

CSR Report 2018



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Editorial Policy

The NSK Group carries out a variety of governance, social, and environmental initiatives to do its part in creating a sustainable society. We produce the CSR Report to explain these initiatives in detail. With this report, care was taken to facilitate understanding of the overall picture and progress of each initiative by including the policy, structure, targets and performance, the activities in fiscal 2017, and data measuring progress.

Scope of Coverage

- **Period of Coverage**
Primarily fiscal 2017 (April 1, 2017 to March 31, 2018). Activities conducted outside this period are indicated with the inclusion of a date.
- **Organizations Covered**
NSK Ltd. and its consolidated subsidiaries (90 companies in all). Affiliates accounted for using the equity method (17 companies).
- **Scope of Performance Data**
All sites in the NSK Group. The scope is indicated separately for information with a different scope.
- **Reporting Cycle**
Published annually.
- **Date Published**
February 2019

Reference Guidelines

Global Reporting Initiative Standards by the Global Reporting Initiative (GRI)
 ISO 26000: 2010 *Guidance on Social Responsibility* by the International Organization for Standardization (ISO)
Environmental Reporting Guidelines (2012 edition) by the Ministry of the Environment of Japan

Third-Party Assurance/Verification

In order to improve the reliability of this report, we received third-party assurance of fiscal 2017 performance in social, and environmental areas. We received third-party assurance of the lost-worktime injury rate from Sustainability Accounting Co., Ltd. In addition, we also received third-party verification of emissions of greenhouse gases, energy use, water withdrawal, total waste, and VOC emissions from the Japan Quality Assurance Organization.

Related Methods of Disclosure

See the *NSK Report 2018* and NSK's website for financial and non-financial information about the NSK Group.



NSK Report 2018



NSK's website
<http://www.nsk.com/>



About the NSK Group

Since producing the first bearings in Japan in 1916, NSK has helped drive global industrial development for more than a century by creating and supplying many types of bearings, automotive parts, precision machinery/components, and other products. Our products are hard at work around the world, and their high performance and high quality has made NSK a trusted brand. At NSK, we are determined to keep contributing to a safer, smoother society by supplying products that reduce energy loss by controlling friction with our Motion & Control™ technologies, as reflected in our Mission Statement, which serves as the foundation of all of our business activities.

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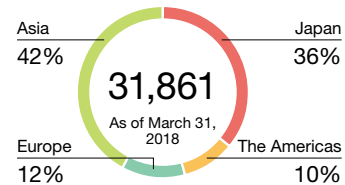
The NSK Group's Business and Company Overview

Company Overview As of March 31, 2018

Company Name	NSK Ltd.
Established	November 8, 1916
Capital	67.2 billion yen
Group Companies	Within Japan: 19 Outside Japan: 71
Head Office	Nissei Bldg., 1-6-3 Ohsaki, Shinagawa-ku, Tokyo 141-8560, Japan
Number of Employees (Consolidated)	31,861

Breakdown of Employees by Region (Consolidated)

* Excluding temporary employees.

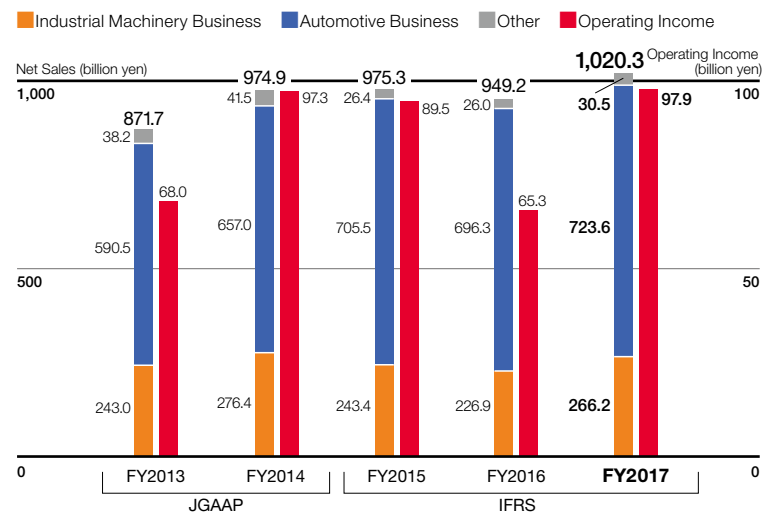


Financial Highlights (International Financial Reporting Standards [IFRS]) FY2017

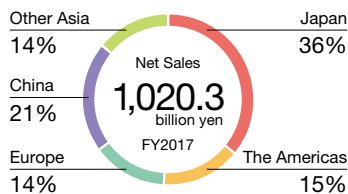
Net Sales	1,020.3 billion yen
Operating Income	97.9 billion yen
Capital Expenditures	68.8 billion yen
R&D Expenses	17.1 billion yen
Total Assets	1,092.3 billion yen

Net Sales / Operating Income (Consolidated)

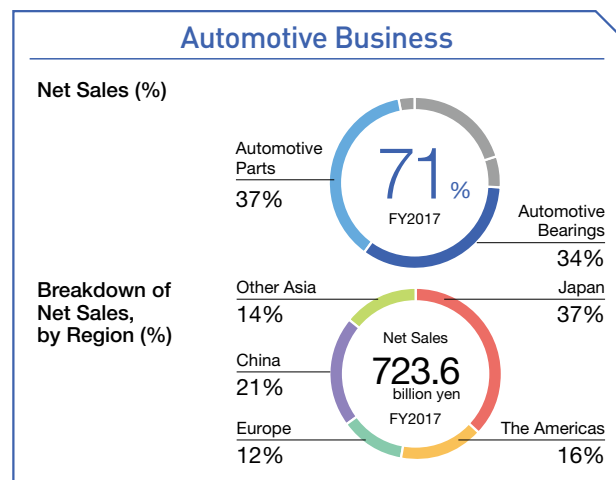
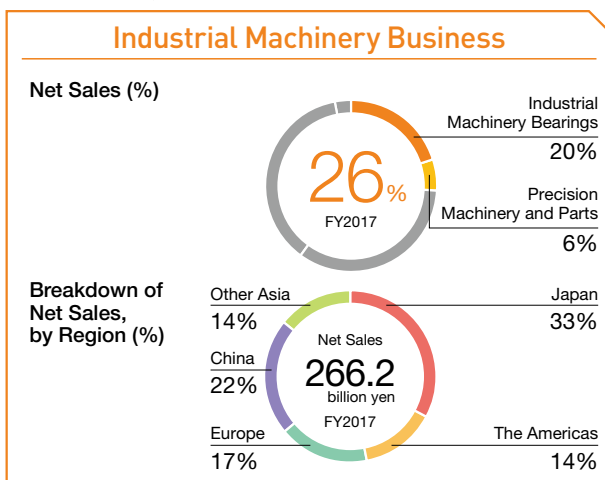
Note: Part of industrial machinery business operations were transferred to the automotive business in FY2016. Accordingly, figures for FY2015 and price have been reclassified to match current segments.



Breakdown of Net Sales by Region (Based on customer location)



Business Segments



Reference data is available on our website.

www.nsk.com > Investors > Financial Information

Financial Highlights

NSK Group Businesses



Industrial Machinery Business

This business includes the two fields of Industrial Machinery Bearings, which boast a wide range of sizes from the ultra small with an outer diameter of 2 mm, to the ultra large exceeding 6 m, and Precision Machinery and Parts, which consists of ball screws, linear guides, and mechatronic products.



Automotive Business

This business includes the two fields of Automotive Bearings such as needle bearings and hub unit bearings, which facilitate smooth motion in automotive engines and wheels, and Automotive Components, such as electric power steering (EPS) and automatic transmissions (AT).



Industrial Machinery Bearings

Bearings are essential components in the rotating parts of machinery products. Bearings reduce energy loss caused by friction and enable smooth rotation. The NSK Group's bearings are used in a wide range of products and machines from everyday home appliances to railway vehicles, wind turbines for power generation, large industrial machinery, as well as airplanes, and satellites.



Wheelset bearing used in TGV trains



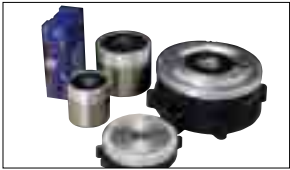
Angular Contact Ball Bearing Used New Cage "SURSAVE™" for Main Spindle of Machine Tools

Precision Machinery and Parts

The high quality and reliability of the NSK Group's precision machinery and parts are based on the precision machining technology we have developed for manufacturing bearings. Bearings are the core components of machines essential for manufacturing machine tools and industrial robots used to manufacture mobile phones, automobiles, and other products. They are also found in injection molding machines that produce plastic parts and in semiconductor equipment.



High-speed low-noise ball screw



Megatorque Motor™

Automotive Bearings

Some 100 to 150 bearings are incorporated into a single automobile. The NSK Group provides numerous products that support the diverse automotive needs of society, including various bearings used in the engine, transmission, and electrical components as well as the hub unit bearings that support the axle.



High performance tapered roller hub unit bearing



Extra quality tough needle roller bearings

Automotive Components

In this field, NSK provides many of the key components that assist in forward motion, turning, and stopping in automobiles, such as steering systems that transmit the driver's movement of the steering wheel to the vehicle's wheels, and clutches that are used in automatic transmissions and hybrid systems. These products achieve lower fuel consumption and contribute to safe and comfortable driving.



Functional Safety Compliant Electric Power Steering (EPS)



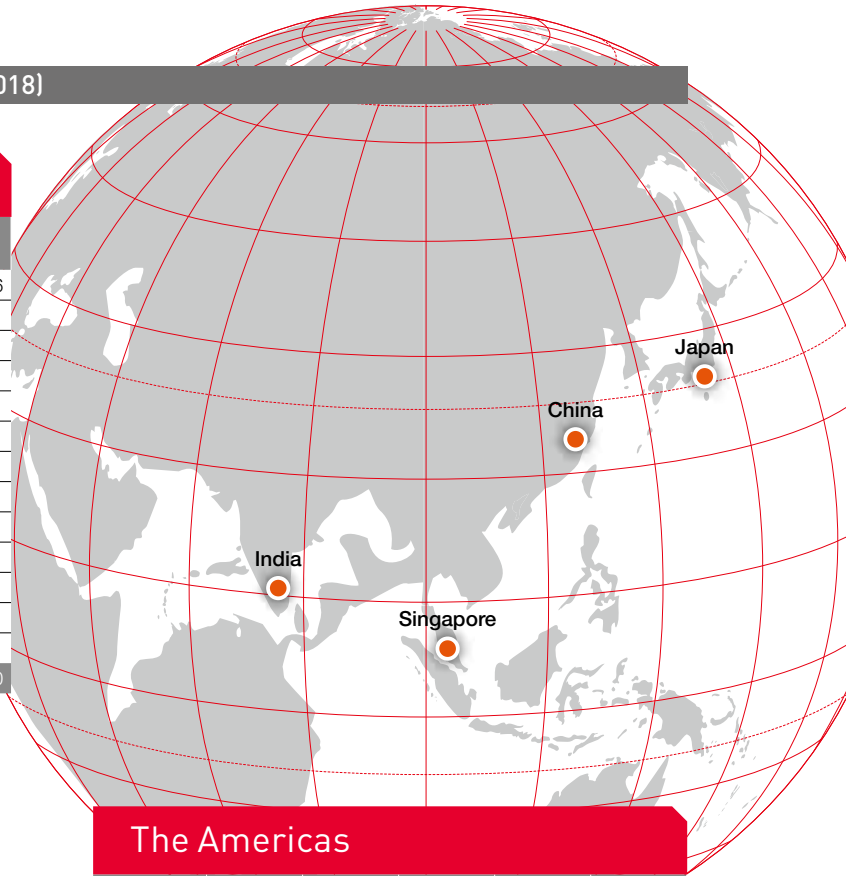
Pawl-type one-way clutch

NSK Group Sites Worldwide (as of March 31, 2018)

Asia and Oceania

Countries and regions	Headquarters	Production Sites	Sales Sites	Representative Offices	R&D Centers
Japan	1	20	31		6
China	1	12	18	1	1
Taiwan			3		
Korea		2	2		1
Singapore	1		2		
Indonesia		3	2		
Thailand		2	5		1
Malaysia		2	4		
Philippines				1	
Vietnam			1	1	
India	1	4	9		1
Australia			4		
New Zealand			1		
Sub-total	4	45	82	3	10

 Headquarters



The Americas

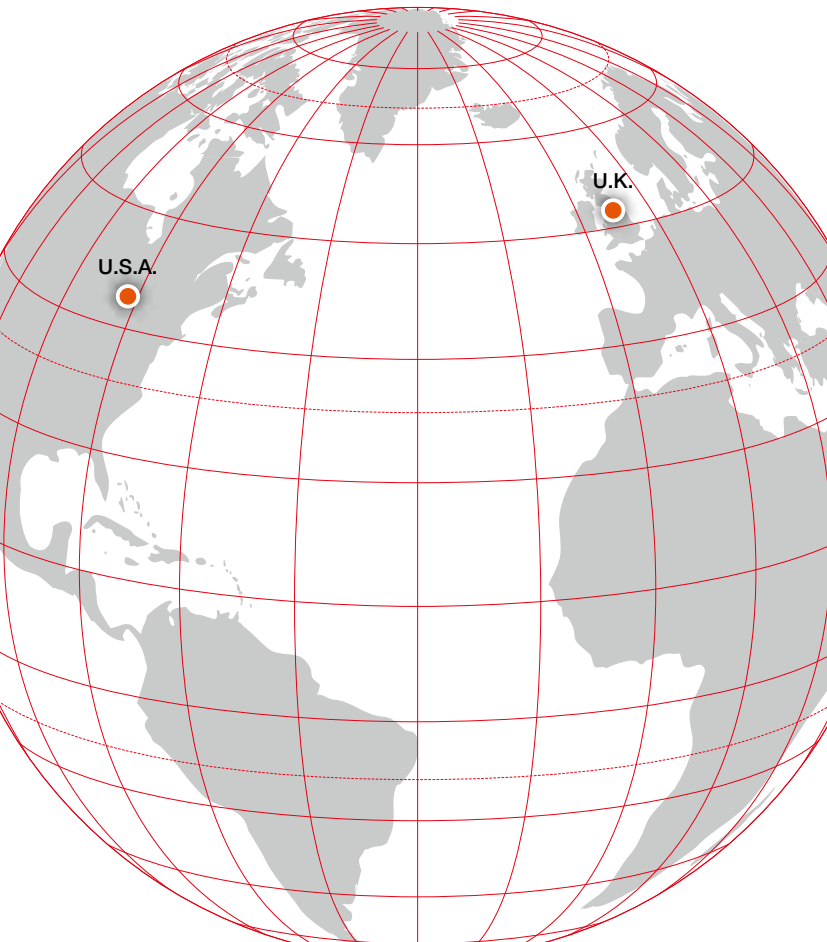
Countries and regions	Headquarters	Production Sites	Sales Sites	Representative Offices	R&D Centers
U.S.A.	1	7	9		1
Canada			3		
Mexico		2	1		
Brazil		1	5		1
Peru			1		
Argentina			1		
Sub-total	1	10	20		2

Europe, Middle East and Africa

Countries and regions	Headquarters	Production Sites	Sales Sites	Representative Offices	R&D Centers
U.K.	1	4	2		1
Germany		1	2	2	1
France			1		
Italy			1		
Netherlands			1		
Spain			1		
Poland		4	3		1
Russia			1		
Turkey			1		
United Arab Emirates			1		
South Africa			1		
Sub-total	1	9	15	2	3

Global

Global total	6	64	117	5	15
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Reference data is available on our website.

www.nsk.com > Company > Global Network

 Global Network

Recognition by Outside Agencies

Over and above their financial performance, companies that merit high evaluations for their environmental and social contributions are increasingly being recognized for their promise of long-term sustainable growth. These companies are also attracting interest from a socially responsible investment (SRI) perspective while forging an increasingly important presence among a wide range of institutional investors. Acknowledged for its integrity, NSK has been included in the following internationally recognized SRI/ESG indices as of December 2018.



- **Selected for inclusion in the Dow Jones Sustainability Indices' (DJSI) Asia Pacific Index**

NSK has been selected for inclusion in the Asia Pacific Index that covers the Asia-Pacific region of the Dow Jones Sustainability Index (DJSI), which is highly regarded as a global stock price index for socially responsible investment (SRI). The DJSI is rated based on economic, environmental, and social contribution.

<http://www.sustainability-indices.com/>



- **Selected as a component of the FTSE4Good Index and the FTSE Blossom Japan Index**

NSK has been selected as a component of the FTSE4Good Index, a global index for socially responsible investment. It has also been included in the FTSE Blossom Japan Index, which selects companies that have shown excellence in dealing with environmental, social and governance (ESG) issues for two consecutive years, since 2017.

<http://www.ftse.com/products/indices/FTSE4Good>
<http://www.ftse.com/products/indices/blossom-japan>



- **Selected as a component of the Euronext Vigeo Eiris Index – World 120**

NSK has been included in the Euronext Vigeo Eiris Index – World 120, which highlights companies that have excellent environmental, social and corporate governance records. NYSE Euronext, the world's largest securities trading group, and Vigeo Eiris, a European company that evaluates the performance of socially response companies, evaluate and select the top 120 companies.

<http://www.vigeo-eiris.com/>



- **Included in the Ethibel Sustainability Index (ESI) (Excellence Register)**

NSK has been included in the Ethibel Excellence Investment Register of the non-profit organization Forum Ethibel, which highlights companies that are high performers in the area of corporate social responsibility.

http://forumethibel.org/content/ethibel_sustainability_index.html



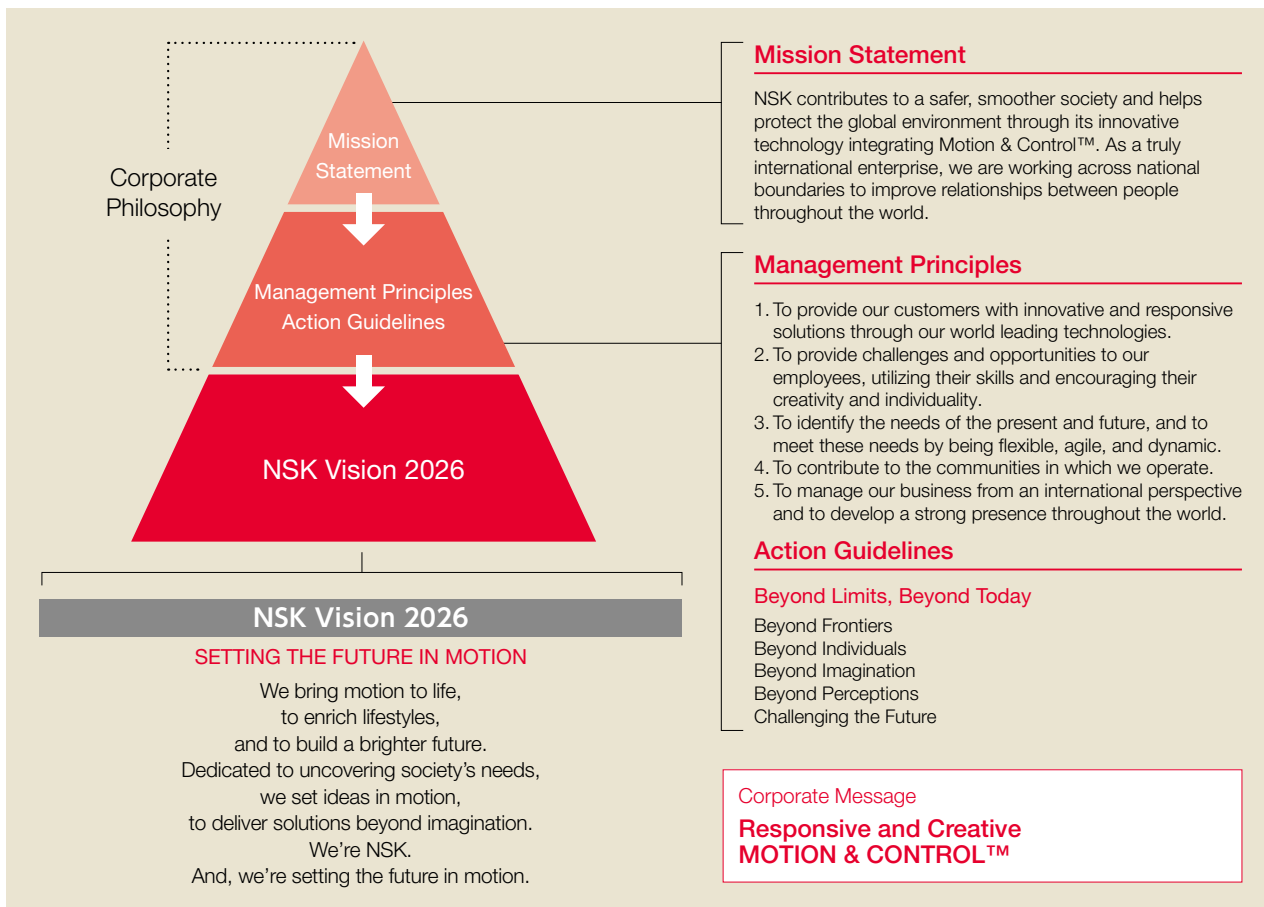
- **Selected as "Prime" by ISS-oekom research**

NSK has been rated "Prime" by ISS-oekom, an ESG evaluation organization. ISS-oekom evaluates corporate social responsibility initiatives based on evaluation items selected in the "environment" and "society" categories.

<https://www.issgovernance.com/esg/>

NSK Corporate Philosophy and NSK Vision 2026

The NSK Corporate Philosophy is comprised of four parts—the Mission Statement, Management Principles, Corporate Message, and Action Guidelines. It articulates the mindset all NSK executives and employees strive to live up to and their guiding principles for action. Moreover, NSK Vision 2026, formulated to mark the 100th anniversary of the Company's founding, expresses the vision that we aspire to achieve over the medium to long term, with 2026 as the target year. The NSK Group is committed to achieving further growth based on the NSK Corporate Philosophy and NSK Vision 2026.



Instilling Our Corporate Philosophy and Vision

NSK has adopted a variety of initiatives to increase employees' understanding of the Corporate Philosophy and NSK Vision 2026, and to ensure that these values are reflected during the course of their duties. These include visual methods such as installing posters in workplaces and distributing a handbook, called the *NSK Starter Book*, which introduces NSK's history, Corporate Philosophy, and NSK Vision 2026 and has been translated into various languages. We also show videos about the vision at "Vision Workshops" at Group sites worldwide, where employees listen to a message from our CEO, engage in group discussions about the need for the Vision while



Reference data is available on our website.

www.nsk.com > Company > Vision & Philosophy

■ Vision & Philosophy

www.nsk.com > Company > NSK VISION 2026

■ NSK VISION 2026

reflecting on their own experiences and sharing their thoughts on what the NSK of 10 years' time should look like.

In fiscal 2017, we held workshops to train facilitators in countries around the world.



Vision Workshop



Workshop to train facilitators

“SENSE OF MOTION”—Future Forum 2

As part of the NSK Vision 2026 Project, NSK launched the “SENSE OF MOTION”—Future Forum in fiscal 2016. The Future Forum seeks to build a platform to support, nurture, and connect the creators and innovators whose new ideas will shape the society of the future.

Under the theme of “Setting the Future in Motion, Setting Today in Motion,” Future Forum 2 in 2017 focused on the new relationship between technology, the individual and society and considered the new realities of today's world. The Forum featured a keynote lecture, roundtable discussion, and a chance to network with speakers who are pioneering new horizons in the fields of science and technology and manufacturing. It was attended by 264 people from inside and outside the Company.

These forums will be held annually through 2026.



“SENSE OF MOTION” logo



President Uchiyama speaks at Future Forum 2

Idea Dojo Project

NSK established the Idea Dojo Project as a means of bringing the innovative ideas of employees to life. The project solicits ideas from within the Company regardless of area or field, and the Company supports selected ideas for application to concrete projects. In fiscal 2017, the idea of “bringing smiles to the home” by developing ‘the world's best knife’ was selected. We produced a superlative kitchen knife prototype by taking advantage of our expertise in areas such as heat treatment, materials, and tribology.

Just like the “SENSE OF MOTION”—Future Forum, this project will continue through 2026.



Participants discuss new ideas



Kitchen knife produced by combining NSK technologies

Global Vision 2026 Committee

We invite leaders of our global vision teams from the Americas, Europe, ASEAN, China, South Korea, and India to Japan to report on, share, and discuss measures to promote the dissemination of the Vision in each region every six months. More measures incorporating the characteristics of each region are introduced each time, and there is a lively and passionate discussion in English, with participants referencing their home country's activities. We plan to hold meetings outside Japan in the future.

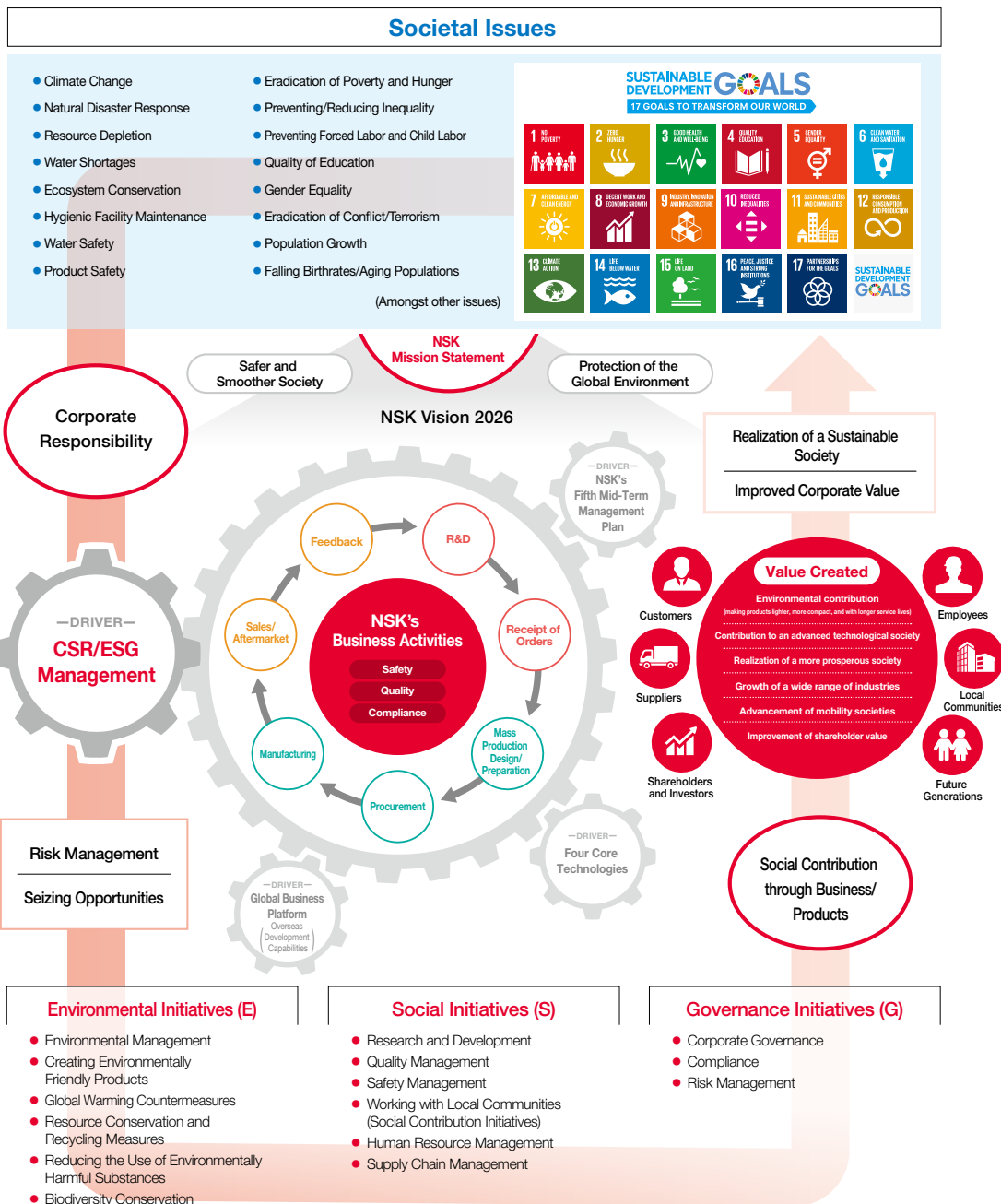


Global Vision 2026 Committee

CSR Management

Basic Approach

In order to help create a safer, smoother society and to protect the global environment, every NSK executive and employee is firmly aware of NSK's role and embraces our vision to contribute to society. Our entire team is striving to expand the reach of our businesses and make social contributions that meet stakeholder expectations. In addition, we respect and take into consideration international standards such as the SDGs adopted at the UN, which represent goals shared by the global community, and we pursue sustainable growth and corporate value creation by integrating CSR and ESG factors into management.



