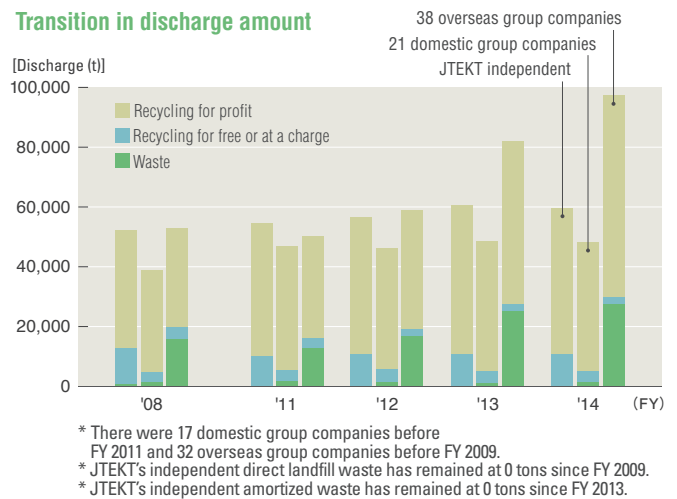
▶ Figure-01

#### Processing of industrial waste and recycled materials

JTEKT independent



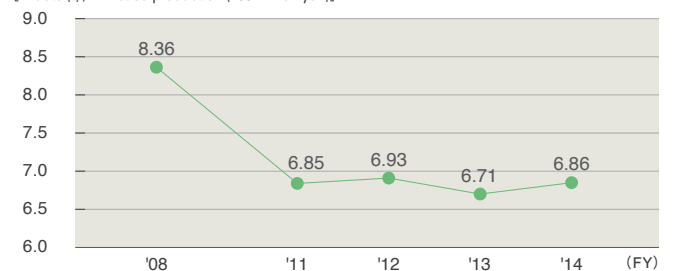
#### Transition in discharge amount



#### Yearly transition of waste basic unit

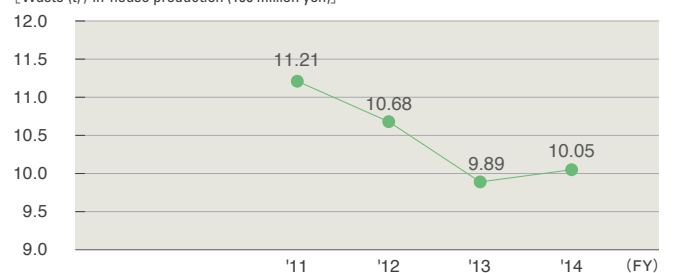
##### JTEKT independent

[Waste (t) / in-house production (100 million yen)]



##### Global

[Waste (t) / in-house production (100 million yen)]



## Effective use of resources

### Reduction of packaging material

#### Reducing packaging and packing material

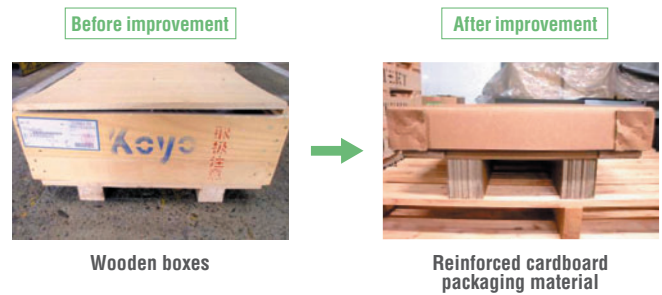
▶ Figure-01

In order to effectively use resources, our company has established targets for packaging and packing material for both wood and paper, and promotes simpler, returnable and reusable packaging. For wooden packaging, we have increased our use of returnable pallets and are promoting the use of cardboard boxes. For paper packaging, we are engaging in various actions such as shifting from disposable cardboard to returnable plastic containers, revising excessive packaging, and reducing the amount of cushioning material used by adopting cardboard boxes which fit the product size.

#### Main measures

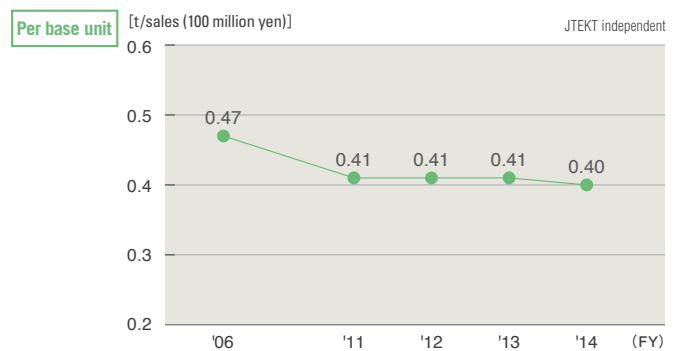
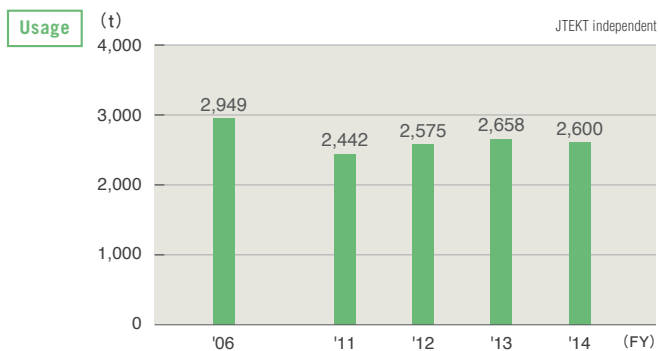
##### Reduction of wooden packaging material

We have switched the packaging material from wooden boxes to reinforced cardboard, lowering the annual amount of wooden boxes used by two tons.

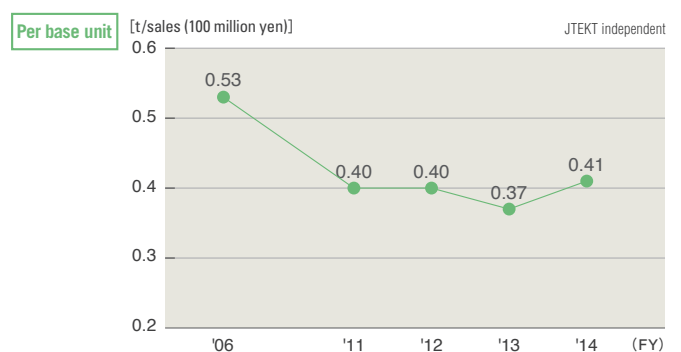
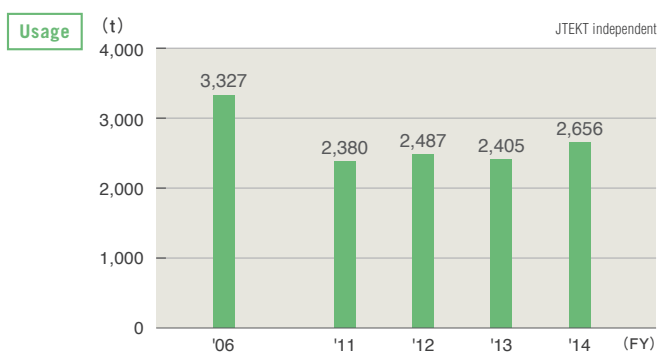


▶ Figure-01

#### Transition of wood packaging usage and per base unit



#### Transition of paper packaging usage and per base unit



## Effective use of resources

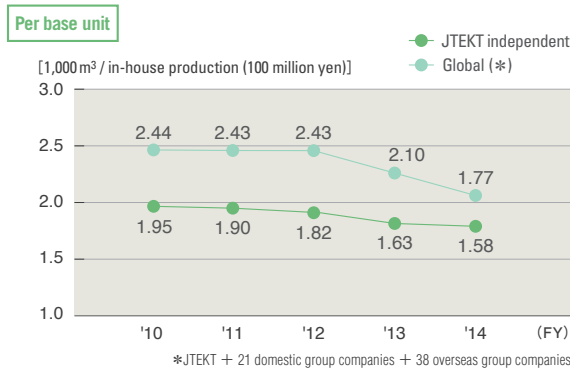
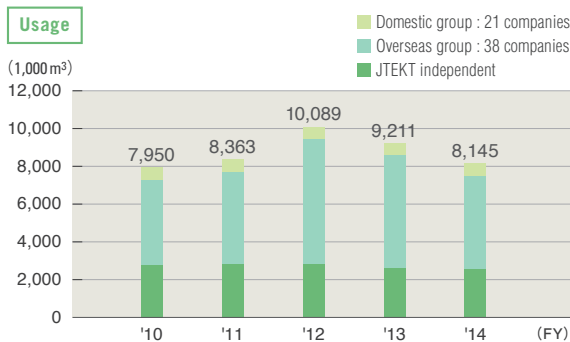
### Reduction of water usage

#### Promoting efficient water usage

To reduce the usage of water, a precious resource, we engage in activities to decrease wasteful usage and recycle water. In FY 2014, we had at first planned on improving our basic unit and usage amount of water by more than 2 percent compared with FY 2012, however we achieved this goal ahead of schedule in FY 2013. Therefore, we set our sights on improving FY 2013 figures by 0.5 percent or more. As a result, we achieved a 3.4 percent (60 m<sup>3</sup>/100 million yen) improvement in basic unit and reduced usage by 3.5 percent (93,000 m<sup>3</sup>).

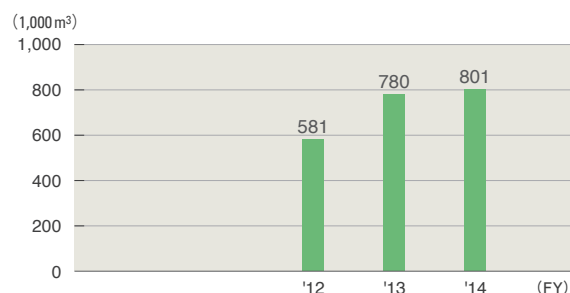
We have already achieved our planned target for FY 2015, an improvement 3 percent higher than FY 2012. We will therefore continue activities toward a target of 0.5 percent or higher improvement compared with FY 2014 results.

#### Water usage / Basic unit transition / Amount of recycled water



\* There were 17 domestic group companies before FY 2011 and 32 overseas group companies before FY 2009.

#### Amount of recycled water (JTEKT independent)



#### Main measures

Overseas group companies	KBNA (U.S.A.)
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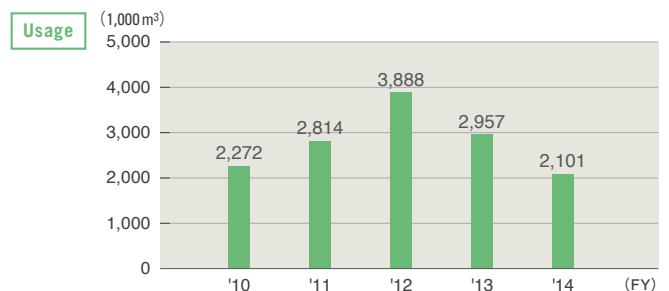
#### Actions to reduce water usage

KBNA is comprised of seven bearing production plants, two technical centers, and three distribution centers in North America. Since 2002, the company has been engaged in reducing water usage as an ISO14001 activity. These activities include the renewal of cooling towers, automation of water supply valves synchronized with processes, introduction of air cooling type heat exchangers, automation of cleaning processes, as well as the enhancement of employee awareness. This led to a reduction in the amount of water used in FY 2014 by 29 percent compared with the previous year. KBNA will be accelerating the reduction of water usage and will promote the recycling of wastewater while sharing countermeasures for improvement, thus preserving the valuable resource for generations to come.



Cooling tower

#### Transition of water usage at KBNA



#### VOICE Protecting an abundant water resource into the future

North America is blessed with a plentiful water resource, which is steadily being lost due to development. It is therefore our responsibility to protect this resource for future generations. Based on the JTEKT group concept, KBNA is working to reduce water usage while enforcing companywide training, and is also promoting the organization and control of utilities, reduction of wasteful water usage, and recycling of water and other resources. KBNA will continue to minimize water usage within all process by improving cooling technologies and increasing awareness among employees.



KBNA (U.S.A.)  
Kip Davis (Left)  
Dennis Gooch (Right)



# Control and reduction of environmentally burdensome substances

## Social background

There is a growing movement which demands standards for environmentally burdensome substances which can negatively impact the planet's ecosystems and people's health. Society demands that corporations observe regulations in all stages of development from production to the actual product, in order to protect the health of their employees and the community in addition to maintaining and expanding their operations.

## JTEKT's concept

### Reducing environmentally burdensome substances

As we JTEKT aim to be an "environmentally friendly *monozukuri* company", the reduction of environmentally burdensome substances throughout the entire product life cycle is one of our social responsibilities. It goes without saying that we will lower consumption and discharge amounts, in addition to assessing and controlling environmentally burdensome substances within products.