CSR/ESG Management Execution System

At the NSK Group, departments set up for various functions such as compliance, quality assurance, occupational safety and health, and the environment are working to improve the effectiveness of their respective activities. Further, to deliberate and make decisions on the policies of the entire Group, verify and review the progress of initiatives, and share information across departments, we have established various committees (shown below), with the President and Chief Executive Officer and directors in charge of each business division headquarters as members.

The CSR Division Headquarters works to sustainably develop NSK as a company that is trusted by society, foster a corporate culture that is aware of our corporate philosophy and corporate ethics, monitor the status of each department's and office's activities, and play a role in disseminating that information inside and outside the Company.

- **Compliance Committee***1 (P. 25 Compliance Promotion System)
- **Safety and Fire-Prevention Enhancement Committee***1 (P. 63 Organizational Structure for Occupational Health and Safety Management)
- **NSK Quality Committee***1 (PP. 39-40 Quality Management)
- **Global Environment Protection Committee***2 (P. 66 NSK Group Environmental Management Structure)

*1 The President and CEO is the committee chairperson and members include the heads of each business division headquarters.

*2 A Senior Vice President is the chairperson and members include the heads of each business division headquarters.

The Needs and Expectations of NSK's Stakeholders

NSK's business is built on relationships of trust with a wide range of stakeholders. We are contributing to a sustainable society by collaborating on a wide range of issues to create value for each stakeholder group.



Customers

NSK's products are used in a wide range of industries, including automotive, rail, and home appliance industries, as well as in steel manufacturing equipment and industrial robots. We consider our customers to include not only the machine manufacturers that purchase our products directly, but also the end users who utilize our products in the various machines produced by direct customers.

Our customers require continuous technological innovation, the development of highquality, environmentally friendly products and solutions, and stable, consistent supply all over the world.

In addition to deepening our understanding of the needs of machine manufacturers through everyday sales activities and technological exchanges, we also strive to address the expectations of end users.

Effectively incorporating direct customer and end user perspectives facilitates the development of products and services that provide real value to users and society, from environmental conservation to advanced technologies, to the realization of a safe, prosperous society for all.



Suppliers

NSK's businesses, which reach all corners of the globe, are underpinned by numerous suppliers around the world. Suppliers that support the competitiveness of our businesses through the provision of superior components and raw materials are important stakeholders. Suppliers ask for close collaboration in quality assurance and technology development and require fair transaction practices.

NSK strives to develop mutually beneficial relationships through frank and open exchange of opinions in daily procurement activities and mutual improvement initiatives. For example, NSK works with suppliers to raise the level of quality assurance, to develop new technologies, to protect the environment, and to ensure that human rights are fully respected. These sincere efforts are essential for environmental conservation and mutual prosperity along the entire global supply chain.



Shareholders and Investors

As providers of financial capital, shareholders and investors are important stakeholders who play a critical role in supporting NSK's growth and monitoring company management. Our shareholders expect us to realize a positive return on investment through sustainable growth, and also demand ESG management initiatives that emphasize maintaining a harmonious balance between society and the environment.

NSK aims to grasp and meet the expectations of shareholders and investors through sincere efforts to maintain a constructive dialogue and further increase the soundness and transparency of company management.



Employees

The value created by NSK, including advanced technology and world class products, is driven by a diverse team of employees working all over the world. Our employees are important stakeholders, and we strive to develop vibrant, motivating workplaces to fully enable each employee's potential.

In addition to fostering creativity and individuality, NSK is working to revitalize a constructive labormanagement dialogue, employee communications, and exchanges with external stakeholders. Through these efforts, NSK aims to raise the awareness of each employee to promote the creation of open, transparent workplaces that enable employees to set the future in motion and increase corporate value.



Local Communities

NSK's globally expanding business depends on building harmonious relationships with local communities, and fulfilling our corporate responsibility to contribute to the development of those communities.

NSK aims to grow as a company that is needed, loved, and respected by communities around the world. We strive to respect cultures, customs, and needs by engaging, communicating, and working closely with each community to achieve mutually beneficial development and the protection of local environments.



Future Generations

Realizing a prosperous society that will last long into the future is indispensable not only for NSK but also for the growth and development of society as a whole. Future generations, which will be responsible for shaping future society, are important NSK stakeholders.

To support the healthy development of future generations, we conduct science classes, offer internships, and provide scholarships as efforts geared toward long term growth. Through these activities, we aim to realize a prosperous society for the future by not only conveying the enjoyment and importance of *monozukuri* to children and students but also by developing future generations of human resources.

NSK's SDG Initiatives

At NSK, we clearly avow in our Mission Statement that “creating a safer and smoother society” and “protecting the global environment” are integral to all of our operations. The NSK Group’s development and production of environmentally friendly products that contribute to sophisticated, high-quality products and save energy—and the global reach of these products—demonstrate our deep commitment to helping to achieve the targets of the SDGs. Our social contribution activities also further progress toward the SDGs. For instance, in order to develop the next generation we provide funds to the NSK Foundation for Advancement of Mechatronics, which sponsors children’s science classes and engineers’ research, as well as establishing the NSK Scholarship Foundation.

In promoting these SDG initiatives, it is important that each employee be aware of NSK’s existential value to society and deepen their understanding of the SDGs. This is why we are working hard to promote employee understanding, including displaying SDG posters in the workplace and introducing the SDGs on our intranet.

Initiatives to Promote Understanding of the SDGs

- Messages from senior management
- Overview of SDGs on company intranet
- SDG posters (at all business sites in Japan)
- SDG topic stickers placed around relevant facilities
- Employee briefings

We will continue to carry out activities that promote understanding of the SDGs and set more concrete goals and initiatives linked to the Sixth Mid-Term Management Plan, which will start in fiscal 2019.





Message from the President

Aiming to build a more sustainable world and grow as a company by meeting the expectations of the world

Toshihiro Uchiyama
President and CEO

Social Changes and Value Creation

The development and commercialization of AI and IoT and the acceleration of the global push toward a low-carbon or even decarbonized society have been faster than expected and the impact has been enormous. Amid a wave of dynamic technological innovation, customers expect ever more diverse contributions from the NSK Group. They are looking for improved product performance, solutions to technical problems, and new services, and we understand that we must respond with greater speed than ever before. We will strive to anticipate the unmet needs of end users—the consumers who actually use the durable goods and the operators who use the machines containing NSK products. With an open imagination and a firm focus on the future of society, we will seize the initiative to deliver innovative technological and business solutions to our customers.

In the Automotive Business, we aim to seize new opportunities in what is being dubbed a “once-in-a-century” technological evolution, including electric vehicles (EVs), electrification, and autonomous driving. Meanwhile, in the Industrial Machinery business, we will work to respond to customer needs for stable operation and component life prediction, which will be required as IoT technology advances.

To achieve this, we are working to transform the mindset of our employees. I always stress to our people the importance of stepping outside the company and experiencing the world firsthand. There is a limit to the knowledge and information one can obtain within the confines of one company. Only by stepping out into the real world can a person truly sense the breakneck speed of the change and evolution taking place. It quickly becomes evident that we, at NSK, will need to use our imagination and creativity to kick it into high gear. Whether test driving an electric car, trying out a high-end appliance, or going to an open cut coal or metal ore mine and observing the systems

by which the minerals are transported, it is always important to identify the present reality firsthand and envision the range of unmet needs that might exist.

At the corporate level, we are also working to accelerate our decision-making processes in order to keep pace with the changing world around us. I have been emphasizing to our employees that we must review and optimize our internal systems, the way we structure and run our meetings, and the reports and other documents we produce. We must not fear change, and if necessary we should even be prepared to do away with long-standing ways of working. We have always valued dialogue between NSK Group management and employees, but today we are looking to create even more opportunities for open discussion. By further enhancing interaction with employees, we aim to manage the Company in a way that resonates with all who work there.

The UN Sustainable Development Goals (SDGs) and NSK's Role

The NSK Mission Statement avows that NSK will contribute to a safer, smoother society and protect the global environment through its innovative technology integrating Motion & Control™, as well as work across national boundaries to improve relationships between people throughout the world. Although the 17 sustainable development goals adopted at the United Nations are not explicitly linked to NSK's business activities, several are deeply related to our operations and we have opportunities to contribute proactively.

We have already taken steps to educate our employees about the SDGs. Now, we are internally discussing the connections between our business and the 17 SDGs. Via this discussion, we will define our goals and targets, and we will present them in the next Mid-Term Management Plan, which starts in fiscal 2019. Fundamentally, our key initiatives to maximize NSK's environmental contributions through our core products and services and to minimize our environmental impact in manufacturing will remain unchanged. These commitments are related to the SDGs of "Affordable and Clean Energy" and "Responsible Consumption and Production."

Bearings, NSK's mainstay product, reduce friction, and our Electric Power Steering (EPS) products help improve fuel efficiency. Leveraging our areas of expertise, we help customers save energy and resources by continually raising the environmental efficiency of our products—for example, by reducing friction loss, reducing size and extending product life. We will look for ways to help people understand our efforts, such as producing indices that persuasively demonstrate how much NSK products contribute to environment conservation.

On the manufacturing side, we have shifted the heat treatment method we use to increase bearing durability from the conventional heating method, which uses gas and oil, to a method called induction high-frequency heat treatment, which uses electricity. The new method allows us to reduce energy consumption by optimally heating each part. In addition, we will strive to raise energy efficiency and productivity by reexamining how components are designed and made, reducing wasteful resources, upgrading aging equipment, and comprehensively incorporating the latest energy-saving technologies. I am committed to ensuring that NSK does all it can to adopt the best technologies. One other initiative is the development of smart factories in both our automotive and industrial businesses. In this area, we are building next-generation manufacturing systems, and we expect to save significant amounts of space, energy, and manpower by utilizing non-stop production lines with automatic retooling. We are also installing automated guided vehicles and taking noise and oil mist* prevention measures. This will not only improve efficiency, but also make the plant floor even safer and more comfortable for our employees. Our second Korea plant, which opened last year, features all of these new technologies.

When it comes to the SDG of "Quality Education," NSK holds events such as science classes for children at the Science Museum in Tokyo and at our facilities. There is great significance in teaching children the principle of "friction" and how we help make machines run smoothly, thereby getting them interested in science and mechanics. To assist women in college who are interested in the science and engineering fields in selecting a rewarding career path, we have held hands-on engineer training events to give them an experience of manufacturing work, and we are also training women in the workplace to be the leaders of the future.

We also established the NSK Scholarship Foundation as part of events to commemorate our 100th anniversary, and began extending support to both Japanese and overseas students studying outside their home countries. The number of Japanese students studying abroad has been decreasing in recent years. I hope the Foundation can help stop this trend by encouraging Japanese students to think from a global perspective and tackle the challenges facing the world, such as hunger, conflict, and climate change. I also hope the Foundation can increase the number of students from abroad who want to learn about technology and culture in Japan and help solve the problems their home country faces. The Foundation also proactively promotes exchanges between Japan and other countries, extending support to Japanese students studying overseas as well as international students studying in Japan.

* Oil mist: Lubricating oil and machining oil used for machine tools that disperses in the air as particles of mist during machine operation.

Moving Toward Greater Diversity and Inclusion

Conventional ways of working no longer produce the results they did in the past. This trend is only going to accelerate in the future. In such an age, homogeneous organizations comprised of members with a single mindset and background who rely only on past precedents in their decision-making will be unable to keep pace with today's changing world. We know how important it is for our people to consider the future in a flexible and agile manner and from a variety of perspectives—this is why diversity among the people who make up our teams and larger organization is so important. In order to drive change and innovation, we are bringing together team members from a variety of backgrounds—including gender, age, and nationality—to share their perspectives. Diversity and inclusion is the source of the competitiveness that will power NSK's future. Although I am well aware that diversity is about more than just gender, it is telling that one of our plants in China where 40% of employees and managers—including the plant manager—are women has significantly outperformed all other plants in the country in terms of quality and safety performance. In addition to combating noise to create a safer and more pleasant workplace environment, the plant has a gym where employees can work out to maintain their health. While a higher ratio of women in the workforce itself does not necessarily lead to higher performance in all situations, I do believe that incorporating a variety of perspectives can help drive new reforms and lead to positive outcomes. Providing a workplace environment where women can work to their full potential is a key management issue for NSK, particularly in Japan, where we are deploying a range of measures, including greater career support for women and expanding the areas of the business where they play an active role.

NSK is also promoting diversity in other areas, including working to globalize our headquarters in Japan, introducing programs that give employees more flexibility to provide care for aging family members, and responding to LGBT issues. Furthermore, it is important to build a workplace environment that is not only diverse but also multicultural—where each and every person at the NSK Group can function at their full capacity. We are also promoting diversity in the form of globalization in our training programs. Since 2011 we have operated the NSK Global Management College on an annual basis. In this program, talented young leaders from each region are selected to take part in global management training to prepare them as candidates for future global management roles.

Uniting the NSK Group in One Direction




As the business environment becomes increasingly complex, the responsibilities of and expectations placed on companies are becoming more diverse. In order for NSK to contribute to sustainable global growth together with our stakeholders through our business activities, we must continue to be a company that is needed by society. Uniting NSK's diverse team in one direction, we will strive to continue growing as a company while contributing to society by generating value that not only meets the needs of the times but constantly exceeds expectations.

Fiscal 2017 CSR Activity Performance and Fiscal 2018 Targets

Category		FY2017 target
Governance (Management Structure Supporting Sustainable Growth)		
Corporate Governance	Strengthening of corporate governance	<ul style="list-style-type: none"> Continue to strengthen the corporate governance structure
	Development of group crisis management systems	<ul style="list-style-type: none"> Continue to instill management cycles
	Disaster preparedness	<ul style="list-style-type: none"> Measures for large-scale disasters in Japan: Prepare for disasters such as wind and flood damage, and new infectious diseases Measures for disaster risks outside Japan: Implement measures to minimize damage from severe disaster risks
Risk Management		<ul style="list-style-type: none"> Continue to develop replacements for parts
	Measures against procurement risk	<ul style="list-style-type: none"> Continue to visualize global supply chain data and continue improving accuracy Continue conducting drills to confirm the safety of suppliers Continue to expand BCP measures to suppliers
Compliance		<ul style="list-style-type: none"> Continue awareness building to prevent the anti-competitive incident from fading from memory
	Strengthening of compliance	<ul style="list-style-type: none"> Establish a compliance culture through activities to instill corporate philosophy Strengthen activities to improve compliance awareness at Group companies Expand the scope of persons included in the compliance awareness survey in regions outside Japan
	Promotion of CSR procurement	<ul style="list-style-type: none"> Continue to distribute the NSK Supplier CSR Guidelines worldwide Continue to improve activities using the NSK Supplier CSR Guidelines and the Self-Assessment Check-Sheets Continue to conduct and respond to conflict minerals surveys (supply chain surveys, response to customers' surveys)
Quality Assurance (Creating Quality that Can Be Trusted)		
Improving Quality		<ul style="list-style-type: none"> Raise the level of efforts to prevent recurrence of problems Ensure quality from the point of view of the market and customers Foresee and ameliorate latent quality risks Conduct voluntary inspections/audits that go back to basic rules Foster high-quality ethics
Good Labor Practices (Creating a Dynamic Work Environment)		
Maximizing individual talent in a fair and dynamic work environment	Leveraging a diverse workforce	<ul style="list-style-type: none"> Continue support women's careers
	Creating a motivating workplace	<ul style="list-style-type: none"> Strengthen health management (Japan) Enhance support measures for parenting and care giving (Japan)
	Providing Opportunities and Workplaces that Foster the Growth of Employees	<ul style="list-style-type: none"> Apply and share succession plans
Environment (Activities for Global Environment Protection / Environmental Action Plan)		
Environmental Management	Acquisition and maintaining of environmental management system certification	<ul style="list-style-type: none"> Maintain ISO 14001 certification at all subject sites (respond to FY2015 revisions) Obtain ISO 14001 certification within three years of starting full-scale operations at a site
	Measures for complying with environmental laws and regulations and coping with environmental risks	<ul style="list-style-type: none"> Zero instances in which emissions standards are exceeded Zero instances of oil and other leakage-related environmental accidents
Creating Environmentally Friendly Products		<ul style="list-style-type: none"> Create environmentally friendly products and technologies
Global Warming Countermeasures	Reduction of CO ₂ emissions per production unit (saving energy)	<ul style="list-style-type: none"> In Japan (Manufacturing): Reduce CO₂ emissions per production unit by 10.2% (base year: FY2011) Outside Japan (Manufacturing): Reduce CO₂ emissions per production unit by 34.5% (base year: FY2011)
	Reduction of CO ₂ emissions	<ul style="list-style-type: none"> In Japan (Manufacturing): Reduce CO₂ emissions to no more than FY2011 level
	Distribution	<ul style="list-style-type: none"> In Japan: Reduce CO₂ emissions per ton-kilometer by 11.3% (base year: FY2011)
Effective Utilization of Resources	Development/Design/Manufacturing	<ul style="list-style-type: none"> In Japan: Continue to reduce waste of resources by changing machining processes In Japan: Maintain zero emissions In Japan: Maintain a waste recycling rate of 100% Outside Japan: Achieve a waste recycling rate 97.1% or more
	Manufacturing	<ul style="list-style-type: none"> In Japan: Reduce industrial waste emissions per production unit by 28.9% or more (base year: FY2011) In Japan: Reduce water withdrawal per production unit by 30.3% (base year: FY2011) Outside Japan: Reduce water withdrawal per production unit by 30.3%
	Distribution	<ul style="list-style-type: none"> In Japan: Reduce packaging material waste per production unit by 19.9% (base year: FY2007)
		<ul style="list-style-type: none"> Conduct on-site audits at key suppliers
Proper Management of Environmentally Harmful Substances		<ul style="list-style-type: none"> Investigate status of NSK List of Environmentally Harmful Substances at suppliers In Japan: Reduce handling of PRTR-designated substances per production unit by 25.6% from FY2011
Biodiversity Conservation		<ul style="list-style-type: none"> Develop initiatives for preserving biodiversity through social contribution activities
Working with Local Communities (Social Contributions Targeting Community Development)		
Social Contributions Targeting Community Development		<ul style="list-style-type: none"> Take measures to invigorate social contributions

* For targets by FY2018, please see Mid-Term Targets (FY2016-2018) in each chapter.

* Some activity items and fiscal 2017 targets have been revised.

 **Achieved**  **Partially achieved**  **Not achieved**

Performance in FY2017	Evaluation	FY2017 target	Page
<ul style="list-style-type: none"> Responded accurately to social needs and requests from stakeholders Carried out activities as planned to instill management cycles 	<ul style="list-style-type: none">   	<ul style="list-style-type: none"> Respond actively to social needs and requests from stakeholders Continue to instill management cycles 	pp. 18-23
<ul style="list-style-type: none"> Prepared for risks such as wind and flood damage, and new infectious diseases Appointed persons responsible for disaster risks and implemented measures 	<ul style="list-style-type: none">   	<ul style="list-style-type: none"> Continue to prepare for disasters such as wind and flood damage, and new infectious diseases Implement measures to minimize damage from severe disaster risks 	pp. 30-32
<ul style="list-style-type: none"> Made progress continuing to develop replacement parts Made progress in ASEAN and India on initiatives to visualize global supply chain data and improve accuracy Conducted safety confirmation drills using a supplier safety verification system Started training supplier BCP inspection instructors 	<ul style="list-style-type: none">     	<ul style="list-style-type: none"> Continue to develop replacement parts Continue to visualize global supply chain data and continue improving accuracy Continue conducting drills to confirm the safety of suppliers Instruct suppliers on BCP implementation by supplier BCP inspection instructors 	pp. 49-50 p. 32
<ul style="list-style-type: none"> Held training sessions on competition law 106 times in and outside Japan, mainly for sales departments Conducted internal audits on compliance with competition law (Antitrust Act) at 46 sites Viewed a message from the president worldwide on NSK Corporate Philosophy Day and checked compliance-focused policies Conducted group training and e-learning on compliance at Group companies Expanded scope of the compliance awareness survey to regions outside Japan; 14,014 persons participated 	<ul style="list-style-type: none">      	<ul style="list-style-type: none"> Continue awareness building and monitoring to prevent the anti-competitive incident from fading from memory Foster greater compliance awareness Strengthen activities to improve awareness, such as compliance training sessions Improve confidence in whistleblowing system 	pp. 26-28
<ul style="list-style-type: none"> Finished distributing the "NSK Supplier CSR Guidelines" to all suppliers Revised the content of the "Self-Assessment Check-Sheets" (e.g., human rights risk throughout the supply chain, management of secondary suppliers and those further upstream) in preparation for FY2018 survey 	<ul style="list-style-type: none">   	<ul style="list-style-type: none"> Continue to improve activities using the "NSK Supplier CSR Guidelines" and the "Self-Assessment Check-Sheets" 	pp. 28, 49 pp. 49-50
<ul style="list-style-type: none"> Responded appropriately to all survey requests from customers 	<ul style="list-style-type: none">  	<ul style="list-style-type: none"> Continue to conduct and respond to conflict minerals surveys (supply chain surveys, response to customer's surveys) 	
<ul style="list-style-type: none"> Provided OJT to promoters at plants in Japan; provided OJT to QA departments in ASEAN, China, and Europe Started activities in STG field as FQC prototype Conducted rank-based on-site inspections by plant managers and supervisors Conducted plant audits from a globally uniform perspective for the Industrial Machinery Business, and conducted uniform audits according to IATF requests for the Automotive Business Grasped situation of quality compliance, incl. in the Company, at suppliers, and at sites outside Japan, and started making corrections 	<ul style="list-style-type: none">      	<ul style="list-style-type: none"> Raise the level of efforts to prevent recurrence of problems by investigating their true causes Ensure quality from the point of view of the market and customers Foresee and ameliorate latent quality risks based on 5 GEN-Principle Conduct voluntary inspections/audits that go back to basic rules Foster high-quality ethics 	pp. 41-45
<ul style="list-style-type: none"> Continued to support the careers of female manager candidates Conducted career training sessions for women in managerial track positions Certified in 2018 as an Outstanding Health and Productivity Management Organization (White 500) Expanded a childcare service for parents of small children with shifts on national holidays Conducted a trial of flexible hours Rolled out global succession plans under common rules 	<ul style="list-style-type: none">      	<ul style="list-style-type: none"> Continue support women's careers Strengthen health management (Japan) Enhance support measures for parenting and care giving (Japan) Accelerate leadership development 	pp. 53-62
<ul style="list-style-type: none"> Maintained ISO 14001 certification at all subject sites 55 sites complied with ISO 14001-2015 Not applicable Six instances of emission standards for rivers and sewers being exceeded at a site in Japan and ASEAN Zero instances of oil and other leakage-related environmental accidents Created five environmentally friendly products In Japan (Manufacturing): Reduced CO₂ emissions per production unit by 14.5% (base year: FY2011) Outside Japan (Manufacturing): Reduced CO₂ emissions per production unit by 26.1% (base year: FY2011) In Japan (Manufacturing): Reduced CO₂ emissions by 4.0% (base year: FY2011) In Japan: CO₂ emissions per ton-kilometer increased by 6.6% (base year: FY2011) In Japan: Reduced waste of resources as planned In Japan: Maintained zero emissions (landfill disposal rate was 0.0001%) In Japan: Recycling rate was 100% Outside Japan: Recycling rate was 97.1% In Japan: Reduced industrial waste emissions per production unit by 32.4% (base year: FY2011) In Japan: Reduced water withdrawal per production unit by 33.8% (base year: FY2011) Outside Japan: Reduced water withdrawal per production unit by 29.5% (base year: FY2011) Reduced packaging material waste per production unit by 27.9% (base year: FY2007) In Japan: Conducted audits at 41 suppliers Outside Japan: Conducted audits at 142 suppliers In Japan: Investigated 244 suppliers Outside Japan: Investigated 224 suppliers In Japan: Reduced handling of PRTR-designated substances per production unit by 35.1% from FY2011 Conducted biodiversity preservation activities in Japan, ASEAN, and elsewhere, but some activities could not be conducted as planned 	<ul style="list-style-type: none">                       	<ul style="list-style-type: none"> Maintain ISO 14001 certification at all subject sites (respond to FY2015 revisions) Obtain ISO 14001 certification within three years of starting full-scale operations at a site Zero instances in which emissions standards are exceeded Zero instances of oil and other leakage-related environmental accidents Create environmentally friendly products and technologies In Japan (Manufacturing): Reduce CO₂ emissions per production unit by 11.1% (base year: FY2011) Outside Japan (Manufacturing): Reduce CO₂ emissions per production unit by 35.2% (base year: FY2011) In Japan (Manufacturing): Reduce CO₂ emissions to no more than FY2011 level In Japan: Reduce CO₂ emissions per ton-kilometer by 12.2% (base year: FY2011) In Japan: Continue to reduce waste of resources by changing machining processes In Japan: Maintain zero emissions In Japan: Maintain a waste recycling rate of 100% Outside Japan: Achieve a waste recycling rate 97.5% or more In Japan: Reduce industrial waste emissions per production unit by 29.6% or more (base year: FY2011) In Japan: Reduce water withdrawal per production unit by 31.0% (base year: FY2011) Outside Japan: Reduce water withdrawal per production unit by 28.3% In Japan: Reduce packaging material waste per production unit by 20.7% (base year: FY2007) Conduct on-site audits at key suppliers Investigate status of NSK List of Environmentally Harmful Substances at suppliers In Japan: Reduce handling of PRTR-designated substances per production unit by 26.6% from FY2011 Develop initiatives for preserving biodiversity through social contribution activities 	pp. 68-70 pp. 71-73 pp. 75-78 pp. 81-82 pp. 84-86 pp. 87-88
<ul style="list-style-type: none"> Promoted the sharing of activity information within the Company, but could not do so as planned 	<ul style="list-style-type: none">  	<ul style="list-style-type: none"> Take measures to invigorate social contributions 	pp. 90-92



1

Governance

Management Structure Supporting Sustainable Growth

Any company worthy of the trust and expectations of society must exercise strong corporate governance. Strengthening governance systems and practicing sound, highly transparent management also serve to increase corporate value.

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Corporate Governance

Basic Approach

NSK believes that the establishment and maintenance of systems that ensure transparent, fair and timely decision-making is essential in order to raise our corporate value in a sustainable manner.

To realize this objective, we are working to enhance our corporate governance systems based on the following four guiding principles.