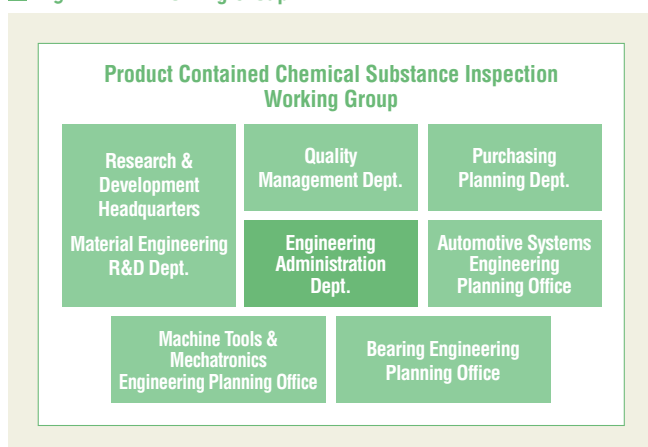
## Control and reduction of environmentally burdensome substances

### Product Contained Chemical Substance Inspection Working Group

▶ Figure-01

At JTEKT, we believe it is necessary to conduct companywide sharing and control of information on environmentally burdensome substances contained in products in order to comply with various laws, including the REACH regulation. Therefore, we established the "Product Contained Chemical Substance Inspection Working Group" in FY 2013 to oversee the cooperative sharing of information between divisions and promote the control and reduction of environmentally burdensome substances within products as well as in production.

▶ Figure-01 Working Group



## Control and reduction of chemical substances in products

### Product conformity to all laws and regulations

JTEKT is progressing with the development of alternative technology for chemical substances exempted by the ELV Directive (\*1) and the RoHS Directive (\*2) on which limits have been set, and chemical substances with a deadline before which the product must be replaced in accordance with the REACH regulation (\*3). In FY 2013, JTEKT began the transition from phthalic esters, which are widely used within rubber products. The complete replacement of rubber seals has also been ongoing since FY 2014.

**\*1 ELV Directive** A regulation of the European Union regarding discarded automobiles. To reduce the environmental burden from vehicles which have reached the end of their service lives, this regulation has progressively prohibited harmful chemicals from inclusion within new automobiles within the market since July 2003. ELV is an abbreviation of "End-of-Life Vehicles".

**\*2 RoHS Directive** A regulation of the European Union regarding restrictions on the usage of certain harmful substances within electronic and electrical equipment. The regulation has banned the use of lead and cadmium within market products since July 2006. RoHS is an abbreviation of "Restriction of the use of certain Hazardous Substances".

**\*3 REACH regulation** A regulation on the registration, evaluation, authorization and restriction of chemicals, which applies to chemicals within products as well as chemicals used at companies. REACH is an abbreviation of "Registration, Evaluation and Authorization of Chemicals".

## Control and reduction of chemical substances within production

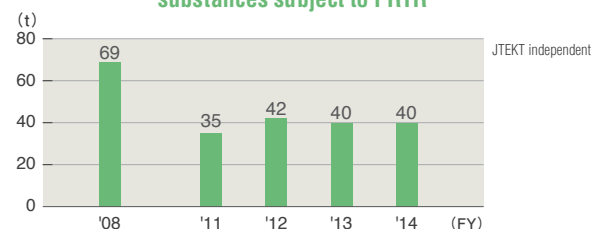
### Reduction of substances subject to PRTR

▶ Figure-02

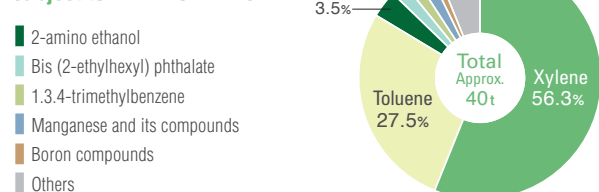
JTEKT is taking action to reduce the impact of chemical substances released into the environment from production activities on people's health and the environment. In FY 2014, JTEKT achieved the target of lowering the release and transfer of substances subject to PRTR (\*4) by 2 percent compared with FY 2012 through control of paint coating rate and implementation of powder coating.

**\*4 PRTR** A system to collect and disseminate information on environmental release and transfer of toxic chemicals reported to government agencies. PRTR is an abbreviation of "Pollutant Release and Transfer Register".

▶ Figure-02 Yearly transition release and transfer breakdown of substances subject to PRTR



### Release and transfer breakdown of substances subject to PRTR for FY 2014



## Control and reduction of environmentally burdensome substances

### Measures for soil and groundwater (continued report)

Since 1998, JTEKT's Kariya and Okazaki plants have implemented ongoing measures to prevent external leaks and to purify groundwater of trichloroethylene, a substance previously used in detergents and other materials. They do this using a pumping and aeration system (\*1). In addition, since FY 2004, the Okazaki Plant has used a microbial purification system (\*2) which injects nutritional supplements as part of their purification measures. JTEKT reports groundwater measurement results to government agencies and provides local residents with explanations in community meetings.

→ [S\\_17](#) Related article

**\*1 Pumping and aeration system** Groundwater is pumped up and sprayed and air is blown from below to aerate and separate organic solvents, which are made to adhere to activated carbon for removal.

**\*2 Microbial purification system** A method of restoring contaminated environments by utilizing microbial function. The purification capability of microbes living in the environment is raised by injection of nutrients, etc.

### Trichloroethylene measurement values

Environmental standard: 0.03 mg/ℓ

(mg/ℓ)

Plants	Maximum measurement value in groundwater		
	FY 2013	FY 2014	Status
Kariya	0.772	0.996	Purifying
Okazaki	0.032	0.019	Purifying

\* For plants other than the above, no trichloroethylene was detected in measurements taken in wells around the plant borders.

### Proper storage and control of PCB devices

The Act on Special Measures concerning the Proper Treatment of Polychlorinated Biphenyl Waste requires the storage and notification of devices containing PCB (polychlorinated biphenyl), widely used as an insulating oil. Here at JTEKT, we properly store such devices and notify government agencies in accordance with this act. In addition, by FY 2014 all high pressure condensers with highly concentrated PCB levels currently in storage were rendered harmless at PCB treatment facilities of JESCO (Japan Environmental Storage & Safety Corporation), excluding one condenser that could not be treated at the time due to breakage. The damaged condenser will be disposed of after preparations have been made at the waste disposal company. Furthermore, 126 PCB ballasts from the Tokushima Plant were rendered harmless in FY 2014. The 1,078 ballasts at the Kariya Plant, Okazaki Plant, and Higashi-kariya Operation Center are scheduled for treatment in FY 2015.



PCB ballast treatment status (Tokushima Plant)

### Measures for devices with low PCB concentration

In addition to devices with highly concentrated PCB levels, JTEKT properly stores electrical devices that have been previously judged as not containing PCB, but in which minute amounts of PCB have been detected. In FY 2014, JTEKT selected certified facilities for detoxifying treatment of low PCB concentrations, which have begun treatment in FY 2015. We will continue to promote systematic treatment.

# Biodiversity conservation

## Social background

The diversity of living creatures on this planet is rapidly depleting, for reasons such as habitat loss resulting from the spreading destruction of nature. Corporate activities are made possible thanks to the blessings of nature, but at the same time impact biodiversity greatly. This is why it is important that corporations are proactively involved in biodiversity conservation activities such as protecting the natural habitat.

## JTEKT's concept

### Aiming for harmony with biodiversity

JTEKT believes biodiversity conservation to be a critical social issue supporting life and lifestyle. As such, each and every employee participates in environmental conservation activities based on the JTEKT Group Environmental Vision, to achieve harmony between our business activities and biodiversity.

## Actions for biodiversity conservation

### Under the Biodiversity Conservation Action Guideline

▶ Figure-01

In order to reduce the environmental burden created by our business activities and be mindful of biodiversity, our company established a Biodiversity Conservation Action Guideline in March of 2011 based on the 2015 Environmental Action Plan of our JTEKT Group Environmental Vision. This guideline was established with reference to the Ministry of the Environment's Guidelines for Private Sector Engagement in Biodiversity. We will continue to investigate quantifiable evaluations relating to biodiversity conservation into the future.

## Major activities in FY 2014

### Woodland conservation activities (Hanazono Plant) **New!**

In an effort to preserve biodiversity, employees at the Hanazono Plant have been volunteering in woodland conservation activities at the "Okazaki Eco-Education Forest" since April 2014. At the Okazaki Eco-Education Forest, the volunteers partnered with Okazaki residents and civil activity groups to conduct preservation of the abundant biodiversity of the woodland environment, while aiming to make the forest a base for hands-on education about the environment, utilizing the rich natural surroundings. Hanazono Plant sympathizes with this philosophy of the city, and on April 26th they participated in soil maintenance work with the goal of improving the growth environment. The plant will continue woodland conservation in Okazaki city as an activity rooted in the local community in order to contribute to the preservation of biodiversity.



Woodland conservation activities (Hanazono)

▶ Figure-01 Biodiversity Conservation Action Guideline

Relationship with business activities	
Raw material procurement	● Liaise with business partners to protect biodiversity.
Soil usage	● Through greenifying our plants, etc., we are engaging in activities to protect ecosystems which contribute to biodiversity.
Production activities	● With activities such as preventing global warming by developing innovative techniques and equipment, effective resource usage, reduction of environmentally burdensome substances and so on, we aim to succeed at both biodiversity and corporate activities. ● We work hard to quantitatively assess the impact our business activities have on biodiversity.
Product development	● Based on life-cycle assessment approach, JTEKT develops and designs top-class environmentally friendly products and reduces impact on biodiversity.
Promotion of social contribution activities benefiting biodiversity conservation	
● Proactively participate in social contribution activities through cooperation with councils and affiliated companies.	
Training, awareness activities and information-sharing	
● Raise employee awareness of biodiversity conservation through environmental training.	
● Use the CSR report as a tool to communicate our activities towards biodiversity conservation with our stakeholders and with the community.	

## Biodiversity conservation

### Tree planting activities (JATH: Thailand) **New!**

Feeling a sense of crisis about environmental problems such as global warming, JATH began tree planting activities in 2008 as a part of CSR activities. In FY 2014, employees participated in the King of Thailand's tree planting project, where 400 trees were planted over an 8,000 m<sup>2</sup> area in a national park in Rayong Province. Through these activities, a total of 1,200 trees have been planted across 32,000 m<sup>2</sup>. Participating employees work with vigor each year, sharing a sense of joy through their contribution to the environment. JATH will continue tree planting activities which contribute to the local region.



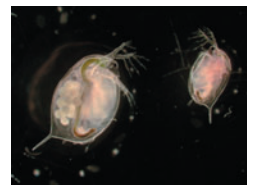
Tree planting (JATH: Thailand)

### Impact survey on plant wastewater using WET (\*) **New!**

As a means of managing wastewater at production sites, a WET test, which evaluates the environmental impact of plant wastewater based on biological response, was implemented at the Kariya Plant together with the National Institute for Environmental Studies in order to quantitatively assess the effect on the aquatic life of disposal destinations. Tests conducted included a toxicity test in the fish embryonic and larval stages for a fish species (zebrafish), a reproduction test for a crustacean species (Ceriodaphnia), and a growth inhibition test for algae. The results show no impact on the animals studied, and that the water quality was at an extremely low level of risk concerning ecological effects. With these results in mind, our company will continue improving wastewater management at plants so that we may contribute to the creation of a sustainable society through the preservation of the aquatic environment.



Zebrafish



Ceriodaphnia

\*WET A method of evaluating the environmental impact of a facility's wastewater through a comprehensive survey of the biological response of fish, water fleas, and algae, rather than the conventional standard based on chemical concentrations. WET is an abbreviation of "Whole Effluent Toxicity".



# Appendix

## Appendix-01 The scope of consolidated environmental management

### Europe

- 12 production companies
- JTEKT AUTOMOTIVE UK LTD. (England)
- KOYO BEARINGS (EUROPE) LTD. (England)
- JTEKT TORSÉN EUROPE S.A. (Belgium)
- KOYO BEARINGS DEUTSCHLAND GMBH (Germany)
- JTEKT HPI S.A.S. (France)
- JTEKT AUTOMOTIVE LYON S.A.S. (France)
- JTEKT AUTOMOTIVE DIJON SAINT-ETIENNE S.A.S. (France)
- KOYO BEARINGS VIERZON MAROMME SAS (France)
- JTEKT AUTOMOTIVE CZECH PLZEN, S.R.O. (Czech Republic)
- JTEKT AUTOMOTIVE CZECH PARDUBICE, S.R.O. (Czech Republic)
- KOYO BEARINGS CESKA REPUBLIKA S.R.O. (Czech Republic)
- KOYO ROMANIA S.A. (Romania)

### Asia / Oceania

- 6 production companies
- JTEKT (THAILAND) CO., LTD. (Thailand)
- JTEKT AUTOMOTIVE (THAILAND) CO., LTD. (Thailand)
- KOYO MANUFACTURING (PHILIPPINES) CORPORATION (Philippines)
- JTEKT AUTOMOTIVE (MALAYSIA) SDN. BHD. (Malaysia)
- JTEKT SONA AUTOMOTIVE INDIA LTD. (India)
- KOYO JICO KOREA CO., LTD. (Korea)

### China

- 11 production companies
- JTEKT AUTOMOTIVE (TIANJIN) CO., LTD.
- JTEKT AUTOMOTIVE (FOSHAN) CO., LTD.
- JTEKT STEERING SYSTEMS (XIAMEN) CO., LTD.
- JTEKT DALIAN INNOVATION AUTOMOTIVE CO., LTD.
- WUXI KOYO BEARING CO., LTD.
- DALIAN KOYO WAZHOU AUTOMOBILE BEARING CO., LTD.
- KOYO BEARING DALIAN CO., LTD.
- KOYO LIOHO (FOSHAN) AUTOMOTIVE PARTS CO., LTD.
- KOYO AUTOMOTIVE PARTS (WUXI) CO., LTD.
- YUBEI KOYO STEERING SYSTEMS CO., LTD.
- KOYO NEEDLE BEARINGS (WUXI) CO., LTD.