Policy on Corporate Governance Structure

NSK will:

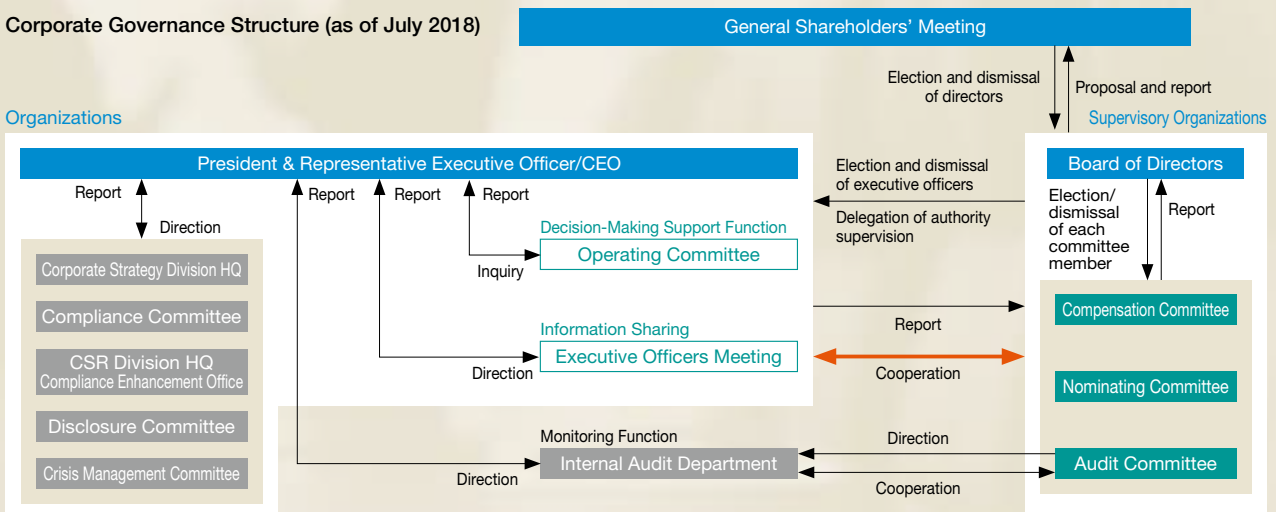
- 1 Increase the efficiency and agility of management by proactively delegating decision-making authority regarding the execution of operations from the Board of Directors to the Company's executive organizations.
- 2 Establish sound oversight of the executive organizations by supervisory organizations through the separation of the former and the latter.
- 3 Strengthen supervisory organizations' oversight of the executive organizations through cooperation between the former and the latter.
- 4 Improve the fairness of management by strengthening compliance systems.

NSK has articulated this basic approach to corporate governance and its structure in its Corporate Governance Rules, which guide directors and executive officers in the performance of their duties.

Corporate Governance Structure

NSK has adopted a Company with Three Committees system as its form of corporate organization to better achieve the aforementioned basic philosophy. The CEO has the ultimate authority and responsibility for all operational executive functions and makes decisions concerning the operation of the business by the executive officers, who are appointed by the Board of Directors. In line with that guidance, the executive officers operate the business based on a clear division of responsibilities and duties. The Board of Directors determines fundamental management policies that aim to contribute to the sustained mid- and long-term improvement of corporate value, while properly supervising the state of operational executive functions as a supervisory organization.

Corporate Governance Structure (as of July 2018)



Board of Directors

NSK's Board of Directors consists of 12 directors. The Board of Directors comprises internal directors with insight into business and outside directors who provide supervisory functions and advice from an objective standpoint, taking the perspective of outside stakeholders. In principle, the ratio of outside to internal directors is at least one to three. The Board of Directors elects one chairperson and two vice-chairpersons, with the requirement that one of the vice-chairpersons must be an independent director.

In the fiscal year ended March 31, 2018, the Board of Directors met 10 times, with a 100% attendance rate among independent directors.

Composition of the Board of Directors (as of July 2018)

	Men	Women
Directors who concurrently serve as executive officers	6	—
Director who is not concurrently an executive officer	1	—
Outside directors (Independent directors)	4(4)	1(1)
Total	11	1

Policy Regarding the Appointment of Directors

NSK's Board of Directors is expected to play an effective supervisory role in order to contribute to the sustainable, long-term growth of the NSK Group's corporate value, based on business conditions and an outside stakeholder's perspective. For this reason, NSK's directors are required not only to have deep knowledge of the Company's overall business and management and specialized fields, but also to possess high managerial ethics and deep insight into corporate governance, as well as the capacity for objective judgment needed to supervise the execution of business.

The composition of the Board of Directors takes into account career diversity and balance including the expertise and business experience of each director, and its size appropriately reflects that. In addition, when electing Board members, the Company does not unjustly discriminate based on race, ethnicity, gender, nationality and such other factors.

Effective Use of Outside Directors

NSK has appointed five outside directors who have beneficial expertise for NSK, excellent personalities and wide knowledge, as well as the ability to fulfill their roles and responsibilities with the aim of contributing to the sustainable growth of the Company and increasing corporate value over the medium to long term. In principle, the ratio of outside to internal directors is at least one to three.

Based on efforts to further enhance the effectiveness and oversight functions of the Board of Directors, outside directors have a wide range of duties that include tight-knit information sharing with executive departments. Accordingly, NSK maintains a sufficient number of outside directors to fulfill these duties.

Meetings of only the outside directors are held periodically to facilitate the open exchange of opinions and sharing of knowledge.

Independence of Outside Directors

NSK has set specific standards for independence, which are applied when appointing outside directors. By applying these standards, NSK mitigates the risk that a candidate might have a special relationship with the Company's management or its principal shareholders, or a conflict of interest with general shareholders.

All outside directors of NSK have fulfilled these standards for independence, the Company has reported all five outside directors as independent directors to the Tokyo Stock Exchange.

The Company's outside directors, who possess a wide range of experience and deep insight in business, management and specialty fields, offer their advice while supervising management from an independent standpoint, thereby enhancing the validity of decision-making by the Board of Directors.

Criteria for Independence of Independent Directors

The following persons are ineligible to become independent director candidates of NSK Ltd. (NSK).

- 1 Persons holding positions at a company which constituted 2% or more of the previous year's consolidated sales of NSK, or persons who held such a position until recently.
- 2 Persons holding positions at a company which made 2% or more of its previous year's consolidated sales to NSK or a subsidiary of NSK, or persons who held such a position until recently.
- 3 Persons holding positions at a financial institution which NSK relies on for funding, or persons who held such a position until recently.
- 4 Consultants, accounting or legal professionals receiving significant financial compensation in addition to compensation for the NSK independent director position, or persons who held such a position until recently
- 5 Persons belonging to a company or organization which held 10% or more of NSK's total stock at the end of the most recent financial reporting period, or persons belonging to such a company or organization until recently.
- 6 Persons belonging to a company or organization of which NSK holds 10% or more of the total shares outstanding at the end of the most recent financial reporting period, or persons belonging to such a company or organization until recently.
- 7 Relatives within the second degree, or family members living in the same household as persons specified in items 1 to 6 (excluding non-key posts). ("Key posts" are generally assumed to refer to executive or senior managers of relevant companies or trading partners, chartered public accountants belonging to relevant audit firms, and legal professionals belonging to relevant legal firms).
- 8 Persons who hold executive positions at NSK or a subsidiary of NSK, or relatives within the second degree or family members living in the same household of persons who held such positions until recently.

The wording "recently" in the items above shall be assumed to be a period of three years or less from the date NSK elects directors.

Evaluations of the Board of Directors' Effectiveness

The Company verifies whether the functions of the Board of Directors are being properly fulfilled and, to further strengthen its effectiveness, evaluations of the Board of Directors have been carried out every year since fiscal 2015 through questionnaires and interviews by outside experts in order to maintain objectivity.

As a result, it has been confirmed that these evaluations have invigorated the Board of Directors by improving its operational processes/status mainly involving revising agenda items discussed by the Board, lengthening discussion time and providing prior explanations to the Board. The Company will take steps to improve the effectiveness of the Board of Directors to help further improve corporate value, including enhancing the Board's long-term-oriented and strategic discussions.

Enhancing and Invigorating Board of Director Discussions

Engaging in lively discussions, NSK's Board of Directors is required to hold meetings that are around three hours long (meetings normally held 10 times a year).

NSK believes that having access to information in advance is essential for invigorating Board of Director discussions. Board meetings are held based on the Board of Directors secretariat and the executive in charge of the Corporate Planning Division providing appropriate information that includes explaining agenda items and distributing documents in advance to both outside and internal directors.

Training of Directors and Officers

The Company provides training as necessary to directors and officers when they are appointed on business/financial positions, corporate governance and relevant laws and regulations including Japan's Companies Act. In particular, the Company sends its outside directors on tours of business sites in various regions to deepen their knowledge of matters distinct to the NSK Group.

Nominating Committee

The Nominating Committee consists of three members: one non-independent director and two independent directors, with an independent director serving as the chairperson. The committee's primary function is to determine director candidates for election by shareholders, and it strives to ensure the transparency and effectiveness of the process for determining director candidates.

In the year ended March 2018, the Nominating Committee was convened six times. The attendance rate for all members was 100%.



Reference data is available on our website.

www.nsk.com > Company > Corporate Governance

■ Corporate Governance Report (only in Japanese)

www.nsk.com > Investors > IR Library

■ Securities Report (only in Japanese)

Audit Committee

The Audit Committee consists of four members: one non-independent director who is not concurrently an executive officer and three independent directors, with an independent director serving as the chairperson. The Audit Committee is responsible for auditing the business duties of directors and executive officers, preparing audit reports, and determining the content of proposals regarding the election and dismissal of financial auditors to be submitted for deliberation at the general meeting of shareholders. It also conducts audits of compliance with provisions of the Companies Act and the governance and business risk management of the NSK Group in collaboration with the Internal Audit Department.

NSK has established a full-time secretariat to assist the Audit Committee, which conducts audits in cooperation with the Internal Audit Department.

In the year ended March 2018, the Audit Committee met 14 times. The attendance rate for all members was 100%.

Compensation Committee

The Compensation Committee consists of three members: one non-independent director and two independent directors, with an independent director serving as the chairperson. The Compensation Committee determines policies on the remuneration of directors and executive officers, as well as matters such as the individual remuneration of directors and executive officers.

In the year ended March 2018, the Compensation Committee was convened four times. The attendance rate for all members was 100%.

Policy for Directors/Officers' Compensation

The compensation package for NSK's Officers consists of basic compensation, which includes fixed compensation, a performance-based salary that fluctuates and stock compensation, whereas "directors' compensation" and "executive officers' compensation" are separately determined. When a director also serves as an executive officer, the total of each compensation amount shall be paid.

(1) Directors' Compensation

The directors' compensation package consists of basic compensation and stock compensation.

- 1) **Basic Compensation:** Basic compensation is determined based on whether the director is an outside director or an internal director in addition to the director's role on committees to which the director belongs and the Board of Directors.
- 2) **Stock compensation:** To further enhance the commitment of directors to a sustainable increase in corporate value, NSK introduced a stock compensation program using a Board Benefit Trust system. Under the program, NSK grants directors shares of NSK stock at retirement based on a point system whereby points are awarded depending on whether the director is an outside director or an internal director and according to the value of the stock. However, NSK will compensate directors with money acquired by converting a certain portion of NSK's shares into cash. For directors who also serve as executive officers, performance shares as directors will not be provided.

(2) Executive Officers' Compensation

The executive officer compensation package consists of basic compensation, a performance-based salary and stock compensation.

- 1) **Basic Compensation:** For basic compensation, the amount is determined according to the title of the executive officer. Moreover, an additional amount will be paid to executive officers with representation rights.
- 2) **Performance-based salary:** Using the consolidated sales operating income margin and the consolidated ROE targeted in the Company's mid-term management plan and the operating income margin and cash flow as numerical targets for a single fiscal year and an index to evaluate quality-contributing activity as criteria, the total amount of performance-based salary is calculated. For the compensation amount for the respective executive officers, the title and achievement level in the performance of job duties are evaluated for payment.
- 3) **Stock Compensation:** To further enhance the commitment of executive officers to a sustainable increase in corporate value, NSK introduced a stock compensation program using a Board Benefit Trust system. Under the program, NSK grants executive officers shares of NSK stock at retirement based on a point system whereby points are awarded depending on the title of the executive officer and according to the value of the stock. However, NSK will compensate directors with money acquired by converting a certain portion of NSK's shares into cash.

In addition, in the event a member of a management team of another company such as a subsidiary or an affiliate, etc., assumes an executive officer position, compensation will be determined separately.

Directors/Officers' Compensation, etc.

The amount of compensation for directors and executive officers between April 1, 2017, and March 31, 2018, was as follows.

Total Compensation Paid for the Year Ended March 2018

Classification	Compensation, etc., Total (¥ Million)	Basic Compensation		Performance-Based Salary		Stock Compensation		Stock Options	
		No. of Directors/Officers	Amount (¥ Million)	No. of Directors/Officers	Amount (¥ Million)	No. of Directors/Officers	Amount (¥ Million)	No. of Directors/Officers	Amount (¥ Million)
Directors (Non-independent)	104	9	83	—	—	2	16	5	4
Directors (Independent)	63	4	45	—	—	4	14	4	3
Executive Officers	2,486	32	848	30	806	35	796	26	34

- Notes: 1. Compensation (excluding stock compensation) for directors (internal) includes compensation for directors who also serve as executive officers.
 2. The amount of performance-based salary is the planned payment amount as of July 2, 2018, based on the results for the year ended March 31, 2018. The amount of performance-based salary as of July 3, 2017, based on the results for the year ended March 31, 2017, was ¥594 million.
 3. In the Board Benefit Trust system, the amount of stock compensation is commensurate with the number of points awarded for the fiscal year and booked as costs.
 4. At the Compensation Committee meeting held on May 16, 2016, the decision was made to end the stock option programs. The amount of stock options is equivalent to the cost recognized during the fiscal year within compensation related to share subscription rights that were allocated as stock options on August 21, 2015.
 5. Figures listed above are rounded down to one million yen.

Compensation by Officer

Name	Consolidated Compensation, etc., Total (¥ Million)	Title	Company	Amount for Each Item of Consolidated Compensation, etc. (¥ Million)				
				Basic Compensation	Performance-Based Salary	Stock Compensation	Stock Options	Retirement Benefit
Toshihiro Uchiyama	203	Director	NSK Ltd.	7	—	—	0	—
		Executive Officer	NSK Ltd.	43	64	84	4	—
Saimon Nogami	105	Director	NSK Ltd.	5	—	—	0	—
		Executive Officer	NSK Ltd.	28	34	34	1	—
Shigeyuki Suzuki	104	Director	NSK Ltd.	4	—	—	0	—
		Executive Officer	NSK Ltd.	28	34	34	1	—
Yasuhiro Kamio	104	Director	NSK Ltd.	4	—	—	—	—
		Executive Officer	NSK Ltd.	28	34	34	1	—
Hirotohi Aramaki	102	Director	NSK Ltd.	4	—	—	—	—
		Executive Officer	NSK Ltd.	27	33	34	1	—
Adrian Browne	155	Executive Officer	NSK Ltd.	89	59	5	1	—
Jürgen Ackermann	185	CEO	NSK Europe Ltd.	60	54	6	—	63
Steven Beckman	146	CEO	NSK Americas, Inc.	60	78	5	—	2

Note: Only officers whose total consolidated compensation is ¥100 million or higher are listed.

Strengthening the Business Execution Function

As a Company with Three Committees, NSK has actively delegated decision-making for business execution to its executive officers in an effort to improve management efficiency and flexibility. With regard to its operating organizations, the Company has established a system under which 34 executive officers execute business under the direction of the CEO in accordance with the duties set by the Board of Directors (as of July 2018).

Operating Committee

The Operating Committee was established as an organization to assist the CEO with decision-making. The CEO refers to the discussion conducted by the Operating Committee when making final decisions on business execution. The Operating Committee deliberates on important policies concerning business operation in the NSK Group as well as their implementation, and reports important matters to the Board of Directors.

Executive Officers Meeting

An Executive Officers Meeting has been established to allow executive officers to report on the status of business execution to the CEO. Through this meeting, NSK shares information on the status of business implementation in order to unify the direction and understanding of its executive team.

Internal Control System

NSK works to improve its group-wide internal control system by clearly stipulating fundamental principles aimed at effectively enabling global group management and internal control functions.

The Internal Audit Department monitors group-wide internal control system development and operational status by coordinating with the Audit Committee from a position that is independent from operating divisions.

In fiscal 2016, NSK commissioned an external international auditing agency, The Institute of International Auditors (IIA), to evaluate the quality of NSK's internal audits, which the IIA deemed as "generally conforms" to standards set by the IIA. In fiscal 2017, the Internal Audit Department undertook the development of an internal audit quality assessment structure and published an internal audit quality report for that year. In addition, the Internal Audit Department is conducting audits using data analysis in an effort to improve audit effectiveness. NSK also has worked to strengthen the personnel base at regional headquarters' internal audit offices, which oversee regional entities, in order to establish a global internal auditing foundation and strengthen auditing structures.

In addition, the Internal Audit Department continues to undertake initiatives to address the four key mid-term objectives: 1) enhance compliance, 2) strengthen risk monitoring, 3) increase audit effectiveness and 4) promote the improvement of operational efficiency.

Internal Control over Financial Reporting

The Internal Audit Department assessed the status of design and operation of internal control over the NSK Group's financial reporting for the year ended March 31, 2018. Based on this assessment, the Company concluded that its internal control over financial reporting was effective. The Group also obtained an audit certification (unqualified opinion) from its external auditing firm evaluating the assessment process as effective.



Reference data is available on our website.

www.nsk.com > Investors > IR Library

■ Securities Report (only in Japanese)

Compliance

Basic Approach

Acting with the Highest Ethical Standards and Striving to Maintain the Trust of Society

The NSK Group has formulated the NSK Code of Corporate Ethics and clarified its Corporate Ethics Policies and Code of Conduct Concerning Compliance with the aim of outlining universal principles that should be followed to ensure all of the Company's activities are conducted in accordance with the NSK Corporate Philosophy. NSK aims to continue developing as a company that is trusted by international society and local communities by adhering to the laws and regulations of each country in its corporate activities around the world, and by taking actions based on high ethical standards as a corporate citizen.

To that end, the Group has put in place policies and a management system related to compliance, constantly enhances its education and training for officers and employees, conducts internal audits, and has established an internal whistleblowing system. It also strives to fulfill its corporate social responsibility through initiatives such as preventing information leaks and addressing issues related to conflict minerals.

NSK Code of Corporate Ethics (Established: February 2002, Revised: June 2017 by a Resolution of the Board of Directors)

The NSK Code of Corporate Ethics sets out the universal approach for the Company and its officers and employees as they engage in a range of corporate activities, in accordance with the NSK Group vision and philosophy.

Note: The NSK Code of Corporate Ethics applies to NSK Ltd. and its consolidated subsidiaries.

NSK Corporate Ethics Policies

1. Personnel will strive to ensure that NSK Ltd. and its affiliates continue to prosper as a company that acts in a sincere and fair manner, and which is respected and trusted in international and regional society.
2. Personnel will comply with all laws related to the Company's business activities. Moreover, personnel will act in a highly ethical manner in order to ensure that NSK fulfills its responsibility as a corporate citizen.

Code of Conduct Concerning Compliance (Excerpts)

- | | |
|---|---|
| 1. Compliance with Competition Laws | 9. Protection of Corporate Assets |
| 2. Compliance with Import- and Export-Related Laws | 10. Handling of Confidential and Personal Information |
| 3. Prohibition of Commercial Bribery (handling of entertainment, gifts, etc.) | 11. Relations with Customers |
| 4. Transactions with Public Institutions and Handling of Political Donations | 12. Relations with Suppliers |
| 5. Accurate Recording and Processing | 13. Prohibition of Acts Discrediting Competitors |
| 6. Prohibition of Insider Trading | 14. Prohibition of Discrimination, Cultivation of a Sound Workplace |
| 7. Handling of Intellectual Property Rights | 15. Respect of Fundamental Rights at Work |
| 8. Prohibition of Illegal and Criminal Conduct | 16. Global Environmental Protection |



Reference data is available on our website.

www.nsk.com > Company > Compliance

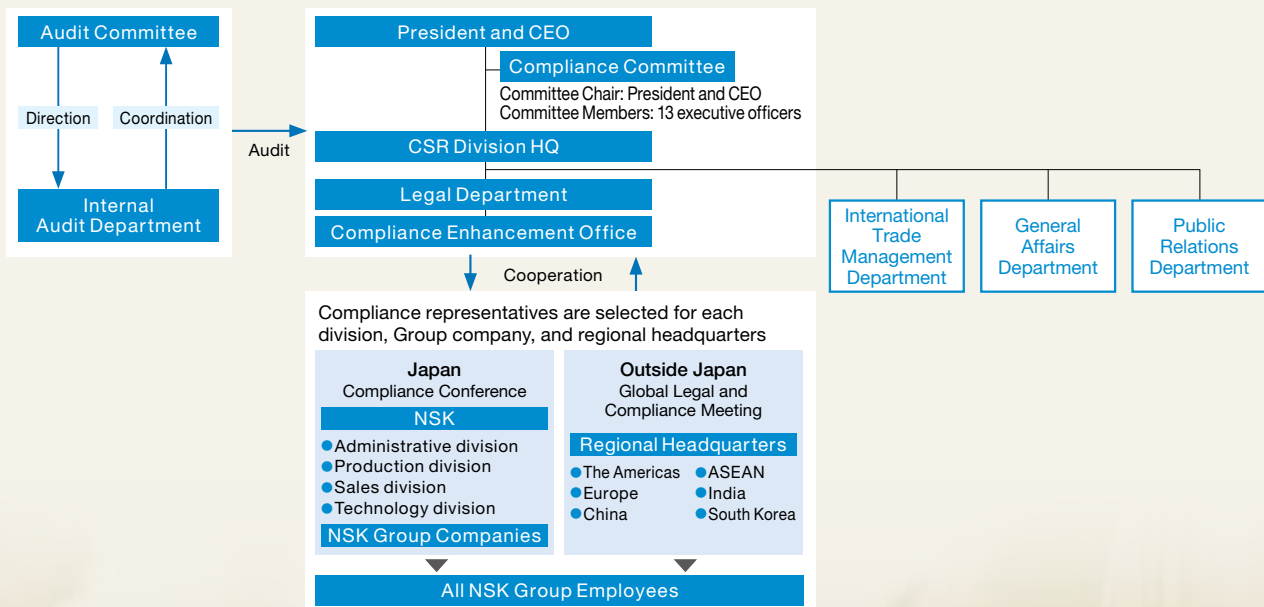
[NSK Code of Corporate Ethics](#)

Compliance Promotion System

NSK has established a Compliance Committee chaired by the president and CEO. The committee formulates policies aimed at strengthening compliance and formulates and promotes initiatives to strengthen compliance in order to achieve those policies. At the same time, it monitors and supervises the implementation of those initiatives and reports regularly to the Board of Directors.

NSK has also established a Compliance Enhancement Office in the Legal Department at CSR Division Headquarters and tasked it with overseeing the practical work related to compliance across the entire NSK Group based on the decisions of the Compliance Committee. The Group has appointed persons responsible for compliance at each department, site, and NSK Group company in Japan as well as each headquarters outside Japan to serve as key contact points who regularly report on compliance and conduct risk management.

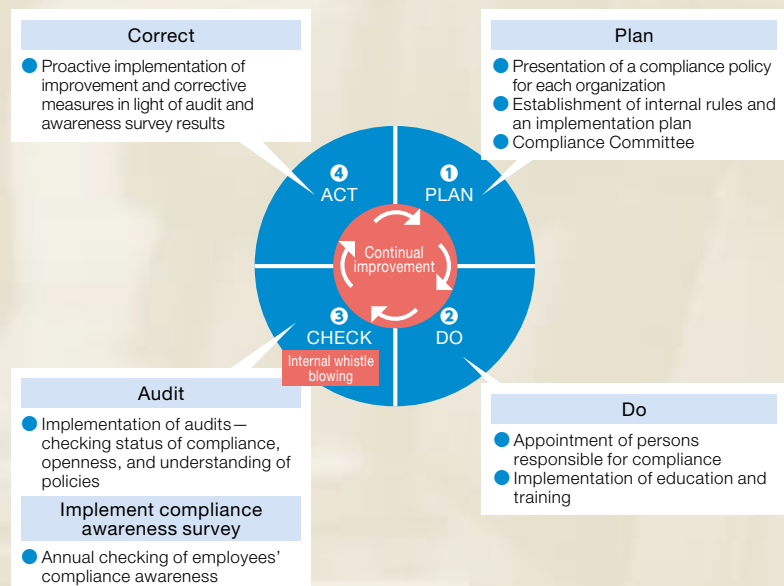
NSK Group Compliance System (As of July 2018)



The policies (“plan”) decided at the Compliance Committee are deployed (“do”) by the Compliance Enhancement Office to each organization within the Group. The office reports the results of monitored (“check”) internal audits and awareness surveys, and also implements (“act”) improvements and corrective measures based on audit and awareness survey results. The office makes the most of the PDCA cycle to ensure continual compliance improvement.

In fiscal 2017, there were no compliance problems requiring disclosure.

PDCA Cycle for Continual Compliance Improvement



● Global Legal and Compliance Meetings

In order to strengthen the global compliance system, global legal and compliance meetings were held twice in 2018. At these meetings, members responsible for compliance from the Americas, Europe, China, ASEAN, India, and South Korea gathered with their colleagues at the head office in Japan and reported on activities in their respective regions and countries. They also shared information on legal requirements in each country, seeking ways to improve future efforts in each country. Global legal and compliance meetings were held in the U.S. in June 2017 and in Japan in October 2017. Discussions included the action plan for the year, responses to the EU's General Data Protection Regulation, and operation of the whistleblowing system.

● Internal Reporting System (Whistleblowing System)

The NSK Group operates a whistleblowing system (hotlines, etc.), available to employees in their regions and countries, and suppliers (in only certain regions), to quickly identify and correct acts that may violate compliance-related rules. The system allows hotline users to remain anonymous, and steps are taken to ensure they are protected from any disadvantageous repercussions. The Group is working to ensure that users are well informed about the hotline by putting up posters about the Whistleblowing System and distributing large-sized business cards containing the hotline contact information.

In fiscal 2017, NSK changed the system in Japan to enable hotline users to contact the Audit Committee as a point of contact independent of executive personnel, in order to further increase the effectiveness of the internal reporting system.

In fiscal 2017, the whistleblowing hotline was contacted 88 times worldwide. The incidents were quickly investigated and resolved, including implementation of corrective actions where needed.

● Compliance Audits

The Compliance Enhancement Office, in cooperation with the Internal Audit Department, regularly conducts internal audits and on-site assessments of the state of compliance with the Antimonopoly Act of Japan and other competition laws. In fiscal 2017, audits were conducted on 46 business sites and no major non-conformities were found. Evaluations of internal controls related to compliance were also carried out. In fiscal 2017, audits were conducted on 125 business sites using a self-assessment technique and no major non-conformities were found.

NSK's Efforts to Enhance Compliance

NSK and its Group companies are making Group-wide efforts to ensure thorough legal compliance and striving to enhance business activities based on corporate social responsibility. Key initiatives to enhance compliance undertaken to date are as follows.