### Japan

- 13 JTEKT bases
- 21 domestic group production companies
- Koyo Machine Industries Co., Ltd. (Osaka)
- Toyooki Kogyo Co., Ltd. (Aichi)
- Koyo Sealing Techno Co., Ltd. (Tokushima)
- CNK Co., Ltd. (Aichi)
- Koyo Thermo Systems Co., Ltd. (Nara)
- Koyo Electronics Industries Co., Ltd. (Tokyo)
- Daibea Co., Ltd. (Osaka)
- Utsunomiya Kiki Co., Ltd. (Tochigi)
- HOUKO Co., Ltd. (Aichi)
- Toyoda Van Moppes Ltd. (Aichi)
- Koyometaltec Co., Ltd. (Mie)
- KJK Co., Ltd. (Tokushima)
- NIPPON NEEDLE ROLLER MFG. Co., Ltd. (Mie)
- Koyo Heat Treatment Co., Ltd. (Osaka)
- FORMICS Co., Ltd. (Aichi)
- Taiho Co., Ltd. (Kagawa)
- NAKATETSU Co., Ltd. (Osaka)
- Eiko Seimistu Co., Ltd. (Kagawa Prefecture)
- Tokio Seiko Corporation (Tokyo Prefecture)
- Yamato Seiko Co., Ltd. (Nara Prefecture)
- JTEKT YAMAGATA Corporation (Yamagata Prefecture)

### North America / South America

- 9 production companies
- JTEKT AUTOMOTIVE TENNESSEE-VONORE LLC (U.S.A.)
- JTEKT AUTOMOTIVE TENNESSEE-MORRISTOWN, INC. (U.S.A.)
- JTEKT AUTOMOTIVE TEXAS, L.P. (U.S.A.)
- JTEKT AUTOMOTIVE SOUTH CAROLINA, INC. (U.S.A.)
- KOYO BEARINGS NORTH AMERICA LLC (U.S.A.)
- KOYO BEARINGS CANADA INC. (Canada)
- JTEKT AUTOMOTIVA BRASIL LTDA. (Brazil)
- TOYODA KOKI DO BRASIL INDUSTRIA E COMERCIO DE MAQUINAS, LTDA. (Brazil)
- JTEKT AUTOMOTIVE ARGENTINA S.A. (Argentina)

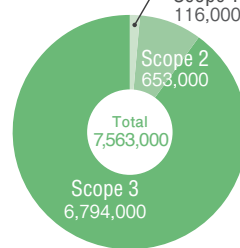
## Appendix-02

### CO<sub>2</sub> conversion coefficients to calculate CO<sub>2</sub> emissions volume

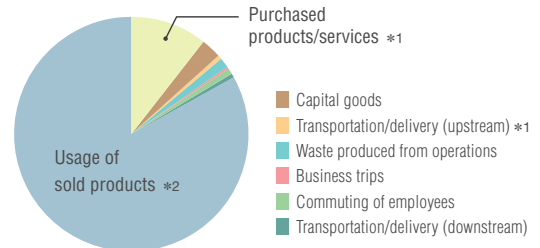
Electricity	0.3707 kg-CO <sub>2</sub> /kWh
Heavy oil A	2.6958 kg-CO <sub>2</sub> /l
Kerosene	2.5316 kg-CO <sub>2</sub> /l
Propane gas	3.0040 kg-CO <sub>2</sub> /kg
City gas	2.1570 kg-CO <sub>2</sub> /Nm <sup>3</sup>

The CO<sub>2</sub> conversion coefficients were set by the Japan Federation of Economic Organizations (1990) and are used in Japan. Regions outside of Japan use 2001 published values. We fixed electrical conversion coefficients so that the results of our improvements could be evaluated.

### CO<sub>2</sub> emissions by scope (t-CO<sub>2</sub>)



### Scope 3 CO<sub>2</sub> emissions (percentage) by category



### Scope 3 CO<sub>2</sub> emissions by category (FY 2014) \*3

Classification	Category	Emissions	Calculation method
Upstream	Purchased products/services *1	746,000	Calculated based on the amount of steel purchased (price) multiplied by emissions per basic unit
	Capital goods	201,000	Calculated based on equipment investment amount related to capital goods multiplied by the cost per unit
	Fuel and energy-related activities not included in Scope 1 and 2	—	N/A
	Transportation/delivery (upstream) *1	29,000	Calculated as emissions due to purchasing/distribution of raw materials, parts, etc., based on the amount of steel purchased (price) multiplied by emissions per basic unit
	Waste produced from operations	99,000	Calculated based on amount of waste multiplied by emissions per basic unit
	Business trips	20,000	Calculated based on travel expenses multiplied by emissions per basic unit; estimated based on employee number for overseas group companies
	Commuting of employees	55,000	Calculated based on commuting expenses multiplied by emissions per basic unit; estimated based on employee number for overseas group companies
	Leased assets (upstream)	—	Leased assets calculated as Scope 1 and 2 emissions
Downstream	Transportation/delivery (downstream)	36,000	Calculated based on product transportation amount and distance multiplied by emissions per unit; calculated based on distribution expenses multiplied by emissions per unit for overseas group companies
	Fabrication of sold products	—	Due to the difficulty of calculating emissions due to the processing of products by customers using a reasonable method, this criteria has been excluded from the scope of calculation at this time
	Usage of sold products *2	5,608,000	Calculated based on the amount of energy consumption for annual production volume for steering, driveline components, and machine tools (calculated based on a 10-year usage period)
	Disposal of sold products	—	Due to the difficulty of calculating emissions due to the transport and processing of products at the time of disposal using a reasonable method, this criteria has been excluded from the scope of calculation at this time
	Leased assets (downstream)	—	N/A
	Franchise	—	N/A
Total	Investment	—	N/A
	<b>Total</b>	<b>6,794,000 (t-CO<sub>2</sub>)</b>	

\*1 Calculated based on the amount of steel purchased \*2 Calculated based on steering, driveline components and machine tools  
\*3 Calculated using the basic unit of emissions of the guidelines established by the Ministry of the Environment and Ministry of Economy, Trade and Industry

## Third-party opinion on the JTEKT CSR Report 2015

Representative of the Workers Club for Eco-harmonic Renewable Society (NPO) **Tamio Yamaguchi**

### Tamio Yamaguchi's profile

After 25 years at a newspaper company, Mr. Yamaguchi held a position as the manager of public relations at an environment venture company, chief editor of a publishing company's environmental magazine, and then freelanced. Now a part-time university lecturer, he also works as a corporate trainer on CSR topics. Since 2005, Mr. Yamaguchi has analyzed and reported on over 350 companies' CSR reports. (<http://csr-project.jp/>)

### Workers Club for Eco-harmonic Renewable Society

A citizen's organization that considers from a global point of view how society and the natural ecosystem that should be passed on to future generations can live in harmony. The organization researches, supports and implements activities so that citizens, companies and government agencies will form a recycling-based society. Researching and Making Proposals regarding the Ideal CSR in CSR Workshops of Study Groups (<http://junkanken.com>)



I believe that the exchange of opinions during the process of reports being created is absolutely essential in order to write a third-party opinion. This year, such opinion-exchanging sessions were held at the kick-off meeting and when the first draft of the report was completed. In these sessions, I made comments on 46 items regarding the first draft, to which JTEKT responded by categorizing these into "Reflect in FY 2015 report", "Next fiscal year", "For the future" and "Response is difficult." I highly respect JTEKT's serious stance towards my comments and their efforts to steadily improve their reports. In the future, I hope JTEKT proactively engages in dialogue with other stakeholders and achieves stakeholder engagement.

JTEKT has been using the caption "NEW" to highlight new content since the FY 2013 report and this was again apparent in several places in this year's report, sending out the message that they paid careful consideration to including descriptions of their responses to social demands. For example, recently there have been numerous cases of violations against the Foreign Corrupt Practices Act of the U.S.A, Britain's Bribery Act and so forth, triggering a demand from society on globally-active corporations to strengthen their fair trade practices and this year, JTEKT has included a section on "Anti-corruption activities" in their report. Moreover, although the "NEW" entries of a report may increase, if important descriptions and indicators are omitted it may become difficult to evaluate however, thankfully, that is not the case with JTEKT's latest report.

Reading through this report, four points in particular leave a particularly strong impression. These are; (1) Extraordinary determination to protect employee safety, (2) Strengthening of compliance, (3) Proactive and ongoing initiatives for mental health countermeasures, and (4) Steady initiatives for reducing environ-

mental burden and disclosure.

In regards to the first point, the lost-day accident rate has increased since FY 2012 however concerning this point, the Message from the President contained a declaration that "ensuring the safety of our employees is our most important mission" and clearly stated an "awareness of a critical situation". Moreover, to materialize this message, JTEKT has formulated a safety vision and carried out safety training with participation by all directors, as well as safety awareness surveys. I believe that readers will surely be impressed if JTEKT is sensitive of the worsening trend and their top management, with an awareness of a "critical situation", displays leadership to roll out companywide activities.

In regards to the second point, it is clear that JTEKT is making efforts not to repeat the conduct recognized as a violation of the Antimonopoly Act in 2011 and is strengthening their response to both domestic and overseas situations. JTEKT is exhibiting just how serious a stance it is taking towards strengthening compliance with initiatives such as the aforementioned anti-corruption activities, obtainment of a written oath regarding legal compliance and proactively making their employees aware of the internal reporting consultation desks.

In regards to the third point, as I mentioned last year, the reported content is first-rate and sets an example for other reports. In my third-party opinion for last year's report I stated that, in the future, "the situation would inevitably change for the better" however, while total work hours and work outside of regular hours decreased in FY 2014, there has been an increase in high-stress individuals, number of employees receiving checkups for working long hours, number of work absences due to mental disorders and number of missed work days. Fortunately, the report contains details such as "number of people taking time off work

by age and reason", which are useful for analyzing the situation and formulating future measures. I feel that the fact that measures are being steadily implemented in this way is a sign that JTEKT is in a transition stage heading towards improvement.

In regards to the fourth point, JTEKT is steadily responding to the environmental issues demanded by society. Moreover, when disclosing information, JTEKT refers to a calculation standard stipulated by the GHG Protocol Initiative and the General Guidelines on Supply Chain GHG Emission Accounting of the Ministry of the Environment and Ministry of Economy, Trade and Industry. I hope JTEKT will continue to take this proactive stance and report from the perspective of "natural capital" and "risk and opportunity".

Finally, I would like to touch upon what I mentioned a little while back regarding "materiality choices and disclosure of the process thereof." Currently, the "PICK UP" segment in JTEKT's report describes typical examples of activities and achievements however I do not believe this can be considered true materiality as it does not express the stakeholders' perspectives. As I mentioned above, in the 46 comments I made, JTEKT categorized materiality as an item "For the future". However, more and more companies who refer to the fourth version of the GRI "Sustainability Reporting Guidelines 2013 (G4)" and IIRC (International Integrated Reporting Council) framework, which emphasize materiality choices, are steadily offering choices and providing disclosure. In the process of materiality choices, I believe that "stakeholder inclusion"(\*), which is a reporting principle of G4, will be achieved. Both of these are important principles and will greatly impact the evaluation of a report.

**\* Stakeholder Inclusion** An organization has a responsibility to identify stakeholders and rationally explain how they have responded to expectations and concerns.

## Response to the third-party opinion

### Corporate Planning Dept.

We would like to extend our sincere thanks to Mr. Yamaguchi for providing us with his valuable opinion at the kick-off meeting when creation of this report began, at the intermediate conferral and upon completion of the report.

In FY 2014, we continued to promote our JTEKT GROUP VISION and our mid-term management plan so that JTEKT may develop even more as a truly global company. In each business headquarters, we conducted results evaluation and plan renewal so that the entire JTEKT group could steadily promote renewal of our mid-term management plan. We will continue to pivot our activities around the mid-term management plan from next fiscal year. We will also continue promoting the familiarization of CSR within JTEKT by providing face-to-face communication and a *genchi genbutsu* spirit to establish the CSR mindset in all workplaces, including JTEKT group companies, and help employees become self-reliant in their activities.

Moreover, in regards to Mr. Yamaguchi's feedback on materiality, we also believe this a necessary point to advance to the next stage and will organize our internal systems including formulation processes. We also believe that "stakeholder engagement" and "environmental reporting from the perspectives of natural capital and risk and opportunity" to be important for the future and will investigate these further. We will also continue, as a manufacturing company, to contribute to regional vitalization through employment promotion, etc. from a CSR perspective whilst continuing our community-based initiatives.

We have edited this report while keeping in mind our broad range of readers, and endeavored to use straightforward expressions and provide supplementary explanations of in-house terminology. The "Message" column is intended as a communication tool to make readers feel closer to JTEKT and we have made efforts to keep it at a length which is easy to read. In regards to the "Details & Data" segment, we will continue to disclose information and further enhance content. Our goal is for our company's activities to be understood by our stakeholders and to remain a company trusted and appreciated by all.

# Environmental Data by Operations Base ①

This page includes the environmental data for 2 locations, Kokubu and Kariya, out of our 13 locations; 12 domestic plants and 1 operations center.

**[Chemicals]** Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2014 to March 2015

## Kokubu Plant

No. of Employees 2,103



### Production items

- All types of ball bearings
- Roller bearings
- Ultra-large bearings
- Hub units
- High-accuracy bearings

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	1,121,227
		Water consumed (km <sup>3</sup> )	447
		Chemical substances handled (t)	9.4
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	44,584
		NOx (kg)	13,152
		SOx (kg)	0
		Chemical substances released (t)	4.1
	Sewage	Wastewater (km <sup>3</sup> )	169
		COD (kg)	5,114
		Nitrogen (kg)	0
		Phosphorus (kg)	0
		Chemical substances transferred (t)	0.07
	Materials discarded	Recycled for profit (t)	5,083
		Recycled at a charge (t)	1,832
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	1.7

\* Due to sewage disposal, there are no regulation values for COD, nitrogen, or phosphorus

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.2~8.8	7.8	7.1
BOD	480	96	44
SS	480	18	6.0
Oil content	4	3.6	1.2

Unit : mg/ℓ (Excluding pH)

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (Annealing furnace)	Dust	0.08	0.003
	NOx	144	47
	SOx	—	—
Boiler (Hot and cold water generator)	Dust	0.08	0
	NOx	120	110
	SOx	—	—

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx= Value K

### Noise / Vibration data

Index		Regulation value	Results	
			Maximum	Average
Noise	Morning	59	57	49
	Afternoon	64	63	51
	Evening	59	61	52
	Night	54	54	48
Vibration	Daytime	63	47	47
	Nighttime	58	48	47

Unit : dB

### Foul odor

Measurement item	Regulation value	Measurement
Ammonia	0.8	0.58
Methanethiol	0.0016	0.0005
Trimethylamine	0.0040	0.0001

\* Malodorous substances (22 substances) were measured.

\* All items not listed were below minimum determination limit.

### Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released				Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil	Sewage			
1	Water-soluble zinc compounds	2,313	0	0	0	231	0	0	2,082
80	Xylene	3,126	3,126	0	0	0	0	0	0
412	Manganese and its compounds	1,223	0	25	0	440	0	0	758

Unit : kg/year

## Kariya Plant

No. of Employees 1,287



### Production items

- Machine tools
- Damper pulleys
- Machined parts

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	201,287
		Water consumed (km <sup>3</sup> )	130
		Chemical substances handled (t)	2.3
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	7,740
		NOx (kg)	371
		SOx (kg)	0
		Chemical substances released (t)	1.9
	Waterways	Wastewater (km <sup>3</sup> )	182
		COD (kg)	669
		Nitrogen (kg)	972
		Phosphorus (kg)	7
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	441
		Recycled at a charge (t)	220
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	7.0	6.6
COD	19	5.3	3.9
BOD	20	8.7	3.3
SS	20	5.5	2.0
Oil content	4	0.5	0.3
Zinc	1.6	0.1	0.0

Unit : mg/ℓ (Excluding pH)

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (for cafeteria use)	Dust	0.08	0.004
	NOx	104	64
	SOx	1.2	—
Boiler (Hot and cold water generator)	Dust	0.08	0.003
	NOx	104	54
	SOx	1.2	—

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Nm<sup>3</sup>/hr

Index		Regulation value	Results	
			Maximum	Average
Soluble iron		4	0.5	0.5
Soluble manganese		1.6	4.7 <sup>*1</sup>	2.4
Fluorine		4	0.1	0.1
Nitrogen		16.1	11.0	8.1
Phosphorus		1.5	0.1	0.1
Boron		8	0.1	0.0

\*1: Exceeds internal standard value but complies with regulatory standard value (10 mg/ℓ)

### Noise / Vibration data

Index		Regulation value	Results	
			Maximum	Average
Noise	Morning	64	55	48
	Afternoon	69	62	51
	Evening	64	60	50
	Night	59	57	48
Vibration	Daytime	68	48	33
	Nighttime	63	33	24

Unit : dB

### Foul odor

Measurement item	Regulation value	Measurement
Odor index	12	10

### Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released				Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil	Sewage			
300	Toluene	1,566	1,257	0	0	0	0	0	309

Unit : kg/year

# Environmental Data by Operations Base ②

This page includes the environmental data for 2 locations, Tokushima and Okazaki, out of our 13 locations; 12 domestic plants and 1 operations center.

**[Chemicals]** Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2014 to March 2015

## Tokushima Plant

No. of Employees 1,306



### Production items

- Ball bearings
- Water pump bearings
- Cylindrical roller bearings
- Special environment bearings
- Double row angular contact ball bearings
- Hub units
- Tensioner pulleys

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	969,086
		Water consumed (km <sup>3</sup> )	993
		Chemical substances handled (t)	9.9
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	37,493
		NOx (kg)	35,952
		SOx (kg)	1,281
		Chemical substances released (t)	4.1
	Waterways	Wastewater (km <sup>3</sup> )	233
		COD (kg)	5,143
		Nitrogen (kg)	4,349
		Phosphorus (kg)	11
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	7,192
		Recycled at a charge (t)	1,060
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0.001

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	7.3	6.8
COD	16	9.1	7.6
SS	24	5.0	2.8
Oil content	2.4	1.5	1.3
Nitrogen	25	6.3	4.3
Phosphorus	2.5	0.06	0.04

Unit : mg/ℓ (Excluding pH)

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (Absorption type cold and hot water generator)	Dust	0.24	0.01
	NOx	144	51
	SOx	16.8	0.03
Diesel engine	Dust	0.08	0.026
	NOx	902.5	845
	SOx	16.8	0.067

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx= Value K

### Noise / Vibration data

Index	Regulation value	Results		
		Maximum	Average	
Noise	Morning	59	51	48
	Afternoon	64	58	55
	Evening	59	53	51
	Night	55	52	49
Vibration	Daytime	63	56.2	49
	Nighttime	58	55	48

### Foul odor

- \* Malodorous substances (22 substances) were measured.
- \* All items were below minimum determination limit.

### Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released				Amount transferred	Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil	Sewage				
80	Xylene	4,021	4,021	0	0	0	0	0	0	0
438	Methylnaphthalene	5,827	0	0	0	0	0	0	0	5,827

## Okazaki Plant

No. of Employees 828



### Production items

- 4WD coupling
- Linear solenoid valves for AT and CVT
- Oil pumps for AT and CVT
- Propeller shafts
- Cast parts

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	681,618
		Water consumed (km <sup>3</sup> )	120
		Chemical substances handled (t)	4.7
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	27,736
		NOx (kg)	24,049
		SOx (kg)	0
		Chemical substances released (t)	3.0
	Waterways	Wastewater (km <sup>3</sup> )	45
		COD (kg)	17
		Nitrogen (kg)	37
		Phosphorus (kg)	0
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	9,867
		Recycled at a charge (t)	2,714
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	6.6~8.4	8.1	7.6
COD	16	8.0	3.6
BOD	16	17.1*1	2.8
SS	16	2.5	1.3
Oil content	1.6	0.9	0.5
Zinc	2.4	0.10	0.05

\*1: Exceeds internal standard value but complies with regulatory standard value (20 mg/ℓ)

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Electric furnace	Dust	0.12	0.002
	NOx	80	10
	SOx	6.072	—
Boiler (for air conditioning)	Dust	0.08	0.002
	NOx	104	83.2
	SOx	—	—
Heating furnace	Dust	0.12	0.002
	NOx	80	10
	SOx	6.072	—
Gas engine (cogeneration)	Dust	0.04	0.002
	NOx	160	128
	SOx	6.072	—

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Nm<sup>3</sup>/hr

Unit : mg/ℓ (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Soluble iron	4	0.5	0.4
Soluble manganese	2.4	0.9	0.3
Fluorine	0.8	0.10	0.10
Nitrogen	12	7.9	6.5
Phosphorus	1.6	0.04	0.03
Boron	8	0.02	0.02

### Noise / Vibration data

Index	Regulation value	Results		
		Maximum	Average	
Noise	Morning	64	53	50
	Afternoon	69	55	52
	Evening	64	52	50
	Night	59	54	50
Vibration	Daytime	69	38	33
	Nighttime	64	35	31

### Foul odor

Measurement item	Regulation value	Measurement
Odor index	12	10

### Substances subject to PRTR

Substance number	Chemical name	Amount handled	Amount released				Amount transferred	Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil	Sewage				
300	Toluene	2,817	2,262	0	0	0	0	0	0	555



# Environmental Data by Operations Base ③

This page includes the environmental data for 2 locations, Tokyo and Kagawa, out of our 13 locations; 12 domestic plants and 1 operations center.

**[Chemicals]** Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2014 to March 2015

## Tokyo Plant

No. of Employees 574



### Production items

- Needle roller bearings
- Constant velocity joints
- Drive shafts
- Propeller shafts

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.6	7.8	7.5
BOD	240	83	12
SS	200	20	13
Oil content	24	4.0	1.3
Nitrogen	96	34	8.4
Phosphorus	13	0.6	0.3

Unit : mg/l (Excluding pH)

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Gas suction type boiler	Dust	0.08	0.005
	NOx	44	43
	SOx	0.33	0.01

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Value K

### Noise / Vibration data

Unit : dB

Index	Regulation value	Maximum	Average
Noise	Morning	59	57
	Afternoon	69	63
	Evening	59	56
	Night	54	52
Vibration	Daytime	58	49
	Nighttime	48	35

### Foul odor

- \* Malodorous substances (22 substances) were measured.
- \* All items were below minimum determination limit.

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	367,572
		Water consumed (km <sup>3</sup> )	120
		Chemical substances handled (t)	9.4
	OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )
NOx (kg)			24
SOx (kg)			7
Chemical substances released (t)			6.2
Sewage		Wastewater (km <sup>3</sup> )	79
		BOD (kg)	951
		Nitrogen (kg)	633
		Phosphorus (kg)	26
		Chemical substances transferred (t)	0.002
Materials discarded		Recycled for profit (t)	1,652
		Recycled at a charge (t)	746
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	1.4

\* Due to sewage disposal, there are no regulation values for COD

### Substances subject to PRTR

Unit : kg/year

Substance number	Chemical name	Amount handled	Amount released			Amount transferred	Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil				
1	Water-soluble zinc compounds	1,417	0	0	0	142	0	0	1,275
80	Xylene	1,818	1,818	0	0	0	0	0	0
300	Toluene	4,322	4,322	0	0	0	0	0	0

## Kagawa Plant

No. of Employees 951



### Production items

- Tapered roller bearings

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	7.7	6.7
COD	40	29	22
BOD	40	38	31
SS	40	2.0	1.4

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Oil content	2.4	2.0	1.6
Nitrogen	48	15	11
Phosphorus	6.4	0.2	0.1

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler	Dust	0.24	0.028
	NOx	208	69
	SOx	4	1.1
Private power generator	Dust	0.08	0.04
	NOx	902.5	830
	SOx	4	0.75

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Value K

\* Less than regulatory amounts (950)

### Noise / Vibration data

Unit : dB

Index	Regulation value	Maximum	Average
Noise	Morning	64	55
	Afternoon	64	59
	Evening	64	55
	Night	59	53
Vibration	Daytime	49	21
	Nighttime	46	20

### Foul odor

Unit : ppm

Measurement item	Regulation value	Measurement
Ammonia	1.2	0.58

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	1,032,721
		Water consumed (km <sup>3</sup> )	362
		Chemical substances handled (t)	5.7
	OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )
NOx (kg)			4,951
SOx (kg)			436
Chemical substances released (t)			3.1
Waterways		Wastewater (km <sup>3</sup> )	251
		COD (kg)	5,016
		Nitrogen (kg)	2,686
		Phosphorus (kg)	55
		Chemical substances transferred (t)	0
Materials discarded		Recycled for profit (t)	9,662
		Recycled at a charge (t)	1,131
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0

### Substances subject to PRTR

Unit : kg/year

Substance number	Chemical name	Amount handled	Amount released			Amount transferred	Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil				
80	Xylene	3,091	3,091	0	0	0	0	0	0
438	Methylnaphthalene	2,487	12	0	0	0	0	0	2,475

# Environmental Data by Operations Base ④

This page includes the environmental data for 2 locations, Nara and Higashi-kariya, out of our 13 locations; 12 domestic plants and 1 operations center.