Main Compliance Strengthening Measures to Date

Item	NSK Group Initiatives
Strengthening Systems	Established Compliance Committee (meetings held four times a year)
	Established Compliance Enhancement Office
	Holds Global Legal and Compliance meetings (twice a year) with legal and compliance representatives outside Japan
	Holds a Compliance Conference (twice a year) with compliance representatives in Japan
Establishing Systems for Relevant Regulations	Operated a system for examining whether to participate in meetings attended by competitors
	Distributed the NSK Compliance Guidebook to officers and employees (revised in 2018)
	Established the Rules for Compliance with the Competition Law
	Established Rules for Hotline Operation
	Revised Internal Regulation for Preventing Insider Trading and introduced prior informed consent for trading of treasury stock
	Established Anti-Bribery Standards
Strengthening Education and Awareness Raising Activities	Formulated Personal Information Protection Regulations
	Regularly distributed the president's message calling for stringent compliance with laws and regulations
	Implemented compliance e-learning for officers and employees (once a year)
	Conducted compliance training at sales divisions, plants, engineering sections and Group companies
	Started bimonthly Compliance Newsletter
	Designated July 26 as "NSK Corporate Philosophy Day"
Strengthening Monitoring	Conducted a compliance slogan contest during compliance month (July 26 – August 31)
	Internally shared compliance violation information
	Conducted internal audits of sales divisions relating to Antimonopoly Act compliance
	Evaluated internal control related to compliance for the NSK Group
	Conducted a compliance awareness survey for the NSK Group

● Main Initiatives in Fiscal 2017—Compliance Education and Awareness Raising Activities

The NSK Group conducts a variety of mandatory compliance education and training sessions with the aim of further heightening officers' and employees' awareness of compliance issues. The education and training cover a wide range of topics including compliance with competition laws, prevention of commercial bribery violations, and prevention of insider trading.

Preventing Violations of the Competition Law

The NSK Group strives to realize fair and free business transactions by ensuring employees are aware of and comply with competition law and by prohibiting agreements with competitors regarding such matters as price, quantity, customers, and sales outlets as well as the exchange of information that could impact competition with competitors.

To raise awareness of adherence to competition law, training on the Law and compliance was provided to 1,463 people through 106 sessions mainly at sales divisions both in and outside Japan in fiscal 2017.

The required training time was around 90 minutes per person, including compliance training. In the future, the Group will continue this training on competition law, incorporating discussion among participants.

Furthermore, rigorous steps are taken to prevent violations of the Law, including requiring in-advance applications and ex post facto reports when participating in meetings where there could be contact with competitors.

Strengthening Anti-Bribery Measures

Given stronger anti-bribery regulations in many countries, NSK clearly states in the NSK Code of Corporate Ethics that bribery is prohibited, and has established Anti-Bribery Standards. Many countries also prohibit the payment of small amounts of money intended to smooth government affairs (i.e., facilitation payments). The NSK Compliance Guidebook prohibits this as a bribe equivalent to an under-the-table payoff.

Basic Approach to Rejection of Organized Crime

NSK's basic policy is to fulfill its social responsibility in all corporate activities. Accordingly, we maintain unwavering opposition to antisocial forces that threaten the order and safety of civil society. We refuse undue claims and illegal demands from organized crime and reject all relationships with criminal elements, including business relations. Furthermore, this policy is spelled out clearly in the NSK Code of Corporate Ethics and awareness of it is continually promoted to ensure a systematic response across the Group. We have also strengthened cooperation with the police and other external organizations.

Preventing Insider Trading

The Internal Regulation for Preventing Insider Trading applies to all officers and employees. It requires NSK and its Group companies' officers and employees to submit a permit application in advance via a system whenever they buy or sell NSK shares. We promote awareness of insider trading regulations in e-learning programs and the Compliance Newsletter.

In fiscal 2017, NSK conducted compliance training at plants, technical departments, group companies and affiliated companies. e-Learning on compliance is also provided for each job type.

Distribution of Compliance Guidebook

NSK distributed the Compliance Guidebook to officers and employees of the NSK Group to raise awareness about compliance. The Guidebook has been translated into multiple languages (Japanese, English, Chinese, Korean, Polish, Indonesian, Thai, etc.) so that employees can understand its content in their native language.

In fiscal 2017, the addition of content related to matters such as data falsification, as well as sexual orientation and gender identification issues, was reviewed in the process of revising the fiscal 2018 Guidebook. (Published in June 2018)

Through the NSK Supplier CSR Guidelines, we share this awareness with suppliers and ask them to understand and practice compliance, including compliance with competition law. (See p. 49 for details.)



NSK Compliance Guidebook 2018

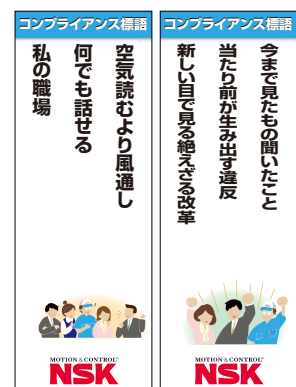
Establishment of NSK Corporate Philosophy Day

Seven years have passed since the Japan Fair Trade Commission raided NSK offices in 2011. In order to revisit the lessons learned from the past incident, reconfirm the resolve of all NSK Group employees that no anti-competitive incident will ever occur again, and to ensure all employees review the Corporate Philosophy and make it their own code of conduct, the date of July 26 has been designated "NSK Corporate Philosophy Day." On NSK Corporate Philosophy Day in 2017, the president addressed all employees and an outside instructor delivered a lecture on "Understanding Corporate Ethics." At a later date, each workplace held team discussions on topics related to compliance.

Compliance Month

Starting on NSK Corporate Philosophy Day, NSK holds an annual compliance month, inviting employees to submit compliance slogans and surveying them on compliance awareness.

In fiscal 2017, posters featuring the two outstanding slogans were designed and distributed to all NSK sites.



Compliance slogan posters (Japanese)

Compliance Awareness Surveys

NSK has commissioned an outside survey agency to conduct a compliance awareness survey since 2014 to verify the compliance awareness of its officers and employees. The fourth survey, in fiscal 2017, had 14,879 respondents including employees from Group companies in Japan. The awareness survey outside Japan had 14,014 respondents. In fiscal 2018, we will address issues identified during the awareness survey and continue activities to raise and spread compliance awareness.

Tax Compliance Policy

As the globalization of business advances, the NSK Group believes that the proper payment of taxes in the countries and regions where it operates is one of the most fundamental and important social responsibilities that it should undertake. With this understanding, we have established an NSK Group Tax Policy and are striving to ensure appropriate tax treatment.

Security Export Control Initiatives

The NSK Group has strengthened its system for controls for preventing products and technology from being exported for the aims of the development, manufacture, and use of weapons, based on Japan's Foreign Exchange and Foreign Trade Acts. A basic policy and system of controls related to security export have been set forth in the Standards on Security Export Control, and efforts are being made to maintain and improve the reliability of the NSK Group's export-related operations and to reduce the risk of legal violations.

In fiscal 2017, explanatory meetings were held for the technology divisions to strengthen the system of controls when providing technology to locations outside Japan. Training for employees who handle the practical work was also launched.

Addressing Conflict Mineral Issues

The NSK Group has a policy of not using conflict minerals and takes care in its procurement activities to avoid benefiting armed groups that violate human rights. When there are potential conflict mineral issues or other concerns, we takes steps to avoid the use of relevant parts and materials. (See "Meeting Regulations for Disclosure on Conflict Minerals" on p. 50 for details.)

Respecting Human Rights

Expectations are increasing within the international community for corporations to address human rights issues, and it is expected that their efforts go beyond their own organizations to include the entire value chain. The NSK Group encourages understanding of international norms such as the Universal Declaration of Human Rights and the Guiding Principles on Business and Human Rights. We have also included sections on human rights in the NSK Code of Corporate Ethics and the NSK Code of Conduct Concerning Compliance to help our officers and employees act with the highest ethical standards in day-to-day operations. The NSK Supplier CSR Guidelines incorporate sections on human rights in order to ensure that the NSK Group and its suppliers stay in step as they address this important issue. We aim to disseminate human rights initiatives throughout the supply chain by conducting supplier CSR assessments based on the Guidelines.

● Related Information

NSK Code of Corporate Ethics, Code of Conduct Concerning Compliance [P. 24](#)

NSK Compliance Guidebook 2018 [P. 28](#)

Dialogue and Respecting Fundamental Rights at Work [P. 53](#)

NSK Supplier CSR Guidelines / Supplier CSR Assessment / Human Rights Initiatives (In response to the UK Modern Slavery Act) [P. 49](#)

Meeting Regulations for Disclosure on Conflict Minerals [P. 50](#)



Reference data is available on our website.

www.nsk.com > Investors > Management Policy > NSK Group Tax Policy

[NSK Group Tax Policy](#)

Risk Management

Basic Approach

NSK has established a fundamental policy for risk management and risk management systems as part of its in-house rules. NSK classifies and organizes risks identified by the Group into business risks, disaster risks, compliance risks, and risks to reliability of financial reporting. It designates responsible divisions that supervise the prevention of risks and countermeasures in the event that a risk materializes.

Risk Management Systems

The organizations listed below play an important role in the establishment and operation of risk management systems in the NSK Group.

Internal Audit Department

Serves as an internal audit organization, and is responsible for conducting audits to determine the legitimacy, adequacy, efficiency, etc., of operations, and for monitoring performance of operations. Also responsible for overseeing the evaluation of the effectiveness of internal controls over financial reporting.

Corporate Strategy Division HQ

Cooperates with each business, functional and regional headquarters, supports the president and CEO, and oversees and manages general risks related to management of the NSK Group. Responsible for maintaining and enhancing the internal control systems necessary for the operation of the NSK Group's global business.

Compliance Committee

Creates policies designed to strengthen the compliance of the overall NSK Group, sets and promotes measures to strengthen compliance to realize these policies, and monitors and supervises their implementation. Periodically reports to the Board of Directors on the progress of these activities.

CSR Division HQ Compliance Enhancement Office

Responsible for enacting measures to strengthen compliance, based on the policies set by the Compliance Committee. Conducts educational initiatives to ensure that the Company acts as a good corporate citizen with a sense of social responsibility in all situations, and plans, proposes, enacts, and monitors measures to ensure compliance with laws, rules, and corporate ethics. Also reports periodically to the Compliance Committee on the progress of compliance strengthening measures.

Disclosure Committee

Responsible for ensuring appropriate and timely disclosure of important corporate information that is likely to influence investors' investment decisions, based on the relevant laws and regulations.

Crisis Management Committee

Responsible for preparing and strengthening the system for managing major risks to the Company, such as natural disasters, pandemics, or major accidents, in order to prevent such risks from arising or minimize damage. Also responsible for leading a swift and appropriate response in the event of a disaster.

Identification and Assessment of Risk

Every year, all of the business sites perform their own risk assessment, where they analyze the status of internal risk management, changes in the social environment, the frequency of risk occurrence, the size of impact, and other factors. This is done to identify risks that should be addressed and ensure appropriate responses. In addition, each business site identifies the risks that it needs to manage, and submits a monthly risk report to the headquarters in charge of risk. The Internal Audit Department then performs a Group-wide risk assessment based on the site risk assessment results, before creating the annual audit plan and conducting audits in cooperation with the Audit Committee.

Monthly risk monitoring also helps confirm that the Group's risk management systems are sufficient. By employing practices like these, the NSK Group not only prevents risks from materializing, but also strives to foster a corporate culture that is prepared to respond appropriately should a risk materialize.

Information Security Management

There have been several recent scandals around the world involving leakage of personal information and corporate secrets, sparking calls for more rigorous laws and regulations on information security. The NSK Group views information security as an important management task and is taking steps to strengthen it.

● Basic Policy on Information Security and Management Standards and Rules

In June 2003, the NSK Group issued the NSK Basic Policy on Information Security as well as the Rules of NSK Information Management. It subsequently established rules concerning information security and strengthened Group efforts. In March 2017, NSK made major revisions to the NSK Group Information Security Management Standards and the NSK Group Information Security Management Rules. At present, guidelines and risk response procedures are being compiled as sub-rules to implement these rules effectively.

● Information Security System

To develop a global approach to Information security enhancement, in April 2018 NSK moved the Information Security Enhancement Office under the ICT Division Headquarters. The Office plans and implements information security measures for the Group, working in cooperation with information security management committees in Japan, the Americas, Europe, China, ASEAN, India and South Korea.

Information Security Governance System



● Prevention of Information Leaks

NSK takes meticulous care in the handling of confidential information and works hard to prevent the leakage of information. The Company is deploying tools that enhance security and taking steps to reduce the risk of information leaks from PCs. It has also categorized information according to its level of confidentiality and established rules for proper handling.

NSK will roll out these rules globally in fiscal 2017. Besides digital information, paper-based information is also being categorized and steps are being taken to ensure that all employees can handle information correctly.

● **Development of Information Security Education**

NSK provides education on information security and other subjects via e-learning programs for all officers, employees, and temporary employees who use PCs. It is also conducting regular email-based training globally to help prevent targeted attacks.

In fiscal 2017, education on information security was provided to approximately 8,000 people. Meanwhile, posters were also put up and other steps taken to raise users' awareness.



Information Security Poster

Responding to Disaster Risk

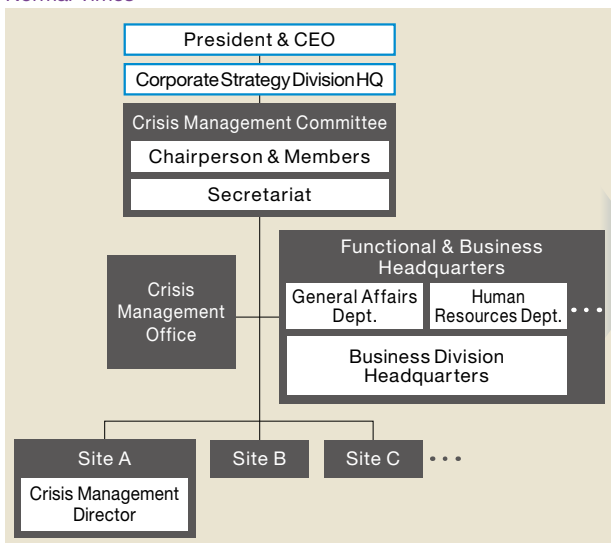
● **Crisis Management Systems for Disaster Risk**

The NSK Group has established a permanent Crisis Management Committee to oversee Group-wide initiatives to address disaster risk, including natural disasters such as large earthquakes, wind and flood damage, infectious disease outbreaks, and other major incidents. The Committee plans and implements measures to prevent crises and minimize damage in the event that these risks materialize, and is also responsible for establishing and improving business continuity plans (BCP).

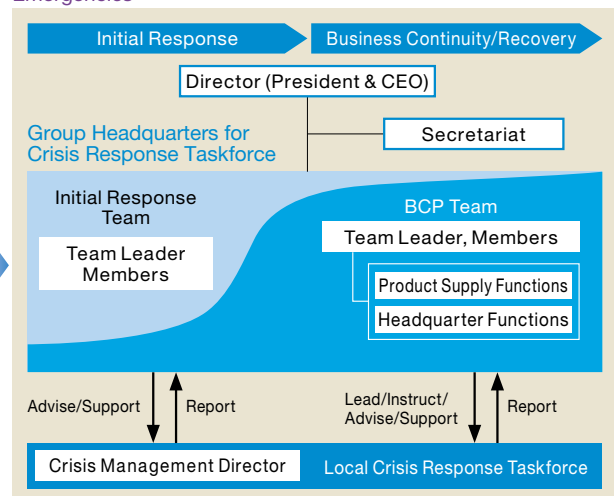
In the event of a crisis, crisis response task forces are set up at the head office as well as at the site of the crisis, and relevant departments cooperate to handle the situation quickly and accurately according to the circumstances.

Crisis Management Structure for Disaster Risks

Normal Times



Emergencies



● **Strengthening Risk Response Capabilities with Business Continuity Planning**

When it comes to business continuity planning, NSK's basic policies are to prioritize human life above all else, ensure safety, and fulfill our responsibility to deliver products by restoring our operations quickly. The Company is working hard to ensure that its plan ensures preparedness for disasters such as large-scale earthquakes.

The Group has concrete measures in place for disaster readiness, including a complete organizational structure and the necessary procedures and tools for preparedness at all the business sites of Group companies in Japan. It also conducts drills to confirm the viability of the plan and addresses the issues that emerged during the drills. The Group also takes steps to minimize the potential for damage, including earthquake-proofing buildings and preventing equipment from falling over or moving, enhancing emergency communication and reporting systems, and adopting earthquake-resistant IT infrastructure.



2

Research and Development

Setting the Future in Motion with R&D

Balancing prosperity with reduced environmental impact is a challenge in establishing a sustainable society. For this reason, all kinds of things that support society, such as motor vehicles and home appliances, must be made more energy efficient, safer, and cleaner. R&D is the core driver of this kind of progress. As the world continues to change dynamically, companies are expected to pursue growth in step with the evolution of society by developing more advanced technologies and products.

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- P.34 Moving Forward with R&D
- P.37 Protection of Intellectual Property

Moving Forward with R&D

Basic Approach

The NSK Group's product and technology development is driven by its Four Core Technologies—tribology, materials, numerical simulation, and mechatronics. R&D is focused on achieving the NSK Mission Statement, which states "NSK contributes to a safer, smoother society and helps protect the global environment." We put these words into action by contributing to energy savings and reduced CO₂ emissions. We also aim to speedily supply the market with sophisticated products offering new features that accurately meet the needs of customers and society. Through these activities, we help to build a safer, more secure world.



R&D at NSK : Applying 100 Years of Technology to Set the Future in Motion

For over 100 years since its establishment in 1916, NSK has constantly pursued innovation in technology and enhancement of quality. We have grown to become a leader in bearings, automotive parts, and precision machinery on the foundation of our Four Core Technologies: tribology, materials, numerical simulation, and mechatronics.

Tribology Improving Performance by Optimizing Friction

Tribology is the study of friction and wear of contact surfaces in relative motion, such as rotating parts that endure enormous forces with a thin oil film. Severe operating conditions are mitigated through lubrication and surface treatments developed by NSK, resulting in superior performance for applications requiring low friction, high-speed rotation, quiet operation, or enhanced durability.



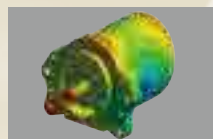
Materials Superior Performance in Any Application

Materials research and development affects nearly every aspect of product performance. Through careful selection of material composition, heat treatment, and ceramic materials, NSK enables optimization of application performance. This may result from improvements in function, endurance, or reliability, or through advancements in cost-effectiveness or production efficiency.



Numerical Simulation Turning Blind Risk into Trusted Reliability

In the past, accuracy and reliability in product development were achieved with experience-based design and longer testing periods. NSK's simulation technology allows virtual validation to accelerate design and production. Extreme conditions or innovative designs that defy previous expectations can also be evaluated and analyzed.



Mechatronics Human-centric Technology for a Safe and Comfortable Future

Mechatronics refers to the combination of mechanics and control technologies. NSK has cultivated knowledge of mechanics through years of product development and production. This knowledge is used in conjunction with motors, sensors, and circuits to develop mechatronic systems that add new functions, improve reliability, and increase performance in various industries while also improving convenience and safety in daily life.



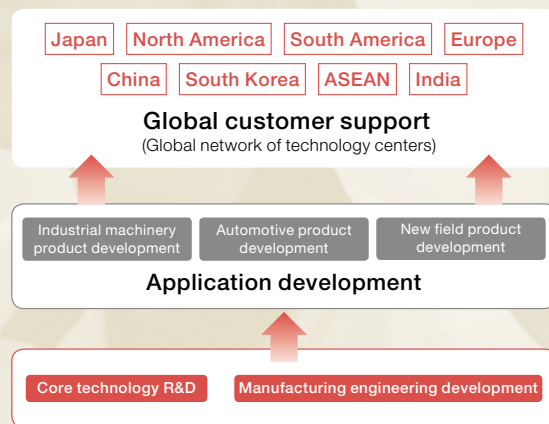
R&D Infrastructure

To increase its technical capabilities on a global level, NSK created the Technology Development Division Headquarters as an organization under the direct control of the president. It engages in tasks such as the planning and implementation of technology strategy, the control and management of technology-related risks, and human resource development. The Core Technology R&D Center and the New Field Products Development Center, which were set up under the Technology Development Division Headquarters, carry out R&D to meet societal needs and customer requests while collaborating with outside research institutions.

● Global Technology Development Structure

NSK operates technology centers at 15 sites in 10 countries and regions, including Japan, the Americas, Europe, China, South Korea, ASEAN, and India. This worldwide network aims to flexibly and swiftly respond to customers' wide-ranging needs in each locale. At these technology centers, experts across a range of fields are developing new technologies and next-generation products to meet local needs in three categories: industrial machinery products, automotive products, and new field products. They are also working hard to enhance technical services and share information globally.

Technology Development Process



Mid-Term Targets (FY2016-2018)

To meet the needs of customers and society, the NSK Group will create new value by developing new fields and investing in new technology while assessing market trends, such as those in the evolution of automotive technology, IoT*, social infrastructure, healthcare, and robotics. In terms of production, we are moving forward with the creation of smart factories and pursuing next-generation manufacturing practices.

* IoT: Internet of Things. A paradigm for creating new value by gathering and analyzing data through the Internet from all kinds of things, including motor vehicles, home appliances, and industrial equipment.

● Initiatives in Fiscal 2017

NSK aims to build a more sustainable world. In fiscal 2017, we worked to develop products that contribute to improved efficiency in industrial machinery and equipment and enhanced fuel efficiency, compactness, and safety in automobiles. We have continued our efforts to “expand into new growth fields” and embraced this as a challenge in our Fifth Mid-Term Management Plan. NSK spent around 17.1 billion yen on R&D in fiscal 2017. Sales of new products* totaled 201.3 billion yen, or 21% of all sales.

**New products” refers to products launched within the last five years.

R&D Expenses

Unit: Yen (billions)

	FY2015	FY2016	FY2017
R&D Expenses	11.2	13.9	17.1

New Product Sales and Share of Sales

Unit: Yen (billions)

	FY2015	FY2016	FY2017
Sales of new products	224.1	214.7	201.3
New products' share of total sales	23%	23%	21%

Main Initiatives in Fiscal 2017

Development of Parallel Link Active Suspension

The rapid electrification of automobiles requires the functionality of their parts and systems to be enhanced from new perspectives. One way NSK has addressed this change is by developing a parallel link active suspension. This was equipped in a new corner module that controls the tires to ensure the optimal attitude. This parallel link active suspension uses actuators that combine our world-class ball screw technology with a motor. Five actuators per wheel facilitate a range of motion so free that it's like a living thing. This enables a great deal of change in wheel alignment in response to the direction the vehicle is moving. The system can adjust the wheels to have a negative camber angle* for greater stability at high speeds, such as on highway curves. The actuators can also be repositioned, making it possible to change the vehicle wheelbase. This improves steering and makes it easier to parallel park by allowing a vehicle to make tighter turns.

We believe that this technology will be very useful for electric vehicles and self-driving systems.



* Camber angle: The angle of a tire created when the top of the tire tilts inward or outward as viewed from the front of the vehicle.

Innovation in Production Technology

The NSK Group's pursuit of technological innovation includes production facility design and product processing technology. We work hard to achieve maximum productivity without wasting labor or energy. Our development and production divisions are working together to develop the most compact production equipment possible and to replace existing hydraulic machinery and motors with high-efficiency models. We are also working to create smart factories that adopt the latest production systems using robots.

Development of Technical Human Resources

R&D in the NSK Group is driven by engineers with world-class talent. Developing and raising the skills of engineers is essential to meeting market needs accurately and creating new value. This is why we take a global approach to technology sharing and human resource development, dispatching technical experts from Japan to educate global staff and bringing overseas staff in for training at technology centers and plants in Japan. In fiscal 2017, we established the NSK Institute of Technology (NIT) to nurture global engineers. Each year over 400 students strive to learn specialized technical knowledge and skills. (See p. 57 for details.) We understand that interaction among people from diverse industries and lines of work can lead to innovative ideas, so we actively send staff to lectures, training sessions, and seminars outside the Company.

Promotion of Open Innovation

Enhancing the progress of innovation is key to creating the "super-smart society" (Society 5.0) advocated by the Japanese government. Open innovation combines original technologies and ideas from different industries and fields, including those created by universities, local governments, and venture companies in and outside Japan. We leverage open innovation to search for new business seeds, building on the original technologies and products we've developed as a bearing manufacturer.

Through open innovation, we support the creation and development of new markets and also invigorate our own organization.

Examples of Open Innovation

- An R&D project focused on increasing the commercial viability of wind power generation conducted with the New Energy and Industrial Technology Development Organization (NEDO), a national R&D organization in Japan
- Development of a wireless in-wheel motor conducted with the Graduate School of Frontier Sciences of The University of Tokyo and Toyo Electric Mfg. Co., Ltd.
- Capital tie-up with WHILL, Inc. in the field of next-generation personal mobility
- Investment in SoftWheel Ltd., a manufacturer of wheels for personal mobility, such as wheelchairs and bicycles

Protection of Intellectual Property

Basic Approach

The NSK Group sees intellectual property as essential for ensuring revenues and developing its business. The NSK Code of Conduct concerning compliance clearly states that personnel must strive to create, protect, and utilize intellectual property; must handle intellectual property rights with great care; and must not infringe on the intellectual property rights of others.

Intellectual Property Management Structure

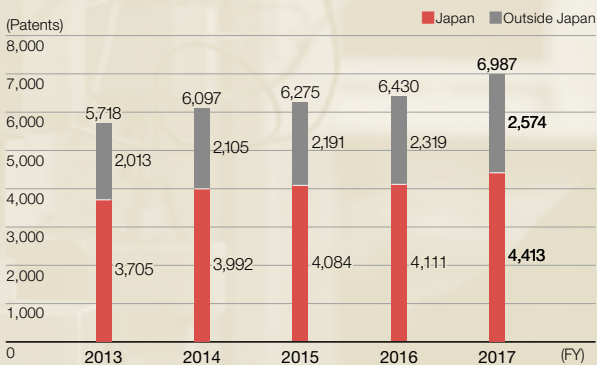
NSK has established an Intellectual Property Department under the Technology Development Division Headquarters. In cooperation with business division headquarters, the Legal Department, and members responsible for intellectual property in each region, the Intellectual Property Department formulates and implements an intellectual property strategy for the entire NSK Group and implements intellectual property efforts in step with business globalization.

We've always been aware of the importance of Group-wide intellectual property initiatives. NSK is one of Japan's leading filers of patent applications in the field of mechanical parts, as many of our main products belong to this sector. We also aim to acquire stronger patent rights that can contribute to future business. The technology and intellectual property divisions study patentability within each development topic. These efforts have accumulated the NSK Group a large number of patents: 4,413 in Japan and 2,574 outside Japan as of March 31, 2018. We make effective use of this intellectual property as a management resource in global business development. As a result of activities like these, NSK bested other companies in the industry to come in 4th in a ranking of patent assets for automotive componets in 2017*.

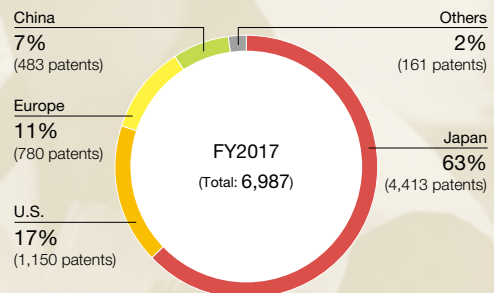
We also actively pursue trademark rights in an effort to maintain and develop confidence in the NSK brand. In January 2018, the registered trademark "NSK" acquired protection in China as a "well-known brand." This is the result of our corporate track record in China and shows how we value protecting the NSK brand.

* Automotive Parts Patent Asset Ranking (Issued by Patent Result Co., Ltd.)