**[Chemicals]** Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2014 to March 2015

## Nara Plant

No. of Employees 1,872



### Production items

- Electric power steering
- Electric pumps for hydraulic-electric type power steering
- Hydraulic power steering
- Manual steering

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	216,872
		Water consumed (km <sup>3</sup> )	51
		Chemical substances handled (t)	13
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	8,112
		NOx (kg)	68
		SOx (kg)	37
		Chemical substances released (t)	11.9
	Waterways	Wastewater (km <sup>3</sup> )	35
		COD (kg)	267
		Nitrogen (kg)	481
		Phosphorus (kg)	97
		Chemical substances transferred (t)	0.0003
	Materials discarded	Recycled for profit (t)	1,180
		Recycled at a charge (t)	1,191
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0.1

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	7.6	7.1
COD	12	8.7	7.1
BOD	12	6.1	1.7
SS	20	2.8	0.3
Oil content	2	0.9	0.2

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Soluble iron	1	0.05	0.03
Soluble manganese	1	0.04	0.02
Nitrogen	40	29	18
Phosphorus	15	3.8	3.0

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
No. 1 Plant, No. 1 (Boiler)	Dust	0.24	0.02
	NOx	144	50
	SOx	1.60	0.02
No. 1 Plant, No. 2 (Boiler)	Dust	0.24	0.01
	NOx	144	55
	SOx	1.60	0.02
South No. 2 Plant (Boiler)	Dust	0.24	0.01
	NOx	144	52
	SOx	1.6	0.01

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx= Value K

### Noise / Vibration data

Unit : dB

Index	Regulation value	Maximum	Average
Noise	Morning	64	57
	Afternoon	67	59
	Evening	64	61
	Night	54	52
Vibration	Daytime	59	41
	Nighttime	54	39

### Foul odor

- \* Malodorous substances (22 substances) were measured.
- \* All items were below minimum determination limit.

### Substances subject to PRTR

Unit : kg/year

Substance number	Chemical name	Amount handled	Amount released			Amount transferred	Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil				
80	Xylene	8,879	8,879	0	0	0	0	0	0
300	Toluene	3,009	3,009	0	0	0	0	0	0

## Higashi-kariya operations center

No. of Employees 124



### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	39,515
		Water consumed (km <sup>3</sup> )	4
		Chemical substances handled (t)	0
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	1,561
		NOx (kg)	227
		SOx (kg)	98
		Chemical substances released (t)	0
	Waterways	Wastewater (km <sup>3</sup> )	3
		COD (kg)	0.32
		Nitrogen (kg)	0.09
		Phosphorus (kg)	0.0014
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	166
		Recycled at a charge (t)	41
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	6.0~8.3	7.6	7.2
COD	16	5.3	4.4
BOD	16	5.0	1.4
SS	16	2.5	1.4
Oil content	4	0.5	0.2
Zinc	2	0.1	0.1

Unit : mg/l (Excluding pH)

Index	Regulation value	Maximum	Average
Soluble iron	4	0.5	0.5
Soluble manganese	4	0.3	0.2
Fluorine	5	0.15	0.11
Nitrogen	48	4.0	3.38
Phosphorus	6	0.07	0.05
Boron	8	0.05	0.03

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (Hot and cold water generator)	Dust	0.12	0.003
	NOx	104	70
	SOx	0.46	0.01

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Nm<sup>3</sup>/hr

### Noise / Vibration data

Unit : dB

Index	Regulation value	Maximum	Average
Noise	Morning	64	56
	Afternoon	69	52
	Evening	64	52
	Night	59	53
Vibration	Daytime	68	27
	Nighttime	63	32

### Foul odor

Measurement item	Regulation value	Measurement
Odor index	12	10

### Substances subject to PRTR

- \* No substances had handling amounts of over 1,000 kg /year

# Environmental Data by Operations Base ⑤

This page includes the environmental data for 2 locations, Toyohashi and Tadamisaki, out of our 13 locations; 12 domestic plants and 1 operations center.

**[Chemicals]** Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2014 to March 2015

## Toyohashi Plant

No. of Employees 771



### Production items

- Hydraulic power steering
- Manual steering
- Safety handle column

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	6.1~8.4	7.6	7.2
COD	16	6.1	4.0
BOD	16	1.9	0.8
SS	24	1.0	1.0

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Oil content	4	1.0	1.0
Nitrogen	48	9	5.0
Phosphorus	6	0.7	0.3

### Overall environmental data

		Classification	Volume
INPUT	Energy consumption (GJ)		296,818
	Water consumed (km <sup>3</sup> )		41
	Chemical substances handled (t)		3.0
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	11,293
		NOx (kg)	1,521
		SOx (kg)	71
		Chemical substances released (t)	0.4
	Waterways	Wastewater (km <sup>3</sup> )	13
		COD (kg)	53
		Nitrogen (kg)	69
		Phosphorus (kg)	4.7
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	2,314
		Recycled at a charge (t)	448
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0.2

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
No. 1 Plant (Boiler)	Dust	0.03	0.001
	NOx	120	40
	SOx	1	0.031
No. 2 Plant (Hot and cold water generator)	Dust	0.03	0.002
	NOx	120	26
	SOx	1	0.003
No. 3 Plant (Hot and cold water generator)	Dust	0.03	0.001
	NOx	120	19
	SOx	1	0.001

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx= Value K

### Noise / Vibration data

Unit : dB

Index	Regulation value	Maximum	Average
Noise	Morning	60	56
	Afternoon	65	59
	Evening	64	57
	Night	59	52
Vibration	Daytime	55	38
	Nighttime	50	34

### Foul odor

Measurement item	Regulation value	Measurement
Odor index	14	10

### Substances subject to PRTR

Unit : kg/year

Substance number	Chemical name	Amount handled	Amount released			Amount transferred	Amount recycled	Amount Removed and treated	Amount consumed
			Atmosphere	Waterways	Soil				
453	Molybdenum and its compounds	1,959	0	0	0	0	0	0	1,959

## Tadamisaki Plant

No. of Employees 1,148



### Production items

- Drive shafts
- 4WD coupling

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	6.0~8.8	7.5	7.3
COD	18	12.0	7.1
BOD	18	3.2	2.6
SS	24	4.0	2.1
Oil content	1.6	0.5	0.5
Zinc	0.8	0.07	0.05

Unit : mg/l (Excluding pH)

Index	Regulation value	Maximum	Average
Soluble iron	2.4	0.4	0.3
Soluble manganese	4	0.1	0.1
Fluorine	12	0.1	0.1
Nitrogen	24	5.4	2.8
Phosphorus	3.2	0.4	0.3
Boron	184	0.1	0.1

### Overall environmental data

		Classification	Volume
INPUT	Energy consumption (GJ)		663,650
	Water consumed (km <sup>3</sup> )		144
	Chemical substances handled (t)		1.0
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	24,829
		NOx (kg)	878
		SOx (kg)	60
		Chemical substances released (t)	0.02
	Waterways	Wastewater (km <sup>3</sup> )	100
		COD (kg)	569
		Nitrogen (kg)	620
		Phosphorus (kg)	20
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	9,188
		Recycled at a charge (t)	867
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0.05

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Boiler (Hot and cold water generator)	Dust	0.05	0.001
	NOx	104	57
	SOx	0.6	0
Continuous carburizing furnace	Dust	0.1	0.001
	NOx	104	12
	SOx	0.6	0

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Nm<sup>3</sup>/hr

### Noise / Vibration data

Unit : dB

Index	Regulation value	Maximum	Average
Noise	Morning	64	53
	Afternoon	69	55
	Evening	64	52
	Night	59	54
Vibration	Daytime	55	38
	Nighttime	50	35

### Foul odor

Measurement item	Regulation value	Measurement
Odor index	16	10

### Substances subject to PRTR

\* No substances had handling amounts of over 1,000 kg/year

# Environmental Data by Operations Base ⑥

This page includes the environmental data for 2 locations, Hanazono and Kameyama, out of our 13 locations; 12 domestic plants and 1 operations center.

**[Chemicals]** Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period]** April 2014 to March 2015

## Hanazono Plant

No. of Employees 1,209



### Production items

- Electric power steering
- Hydraulic power steering pump
- Control computer

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	7.7	7.1
COD	8	4.4	3.3
BOD	8	6.5	1.5
SS	8	4.5	2.8
Oil content	1.6	1.0	1.0
Zinc	0.8	0.14	0.06

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Soluble iron	2.4	0.5	0.5
Soluble manganese	2.4	1.0	0.3
Fluorine	0.8	0.10	0.10
Nitrogen	24.0	19.0	13.4
Phosphorus	2.4	0.2	0.1
Boron	8.0	1.00	1.00

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	327,597
		Water consumed (km <sup>3</sup> )	90
		Chemical substances handled (t)	1.0
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	12,762
		NOx (kg)	201
		SOx (kg)	834
		Chemical substances released (t)	0.3
	Waterways	Wastewater (km <sup>3</sup> )	85
		COD (kg)	235
		Nitrogen (kg)	230
		Phosphorus (kg)	2
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	820
		Recycled at a charge (t)	471
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0.1

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
Compact once-through boiler	Dust	0.08	0.002
	NOx	100	31
	SOx	6.07	0.03
Boiler (Hot and cold water generator)	Dust	0.08	0.002
	NOx	100	67
	SOx	6.07	0.01

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Nm<sup>3</sup>/hr

### Noise / Vibration data

Unit : dB

Index	Regulation value	Maximum	Average
Noise	Morning	74	53
	Afternoon	74	53
	Evening	74	54
	Night	69	54
Vibration	Daytime	60	38
	Nighttime	56	37

### Foul odor

Measurement item	Regulation value	Measurement
Odor index	14	10

### Substances subject to PRTR

\* No substances had handling amounts of over 1,000 kg /year

## Kameyama Plant

No. of Employees 301



### Production items

- Ball bearings
- Clutch bearings
- Clutch pulleys for alternator

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.9~8.5	8.3	7.2
COD	8	8.0	3.1
BOD	8	6.0	1.7
SS	20	3.0	1.3
Oil content	1.0	0.5	0.5
Zinc	4	0.03	0.02

Unit : mg/l (Excluding pH)

Index	Regulation value	Results	
		Maximum	Average
Soluble iron	8	0.03	0.02
Soluble manganese	2	0.10	0.03
Fluorine	5	0.10	0.10
Nitrogen	50	33	20
Phosphorus	1.0	0.31	0.11
Boron	8	0.06	0.06

### Overall environmental data

		Classification	Volume
INPUT		Energy consumption (GJ)	163,316
		Water consumed (km <sup>3</sup> )	26
		Chemical substances handled (t)	2
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	6,120
		NOx (kg)	400
		SOx (kg)	229
		Chemical substances released (t)	0.6
	Waterways	Wastewater (km <sup>3</sup> )	20.5
		COD (kg)	59
		Nitrogen (kg)	364
		Phosphorus (kg)	2
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	704
		Recycled at a charge (t)	183
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	1.2

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
No. 1 Plant (Boiler)	Dust	0.1	0.005
	NOx	150	60
	SOx	1.65	0.05

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Nm<sup>3</sup>/hr

### Noise / Vibration data

Unit : dB

Index	Regulation value	Maximum	Average
Noise	Morning	60	56
	Afternoon	60	58
	Evening	60	58
	Night	55	52
Vibration	Daytime	58	36
	Nighttime	48	24

### Foul odor

- \* Malodorous substances (22 substances) were measured.
- \* All items were below minimum determination limit.

### Substances subject to PRTR

\* No substances had handling amounts of over 1,000 kg /year



# Environmental Data by Operations Base ⑦

This page includes the environmental data for Sayama Plant out of our 13 locations; 12 domestic plants and 1 operations center.

**[Chemicals]** Substances subject to PRTR **[Atmosphere]** Measured values are the maximum values **[Water quality]** pH: Hydrogen-ion concentration/ COD:Chemical oxygen demand/ BOD: Biochemical oxygen demand/ SS: Suspended solids in water/ Oil content: N-hexane extract content/ ND: Lower than determination limit/ Values in parenthesis show the daily average values **[Regulated value]** JTEKT internal standards (some more stricter than regulatory amounts) **[Substances subject to PRTR]** Shows substances which are handled in amounts of 1,000 kg/year or more. Substance number shows the legislative number for each of the No. 1 type chemical substances of the PRTR regulations. Removal processing amount is the amount of substances subject to PRTR which are incinerated, neutralized, broken down, put through reaction treatment, etc. within JTEKT premises. Consumed amount is the amount of substances subject to PRTR which are changed to another substance through reaction treatment, or removed from JTEKT premises in, or attached to, products. **[Target period] April 2014 to March 2015**

## Sayama Plant

No. of Employees 85



### Production items

- TORSEN

### Water quality measurement data

Index	Regulation value	Results	
		Maximum	Average
pH	5.2~8.8	7.5	7.5
Oil content	4	ND	ND
Nitrogen	192	27	27
Phosphorus	25.6	ND	ND

Unit : mg/l (Excluding pH)

### Atmosphere measurement data

Facility	Index	Regulation value	Maximum value
No.1 Plant (Boiler)	Dust	0.08	0.001
	NOx	120	84
	SOx	0.52	0

Unit : Dust= g/Nm<sup>3</sup> NOx= ppm SOx=Nm<sup>3</sup>/hr

### Noise / Vibration data

Index	Regulation value	Maximum	Average	Unit : dB
Noise	Morning	64	62	57
	Afternoon	69	64	57
	Evening	64	63	56
	Night	59	56	52
Vibration	Daytime	Unmeasured		
	Nighttime	Unmeasured		

### Foul odor

\* Unmeasured

Vibration and foul odor are not measured as these items are not applicable within the scope of regulations.