Patents Held by NSK



Patents by Region





3

Quality Assurance

Creating Quality That Can Be Trusted

Advanced industrial machinery is the backbone of today's increasingly affluent global society. Such machinery and their components must perform safely and reliably. As technology and globalization continue to rapidly advance, companies are expected to support the development of society as a whole. Firms must provide high-quality products and advanced technologies that meet the specific needs of consumers in different countries and regions. The NSK Group closely tracks customer and societal needs and trends so that it can deliver safe, reliable products backed by its foundation in "quality-first manufacturing."

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P.39 Quality Management

Quality Management

Basic Approach

The NSK Group aims to become “No. 1 in Total Quality.” We are working to achieve the industry’s best quality in everything we deliver—not only products and services, but also information and more. We believe that this commitment to quality ensures that our products will satisfy customers worldwide.

To this end, our operations are based on the Three Pillars of NSK Quality Assurance.

Three Pillars of NSK Quality Assurance

1. NSK Product Development System (NPDS)

To quickly transform new orders into reliable, stable production, we promote initiatives that incorporate quality into individual processes.

2. NSK Quality No. 1 (NQ1) Program

We work hard to realize stable production and ensure zero defects.

3. Human Resources Development

We promote human resource development to build a stronger foundation for quality systems.

● **Quality Assurance Vision 2026**

NSK also established Quality Assurance Vision 2026 to set clear goals and expectations through 2026, as shown below. The Vision guides us in implementing total quality management for “NSK Quality”: a standard that engenders trust, ensures safety, and provides peace of mind to customers. In specific terms, we endeavor to enhance the quality of our products, our work, and our people as the underlying strengths of our business. At the same time, we aim to deliver this quality through attractive products that reflect market and customer needs.

NSK Quality

Contribute to Customer Safety, Security, and Confidence

The Ideal State to which the Company Aspires

- Contribute to society by delivering total quality
- Maintain an approach to quality that customers will evaluate highly
- Ensure all employees think and act based on the quality-first principle according to high-quality ethics

Action Guidelines

- Put the customer first
- Be honest
- Provide 100% good products and services

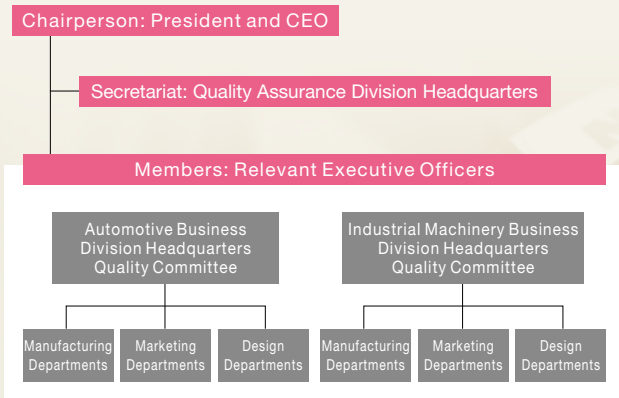
Management Structure

● **Quality Assurance Organizations**

The NSK Group has established the NSK Quality Committee, chaired by the president, to supervise Group-wide quality management. The president and directors of each business division headquarters meet in the committee three times a year to review the state of quality control and discuss quality issues, necessary initiatives, and related matters. The Quality Assurance Division Headquarters serves as the global lead for quality management, assisted by quality committees in each business division headquarters. Together, they work to strengthen quality improvement efforts by promoting cooperation among the manufacturing, sales, and design departments. The headquarters also reports the Group-wide status of quality management to higher-ups at monthly Executive Officers’ Meeting.

We have established regional quality assurance departments in the Americas, Europe, ASEAN, and China, and quality assurance organizations in other areas. These global organizations reinforce quality assurance by providing tailored support designed to meet customer needs in each country and region. Annual global meetings and biannual regional meetings are held to share and discuss quality-related information, and to strengthen monitoring, oversight, and the support structure in each region.

NSK Quality Committee



Global Quality Assurance Organization



Quality Management System

The NSK Group is ISO 9001 and IATF 16949* certified for quality management systems at development, design, and manufacturing sites. (See pp. 99-100 for details.)

Additionally, the effectiveness of quality management systems is verified through regularly conducted third-party audits and internal audits. When problems are found, we take appropriate corrective actions and continuously improve quality initiatives.

* IATF 16949 is aligned with ISO 9001, the criteria for quality management systems set by ISO (The International Organization for Standardization) with additional quality system requirements for automotive-related products.

Product Defect Response

NSK makes every effort to ensure quality. However, should a product or service defect occur, a response framework is in place, and customers are notified immediately. Under the framework, relevant departments cooperate closely to promptly resolve the issue and prevent the problem from spreading.

We identify the cause of the issue and put measures in place to prevent a recurrence.

Mid-Term Targets (FY2016-2018)

● Safety, Security, and Confidence: Goals in Market and Customer Quality Assessments

NSK strives to realize sustainable growth by encouraging employees to work with enthusiasm while staying informed on social trends and making products that customers enjoy using. We will continue to strengthen our global quality assurance system, while pursuing initiatives in accordance with our mid-term plan, as shown below.

The Fifth-Term Management Plan (FY2016 to FY2018)

1. Fostering quality-first culture and human development
2. Enhancing preventive measures for quality monitoring and audit
3. Establishing a field quality*¹ responsibility system
4. Reasserting strict adherence to quality control basic matters
5. Enhancing site control ability based on the 5-GEN Principle*²

* 1 Field quality refers to the quality products display during actual use by end users.

* 2 A set of Japanese principles that focus on "GEN-ba," the ACTUAL frontline; "GEN-butsum," the ACTUAL item or product; "GEN-jitsush," the ACTUAL condition or situation; "GEN-ri," the ACTUAL principle or theory; and "GEN-sokush," the ACTUAL rules or standards.

● Initiatives in Fiscal 2017

In fiscal 2017, the NSK Group pursued five key policies in line with the Three Pillars of NSK Quality Assurance. In fiscal 2018, the last year of the Fifth Mid-Term Management Plan, we are striving to achieve "operational excellence"* and encouraging our people to "innovate and challenge." We continue to raise our level of quality management by advancing Total Quality Management (TQM) as set out in our Vision.

* Operational excellence: In this report, operational excellence refers to "efforts to enhance front-line capability to increase the competitiveness of the NSK Group's business."

Fiscal 2017 Quality Priority Policies and Evaluation

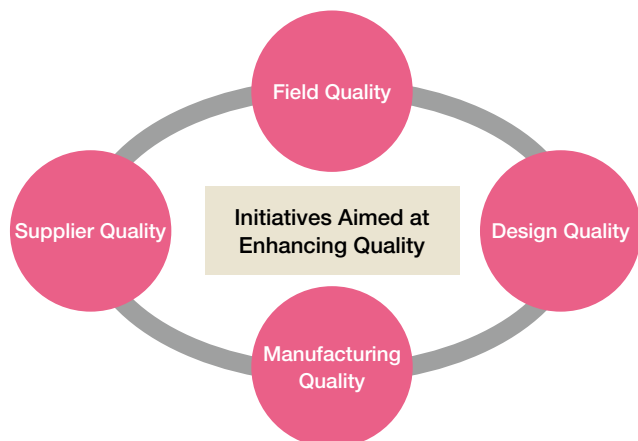
○ Achieved, △ Partially achieved, × Not achieved

1. Improving efforts to prevent recurrence of problems ○
2. Ensuring quality from market and customer perspectives ○
3. Foreseeing and addressing latent quality risks △
4. Conducting self-assessments/audits that also cover the basics ○
5. Fostering highly ethical handling of quality in all areas △

Initiatives in Fiscal 2017

Initiatives to Achieve Higher Quality

The NSK Group strives to secure and improve quality from four perspectives: in the field, in design, in manufacturing, and in supplier components.





Initiatives to Enhance Field Quality

As a firm that services the manufacturing sector, the NSK Group aims to achieve a level of quality that meets the expectations of society at large. We strive to satisfy our direct customers, but we also look beyond to grasp the needs of end users who use the products incorporating NSK components. This enables us to both propose and deliver quality products and services that thoroughly fulfill customer and social needs.

Feedback, Analysis, and Gathering Information on Market Trends

To accurately grasp market trends, the NSK Group monitors field quality by gathering and analyzing information, such as data on quality defects. This information is fed back to all relevant departments, including development and design, manufacturing, and sales, in an effort to improve product and service quality and prevent quality problems.

Evaluation by Customers

The NSK Group analyzes issues, quality reports, and insights gleaned from frequent customer feedback and internal and external information exchanges, sales, distribution, technical, and manufacturing departments cooperate to improve on identified issues.

Establishment and Use of a Customer Management Database

The NSK Group provides technical support related to design and expert knowledge on products use to accurately meet customer requests. We have also established a database for storing information such as records of how customer requests were met. The database is used to improve products and services by bringing information together from around the world.

Highlight Customer Commendations on Quality

The NSK Group has received letters of appreciation and commendations from customers in recognition of our efforts over many years to increase quality.

- Mar. 2018: “Quality Award” and “Sustainability Award” from Honda Motor Co., Ltd.
- Apr. 2018: Quality improvement activity “Award for Excellence” from the Honsha Plant of Toyota Motor Corporation
- Jul. 2018: “Award for Excellence in Quality” from Aichi Machine Industry Co., Ltd., for the sixth consecutive year



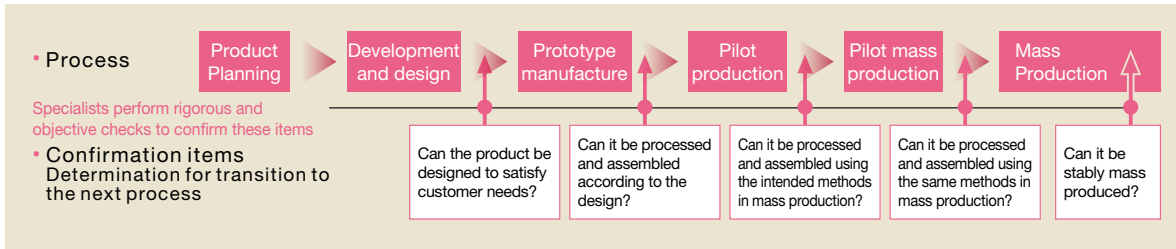
Initiatives to Enhance Design Quality

The NSK Group incorporates feedback from customers into design work to enhance quality in the design stage. We make every effort to design products with a superior level of quality by drawing on our expertise and experience in the market, cultivated over many years. We always strive to meet our own unique quality targets, going above and beyond the basic quality that our customers have come to expect.

NPDS: Building Quality into Each Process

The NSK Group has globally deployed an innovative quality management system, the NSK Product Development System (NPDS), to respond promptly and reliably to new projects and to mass produce products that satisfy customers. At each stage of the process, from product planning to development/design, prototype manufacturing and mass production, we ensure that any concerns are resolved and strive to improve quality. In addition, even after mass production begins, we conduct thorough management to maintain high quality.

Outline of NPDS



Training of DR Experts

To improve design quality, NSK has a system of experts that perform design reviews (DR) and has implemented worldwide measures to improve DR quality. These DR experts identify issues related to product quality from the design phase and into the mass production phase to prevent problems down the road. As of March 31, 2018, a global total of 22 DR experts were on the job. In fiscal 2018, DR best practices will be shared and materials enhanced Group-wide to take DR experts skills' to the next level.



Initiatives to Enhance Manufacturing Quality

The NSK Group works diligently to deliver a consistently high level of product quality that meets customer needs.

We also develop manufacturing processes that focus on the 4Ms (manpower, machinery, materials and methods) to further improve product quality.

NQ1 Program for Stable Production with Zero Defects

NSK conducts NSK Quality No.1 (NQ1) activities Group-wide through close cooperation between divisions including production, design development, production technology, quality assurance, sales, and logistics. We aim to optimize the flow of goods and information throughout the whole production process, from procurement to delivery.

As part of the NQ1 program, our “Dantotsu” improvement activities focus on providing the very best quality with zero defects. Each plant chooses initiatives and carries out improvements on a test line with the goal of achieving zero defects. Effective initiatives are quickly rolled out to other lines and manufacturing sites worldwide. In fiscal 2017, we accelerated deployment in China. In fiscal 2018, we also rolled out the program in Indonesia.



“Dantotsu activities” in Indonesia

Global Self-Audit System for Heat Treatment Processes

The NSK Group has created self-audit systems to prevent product defects. With the globalization of production, we focused on the worldwide rollout of a self-audit system for heat treatment processes. Under the system, staff frequently visited production sites and suppliers to conduct on-site audits. Only personnel with a high level of expertise are designated as in-house auditors.

Highlight Smart Factory Concept and the “Quality Cockpit”

The NSK Group is taking initiatives aimed at the creation of smart factories. These flexible manufacturing systems will analyze a variety of information from production processes to prevent product defects.

As part of those initiatives, we have started the Quality Cockpit: an effort to improve productivity by preventing the production of defective products instead of responding after they are produced. The effort involves analyzing large amounts of data measured during equipment operation and parts processing and visualizing it to watch for signs of trouble.

Global Rollout of Measures from Best Practice Plants

Every month, NSK monitors the status of quality management at all production sites worldwide. Production sites that produce exceptional results in terms of quality are categorized as “Best Practice Plants.” The characteristics of those plants and their management initiatives are analyzed and rolled out to other production sites.



Initiatives to Enhance Supplier Quality

High-quality lubricants, materials, and parts, are essential for the manufacture of high-quality products. At the NSK Group, we engage in a wide range of activities to enhance quality based on strong ties with suppliers.

Quality-Focused Procurement

The NSK Group conducts receiving inspections on parts and raw materials delivered to its business sites in each country and region. We also visit suppliers to verify their quality management. When starting business with new suppliers, we not only verify the quality of procured items but also the systems and real state of quality management in the design and production stages. Through these steps, we ensure that procurement is focused on quality.

Sharing Issues with Suppliers

The NSK Group provides ingoing education to suppliers, shares issues and engages in cooperative initiatives to increase quality, and regularly holds technical and quality meetings to this end. Each year, we hold procurement policy briefings where executive officers responsible for the Procurement Division Headquarters and Quality Assurance Division Headquarters explain our corporate and procurement policies and ask for supplier cooperation with socially responsible procurement initiatives.

Visiting Suppliers

The NSK Group strives to increase the level of quality while deepening mutual understanding with suppliers by sending personnel from the NSK headquarters, regional headquarters, and plants around the world to visit suppliers and audit their processes and exchange information.

We recently sent a questionnaire to Japanese suppliers of special-spec parts and raw materials that would be difficult to procure in case of a disaster. We asked them to conduct self-assessments to confirm the progress of initiatives such as earthquake response systems and predicted damage and countermeasures (see “Enhancement of Supply Chain BCP Effectiveness” on p. 50 for details.) We also conduct audits on and provide guidance to suppliers requiring quality improvements.

Since fiscal 2016, we have worked to strengthen supplier audits and train auditors. In fiscal 2019 and beyond, we will enhance monitoring and analysis of quality and defect information.

Developing Human Resources Critical to Superior Quality

The NSK Group provides a range of education and training programs to maintain and develop the human resources needed to ensure manufacturing of superior quality. All divisions work together to create products and services that deliver ever higher levels of quality and customer satisfaction.

● Overview of Quality Education

NSK provides appropriate quality education according to each employee's rank and department. In fiscal 2016, we began restructuring our quality education systems by introducing quality ethics education and practical education in statistical quality control (SQC). We also adopted quality engineering (Taguchi methods) and are offering practical education.

Rank-Based and Department-Based Quality Education System

Rank	Plant	Technology Division	Sales & Management Division
Senior Managers/ Managers	Quality Knowledge Education		
Assistant Managers	Quality Management Education	Quick DR (DRBFM)* ²	Sales Quality Education
Staff/Skilled Operators	NSK Manufacturing Education and Training Centers* ¹ (beginner/intermediate)	NSK Institute of Technology* ³ (2nd/3rd years)	
Group Leaders (Plants only)	Quality Education Why Analysis	—	
Common	Quality Awareness (Ethics) Education, Awareness-Raising Seminar		
New Employees	New Employee Education / 7 Tools of QC / FMEA & FTA		

*1 NSK Manufacturing Education and Training Centers: See p. 58 for details.

*2 DRBFM: Design Review Based on Failure Mode. A technique for preventing quality trouble by focusing on design changes to investigate failure mode effects.

*3 NSK Institute of Technology: See p. 57 for details.

Quality Month

To create products that customers can select with confidence, NSK recognizes that each employee must maintain a high level of quality awareness.

Every November, we celebrate Quality Month by promoting awareness of product quality to realize a range of quality improvements. During Quality Month, employees are encouraged to submit ideas for an NSK quality slogan that captures their concept of quality. The best slogans are then selected for display on posters at all sites. Additionally, we aim to improve quality through priority initiatives set in each plant according to a Group-wide theme determined by the Quality Assurance Division Headquarters.



Quality slogan posters



4

Supply Chain Management

Practicing Sustainable and Responsible Procurement

The world today is facing a variety of challenges including climate change and energy and human rights issues. To achieve a sustainable society, companies are expected to practice responsible procurement, taking into account environmental and social factors, and to solve these issues across the entire supply chain.

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P.47 Supply Chain Management

Supply Chain Management

Basic Approach

Numerous suppliers support NSK's business operations. NSK considers suppliers to be essential business partners and seeks mutual development while building relationships of trust.

Many issues exist in today's society, such as environmental and human rights problems. To build a sustainable society, companies are expected to help solve these issues. Our corporate philosophy is to contribute to "a safer, smoother society" and "protect the global environment" through our business activities. We recognize that we must share our policies and vision with suppliers and meet societal expectations throughout our supply chain. We have established a basic policy governing procurement in order to ensure fair procurement practices that also take into account the potential impact on society and the environment. We carry out CSR procurement and green procurement globally, and work across the entire supply chain to realize a sustainable society.

CSR Procurement Promotion System

In order to fulfill the NSK Group's social responsibility throughout the entire supply chain, the Procurement Division Headquarters, which is directed by a senior vice president, plays a central role in building systems to promote CSR procurement in collaboration with relevant functional headquarters, such as the Global Environmental Department, and production, procurement and administrative divisions within the NSK Group.

CSR activity policies and progress on related measures are reviewed at the biannual Global Procurement Conference, with those responsible for procurement in each global region participating.

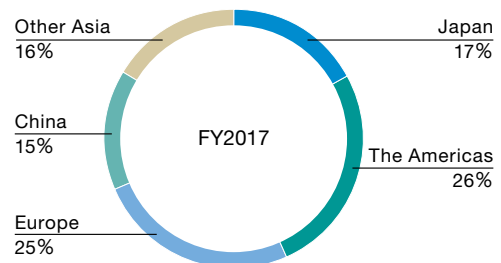
NSK Group Supply Chain

The NSK Group has transactions with approximately 9,000 suppliers worldwide* (about 1,500 companies for direct materials and 7,500 companies for indirect materials).

The share of NSK's sales outside Japan is about 70%, while the share of its production outside Japan is roughly 55% – and these figures are expected to continue to grow. As a result, we expect to source more materials and components from outside Japan going forward.

* Some overlap between regions.

NSK Group Suppliers, by Region (based on number of suppliers)



Reference data is available on our website.

www.nsk.com > Sustainability > Supply Chain Management

Basic Policy for Procurement

Building Relationships with Suppliers Based on Trust

Recognizing that mutual development with suppliers is important, the NSK Group works at establishing solid relationships of trust: long-term cooperative relationships. We share the importance of CSR with suppliers at briefings and using other means, pursuing greater understanding through mutual communication.

Procurement Policy Briefing

We hold procurement policy briefings every year to explain our procurement and other policies to major suppliers, asking them to reinforce their efforts to implement CSR activities in pace with the entire supply chain.

In fiscal 2017, we focused on sustainability, explaining the Sustainable Development Goals (SDGs), ISO 20400, and other related initiatives. We requested a strong commitment to sustainable procurement, and to the timely and accurate disclosure of procurement related information. We also emphasized the importance of human rights, and are working closely with suppliers to mitigate human rights-related risks across the entire supply chain.



Procurement Policy Briefing

Whistleblowing System (For Third Parties)

NSK has established a reporting system (whistleblowing hotline) for anyone to anonymously convey their criticisms, opinions, and concerns, enabling issues to be identified at an early stage and corrective measures to be taken. The hotline has two points of contact: one is the Head of the CSR Department and the other is an outside attorney. We are careful to ensure that not only internal whistleblowers but also suppliers can use the hotline safely and securely and face no repercussions due to using it. In addition, we have distributed leaflets to make the reporting system more widely known.

There were no whistleblowing incidents in fiscal 2017.

Promoting Fair Trade

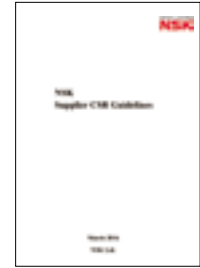
In September 2016, Japan's Minister of Economy, Trade and Industry released the Basic Policies for Future-Oriented Trade Practices. This move aims to promote fair trade and improve added value for both main subcontracting enterprises and subcontractors, as well as to further enhance trade environments across the entire supply chain. In December, the Operational Standards of the Subcontractor Act and the Promotion Standards under the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises were revised and the notice "Method of Payment of Subcontractor Proceeds," was released.

The Japan Automobile Manufacturers Association, Inc. and Japan Auto Parts Industries Association formulated and announced their Voluntary Action Plan to Promote Fair Trade and Increase Productivity and Added Value.

In light of these government and industry trends, the NSK Group created an internal manual explaining matters that those involved in procurement should take note of and offering guidelines on conduct that is likely to be viewed with suspicion in 2017. The manual has been disseminated, and we continue to work hard to promote fair trade.

NSK Supplier CSR Guidelines

NSK publishes and distributes the NSK Supplier CSR Guidelines and asks its suppliers to consider social and environmental factors by, for example, complying with competition laws and anti-bribery laws, respecting the basic human rights of workers such as prohibiting child labor and forced labor, maintaining occupational safety and health, and preserving the environment.



NSK Supplier CSR Guidelines

Identifying of Supplier Risk

NSK determines the risk that each supplier presents to its business activities by taking into account the procurement cost and volume, the importance of the procured parts, availability of replacements, and risk of the presence of environmentally harmful substances. Suppliers estimated to present a high level of risk are considered “key suppliers,” and we manage supplier risk by checking their financial condition, CSR assessment (self-assessment), and other factors.

Supplier CSR Assessment

NSK asks its suppliers to perform CSR assessments (self-assessment) and monitor the state of their operations (every two years). The results of this assessment are then fed back to our suppliers.

Previous assessment results (conducted in 2016) showed that improving CSR procurement activities across the entire supply chain, including secondary and tertiary suppliers, was a key issue. This indicates that we are asked to make greater efforts to disseminate this information to secondary suppliers and beyond at procurement policy briefings and other forums. To enhance the screening of risk including human rights risk, we reviewed the self-assessment items in fiscal 2018.

Human Rights Initiatives

In recent years, there has been increasing concern about human rights risk in the supply chain, such as child labor and forced labor.

In response to the UK Modern Slavery Act, which was enacted in October 2015, the NSK Group partially revised the NSK Supplier CSR Guidelines in March 2016 to better prevent human rights violations throughout the supply chain. We also posted statements on the website of NSK Europe, which oversees the European region.

In fiscal 2017, we disseminated these revised guidelines globally and reviewed CSR self-assessment items with the goal of screening the human rights risk of suppliers.

NSK Group Green Procurement Standards

The NSK Group Green Procurement Standards set out requests for initiatives, such as the management of environmentally harmful substances, so that the Group can work with suppliers to promote environmental management throughout the supply chain, starting at the stage of parts and materials.

We obtain understanding and acceptance from all suppliers of the NSK Supplier CSR Guidelines and the NSK Green Procurement Standards. In addition, basic business contracts contain clauses that pertain to environmental, social, and governance (ESG) performance (see p. 69 for green procurement initiatives).



Reference data is available on our website.

www.nsk.com > Sustainability > Supply Chain Management

■ NSK Supplier CSR Guidelines ■ Supplier CSR Assessment

Meeting Regulations for Disclosure on Conflict Minerals

Basic Policy

The NSK Group has a policy of not using conflict minerals and takes care in its procurement activities to avoid benefiting armed groups that violate human rights. We take steps to avoid using parts or materials that are suspected to be related to armed conflict.

Action Update

The Disclosure Rule under the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act in the United States requires an annual survey and disclosure of information on the status of use of four conflict minerals (tin, tantalum, tungsten, and gold) originating in the Democratic Republic of the Congo and surrounding countries. Its goal is to cut off the source of funding for armed groups and rebels involved in human rights violations. This rule took effect in January 2013.

NSK is not listed on a U.S. stock exchange and so is not subject to these rules. Nevertheless, we have adopted a policy of avoiding the use of conflict minerals and are working with suppliers on this issue. In 2013, the NSK Supplier CSR Guidelines were revised to unequivocally prohibit the use of conflict minerals, and we have endeavored to raise awareness of the revised guidelines among our suppliers. Since then, we have conducted a conflict mineral survey every year with cooperation from the suppliers of parts and materials used in NSK products. Surveys through 2017 have not identified any case of conflict minerals produced in restricted regions.

Enhancement of Supply Chain BCP Effectiveness

The NSK Group has built a system that quickly identifies the scale of damage and problems at suppliers in the event of a disaster and facilitates a precisely targeted response in cooperation with suppliers. Drills are conducted regularly to ensure sites properly utilize the Supplier Safety Confirmation System, which is used for emergency contact. We have also asked major suppliers to create their own BCPs and verified their progress in order to strengthen risk management throughout the supply chain.

In fiscal 2017, we began training supplier BCP assessment instructors with the goal of instructing suppliers on BCP effectiveness assessments and countermeasures.

We are determined to build a more disaster-resistant supply chain by continuing to forge cooperative relationships with suppliers.

BCP Formulation Status

Initiative level and targets

Verify BCP effectiveness	Conducted since 2013 Expand scope of training drills	Conducted since 2014 Increase number of business sites	Conducted since 2014 Increase number of suppliers
Formulate management systems and BCP	Completed by 2012 Continue revision	Completed by 2013 Continue revision	Started assessments in 2014 Continue revision
Implement disaster mitigation	Completed by 2012	Completed by 2013 Conduct additional measures	
	Headquarters Functions	Business Sites	Suppliers

Reference data is available on our website.

www.nsk.com > Sustainability > Supply Chain Management
 Meeting Regulations for Information Disclosure about Conflict Minerals



5

Good Labor Practices

Creating a Dynamic Work Environment

As globalization continues its advance, there are more and more opportunities for exchange among people of different nationalities and backgrounds. It has never been more important to work across national borders and regional boundaries to achieve prosperity for all, and the basis of this must be deeper mutual understanding. Companies, for their part, are now expected to work toward the development of safer, more engaging workplaces that respect the cultures and practices of countries and regions worldwide, and that embrace diversity in the workforce.

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- P.52 Initiatives for Human Resource Management
- P.63 Initiatives for Occupational Health and Safety Management

Initiatives for Human Resource Management

Basic Approach

At the NSK Group, we see our workforce as a vital asset in the continued success of our business. We know that employees who are fully engaged in their work have the greatest potential for growth, which can ultimately lead to the sustainable growth of the entire NSK Group. This is why we are committed to creating a safe and motivating workplace that respects the cultures and practices of countries and regions worldwide, and that embraces diversity in the workforce.