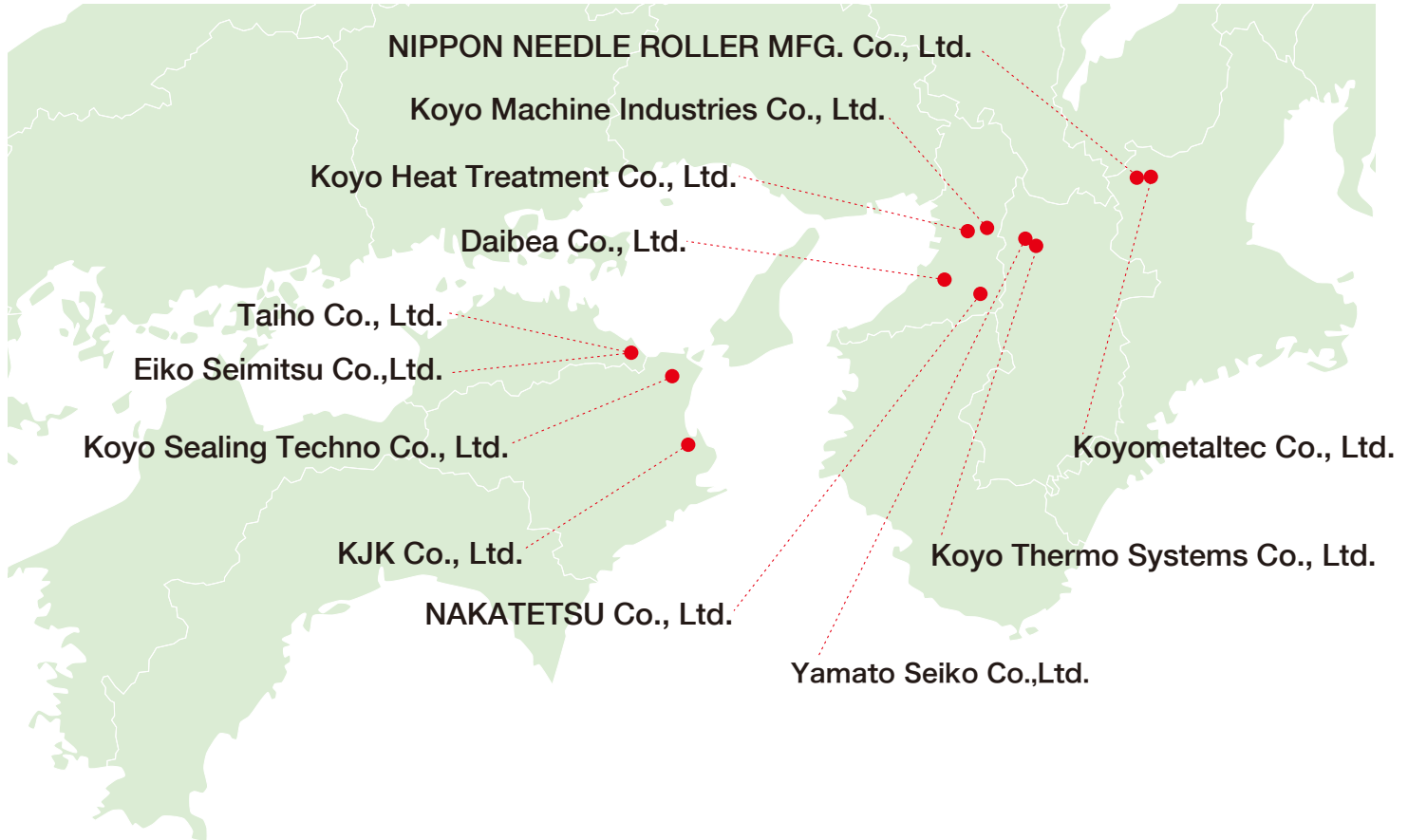
### Overall environmental data

INPUT		Classification	Volume
		Energy consumption (GJ)	34,595
		Water consumed (km <sup>3</sup> )	5
		Chemical substances handled (t)	0.002
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	1,307
		NOx (kg)	121
		SOx (kg)	0
		Chemical substances released (t)	0
	Waterways	Wastewater (km <sup>3</sup> )	3
		COD (kg)	0.43
		Nitrogen (kg)	4.3
		Phosphorus (kg)	0
		Chemical substances transferred (t)	0
	Materials discarded	Recycled for profit (t)	672
		Recycled at a charge (t)	109
		Waste (incineration+landfill) (t)	0
		Chemical substances transferred (t)	0

### Substances subject to PRTR

\* No substances had handling amounts of over 1,000 kg /year

# Global business sites [Domestic group production companies]



Koyo Machine Industries Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	237,301	
	Water consumed (km <sup>3</sup> )	60.6	
	Chemical substances handled (t)	13.9	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	9,137
		Chemical substances released (t)	12.3
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	2,433
	Materials Discarded	Waste output (t)	1,206
		Chemical substances transferred (t)	1.6

Koyo Sealing Techno Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	154,452	
	Water consumed (km <sup>3</sup> )	147.2	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	6,605
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	485
	Materials Discarded	Waste output (t)	15
		Chemical substances transferred (t)	0

Koyo Thermo Systems Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	65,769	
	Water consumed (km <sup>3</sup> )	12.4	
	Chemical substances handled (t)	0.6	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	2,607
		Chemical substances released (t)	0.6
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	124
	Materials Discarded	Waste output (t)	179
		Chemical substances transferred (t)	0

Daibea Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	334,812	
	Water consumed (km <sup>3</sup> )	53.7	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	12,788
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	669
	Materials Discarded	Waste output (t)	1,026
		Chemical substances transferred (t)	0

Koyometaltec Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	519,943	
	Water consumed (km <sup>3</sup> )	71.0	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	20,429
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	12,454
	Materials Discarded	Waste output (t)	558
		Chemical substances transferred (t)	0

KJK Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	51,994	
	Water consumed (km <sup>3</sup> )	1.6	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	1,934
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	3,401
	Materials Discarded	Waste output (t)	0
		Chemical substances transferred (t)	0

NIPPON NEEDLE ROLLER MFG. Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	73,483	
	Water consumed (km <sup>3</sup> )	49.1	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	2,899
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	133
	Materials Discarded	Waste output (t)	733
		Chemical substances transferred (t)	0

Koyo Heat Treatment Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	392,855	
	Water consumed (km <sup>3</sup> )	37.6	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	16,785
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	311
	Materials Discarded	Waste output (t)	41
		Chemical substances transferred (t)	0

Taiho Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	99,553	
	Water consumed (km <sup>3</sup> )	5.2	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	3,753
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	5,123
	Materials Discarded	Waste output (t)	33
		Chemical substances transferred (t)	0

NAKATETSU Co., Ltd.

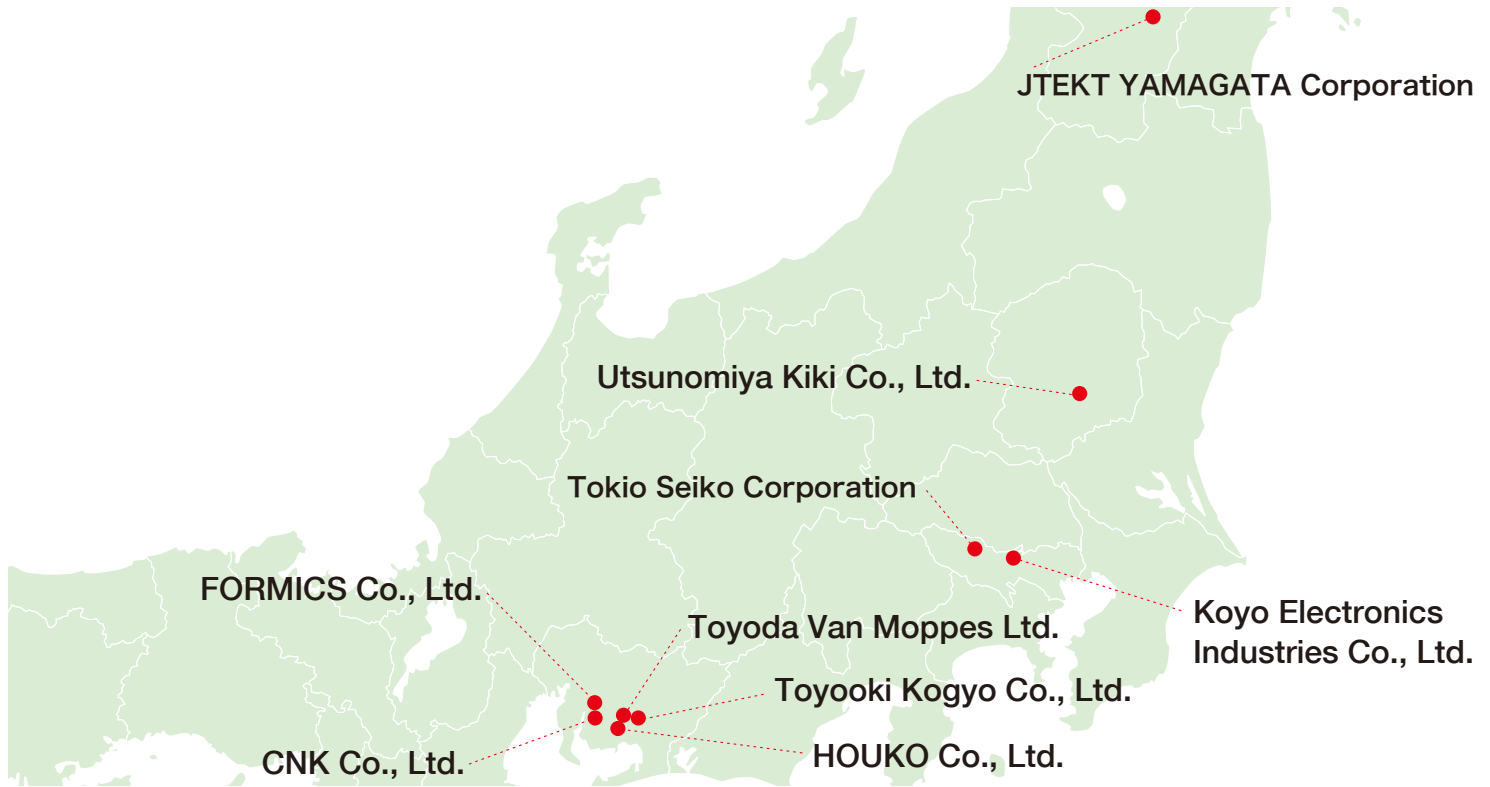
Classification		Volume	
INPUT	Energy Consumption (GJ)	316,720	
	Water consumed (km <sup>3</sup> )	8.8	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	12,531
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	12,513
	Materials Discarded	Waste output (t)	250
		Chemical substances transferred (t)	0

Yamato Seiko Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	51,259	
	Water consumed (km <sup>3</sup> )	2.7	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	2,139
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	15
	Materials Discarded	Waste output (t)	154
		Chemical substances transferred (t)	0

Eiko Seimitsu Co., Ltd.

Classification		Volume	
INPUT	Energy Consumption (GJ)	26,282	
	Water consumed (km <sup>3</sup> )	3.5	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	1,073
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	0
	Materials Discarded	Waste output (t)	0
		Chemical substances transferred (t)	0



**Toyooki Kogyo Co., Ltd.**

Classification		Volume	
INPUT	Energy Consumption (GJ)	97,940	
	Water consumed (km <sup>3</sup> )	24.9	
	Chemical substances handled (t)	7.4	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	3,698
		Chemical substances released (t)	7.4
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	563
	Materials Discarded	Waste output (t)	222
		Chemical substances transferred (t)	0

**CNK Co., Ltd.**

Classification		Volume	
INPUT	Energy Consumption (GJ)	257,604	
	Water consumed (km <sup>3</sup> )	74.6	
	Chemical substances handled (t)	17.6	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	10,136
		Chemical substances released (t)	16.7
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	80
	Materials Discarded	Waste output (t)	449
		Chemical substances transferred (t)	0.9

**Koyo Electronics Industries Co., Ltd.**

Classification		Volume	
INPUT	Energy Consumption (GJ)	32,552	
	Water consumed (km <sup>3</sup> )	9.4	
	Chemical substances handled (t)	0.8	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	1,236
		Chemical substances released (t)	0.2
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	42
	Materials Discarded	Waste output (t)	9
		Chemical substances transferred (t)	0

**Utsunomiya Kiki Co., Ltd.**

Classification		Volume	
INPUT	Energy Consumption (GJ)	142,068	
	Water consumed (km <sup>3</sup> )	71.9	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	5,314
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	3,080
	Materials Discarded	Waste output (t)	186
		Chemical substances transferred (t)	0

**HOUKO Co., Ltd.**

Classification		Volume	
INPUT	Energy Consumption (GJ)	35,725	
	Water consumed (km <sup>3</sup> )	3.8	
	Chemical substances handled (t)	7.8	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	1,432
		Chemical substances released (t)	7.8
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	187
	Materials Discarded	Waste output (t)	35
		Chemical substances transferred (t)	0

**Toyoda Van Moppes Ltd.**

Classification		Volume	
INPUT	Energy Consumption (GJ)	26,286	
	Water consumed (km <sup>3</sup> )	6.5	
	Chemical substances handled (t)	2.8	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	981
		Chemical substances released (t)	2.5
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	124
	Materials Discarded	Waste output (t)	83
		Chemical substances transferred (t)	0

**FORMICS Co., Ltd.**

Classification		Volume	
INPUT	Energy Consumption (GJ)	11,829	
	Water consumed (km <sup>3</sup> )	1.3	
	Chemical substances handled (t)	1.1	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	485
		Chemical substances released (t)	1.1
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	529
	Materials Discarded	Waste output (t)	27
		Chemical substances transferred (t)	0

**Tokio Seiko Corporation**

Classification		Volume	
INPUT	Energy Consumption (GJ)	22,508	
	Water consumed (km <sup>3</sup> )	1.5	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	869
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	722
	Materials Discarded	Waste output (t)	5
		Chemical substances transferred (t)	0

**JTEKT YAMAGATA Corporation**

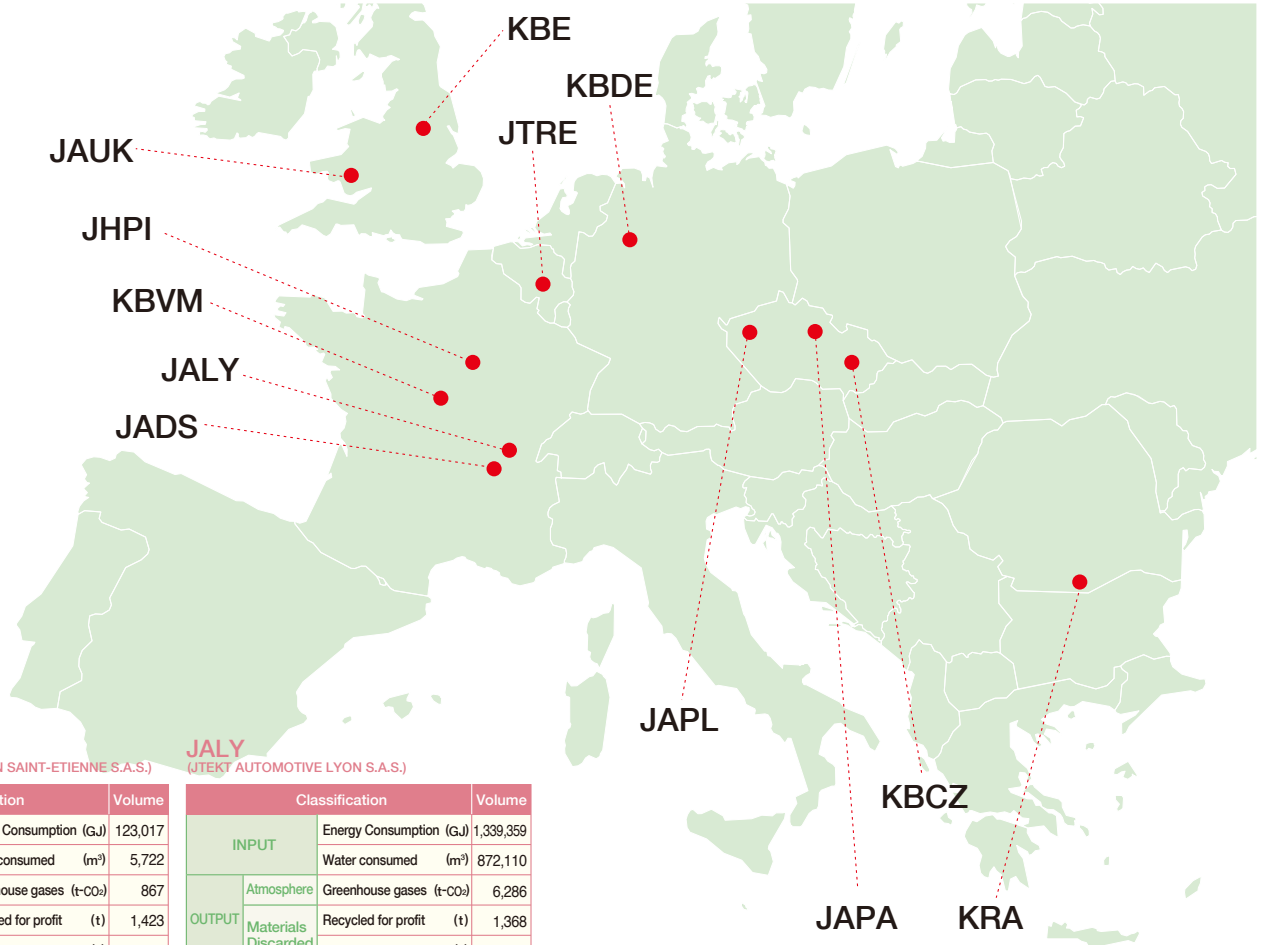
Classification		Volume	
INPUT	Energy Consumption (GJ)	6,501	
	Water consumed (km <sup>3</sup> )	0.4	
	Chemical substances handled (t)	0	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	252
		Chemical substances released (t)	0
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	0
	Materials Discarded	Waste output (t)	10
		Chemical substances transferred (t)	0

**Domestic group Total**

Classification		Volume	
INPUT	Energy Consumption (GJ)	2,957,438	
	Water consumed (km <sup>3</sup> )	647	
	Per base unit (km <sup>3</sup> /100 million yen)	0.64	
	Chemical substances handled (t)	52	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	117,083
		Per base unit (t-CO <sub>2</sub> /100 million yen)	114.9
		Chemical substances released (t)	49
	Public water area	Chemical substances transferred (t)	0
		Recycled for profit (t)	42,989
	Materials Discarded	Waste output (t)	5,223
		Basic emissions unit (t/100 million yen)	47.3
		Chemical substances transferred (t)	2.5

\* Emissions = Amount of recyclables sold + amount of waste disposed  
 \* Includes chemical substances subject to PRTR which have a handling amount of 1000 kg/year or more.

# Global business sites [Europe]



**JADS**  
(JTEKT AUTOMOTIVE DIJON SAINT-ETIENNE S.A.S.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	123,017	
	Water consumed (m³)	5,722	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 867	
	Materials Discarded	Recycled for profit (t)	1,423
		Waste output (t)	0

**JALY**  
(JTEKT AUTOMOTIVE LYON S.A.S.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	1,339,359	
	Water consumed (m³)	872,110	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 6,286	
	Materials Discarded	Recycled for profit (t)	1,368
		Waste output (t)	2,057

**JHPI**  
(JTEKT HPI S.A.S.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	78,070	
	Water consumed (m³)	4,330	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 444	
	Materials Discarded	Recycled for profit (t)	178
		Waste output (t)	198

**JAUUK**  
(JTEKT AUTOMOTIVE UK LTD.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	27,922	
	Water consumed (m³)	1,485	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 1,412	
	Materials Discarded	Recycled for profit (t)	442
		Waste output (t)	50

**KBVM**  
(KOYO BEARINGS VIERZON MAROMME SAS)

Classification		Volume	
INPUT	Energy Consumption (GJ)	133,278	
	Water consumed (m³)	17,680	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 3,194	
	Materials Discarded	Recycled for profit (t)	1,848
		Waste output (t)	1,559

**KBE**  
(KOYO BEARINGS (EUROPE) LTD.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	189,429	
	Water consumed (m³)	1,235,010	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 9,988	
	Materials Discarded	Recycled for profit (t)	2,548
		Waste output (t)	767

**JAPL**  
(JTEKT AUTOMOTIVE CZECH PLZEN,S.R.O.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	72,537	
	Water consumed (m³)	12,276	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 4,084	
	Materials Discarded	Recycled for profit (t)	612
		Waste output (t)	142

**KBCZ**  
(KOYO BEARINGS CESKA REPUBLIKA S.R.O.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	80,970	
	Water consumed (m³)	9,199	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 4,630	
	Materials Discarded	Recycled for profit (t)	480
		Waste output (t)	763

**JAPA**  
(JTEKT AUTOMOTIVE CZECH PARDUBICE, S.R.O.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	187,128	
	Water consumed (m³)	13,451	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 9,790	
	Materials Discarded	Recycled for profit (t)	323
		Waste output (t)	554

**JTRE**  
(JTEKT TORSSEN EUROPE S.A.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	64,433	
	Water consumed (m³)	3,600	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 2,366	
	Materials Discarded	Recycled for profit (t)	1,473
		Waste output (t)	550

**KRA**  
(KOYO ROMANIA S.A.)

Classification		Volume	
INPUT	Energy Consumption (GJ)	677,551	
	Water consumed (m³)	156,468	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 26,362	
	Materials Discarded	Recycled for profit (t)	11,635
		Waste output (t)	339

**KBDE**  
(KOYO BEARINGS DEUTSCHLAND GMBH)

Classification		Volume	
INPUT	Energy Consumption (GJ)	132,001	
	Water consumed (m³)	64,887	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 8,008	
	Materials Discarded	Recycled for profit (t)	1,806
		Waste output (t)	268

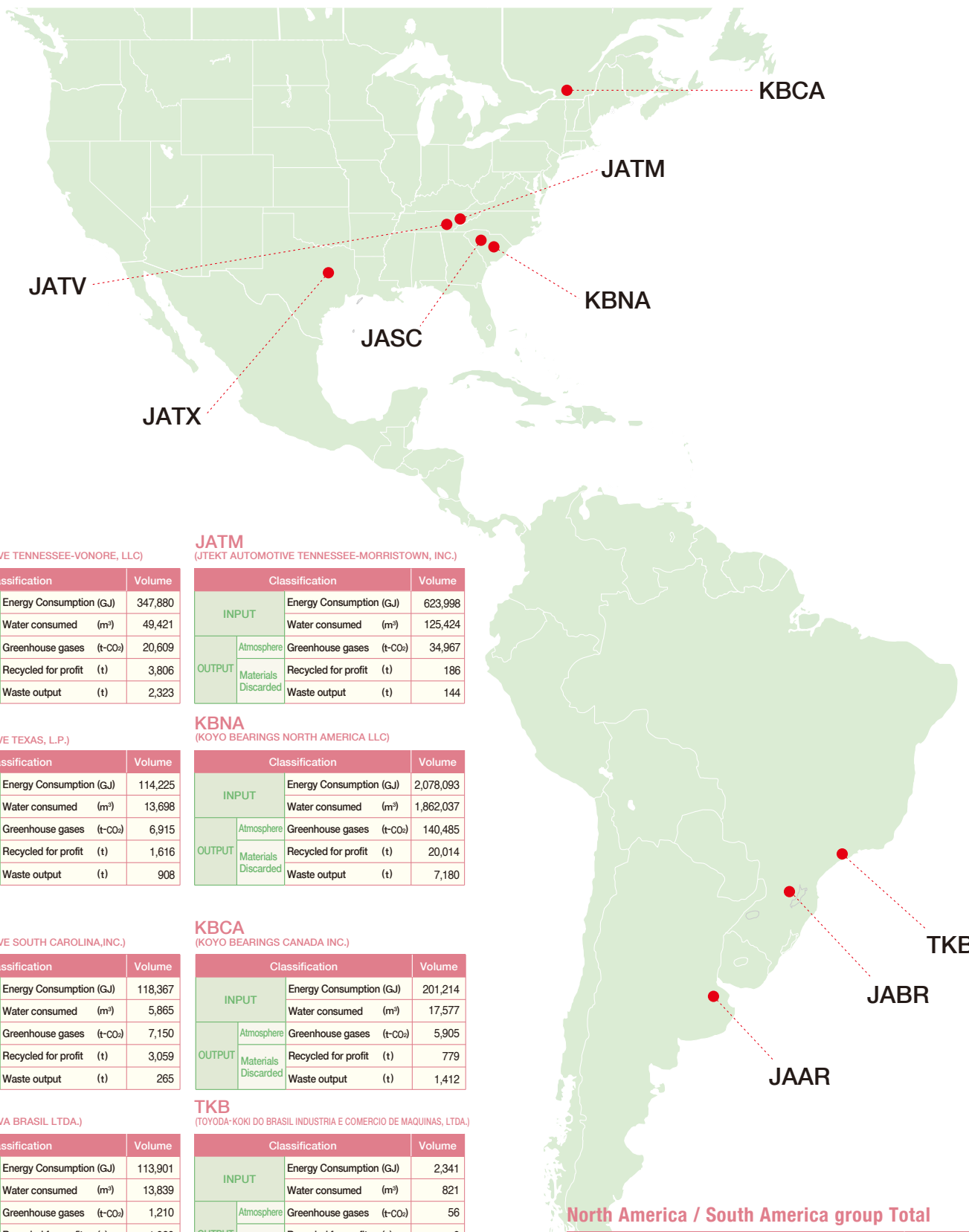
## Europe group Total

Classification		Volume	
INPUT	Energy Consumption (GJ)	3,105,694	
	Water consumed (km³)	2,396	
	Per base unit (km³/100 million yen)	1.3	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> ) 77,431	
	Materials Discarded	Per base unit (t-CO <sub>2</sub> /100 million yen)	41.1
		Recycled for profit (t)	24,136
Materials Discarded	Waste output (t)	7,247	
	Basic emissions unit (t/100 million yen)	16.6	