Policy

The NSK Group's Management Principles clearly state that our aim is "to provide challenges and opportunities to our employees, channeling their skills and fostering their creativity and individuality." In acknowledgment of the fact that each and every employee is a priceless asset, we have committed ourselves to "maximizing individual talent in a fair and dynamic work environment." This commitment features three key areas of focus: leveraging a diverse workforce, creating a motivating workplace, and creating workplaces and opportunities that foster employee growth. We strive to create and maintain engaging work environments that inspire our employees and enable us to develop the human resources we need to lead the NSK Group in the future.

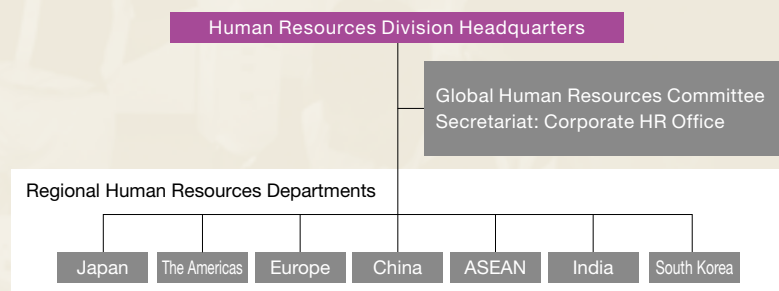
Creating a Dynamic Work Environment



Global Human Resources

To exercise unified management of our global human resources, NSK established the Human Resources Division Headquarters in 2016. In close collaboration with local HR departments, the division headquarters engages in a variety of undertakings based on the approach described above. At the biannual Global Human Resources Committee, HR managers from each region meet to report on their regional initiatives, share about local challenges they face, and engage in global discussions on measures to further improve talent management.

Structure of the Human Resources Division Headquarters



Mid-Term Targets (FY2016–FY2018)

➤ Build a Global Talent Management System

- Accelerated leadership development
- Collaborative succession planning
- Developing talent with a diverse range of experience

➤ Promote Diversity, Create a Safe and Inspiring Workplace

- Recruit high potentials with diverse backgrounds
- Create work environments where every member of our diverse team can maximize their strengths and abilities

● Initiatives in Fiscal 2017

In fiscal 2017, the Global Human Resources Committee continued to focus efforts on enhancing developmental management of successor candidates positioned to fill key global positions. The Global Management College, established to develop the next generation of organizational leaders, began its seventh annual program in fiscal 2017. The college has graduated more than 86 participants over the last seven years, who have all gone on to contribute to NSK business operations throughout the world.

The NSK Group is committed to diversity and inclusion, and strives to create workplaces that are motivating for all employees.

NSK has been recognized externally for its health and wellness initiatives, receiving certification as 2018 Outstanding Health and Productivity Management Organization (White 500).

Dialogue and Respecting Fundamental Rights at Work

Basic Approach

Respecting the fundamental rights of employees is one of the most important ways for the NSK Group to fulfill its social responsibility as a corporate citizen and employer operating a global business. As such, we are committed to conducting business in a way that pays respect to the fundamental rights of our employees. (See p. 29 for details.)

Employment Policy to Preserve the Stability of NSK and Society at Large

As a corporate group committed to high-quality manufacturing, the NSK Group pursues sustainable growth. For this reason, we take a long-term perspective on employment and place high value on the continual recruitment and development of outstanding human resources to lead our businesses. Having established a policy to prevent mass layoffs, we also engage in appropriate employment practices in accordance with the laws and ordinances of each country and region where we operate.

Labor-Management Relations Based on Dialogue

The NSK Group regards sound labor-management relations as critical to sustainable growth. One way in which we respect fundamental rights at work, as pledged in the NSK Code of Corporate Ethics, is by guaranteeing employees the right to communicate openly and directly with management without fear of retaliation, intimidation or harassment. Employees and managers work as partners and strive to communicate at a deeper level, sharing their views on the work environment and business conditions, and discussing and implementing improvement measures. We are committed to creating workplaces where employees can proactively engage in their duties.

As of March 31, 2018, a total of 82% of the Group's eligible employees in Japan belonged to a labor union. Through regular meetings between employee representatives and members in management, participants discuss ways of improving the workplace through better working hours and improvements in safety and health.

Creating an Organization That Embraces Diversity (Diversity and Inclusion)

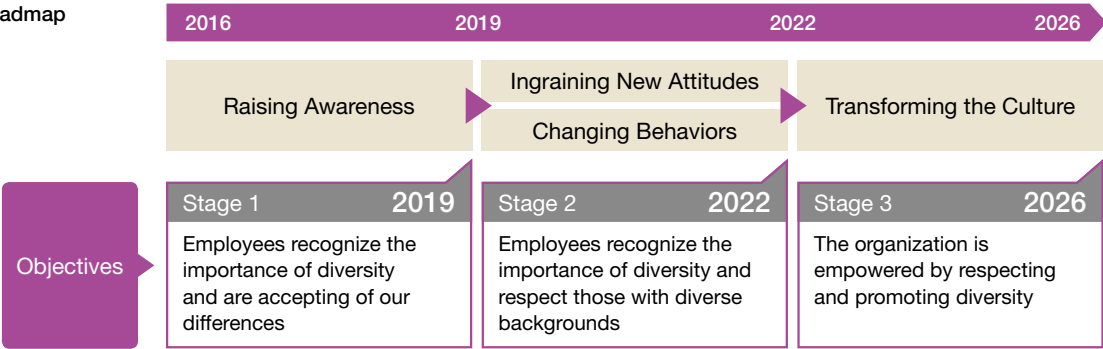
Basic Approach

At the NSK Group, we are convinced that employing people from diverse backgrounds—in gender, age, nationality, culture, lifestyle and values—will foster a work environment full of new perspectives and ways of thinking. We believe that this will in turn strengthen our competitiveness and ability to avoid risks. This is why we are working to build a corporate culture that embraces the diversity and inclusion of people and the values they hold.

● **Diversity Roadmap and Priorities for our Mid-Term Management Plan (FY2016–FY2018)**

The NSK Group is promoting diversity and inclusion in a three-phase initiative lasting from 2016 to 2026. During the initial Raising Awareness phase, which coincides with our three-year Fifth Mid-Term Management Plan (FY2016–FY2018), we will work to create an organization where our employees recognize the importance of diversity and are accepting of our differences.

Our Diversity Roadmap



For the Fifth Mid-Term Management Plan, our initiatives are based on the following four priority areas:

Priority 1	Promote a better understanding of diversity and inclusion	Priority 2	Support working parents and caregivers
Priority 3	Promote the advancement of women in the workplace	Priority 4	Work style reform

System for Promoting Diversity

NSK established a Diversity Development Team in 2006 with the aim of creating a work environment that promotes work-life balance. To further accelerate the team's progress and consolidate its place in the organization, the team was reorganized in 2016 as the Diversity Promotion Office.

The mission of the Diversity Promotion Office is to support the development of a rewarding corporate culture and work environment that enables each and every employee to maximize their unique set of strengths and abilities. To make this a reality, the office is pursuing its four priority areas to accelerate diversity within the organization.

Initiatives in Fiscal 2017

In fiscal 2017, the NSK Group continued to work on raising awareness.

NSK has taken a broad approach to instill support for diversity in priority areas. We expanded our program to provide childcare services for parents of small children with shifts on national holidays. We have also worked to support career advancement by offering training courses for women in assistant manager positions as well as females candidates for such roles. To provide more flexible work arrangements for working parents, we also offer a telecommuting option and flextime on a trial basis for employees working reduced hours.

Furthermore, we are committed to respecting and accepting diversity in sexual orientation and gender identity, and have clearly stated such in the NSK Compliance Guidebook (issued in June 2018; see p. 28 for details) and through our harassment hotline.

● Leveraging Global Talent

The NSK Group has undertaken a variety of initiatives to leverage its global talent across both national and regional boundaries. We are currently working to create a shared global infrastructure for HR that promotes standardization while leaving room for regional distinctions. This will include a common grading system for ranking executive posts, a deliberate system of promotion and development based on succession plans, core competencies for our global leaders, and a guideline for global mobility.

● Promoting the Advancement of Women in the Workplace (Japan)

At NSK, we believe that having more women empowered to actively demonstrate their abilities in the workplace will encourage diversity and inclusion, enhancing the overall competitiveness of the Company. To achieve this, we have begun making efforts to hire more women and to expand their work options. Our efforts do not stop there, however: as a first step in cultivating diversity in talent and values at the management level, NSK conducts training for women who are managerial candidates to prepare them with the skills and mindset they will need to excel as leaders.

Once every three months, women from regional branch offices get together in working groups to study and propose improvements. These groups enable women to network beyond their immediate workplaces, energizing our organization as a whole.

Percentage of Employees and Managers Who Are Women*

	FY2016	FY2017
Female employees	10.7%	10.5%
Female managers	1.2%	1.6%

* Includes employees of NSK Ltd. and major NSK Group companies in Japan.

● Helping to Support an Aging Society (Japan)

Japan's population is aging rapidly. Due to changes in the public pension system, it has become a societal expectation that companies provide access to employment opportunities even after mandatory retirement. NSK recognizes that the knowledge and skills of experienced senior employees are beneficial in growing its business. Our basic policy is to provide work opportunities to employees willing to continue at NSK after retirement. We have had a rehiring program in place since April 2001.

Upon passage of Japan's Revised Law Concerning Stabilization of Employment of Older Persons, which came into effect in April 2013, we revised our rehiring program to improve labor conditions and ensure stability for our senior employees.

Number of Rehired Senior Employees*

	FY2013	FY2014	FY2015	FY2016	FY2017
Senior employee rehiring system	441	470	505	620	570
Other (fixed-term contract, etc.)	29	28	25	35	54
Total	470	498	530	655	624

* Includes employees of NSK Ltd. and major NSK Group companies in Japan.

● **Providing Work Opportunities to People with Disabilities (Japan)**

At NSK, we believe it is our responsibility to provide employment opportunities for people with disabilities. Special subsidiary NSK Friendly Services Co., Ltd., in particular, provides opportunities for people with intellectual disabilities to work and thrive in our organization. In fiscal 2017, NSK Ltd., major NSK Group companies in Japan, and NSK Friendly Services together employed a total of 146 people with disabilities, representing 2.09% of all employees.

Employment Rate of People with Disabilities*

	FY2013	FY2014	FY2015	FY2016	FY2017
Employment rate of people with disabilities	2.04%	2.09%	2.17%	2.20%	2.09%
Legally mandated employment rate	2.0%	2.0%	2.0%	2.0%	2.0%

* Includes employees of NSK Ltd., major NSK Group companies in Japan, and NSK Friendly Services.

Human Resource Systems and Development Programs That Support Sustainable Business Practices

Basic Approach

Amid the ongoing process of globalization, the NSK Group aims to bring out employee potential and maximize talent by providing work environments that enable people to recognize problems faced across all cultures and borders and work together to resolve them.

We have honed in on three central strategies for raising up a diverse talent pool: developing global talent, developing talent with professional expertise, and creating HR systems that embrace diversity.

Development Programs

● **Human Resource Development Programs**

To develop the talent necessary to support sustainable growth, NSK employs a talent management system to ensure that each employee can realize their full potential. We are also working to promote career advancement and motivation by orchestrating strategic job rotations that serve to stretch the skills and abilities of our employees. Through a variety of educational offerings and training programs that further refine our people’s abilities, knowledge and character, NSK provides numerous opportunities and forums for further development.

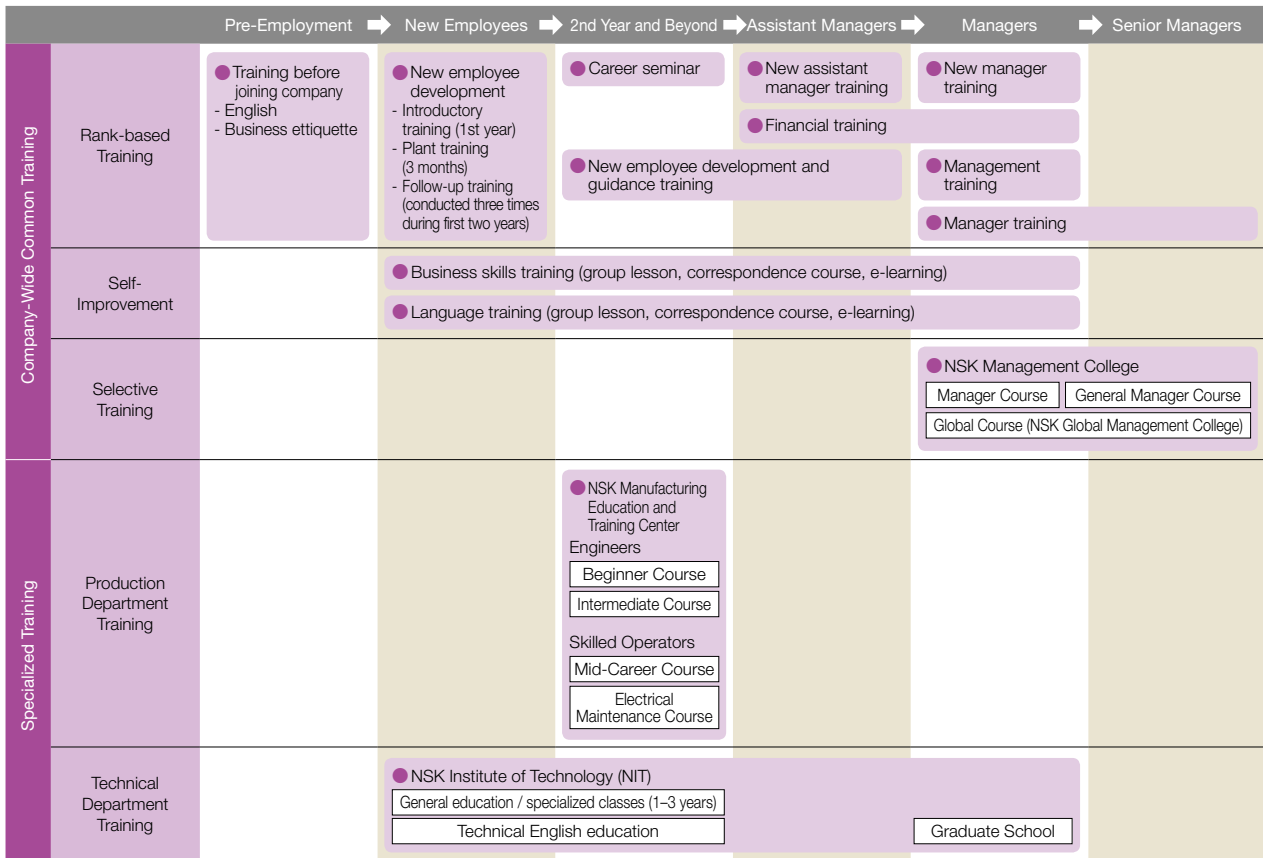
In addition to targeted training geared for managers and other levels of the organization, each year we run two internal business school courses—the Japan Management College and the Global Management College—which provide accelerated training for future leaders of the organization. Meanwhile, we are also considering ways to offer education at external institutions and courses in liberal arts programs. We also offer professional education by function, such as the NSK Manufacturing Education and Training Center, established to facilitate the transfer of technical skills and technologies required in manufacturing, and the NSK Institute of Technology (NIT), which conducts comprehensive technical training for engineers. In addition, we have been focusing on cultural and language training in order to equip employees with the skills they need to communicate effectively with people from around the world.

In fiscal 2017, we invested approximately ¥76,000 per person in employee development (non-consolidated), allowing us to improve the quality of our education and training programs and make them available to more employees.

Reference data is available on our website.

www.nsk.com > Sustainability > Creating a Dynamic Work Environment
 ■ Human Rights and Diversity

Career Development System



● Language Education

The NSK Group has selected English as a common language in order to conduct operations smoothly through active communication among employees around the world.

We offer English-language training led by external instructors at our headquarters and a number of plants in Japan. This provides employees with the opportunity to learn practical language skills relevant to their work. In fiscal 2015, we started Language Training Abroad, a new program giving promising language learners the opportunity to study overseas in an English-speaking country. In fiscal 2017, two employees were selected for the program and sent to study abroad.

At NSK Group sites outside of Japan, we are also conducting Japanese and English courses for local employees.

● NSK Global Management College

To develop talent for managerial roles around the world, the NSK Group has been running the Global Management College (GMC) since 2011. During the college's seventh year in fiscal 2017, 14 employees were selected to participate, including representatives from the U.S., UAE, Poland, Singapore, Indonesia, China, India, South Korea, and Japan. Sessions were held at NSK Group sites in Japan, China, India, and the U.S. The participants gained knowledge and skills in leadership through an interactive curriculum, which included lectures on business strategy and visits to NSK Group sites and our customers.

The college has already graduated 86 people. These leaders are now driving NSK's business operations in their respective regions.

Developing Highly Talented Engineers

● NSK Institute of Technology (NIT)

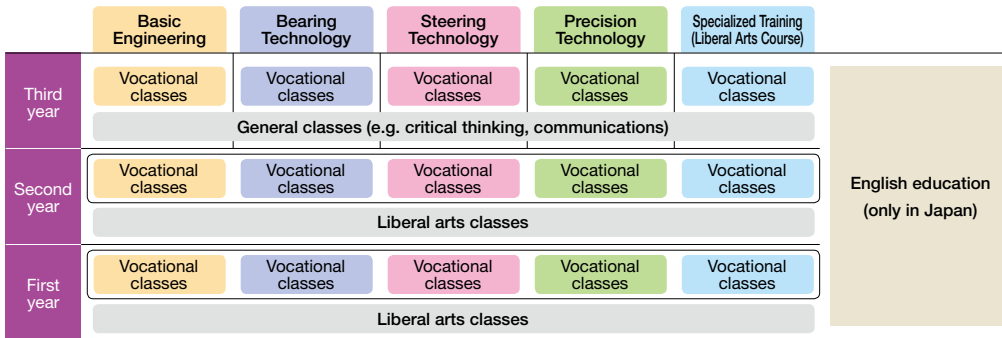
Established in November 2007, the NSK Institute of Technology (NIT) is a global educational institution that provides opportunities for employees to obtain knowledge on a broad range of market and customer technologies, while gaining specialized expertise by diving deeper into fields of focus at NSK. Going beyond mere technical theory, the institute aims to provide a comprehensive education in our technologies, from the application and handling of products to quality management, production methods and cost management. The credit-based curriculum is divided by academic discipline, with classes provided at technology departments in Japan and technology centers around the world. In addition to these standard courses, there are systematic courses of English

instruction, technology management training, sales engineer training, and quality education that combine textbook knowledge with practical skills and ethics for engineers. Open seminars are also held periodically, where external lecturers introduce new perspectives into the organization. Through these programs, NSK goes a step beyond mere technical training in an effort to raise up highly talented engineers who will have a direct impact on strengthening the competitiveness of our businesses.

In fiscal 2017, 466 students were enrolled in programs offered at 10 sites in eight countries.

NIT Education System

NIT Standard Course: Three-Year Curriculum Mainly for Newly Graduated Engineers



● **NSK Manufacturing Education and Training Center**

Seeking to develop frontline manufacturing specialists to inherit unique skills and expertise and pass them on to the next generation, NSK established the NSK Manufacturing Education and Training Center at Ishibe Plant in Shiga Prefecture and at Fujisawa Plant in Kanagawa Prefecture. The technical education provided at these facilities, conducted in three courses on grinding/assembly, maintenance, and electrical maintenance, offers training suited to the abilities and experience of each individual employee. Going forward, the centers will continue conducting the education needed to ensure skill transfer among our frontline employees.

NSK Manufacturing Education and Training Center: Courses and Content

	Course	Participants	Period	Course Content
Skilled Operators	Skilled operators (grinding/assembly)	Skilled operators	3 months	<ul style="list-style-type: none"> Skills knowledge focused on the fundamentals of shop floor management
	Skilled operators (maintenance)	Skilled operators	3 months	<ul style="list-style-type: none"> Special skills for repair/maintenance as well as shop floor management
	Electrical maintenance	Candidates for advanced maintenance staff	6 weeks + 2 months (at plant)	<ul style="list-style-type: none"> Fundamentals of electrical maintenance (basic theory, programming, troubleshooting) 2 months of hands-on training at plant
Engineers	Beginner-level engineers	Engineer with 2-3 years (or equivalent) experience	6 weeks	<ul style="list-style-type: none"> Fundamentals of being a plant engineer (basic engineering, basic management knowledge)
	Intermediate-level engineers	Engineer with 5-7 years (or equivalent) experience	1 weeks (held twice)	<ul style="list-style-type: none"> Knowledge for shop floor management skills for intermediate-level engineers Monozukuri knowledge from the Toyota Production System

Employee Evaluation and Promotion Systems

● **Management by Objectives and Performance Agreement Systems**

The NSK Group has elected the Performance Agreement System as a means to align individual goals with departmental and corporate targets, allowing employees to maximize their potential as they grow along with their department and company. Under this system, employees meet regularly with their supervisors to set goals for the fiscal year, verify interim progress, and follow up on results at the end of the year. In order to ensure that evaluations are fair and that managers and their employees are engaging in interactive discussions fairly, we also conduct a survey to determine how satisfied employees are with evaluation feedback from their supervisors. This system is used for all employees, excluding shop floor workers in manufacturing departments. In fiscal 2017, 56% of employees (NSK Ltd. and major NSK Group companies in Japan) were evaluated under this system.

● **Workplace and Career Aspirations Survey**

Once a year, NSK gives employees the opportunity to submit feedback directly to the Human Resources Department through the Workplace and Career Aspirations Survey. The survey includes questions on their current workplace environment, the employee's personal aspirations for their future with the Company, and other personal concerns they might like to address. Employees may also request a follow-up interview with the HR Department. Based on the results of these surveys and interviews, we employ strategic personnel transfers to enable our employees to fully develop their unique skills and abilities. A total of 3,160 employees submitted the survey in fiscal 2017 (NSK Ltd. and major NSK Group companies in Japan).

● **Internal Job Posting System**

NSK posts internal job offerings to promote engagement and help employees proactively develop their careers. Job postings specify qualification requirements and the number of people needed, and anyone interested can submit an application directly to the HR Department. By launching a system that allows employees to proactively seek out new types of work, NSK aims to improve employee motivation and engagement.

Facilitating Work-Life Balance

Basic Approach

It is our conviction at NSK that having employees who enjoy and are actively engaged in both their work and personal lives will have a beneficial impact on our business. An improvement in employee productivity will lead to an improvement in their ability to produce quality work, which will ultimately cultivate a more fulfilling life both at work and at home. For this reason, we strive to better manage employee working hours, to encourage employees to take their annual paid leave, and to provide a variety of work style options to fit their diverse lifestyles. With an aim of boosting job satisfaction, we also offer seminars and other programs to raise awareness—of both managers and employees—on the need for work style reform.

Support for Working Parents and Caregivers (Japan)


To create a workplace that meets the needs of a diverse workforce and allows each and every one of our employees to thrive, NSK is taking active efforts to provide support for working parents and caregivers. Our programs to support these employees go above and beyond the legal requirements. We not only provide comprehensive support for working parents and caregivers, but are taking efforts to create a work environment where they can realize their full potential.

Many employees are eager to excel in the workplace despite the time constraints of parenthood. This is why we provide flextime for working parents and offer onsite childcare services on working public holidays when regular daycare facilities close down. We also provide support for employees with family members requiring long-term care. We offer seminars for caregivers to improve retention, enabling them to continue working as they care for family in need. These seminars cover the basics of family care as well as the company programs available to them with the aim of reducing the stress associated with long-term care, creating opportunities for employees to discuss their concerns, and ultimately allowing them to continue to thrive in the organization.

In recognition of our efforts to support working parents of small children, the Minister of Health, Labour, and Welfare awarded NSK certification for Kurumin*.



* Kurumin: Based on the Act on Advancement of Measures to Support Raising Next-Generation Children, NSK formulated an action plan as a general business operator and received certification from the Minister of Health, Labour and Welfare as a corporation that supports child raising.

 Reference data is available on our website.

www.nsk.com > Sustainability > Creating a Dynamic Work Environment
■ Human Resources Development Programs Underpin Growth

Support System for Working Parents and Caregivers*

	NSK	Japanese law
Parental leave	Through end of April following child's third birthday (first five days is paid)	Up to 2 years (unpaid)
Reduced hours for working parents	Through end of March of child's 6th grade year	Up to 3 years
Caregiver leave	Up to 1 year (Can be split unlimitedly)	Up to 93 days (Can be split into 3 parts)
Reduced hours for working caregivers	Up to 3 years	Up to 3 years
Exemption from half-day limit	Usually limited to 12 half-days per year, are exempted when caring for sick family members, providing childcare, or undergoing infertility treatments	
Re-employment registration system	Employees who resign to follow a transferring spouse can register for re-employment at NSK upon their return	

*Includes employees of NSK Ltd. and major NSK Group companies in Japan.

Work Style Reform (Japan)

At the NSK Group, we believe that giving employees more space away from work to cultivate their personal lives will allow them to be more productive and produce higher quality work on the job. For this reason, in addition to making flextime available to employees, we are striving to better manage working hours and to encourage employees to take their annual paid leave. We know that in order to create a place for our diverse workforce to thrive, we need to offer more flexibility in terms of both hours and location. We are currently working to expand our IT infrastructure and have begun a trial telecommuting program in July 2018, allowing select employees to work from home or a satellite office location. With an aim of boosting job satisfaction, we also offer seminars and other programs to raise awareness—of both managers and employees—on the need for work style reform.

Total Working Hours per Employee, and Average Days of Paid Leave Taken Annually*

	FY2013	FY2014	FY2015	FY2016	FY2017
Total working hours per employee	1,825 hours	1,857 hours	1,846 hours	1,865 hours	1,897 hours
Average days of paid leave taken annually	16.8 days	17.0 days	17.2 days	16.8 days	16.9 days

* Includes employees of NSK Ltd. and major NSK Group companies in Japan (Regular employees except managers)

* The data was recalculated due to a change in calculation criteria.

Lifelong Learning Program (Japan)

NSK provides employees with various opportunities to reflect on their health, personal finances, and life in general as they prepare for retirement. The Lifelong Learning Program and seminars on pension and employment insurance are widely attended by our employees.

Initiatives for Corporate Health Management

Basic Approach

At NSK, we see an investment in health as an investment in corporate value, and as such, we are committed to a full range of initiatives to promote the health and wellness of our employees and their families. We have therefore established the NSK Basic Policy on Health and Wellness and have implemented various activities in line with the Three Main Focal Points of NSK Health and Wellness.

NSK Basic Policy on Health and Wellness

At the core of NSK's Vision to set the future in motion is a desire to create a brighter tomorrow where we can all lead safe, healthy, and fulfilling lives. It is NSK's firm belief that the health of our employees and their families is foundational to achieving this future.

The health—both of body and mind—of each one of our employees and their families is an invaluable asset to the Group. As such, NSK has established a management structure that prioritizes health and is committed to a full range of activities to promote employee wellness, all with the aim of improving their physical and mental health.

NSK sees an investment in employee wellness as an investment in the future profitability of the NSK Group, and will continue to proactively pursue initiatives in this area.

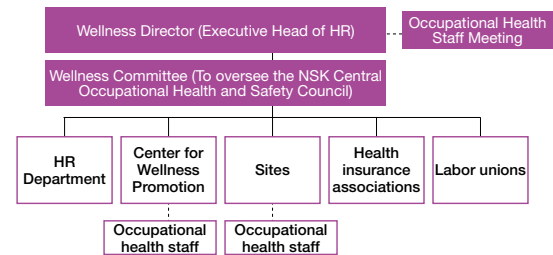
Three Main Focal Points of NSK Health and Wellness

1. Focus on prevention. Support employees to prevent aggravation of medical conditions.
2. Implement and promote mental wellness strategies to prevent the onset of mental health issues.
3. Prevent damage to health by reducing secondhand smoke risks (through smoking cessation efforts, etc.).

Corporate Health Management Structure (Japan)

NSK's health and wellness objectives are a reflection of in-depth discussion and critical analysis at meetings held throughout the organization. This collaborative effort has involved the HR Department, the Center for Wellness Promotion, labor unions, health insurance associations, and onsite labor divisions and occupational health staff, all under the supervision of the executive head of HR. In order to create a management structure that prioritizes health, we established a Center for Wellness Promotion within the HR Department, and we have worked to build a stronger medical team through the recruitment of additional occupational physicians, nurses, and health specialists. But our efforts do not stop there: through regular meetings of occupational health staff and the Wellness Committee—a function established to oversee the activities of the NSK Central Occupational Health and Safety Council—we will continue working to improve our ability to support the wellness of employees.

Corporate Health Management Structure



Health Management Program (Japan)

We are working to spread awareness of the role of corporate health management and are actively encouraging our employees to be more conscious of their health.

● Prevention of Secondhand Smoke and Anti-smoking Campaigns

Smoking areas are completely isolated at NSK workplaces. In fiscal 2017, we put up posters in sites throughout Japan to promote awareness of secondhand smoke and encourage smokers to kick the habit. In fiscal 2018, we held multiple "No Smoking Days" and have made efforts to spread the word by putting up posters throughout our sites promoting the smoke-free days.

● Handbook Distribution

We also distributed the NSK Health and Wellness Initiative 2018 handbook to employees and executives in Japan to encourage everyone to better understand their state of health and lead more fulfilling lives. In addition, we shared employee efforts to improve their wellbeing in the company newsletter and on our intranet site.



Poster to promote awareness of secondhand smoke

Mental Health (Japan)

● Mental Health Education

Through lectures from specialists and roleplay coaching, new employees are trained in self-care, and managers are educated in “line care,” providing line managers with the skills they need to notice and react to sudden changes in their employees. By learning to identify early signs of stress and gaining new strategies to help avoid it, we equip employees with the skills they need to help them nip mental health problems in the bud.

● Using the Results of Stress Checks

NSK introduced a new indicator in its annual stress checks to measure the correlation between level of stress and degree of work motivation. Employees are notified of the results of the stress checks so they can conduct their own self-care. Upon request from the individual or at the discretion of an occupational physician, this is then followed up with a personal consultation. Since fiscal 2018, we have been holding feedback meetings at sites in Japan to brief managers on the stress check results within their own departments. By taking new measures to improve the workplace and periodically checking up on our progress, we will work to improve our employee stress levels.

● External EAP

With the help of external specialists, NSK has also rolled out an employee assistance program (EAP)*. The program enables employees to seek help for mental illness before it becomes too serious, supports employees as they transition back to work after a leave of absence, and works to combat recurrence of mental health problems.

* Employee assistance program: A program that supports employee mental health

● Mental Health Helplines

NSK has established helplines at each site to provide employees with a safe and easy option for getting help at their workplace. We have also set up a telephone hotline for employees and their families.

Physical Health (Japan)

● Disease Prevention and Lifestyle Improvements: Putting Checkup Results to Good Use

The prevention and early detection of disease is essential for ensuring that all employees can thrive in the workplace. That is why, every year, when employees have their annual health checkup, those with health concerns are encouraged to have follow-up consultations with a physician who can hear their concerns and recommend lifestyle improvements. Our health insurance associations also play a big role in the health of employees and their families, promoting early detection and prevention of disease progression through the Specific Counseling Guidance program and periodic cancer screenings.

Status of Health Management (Japan)

Occupational physicians provide personal consultations and health recommendations to employees with health concerns. The overall percentage of stress checks conducted decreased slightly due to a change in the method of implementing the checks at some sites. However, regular follow-ups for people not receiving the stress check and other improvements are used to promote self-care and “line care” by managers. Nurses and health specialists at each site as well as outside providers will continue to provide health guidance through the Specific Counseling Guidance program.

Status of Three Main Health Focal Points

	Fiscal 2016	Fiscal 2017
Rate of employees showing health concerns	51.8%	52.4%
Rate of employees receiving stress checks	96.7%	95.9%
Rate of employees participating in the Specific Counseling Guidance program	26.1%	25.7%

* The data was recalculated due to a change in calculation criteria.

Outstanding Health and Productivity Management Organization

NSK has been recognized externally for its health and wellness initiatives, receiving certification from Japan’s Ministry of Economy, Trade and Industry as 2018 Outstanding Health and Productivity Management Organization (White 500) in the large enterprise category.



Initiatives for Occupational Health and Safety Management

Basic Approach

To protect the safety and health of each and every employee, NSK undertakes initiatives with the following basic philosophy: “Safety is the first and foremost priority. The Company should establish safe, secure, and comfortable workplaces, no matter the level of output demand.”

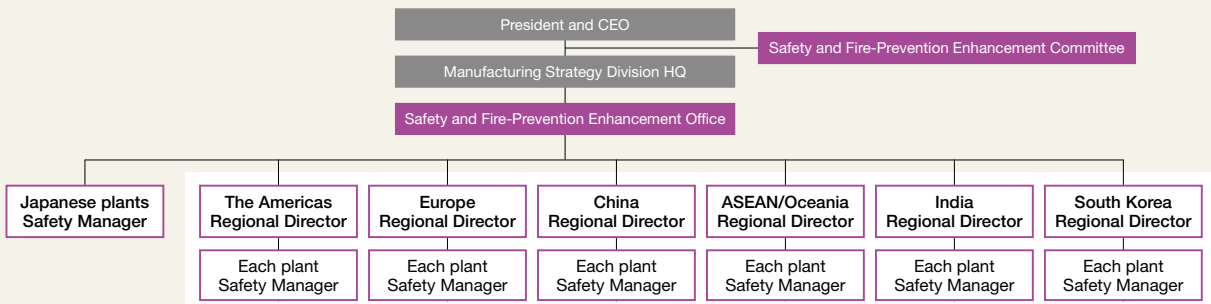
We believe that safe workplaces can only be achieved by promoting global standards to improve unsafe facilities, by encouraging information sharing, and by fostering a culture where employees feel free to challenge one another on the safety of their actions.

Organizational Structure for Occupational Health and Safety Management

The NSK Group appreciates the importance of a proactive approach toward safety and health to a sustainable manufacturing process. Accordingly, in fiscal 2016 we established a Safety and Fire-Prevention Enhancement Committee chaired by the president. We also hold periodic meetings on global safety and fire prevention—both for heads of operations in each region and regional fire and safety directors—to discuss global safety issues. Such meetings allow NSK to adopt unified policies, share best practices among regions, and ultimately to create safe and healthy workplaces for all of our employees.

In the future, we will continue to leverage these meetings to maintain connections among regions and ensure worker safety.

Global Safety and Fire-Prevention Management System



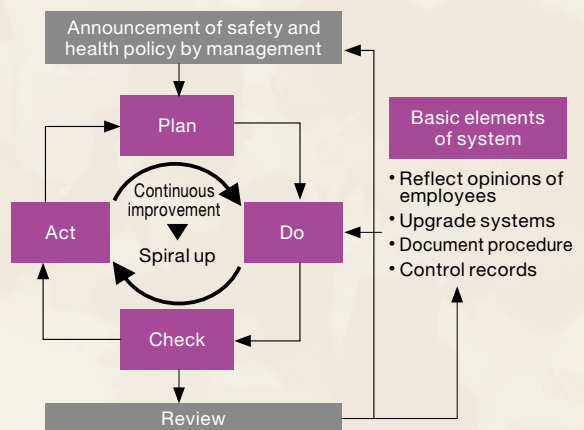
Occupational Health and Safety Management System

The NSK Group has developed an occupational health and safety management system that complies with OHSAS 18001 and other related regulations. We strive to foster a “safety first” culture that fully engages all employees at each of our sites.

By reporting accident occurrences and implementing appropriate countermeasures to all of our sites globally, we always work to prevent recurrence of similar incidents.

Following the issue of ISO 45001, the international standard covering occupational health and safety management systems, we are conducting activities globally with the aim of obtaining this certification. In Japan, we plan to obtain the certification for each of our plants beginning in 2019.

Occupational Health and Safety Management System



Mid-Term Targets (FY2016–FY2018)

Target

➤ In order to establish safe, secure, and comfortable workplaces, NSK will concentrate on the following three focal points.

Three Main Focal Points of the Fifth Mid-Term Management Plan

1. Correcting unsafe behaviors
2. Standardization, commonalization and sharing
3. Improving unsafe facilities

● Initiatives in Fiscal 2017

In fiscal 2017, NSK continued to prioritize the prevention of major accidents. Accordingly, we strengthened measures for high-risk facilities and procedures and reinforced management of external contractors.

Lost-Time Accident Occurrence Rate

	FY2015	FY2016	FY2017
Japan	0.32	0.28	0.23
Outside Japan	0.91	0.89	0.79
Globally	0.70	0.68	0.59
Japan's manufacturing industry (average)	1.06	1.15	1.02

* Lost-time accident occurrence rate = Number of work accidents resulting in one or more days of work absence / total actual working hours × 1,000,000.

Occupational Safety Measures

Organizational Improvements

NSK established the Safety and Fire-Prevention Enhancement Committee—chaired by the president—to formulate policy and manage progress on objectives on a group-wide basis. The committee meets four times a year to discuss issues and make decisions related to safety and fire prevention. In addition, representatives from each regional headquarters* also meet four times a year to share best practices and discuss new fire and safety initiatives.

* Europe, the Americas, China, ASEAN, India, Japan and South Korea.

Standardization of Safety Education

The NSK Group has compiled the procedures used in its Safety Dojo* training into a manual, which has been used at NSK plants throughout the world since 2017. We have also created a fire and safety portal on our company intranet where employees can access related resources and learn about recent safety measures through easy-to-understand videos and photos.

* Safety Dojo: Training designed to help employees gain awareness of safety hazards and the importance of work rules by experiencing simulated accidents.

Recent Safety Initiatives

NSK is dedicated to developing highly knowledgeable and competent safety assessors in its equipment development departments. We are skilling these individuals to design machinery with an emphasis on safety to prevent accidents resulting from human error and machine failure. Since 2015, we have also been training safety sub-assessors to conduct risk assessments of our existing facilities and to implement safety measures to improve them.



6

Environment

Protecting the Global Environment

Concern is growing over global environmental problems caused by human activities in pursuit of wealth. The depletion of resources, advance of global warming and climate change, chemical pollution of air and water, and declining biodiversity are all serious issues. All of humanity shares in the challenge of building sustainable societies while protecting the environment. The NSK Group has established and operates an environmental management system that ensures our decision-making reflects society's expectations. With this groundwork, we practice low-impact operations and strive to develop products and services that help reduce environmental impacts.

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Environmental Management

Basic Approach

As outlined in NSK's mission statement, we adhere to the principle that global environmental protection must be an ever-present concern in all our business activities. Accordingly, our Environmental Policy states that environmental management forms the basis of our existence and pursuits. We use the PDCA cycle (Plan, Do, Check, Act) to apply countermeasures against global warming and environmental risks, to promote resource conservation and recycling, and to reduce the use of environmentally harmful substances. We also use PDCA to ensure compliance and create environmentally friendly products. In these ways, we are working to raise the environmental awareness of all our employees.

NSK Environmental Policy

Our commitment to environmental management forms the basis of our existence and our pursuits. We are determined to take independent and assertive actions, aiming to establish recycling-oriented societies.

1. Prevention of Global Warming

To actively support efforts to prevent global warming by developing environmentally friendly manufacturing processes and technologies.

2. Reduction of Negative Environmental Impact

To establish and continually improve environmental management systems and systems for the management of chemical substances in products; to comply with regulations, to prevent pollution, and to reduce environmental impact.

3. Contribution to Societies

To be actively involved in the social development of local communities where we operate by promoting our global corporate activities, to create affluent societies that are in harmony with the environment, and to promote the preservation of biodiversity.

Environmental Code of Conduct

1. To promote the development of manufacturing technologies through the use of our Tribology (friction control and lubrication technologies) in order to create environmentally-oriented products.
2. To ensure energy and resource conservation within all spheres of our business operations.
3. To reform environmental management organizations by improving operational systems and clarifying chains of responsibility.
4. To more aggressively tackle environmental protection by setting and adhering to high internal standards, in addition to complying with laws, ordinances, and agreements.
5. To reduce environmental impact by promoting the switch from chemical substances that adversely affect the environment to environmentally friendly alternative substances, waste reduction, and recycling.
6. To encourage employees to understand our environmental policies and to ensure an environmental mindset in the company through education and internal communications.
7. To contribute to societies by conducting social environmental activities and addressing issues related to the preservation of ecosystems and human health.
8. To actively communicate with environmental authorities and local communities in order to receive insightful and constructive opinions, and to disclose the ongoing status of our environmental management activities to the public.

Established: December 12, 1997, Revised June 25, 2015

NSK Group Environmental Management Structure

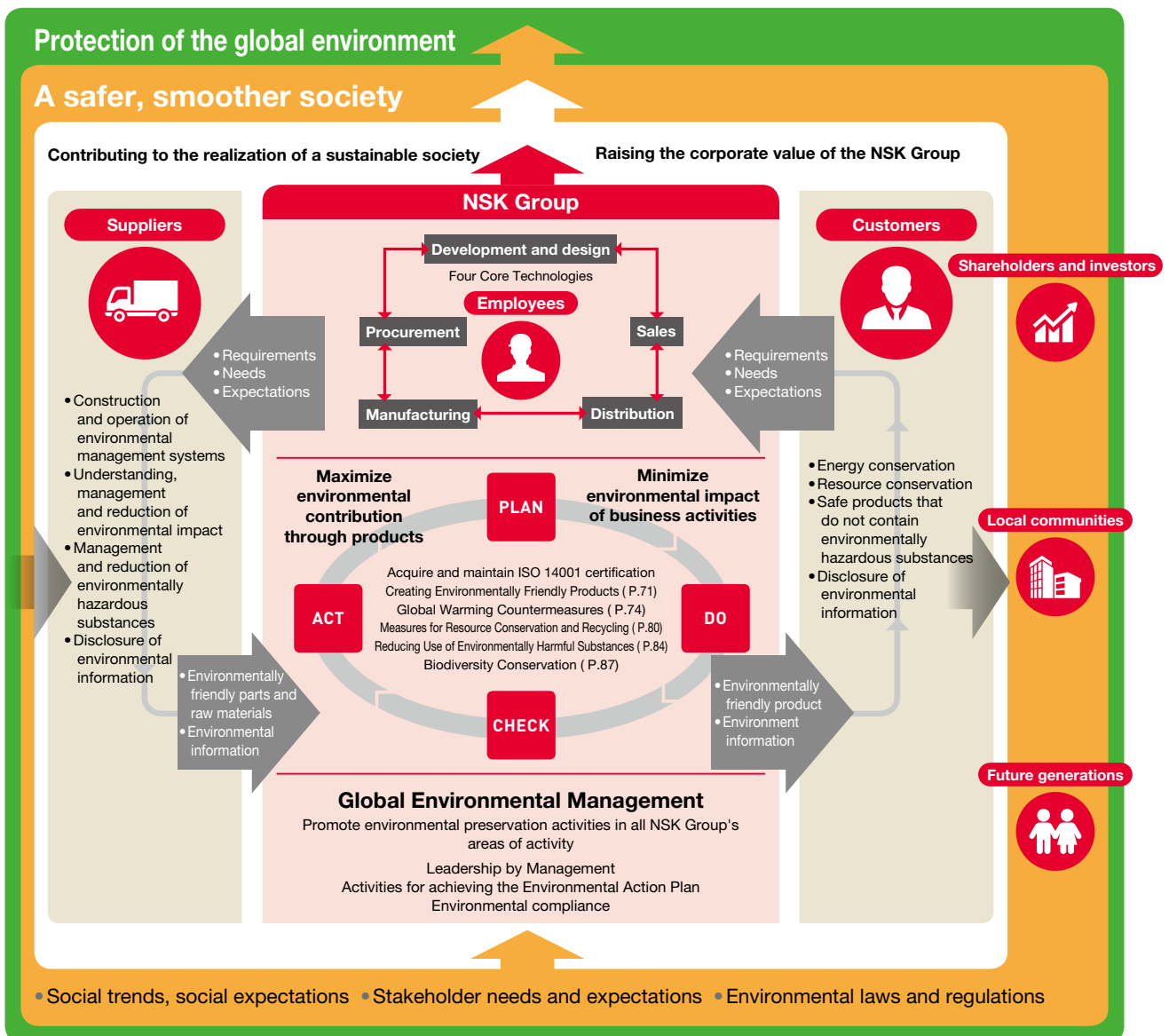
NSK's Global Environment Protection Committee is the top decision-making body for environmental management. The committee is chaired by a senior vice president and made up of 10 relevant officers, such as the heads of each business division headquarters, the Technology Development Division Headquarters, and the CSR Division Headquarters. They are joined by key members from the Global Environment Department and other relevant departments. The committee meets three times a year to discuss medium- to long-term environmental action plans and environmental efforts. Environment-related divisions and special subcommittees that deal with specific issues, such as energy conservation, resource conservation, and environmental products, play a central role in operating the everyday environmental management system at NSK sites based on decisions made by the global committee. Under the leadership of regional headquarters in Japan, Europe, the Americas, and China, plant managers at each site and executives at affiliates are responsible for environmental management and the administration of chemical substances. In this way, we are using PDCA cycles to improve environmental management throughout the Group. We aim to achieve environmental action plan targets globally through a cycle of progress checking and follow-ups. These include regular environmental meetings that focus on specific issues or regions.

For fiscal 2017 initiatives and evaluations, see pages 15-16, "Fiscal 2018 CSR Activity Performance and Fiscal 2018 Targets."

NSK Group Initiatives and Stakeholder Involvement

The international community is accelerating efforts for a sustainable society with the COP 21 Paris Agreement and Sustainable Development Goals (SDGs). In response to this trend, new regulations and incentives are being introduced by country and region. Such developments will likely affect NSK's business activities. For example, tighter regulations on CO₂ emissions from plants and stricter standards for air and water quality control could lead to increases in capital investment and expenses. Many NSK products are used in automobiles, and these too are changing in response to environmental trends. Power sources are shifting from conventional internal-combustion engines that run on gasoline or diesel to hybrid, plug-in hybrid, and electric models. This greater diversity changes the performance and functions required of our products. This can be viewed as a risk, but it can also be seen as an opportunity created by expanding calls for environmentally friendly products.

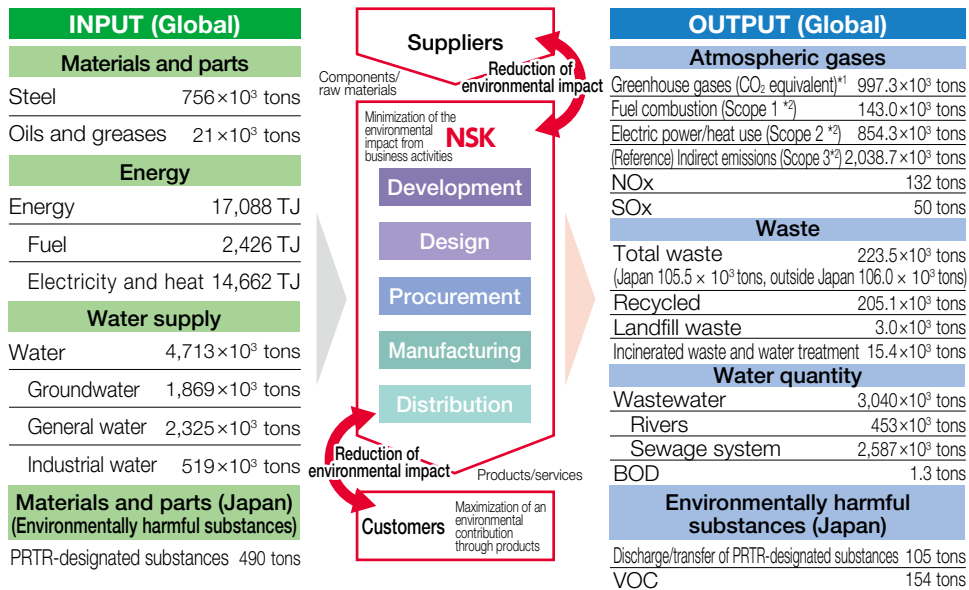
We seek to respond appropriately while understanding the risks and opportunities of environmental initiatives. As such, we aim for a solid understanding of global social trends and environmental laws and regulations in each country and region. With this knowledge, we are steadily implementing initiatives by defining priority issues and applying measures from our environmental action plan. We are reducing the environmental impact of our business activities by reducing greenhouse gas (GHG) emissions, promoting resource conservation and recycling, and preventing environmental pollution. We are also promoting activities with an awareness of the entire value chain, including the development of products and technologies that will help spread renewable energy, the development of environmentally friendly products that help conserve energy in customers' machinery and automobiles, and the promotion of green procurement.



Material and Energy Balance (Understanding Environmental Impacts)

NSK works hard to continually reduce its environmental impact and to use energy and resources in the most effective manner. We do this by quantifying the input of resources used in business activities and the output of greenhouse gases (GHGs), waste, and other emissions. We classify our emissions under the Three Scopes of the Greenhouse Gas Protocol and strive to reduce emissions throughout the value chain.

Input and Output of Global Business Activities (FY2017)



*1 The amount of greenhouse gas emissions is multiplied by each region's global warming potential. In Japan, calculated in conformity with the Ministry of the Environment and the Ministry of Economy, Trade and Industry's Greenhouse Gas Emission Calculation and Reporting Manual. Outside Japan, calculated in conformity with the International Energy Agency's CO₂ Emissions from Fuel Combustion.

**2 The amount of greenhouse gas emissions for Scope 1 to Scope 3 are calculated based on the GHG Protocol calculation standards. Scope 1 is the amount of emissions from a company's own fuel use; Scope 2 is the amount of emissions from power plants, etc., due to the supply of electric power and heat from outside (consumed by a company); and Scope 3 is the amount of indirect emissions, such as emissions from supplier manufacturing processes for procured components and raw materials.

Environmental Information Management System

The NSK Group has established and operates an information management system at all production sites worldwide. This system attempts to streamline the collection of environmental impact data and to increase accuracy through data consolidation. By visualizing data such as production output, energy and water use, and waste emissions, we can more effectively manage goals and reduce our impact.

Mid-Term Targets (FY2016-2018)

In the new Environmental Action Plan (see Mid-Term Targets on pages 71, 75, 81, 84, and 87) from fiscal 2016 through 2018, NSK has been working to contribute even more to the environment through its products. We seek to globally enhance our environmental management across the entire Group to cut our environmental impact and help build a society that has a low carbon footprint, is committed to recycling, and deeply respects the natural environment.

● Initiatives in Fiscal 2017

The NSK Group maintained and followed the procedures of its environmental management system to realize its action plan for reducing environmental impact. We strove to ensure compliance with laws and regulations by continuing to regularly conduct internal audits and third-party audits in accordance with ISO 14001. We also made efforts to raise the awareness of employees and conducted training programs.

Main Initiatives in Fiscal 2017

Acquiring and Maintaining Environmental Management Certification

The NSK Group implements PDCA cycles for environmental management at all sites. We give special attention to environmental initiatives at sites involved in development, design, manufacturing, and distribution because these processes have a large environmental impact. We require these sites to obtain external ISO 14001 certification—the international standard for environmental management systems—within three years of full-scale operation, such as the start of mass production. We believe that the effectiveness of our management system will increase by obtaining certifications for each site and undergoing regular reviews by third-party organizations. As of October 2018, all target sites have obtained or maintained certification. Moreover, the shift to ISO 14001: 2015 was completed in September 2018 (see pages 97–98 for details). The GHGs from development, design, manufacturing, and distribution operations under ISO 14001 certification account for around 98% of all GHG emissions generated by the NSK Group. Offices and other sites use environmentally responsible practices based on NSK’s policies.

Green Procurement

To reduce the environmental impact of the entire value chain, the NSK Group is strengthening efforts to preserve the environment in cooperation with suppliers. We seek to procure environmentally friendly parts and raw materials. To fully spread the NSK Group Green Procurement Standard throughout our global operations, we hold supplier briefings worldwide to raise local awareness and request that suppliers submit agreements to cooperate with environmental initiatives. We also verify the ability and willingness of supplier candidates to comply with the content of the NSK Group Green Procurement Standards before starting any business with them. By March 31, 2018, we had received agreement forms from 99% of the suppliers subject to green procurement in Japan and from 86% of key suppliers outside Japan.



NSK Group Green Procurement Standards

Environmental Audits

In addition to internal audits, third-party audits are regularly conducted in accordance with ISO 14001. Moreover, the NSK Group’s environment-related departments and regional headquarters conduct audits designed to prevent oil leakages and spills, ensure compliance with environmental laws, and properly manage waste. All audits conducted in fiscal 2017 found no serious problems, and minor findings were corrected.

Environmental Education and Training

To further strengthen and increase the effectiveness of environmental protection initiatives, each employee must have the proper awareness to implement measures based on sound knowledge. The NSK Group conducts ongoing initiatives to raise employees’ environmental awareness and provides rank-based training to deepen knowledge. In fiscal 2017, we conducted 583 training sessions in Japan, and 10,236 people attended. We routinely conduct training for emergency situations such as oil leakages and spills and verify response procedures and communication systems.

Fiscal 2017 Environmental Education Courses and Participants (Japan)

Training course type	Number of participants	Number of sessions
(1) Compliance with environmental laws and regulations	2,402	175
(2) Raising environmental awareness	6,242	315
(3) Acquisition of environmental qualifications	259	51
(4) Environmentally friendly design, green purchasing and procurement	1,333	42
Total	10,236	583



Reference data is available on our website.

www.nsk.com > Sustainability > Supply Chain Management

■ [NSK Group Green Procurement Standards](#)

Compliance and Countermeasures for Environmental Risks

The NSK Group goes beyond just complying with environment-related laws. We carry out initiatives in line with policies for preventing environmental pollution and reducing environmental impact by establishing rigorous internal standards for measures such as air and water cleanliness that go beyond legal obligations. Moreover, in the event of an environmental accident or legal violation, we report the matter to administrative bodies, investigate the cause, and promptly implement countermeasures.

In recent years, environmental regulations in China have rapidly tightened. In response, our regional headquarters in China has strengthened its environmental management system. In fiscal 2017, we conducted environmental audits of all 12 plants in China in cooperation with our Head Office to ensure thorough compliance with laws and regulations.

● Remediating Soil and Groundwater Pollution

The NSK Group completely eliminated the use of chlorinated organic solvents in fiscal 2003. However, we are continuing to clean up five sites where past use has left traces of contamination in soil and groundwater. We regularly monitor groundwater and report our progress to agencies.

● Reducing the Risk of Oil Spills

Since tanks and piping buried underground cannot be viewed directly, it could take a while to discover any oil spills or leaks. To prevent soil and groundwater from getting contaminated by oil used in manufacturing, all sites in the NSK Group are ending processes that use oil, moving underground tanks above ground, and making tanks double-walled.

We are also strengthening initiatives to prevent the runoff of oil from plants. We have installed oil and water separation tanks near rainwater drainage outlets at sites around the world to stop the trace runoff of oil. Since fiscal 2017 we have been installing oil film sensors at plants in Japan. Nine sensors were installed in 2017, and we plan to install 10 sensors in fiscal 2018.

● Preventing Emissions Standards from Being Exceeded Again

In fiscal 2017, there were no serious legal violations or environmental pollution accidents warranting a production stop or heavy fines. However, emissions standards were exceeded six times at sites in Japan and in the ASEAN region. We confirmed the causes, implemented countermeasures, and enacted measures to prevent recurrence.