\* Emissions = Amount of recyclables sold + amount of waste disposed



# Global business sites [North America/South America]



**JATV**  
(JTEKT AUTOMOTIVE TENNESSEE-VONORE, LLC)

Classification		Volume
INPUT	Energy Consumption (GJ)	347,880
	Water consumed (m <sup>3</sup> )	49,421
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	20,609
	Materials Recycled for profit (t)	3,806
	Discarded Waste output (t)	2,323

**JATM**  
(JTEKT AUTOMOTIVE TENNESSEE-MORRISTOWN, INC.)

Classification		Volume
INPUT	Energy Consumption (GJ)	623,998
	Water consumed (m <sup>3</sup> )	125,424
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	34,967
	Materials Recycled for profit (t)	186
	Discarded Waste output (t)	144

**JATX**  
(JTEKT AUTOMOTIVE TEXAS, L.P.)

Classification		Volume
INPUT	Energy Consumption (GJ)	114,225
	Water consumed (m <sup>3</sup> )	13,698
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	6,915
	Materials Recycled for profit (t)	1,616
	Discarded Waste output (t)	908

**KBNA**  
(KOYO BEARINGS NORTH AMERICA LLC)

Classification		Volume
INPUT	Energy Consumption (GJ)	2,078,093
	Water consumed (m <sup>3</sup> )	1,862,037
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	140,485
	Materials Recycled for profit (t)	20,014
	Discarded Waste output (t)	7,180

**JASC**  
(JTEKT AUTOMOTIVE SOUTH CAROLINA, INC.)

Classification		Volume
INPUT	Energy Consumption (GJ)	118,367
	Water consumed (m <sup>3</sup> )	5,865
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	7,150
	Materials Recycled for profit (t)	3,059
	Discarded Waste output (t)	265

**KBCA**  
(KOYO BEARINGS CANADA INC.)

Classification		Volume
INPUT	Energy Consumption (GJ)	201,214
	Water consumed (m <sup>3</sup> )	17,577
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	5,905
	Materials Recycled for profit (t)	779
	Discarded Waste output (t)	1,412

**JABR**  
(JTEKT AUTOMOTIVA BRASIL LTDA.)

Classification		Volume
INPUT	Energy Consumption (GJ)	113,901
	Water consumed (m <sup>3</sup> )	13,839
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	1,210
	Materials Recycled for profit (t)	1,060
	Discarded Waste output (t)	448

**TKB**  
(TOYODA-KOKI DO BRASIL INDUSTRIA E COMERCIO DE MAQUINAS, LTDA.)

Classification		Volume
INPUT	Energy Consumption (GJ)	2,341
	Water consumed (m <sup>3</sup> )	821
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	56
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	36

**JAAR**  
(JTEKT AUTOMOTIVE ARGENTINA S.A.)

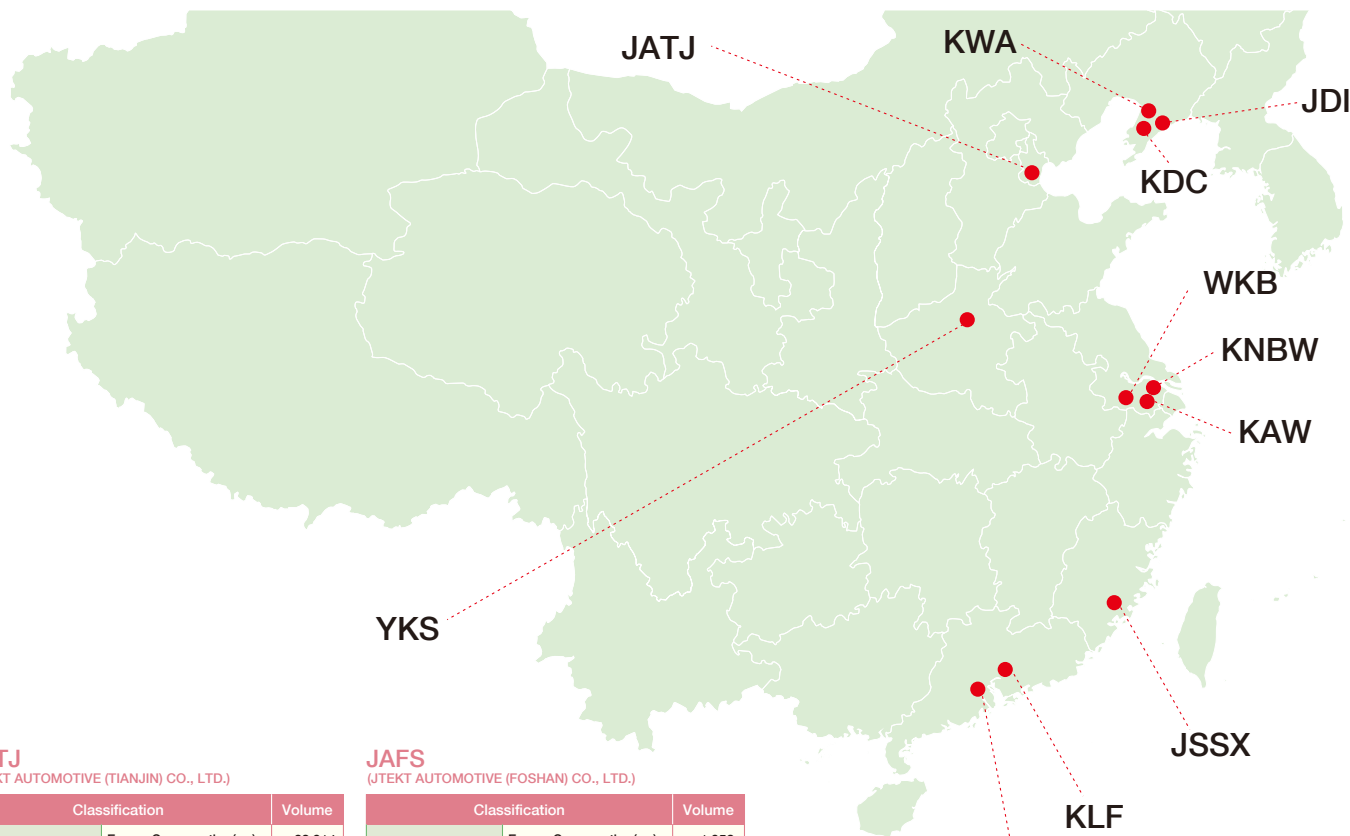
Classification		Volume
INPUT	Energy Consumption (GJ)	23,319
	Water consumed (m <sup>3</sup> )	0
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	755
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	0

## North America / South America group Total

Classification		Volume
INPUT	Energy Consumption (GJ)	3,623,338
	Water consumed (km <sup>3</sup> )	2,089
	Per base unit (km <sup>3</sup> /100 million yen)	0.9
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	218,052
	Per base unit (t-CO <sub>2</sub> /100 million yen)	91.7
	Materials Recycled for profit (t)	30,518
	Discarded Waste output (t)	12,716
	Basic emissions unit (t/100 million yen)	18.2

\* Emissions = Amount of recyclables sold + amount of waste disposed

# Global business sites [China]



**JATJ**  
(JTEKT AUTOMOTIVE (TIANJIN) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	23,814
	Water consumed (m³)	9,520
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	1,715
	Materials Recycled for profit (t)	309
	Discarded Waste output (t)	33

**JAFS**  
(JTEKT AUTOMOTIVE (FOSHAN) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	1,852
	Water consumed (m³)	2,414
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	137
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	0

**JSSX**  
(JTEKT STEERING SYSTEMS (XIAMEN) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	71,706
	Water consumed (m³)	28,069
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	5,322
	Materials Recycled for profit (t)	358
	Discarded Waste output (t)	12

**WKB**  
(WUXI KOYO BEARING CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	41,082
	Water consumed (m³)	10,750
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	3,032
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	96

**KNBW**  
(KOYO NEEDLE BEARINGS (WUXI) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption (GJ)	85,356
	Water consumed (m³)	22,020
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	6,324
	Materials Recycled for profit (t)	57
	Discarded Waste output (t)	261

**KWA**  
(DALIAN KOYO WAZHOU AUTOMOBILE BEARING CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	47,511
	Water consumed (m³)	11,426
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	3,512
	Materials Recycled for profit (t)	152
	Discarded Waste output (t)	653

**KDC**  
(KOYO BEARING DALIAN CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	80,301
	Water consumed (m³)	21,202
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	5,948
	Materials Recycled for profit (t)	0
	Discarded Waste output (t)	137

**KLF**  
(KOYO LIHO (FOSHAN) AUTOMOTIVE PARTS CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	158,334
	Water consumed (m³)	48,654
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	11,722
	Materials Recycled for profit (t)	3,052
	Discarded Waste output (t)	3,144

**KAW**  
(KOYO AUTOMOTIVE PARTS (WUXI) CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	161,456
	Water consumed (m³)	25,109
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	11,757
	Materials Recycled for profit (t)	155
	Discarded Waste output (t)	269

**JDI**  
(JTEKT DALIAN INNOVATION AUTOMOTIVE CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	14,149
	Water consumed (m³)	10,209
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	1,050
	Materials Recycled for profit (t)	839
	Discarded Waste output (t)	10

**YKS**  
(YUBEI KOYO STEERING SYSTEMS CO., LTD.)

Classification		Volume
INPUT	Energy Consumption(GJ)	60,180
	Water consumed (m³)	44,251
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	4,456
	Materials Recycled for profit (t)	242
	Discarded Waste output (t)	79

## China group Total

Classification		Volume
INPUT	Energy Consumption (GJ)	745,740
	Water consumed (km³)	234
	Per base unit (km³/100 million yen)	0.32
OUTPUT	Atmosphere Greenhouse gases (t-CO <sub>2</sub> )	54,976
	Per base unit (t-CO <sub>2</sub> /100 million yen)	75.2
	Materials Recycled for profit (t)	5,163
	Discarded Waste output (t)	4,696
	Basic emissions unit (t/100 million yen)	13.5

\* Emissions = Amount of recyclables sold + amount of waste disposed

# Global business sites [Asia/Oceania]



**JTC**  
(JTEKT (THAILAND) CO.,LTD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	610,109	
	Water consumed (m³)	99,561	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	34,412
	Materials Discarded	Recycled for profit (t)	2,013
		Waste output (t)	3,151

**JATH**  
(JTEKT AUTOMOTIVE (THAILAND) CO.,LTD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	275,756	
	Water consumed (m³)	90,314	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	15,556
	Materials Discarded	Recycled for profit (t)	5,158
		Waste output (t)	1,562

**JAMY**  
(JTEKT AUTOMOTIVE (MALAYSIA) SDN. BHD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	83,406	
	Water consumed (m³)	13,096	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	4,524
	Materials Discarded	Recycled for profit (t)	0
		Waste output (t)	374

**JSAI**  
(JTEKT SONA AUTOMOTIVE INDIA LTD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	37,505	
	Water consumed (m³)	17,597	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	3,378
	Materials Discarded	Recycled for profit (t)	12
		Waste output (t)	7

**KMP**  
(KOYO MANUFACTURING (PHILIPPINES) CORPORATION)

Classification		Volume	
INPUT	Energy Consumption(GJ)	94,324	
	Water consumed (m³)	22,203	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	5,019
	Materials Discarded	Recycled for profit (t)	105
		Waste output (t)	153

**KJKC**  
(KOYO JICO KOREA CO., LTD.)

Classification		Volume	
INPUT	Energy Consumption(GJ)	20,035	
	Water consumed (m³)	1,946	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	1,013
	Materials Discarded	Recycled for profit (t)	17
		Waste output (t)	110

## Asia/Oceania group Total

Classification		Volume	
INPUT	Energy Consumption (GJ)	1,121,136	
	Water consumed (km³)	245	
	Per base unit (km³/100 million yen)	0.27	
OUTPUT	Atmosphere	Greenhouse gases (t-CO <sub>2</sub> )	63,903
		Per base unit (t-CO <sub>2</sub> /100 million yen)	69.2
	Materials Discarded	Recycled for profit (t)	7,306
		Waste output (t)	5,357
		Basic emissions unit (t/100 million yen)	13.7

\* Emissions = Amount of recyclables sold + amount of waste disposed



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