● Provisions for Environmental Measures

In the past, NSK Group sites used asbestos and polychlorinated biphenyls (PCBs), but we are properly managing these to prevent them from being dispersed or leaking. Expected increases in future expenses related to removal and disposal are allocated as provisions for environmental measures (see p. 91 of the Securities Report for details). Appendix p. 99 Certification for Quality, Environmental, and Occupational Safety and Health Management Systems, p. 101 Scope of Environmental Management

Appendix

P. 99 Certification for Quality, Environmental, and Occupational Safety and Health Management Systems
P. 101 Scope of Environmental Management



Reference data is available on our website.

www.nsk.com > Sustainability > Environmental Activity > Environmental Management

■ NSK Group Environmental Structure ■ NSK Group's Environmental Management
■ Acquiring ISO 14001 Certification ■ Environmental Education

Creating Environmentally Friendly Products

Basic Approach

The products of the future must perform better than current products to help reduce the impact that human societies have on the natural environment. At NSK, we aim to contribute to a safer, smoother society and to help protect the global environment as spelled out by our Corporate Philosophy. As such, we are working hard to accurately determine the needs of our customers and society at large while developing environmentally friendly products and technologies that make the most of our Four Core Technologies: tribology, materials, numerical simulation, and mechatronics. We are also actively developing technologies that help the environment, such as bearings for wind turbines and components for electric vehicles. By delivering these products and technologies to all corners of the globe, we aim to improve the sophistication of machinery that contains our products and to develop environmentally friendly products that reduce society's environmental impact.

Basic Policy for the Development of Environmentally Friendly Products

The NSK Group minimizes the environmental impact of its products at every stage—from R&D and design, to production, usage, and disposal—by upholding the following standards:

1. Each product should contribute toward the energy and resource conservation of the machine in which it is installed.
2. The amount of energy and resources required during product manufacturing should be minimal.
3. Environmentally harmful substances should not be used in products or manufacturing processes.
4. Products should contribute to the health and safety of end users by having low vibration levels and low noise and dust emissions.

Mid-Term Targets (FY2016-2018)

The NSK Group is creating even more environmentally friendly products and technologies based on the NSK Environmental Policy and the Basic Policy for the Development of Environmentally Friendly Products. We also employ NSK eco-efficiency (Neco) indicators when developing products.

● Initiatives in Fiscal 2017

In fiscal 2017, the NSK Group developed five new environmentally friendly products that help customers conserve energy and resources. Since 2002, we have developed 224 such products. We also established standards we use to calculate how much CO₂ our products help to reduce.

Main FY2017 Initiatives


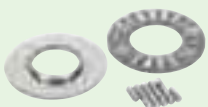



Initiatives to Identify Reductions in Customer CO₂ Emissions

The NSK Group has established calculation standards used to uncover how much NSK products help customers to reduce CO₂ emissions. Reducing friction loss by improving the technologies behind NSK products such as bearings helps save energy in the machine as a whole. Some of the everyday machines that use our products include automobiles and home appliances. Similarly, the development of bearings for wind turbines helps expand renewable energy. By improving the basic performance of our products and helping diversify energy, we aim for our products to benefit the user. This is why we are now studying methods to calculate how much less CO₂ is generated when customers use our products.

Development of Five New Environmentally Friendly Products

In fiscal 2017, NSK developed five new environmentally friendly products that help customers conserve energy and resources.

Environmentally Friendly Products Developed in Fiscal 2017

Products	Technology Developed by NSK	Environmental Benefits for NSK's Customers	Neco
Pawl-type one-way clutch for hybrid vehicles 	<ul style="list-style-type: none"> ● Applicable to lubricant-free environment ● Low friction loss ● Smaller, lighter 	<ul style="list-style-type: none"> ● Improved fuel economy ● Lighter (resource conservation) 	2.3
Press release June 5, 2017 http://www.nsk.com/company/news/2017/press0605a.html			
Low-noise thrust needle roller bearing for electric vehicles and hybrid vehicles 	<ul style="list-style-type: none"> ● Low friction loss ● Weight reduction 	<ul style="list-style-type: none"> ● Improved energy economy 	2.1
Press release December 6, 2017 http://www.nsk.com/company/news/2017/1206a.html			
Long-life roller bearings for automobile transmissions 	<ul style="list-style-type: none"> ● Longer life 	<ul style="list-style-type: none"> ● Lighter (resource conservation) ● Improved fuel economy 	1.3
Press release February 21, 2018 http://www.nsk.com/jp/company/news/2018/0221a.html (Japanese)			
High-performance tapered roller hub unit bearings for pickup trucks, large SUVs, and commercial vehicles 	<ul style="list-style-type: none"> ● Improved reliability ● Low friction loss 	<ul style="list-style-type: none"> ● Improved reliability ● Improved fuel economy 	1.3
Press release April 5, 2018 http://www.nsk.com/company/news/2018/0405a.html#			
Low-friction, high-performance seals for deep groove ball bearings 	<ul style="list-style-type: none"> ● Both high performance and low friction loss 	<ul style="list-style-type: none"> ● Improved reliability ● Energy savings 	1.4
Press release October 30, 2017 http://www.nsk.com/company/news/2017/1030a.html#			

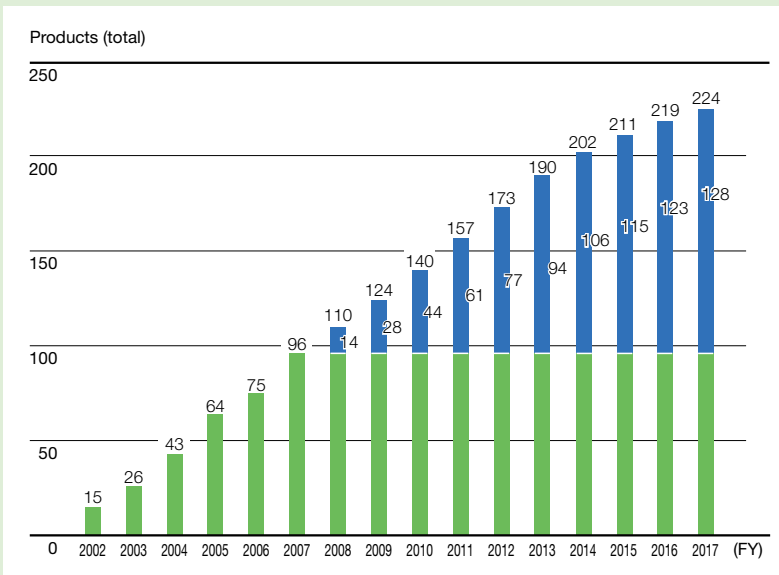
Highlight **Assessment Indicators for Environmentally Friendly Products (Neco)**

The development of environmentally friendly products requires a balance of diverse performance improvements to save energy and resources. Ideal performance factors, such as higher efficiency, lower friction loss, smaller size/less weight, and longer life, are often at odds. Accordingly, in fiscal 2008, we introduced NSK eco-efficiency indicators (Neco) as a yardstick to fully assess how a developing product fares in terms of environmental friendliness.

A Neco score is obtained by dividing product value *V* by environmental impact *E*. *V* represents how much a product in development improves on an existing product (assessed as 1) regarding parameters that must increase to improve product value, such as service life, performance, and accuracy. *E* represents how much a product improves on environmental parameters such as product weight, power consumption, and friction loss. These factors must be reduced to decrease environmental impact.

Take a bearing as an example and compare it to an existing product. The Neco value will increase as service life, compactness, and ability to withstand high-speed rotation increase and weight and friction loss decrease. We are working to develop new products with a Neco score of 1.2 or higher.

Number of Environmentally Friendly Products Developed



$$\text{Neco} = \frac{\text{Product value } V \text{ (product life, functions etc)}}{\text{Environmental impact } E \text{ (product weight and power consumption) etc}}$$

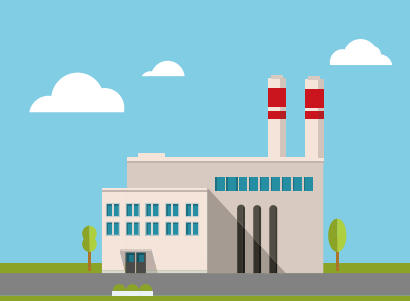

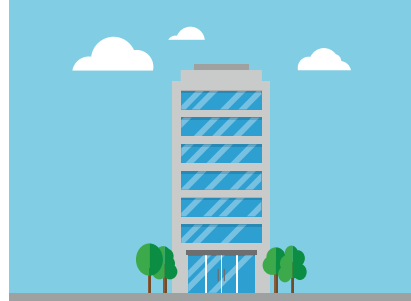
- Newly developed products with a Neco score* of 1.2 or higher
* Established in fiscal 2008
- Newly developed products consistent with the Basic Policy for Development of Environmentally Friendly Products established in fiscal 2001

Global Warming Countermeasures

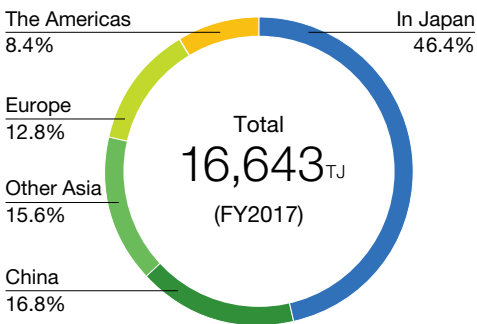
Basic Approach

To fight global warming, NSK strives to reduce CO₂ emissions by creating environmentally friendly products that help reduce society's CO₂ emissions, by being more efficient in its own energy usage during production, and shifting to clean energy at its production sites, distribution, and offices.

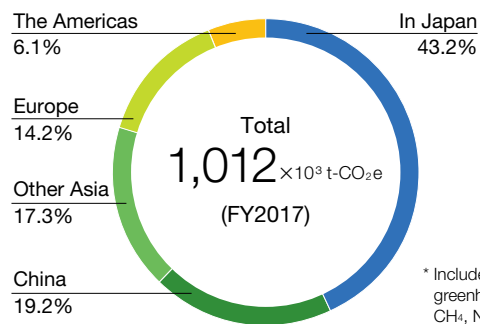
Main Initiatives in Each Process

Manufacturing	Distribution	Office/Sales
 <ul style="list-style-type: none"> • Development and introduction of new technology • Introduction of high-efficiency, energy-saving equipment • Switching to cleaner energies • Introduction of renewable energies 	 <ul style="list-style-type: none"> • Improvement of loading efficiency • Improvement of transportation routes • Joint transport • Modal shift • Switching to eco-cars • Switching to electric forklifts • Conversion to LED lighting at warehouses 	 <ul style="list-style-type: none"> • Using energy-saving air conditioning and lighting equipment • Using renewable energy • Using videoconferencing and phone conferences • Switching to eco-cars

Energy Used in Manufacturing by Region



Total GHG Emissions from Manufacturing by Region



* Includes approximately 2,200 tons of greenhouse gases other than CO₂ (i.e., CH₄, N₂O, HFCs, PFCs, SF₆) converted to a CO₂ basis. CO₂ emissions associated with electricity usage are calculated using a fixed emission coefficient.

Mid-Term Targets (FY2016-2018)

Fiscal 2018 Targets

▶ Manufacturing		▶ Distribution		▶ Offices	
In Japan:		Outside Japan:		In Japan:	
CO ₂ emissions per value-added production unit:	CO ₂ Emissions	CO ₂ emissions per value-added production unit:	CO ₂ emissions per ton-kilometer:	CO ₂ emissions per unit of floor space:	CO ₂ emissions per unit of floor space:
11.1% reduction from FY2011	Below FY2011	35.2% reduction from FY2011	12.2% reduction from FY2011	24.5% reduction from FY2011	6.9% reduction from FY2011

CO₂ emissions per unit:

Manufacturing: CO₂ emissions/Value-added production
 Distribution: CO₂ emissions/Transportation amount
 Offices: CO₂ emissions/Floor space

CO₂ emissions:

Manufacturing: The total emitted directly from NSK Group business operations (Scope 1) and the amount emitted indirectly by power companies, etc., that supply electricity used by the NSK Group (Scope 2)
 Distribution: Total CO₂ emissions are calculated by multiplying total transport volume (ton-kilometers) by CO₂ emission factors by mode for each type of transport (truck, ship, etc.)

The NSK Group is striving to reduce energy consumption and CO₂ emissions at its production sites by developing and introducing new technology, using high-efficiency energy-saving equipment, conducting overhauls to incorporate the latest energy-saving technologies, visualizing energy usage, and promoting conversion to clean energies.

Under NSK's Environmental Logistics Policy, distribution divisions aim to reduce the environmental impact of transport through improved loading efficiency. This is achieved by combining product distribution and procured component or material distribution, making transportation routes shorter, and by shifting to modes of transport with a lower environmental footprint.

The Head Office and sales divisions have also conducted energy-saving initiatives, including controlling air-conditioning temperatures, updating air conditioners, and switching to LED lighting.

● Initiatives in Fiscal 2017

From fiscal 2011, manufacturing divisions in Japan reduced CO₂ emissions per value-added production unit by 14.5% and achieved the target 10.2% reduction. However, with an increase in production volume, total CO₂ emissions increased by 4.0% compared with fiscal 2011, falling short of the goal to lower emissions from 2011 levels.

At plants outside Japan, CO₂ emissions per value-added production unit were reduced by 26.1% compared with the target 34.5% reduction from 2011 levels. Although these plants improved production efficiency and installed energy-saving equipment, differences in the types of products manufactured and a decrease in production volume in some regions affected emissions per value-added production unit and lessened the effect of reductive measures.

Distribution divisions also missed their target 11.3% reduction compared to fiscal 2011 levels due to increased truck transportation caused by a rapid rise in distribution volume.

Office sites did not achieve their targets for reasons such as increased A/C use during unusually hot summer weather.

Initiatives in Fiscal 2017

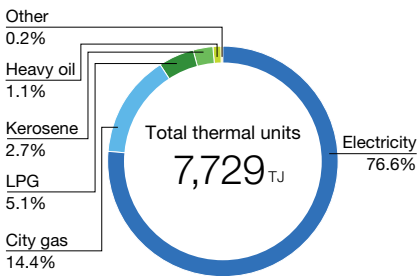
Main Initiatives in Manufacturing

	Heat treatment	Production equipment	Compressors	Air conditioning	Lighting
Power reduction	<ul style="list-style-type: none"> Optimization of operating conditions Shift to high-frequency heating 	<ul style="list-style-type: none"> Inverter of motor, pump, etc. Equipment miniaturization and power saving Next generation of production lines and production efficiency improvement Retrofit* Reduction of standby power 	<ul style="list-style-type: none"> Upgrade to high-efficiency equipment Optimization operating conditions Miniaturization Reduction of compressed air consumption Fixing air leaks 	<ul style="list-style-type: none"> Selection of model suited to conditions Optimization of operating conditions Upgrade to-high efficiency equipment Inverter 	<ul style="list-style-type: none"> Conversion to LED lighting Lighting optimization Frequent turning off of lights
Fuel reduction	<ul style="list-style-type: none"> Switching to cleaner energies Improvement of combustion efficiency Improvement of thermal insulation performance Optimization of operating conditions Improvement of thermal insulation efficiency 			<ul style="list-style-type: none"> Shift to clean energy Selection of model suited to conditions Optimization of operating conditions Use of co-generation 	

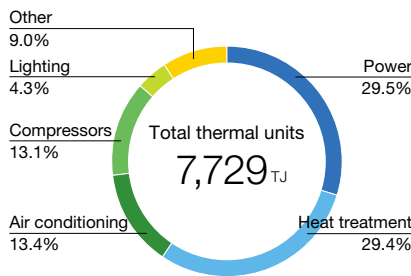
Retrofit: Upgrading old equipment by adding new technology

● Breakdown of Energy Used in Fiscal 2017 by Type and Application (Japan/Production)

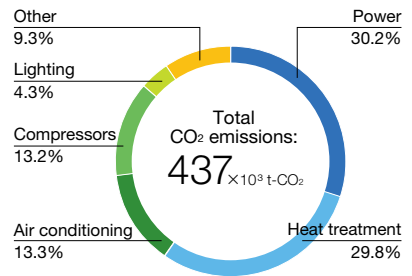
Energy Used by Energy Type (in Thermal Units)



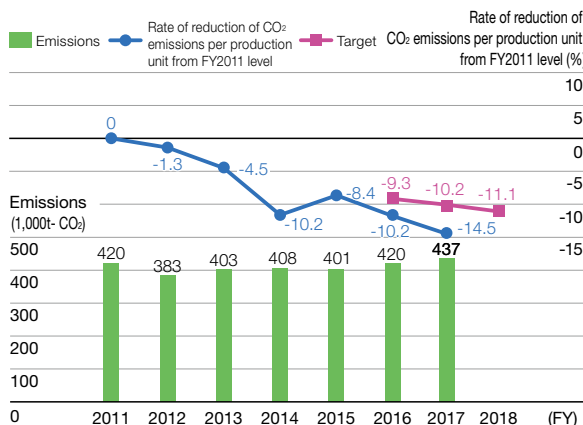
Energy Used by Application (in Thermal Units)



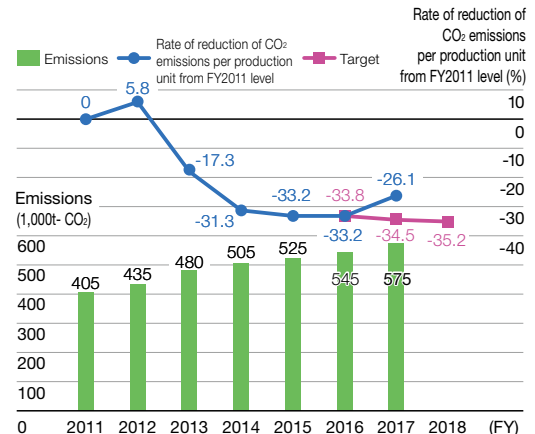
CO₂ Emissions by Application



CO₂ Emissions from Manufacturing in Japan: Total Volume and per Production Unit



CO₂ Emissions from Manufacturing Outside Japan: Total Volume and per Production Unit



Initiatives in Manufacturing

● Development and Introduction of New Technology: A Next-Generation Production Line (Japan)

NSK's Manufacturing Engineering Center developed a next-generation production line with a new concept, and we installed it at our Otsu Plant. The center was able to reduce energy consumption by not using hydraulic pressure and by designing the size of equipment to suit the size of the bearing. It also improved grinding efficiency by reducing the number of grinding machines and saved energy by streamlining operations to enable shorter changeover times. We plan to deploy this line at our Fukushima Plant and the Kirihara branch of the Fujisawa Plant in the future.

● Development and Introduction of New Technology: Improving Energy Efficiency with High-Frequency Induction Heat Treatment (Japan)

The NSK Group uses a great deal of energy in heat treatment processes for components, accounting for about 30% of energy use from all manufacturing processes. We are expanding conversions from conventional heat treatment in metal furnaces to high-frequency induction heat treatment. This electric method increases energy efficiency by optimizing heating per part. In fiscal 2017, we installed three high-frequency induction heat treatment devices at our Ishibe Plant, reducing CO₂ emissions by over 80%.

● Improving Compressor Efficiency (Japan, Thailand, China)

The NSK Group uses a lot of compressed air with spindles used in grinding processes. The compressors that supply compressed air to facilities account for 13% of the energy use in manufacturing processes. We have therefore been reducing power consumption by controlling the number and output of compressors.

In Japan, we reduced CO₂ emissions at our Ishibe Plant by 376 tons per year by automatically regulating the number of operating compressors (five in total) according to the demand for compressed air. We did the same for four compressors at the Soja Plant (Akagi) of NSK Steering Systems Co., Ltd., reducing CO₂ emissions by 107 tons per year.

Outside Japan, Siam NSK Steering Systems Co., Ltd. in Thailand reduced CO₂ emissions by 463 tons per year by controlling output from two compressors. Dongguan NSK Steering Systems Co., Ltd. in China did the same and reduced CO₂ emissions by 349 tons per year.

● Improving Motor Efficiency (Indonesia)

PT. NSK Bearings Mfg. Indonesia reduced CO₂ emissions by 144 tons per year by upgrading to high-efficiency spindle motors on 20 lathes.

● Improving Lighting Efficiency

The NSK Group is adopting LED lighting at all plants. In fiscal 2017, we reduced CO₂ emissions by 2,305 tons per year by installing LED lighting at NSK Bearings Polska S.A., NSK Bearings Europe Ltd., the Newark Plant in the UK, and other locations.

● Improving A/C Efficiency (China)

Changshu NSK Needle Bearings Co., Ltd. in China reduced CO₂ emissions by 426 tons per year by upgrading two air conditioners to high-efficiency electric heat pumps. Shenyang NSK Co., Ltd. in China reduced CO₂ emissions by 96 tons per year by limiting use to seven air conditioners.

● **Switching to Cleaner Energies (Japan)**

The NSK Group is reducing CO₂ emissions by converting heat sources from heavy oil and kerosene to gas and electricity. When we must use existing heating sources, we upgrade to energy-saving equipment to increase energy efficiency.

NSK Kyushu Co., Ltd. converted from heavy oil to electricity, reducing CO₂ emissions by 855 tons per year. Similarly, the Soja Plant (Akagi) of NSK Steering Systems Co., Ltd. converted from kerosene to electricity, reducing CO₂ emissions by 170 tons per year. The Matsukawa Plant of NSK Micro Precision Co., Ltd. reduced CO₂ emissions by 9 tons per year by upgrading equipment to the latest model.

● **Expanding Use of Renewable Energy (Japan, Thailand, China, and Mexico)**

In fiscal 2017, the NSK Group installed photovoltaic equipment at one plant in Japan, two plants in Thailand, one plant in China, and one plant in Mexico. Together, these generated a total of 2,320 kW of renewable energy.

Photovoltaic equipment installed at plants in Thailand



Siam NSK Steering Systems Co., Ltd.

NSK Bearings Mfg. (Thailand) Co., Ltd.

● **Purchasing of Green Energy (Europe)**

The Munderkingen Plant of Neuweg Fertigung GmbH in Germany finished conversion to 100% green electricity in fiscal 2017. NSK Steering Systems Europe (Polska) in Poland also converted to 100% green electricity in January 2018.

Initiatives in Distribution

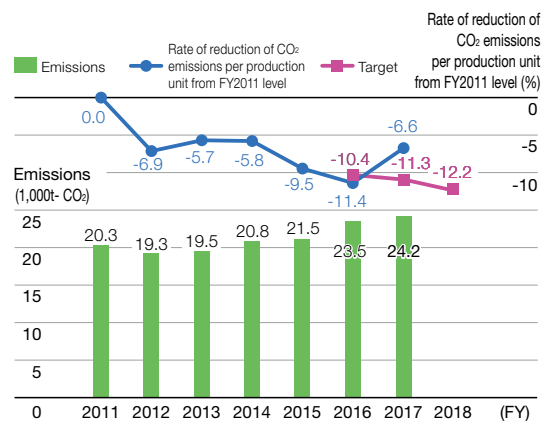
● **Reducing the Environmental Impact of Transport (Japan)**

Under its Environmental Logistics Policy, the NSK Group strives to reduce the environmental impact of transport by reducing CO₂ emissions. We take three approaches: improving loading efficiency by combining product distribution and procured component and material distribution, shortening travel routes, and shifting to modes of transport with lower impact.

In fiscal 2017, production transfers at some plants increased transport distance while rail and ship transport decreased due to express deliveries after tight production schedules. We managed to reduce CO₂ emissions per transport unit by 6.6% compared with fiscal 2011, but fell short of the target 11.3%.

In fiscal 2018, we are aiming to achieve our targets by optimizing manufacturing and distribution and strengthening modal shifts.

CO₂ Emissions per Transportation Volume and CO₂ Emissions from Distribution in Japan



Reference data is available on our website.

www.nsk.com > Sustainability > Environmental Activity > Global Warming Countermeasures > Initiatives in Distribution
 Environmental Logistics Policy

Initiatives in Offices and Sales

● Office Energy-Saving Efforts (Japan)

The Head Office and sales divisions have made efforts to save energy, including controlling air-conditioning temperatures, turning off lights when not in use, and switching to LED lighting. In fiscal 2017, we upgraded air conditioners and shifted to LED lighting at the Osaka Nissei Building. On the other hand, A/C use increased in the summer at some sales locations, resulting in a 2.9% increase in CO₂ emissions by floor space, missing our target of a 2.0% decrease from fiscal 2015.

However, we introduced and expanded the use of videoconferencing systems to reduce CO₂ emissions associated with transport such as business trips. Moreover, we encourage offices to switch to the latest environmentally-friendly vehicles when updating their fleets. In fiscal 2017, around 71% of our vehicles were hybrid or electric with small displacement engines.

Indirect CO₂ Emissions (Scope 3)

NSK calculates the amount of CO₂ emitted indirectly as a result of the Group's activities, including the sums for the parts and raw materials used by the Group (Scope 3). NSK Group's (Global) Scope 3 Emissions in FY2017

NSK Group's (Global) Scope 3 Emissions in FY2017

Category	CO ₂ emissions (t-CO ₂)	Percentage
1 Purchased goods and services	1,397,497	68.5%
2 Capital goods	220,122	10.8%
3 Fuel- and energy-related activities	215,600	10.6%
4 Upstream transportation and distribution	101,380	5.0%
5 Waste generated in operations	53,642	2.6%
6 Business travel	4,734	0.2%
7 Employee commuting	16,861	0.8%
12 End-of-life treatment of sold products	14,317	0.7%
15 Investments	14,514	0.7%
Total	2,038,667	100.0%

* Since the NSK Group's products are semi-manufactured goods, category 11 (Use of sold products) is not subject to calculation.

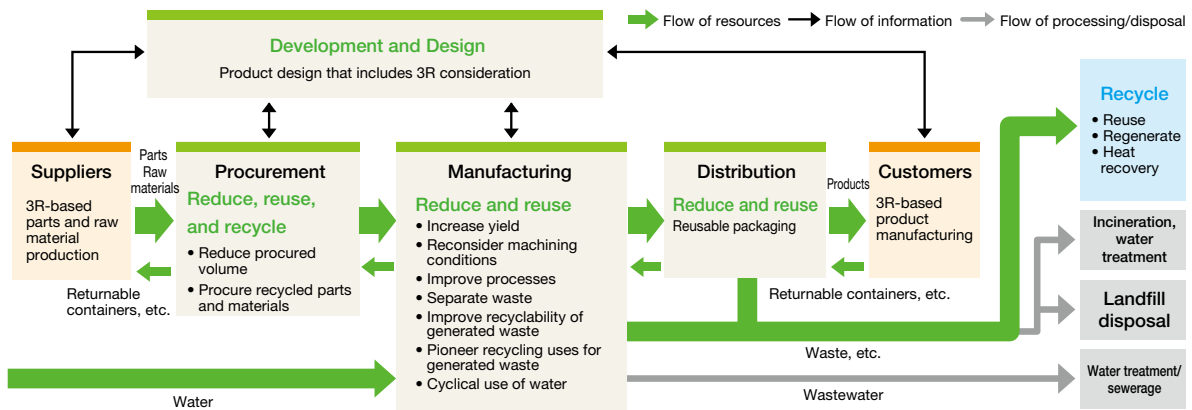
Resource Conservation and Recycling Measures

Basic Approach

The NSK Group aims to efficiently use raw materials and other required resources through reducing, reusing, and recycling (the 3Rs). In this way, we strive to do our part in building a recycling-oriented society. Our development and design divisions seek to develop easily recyclable products that can be produced with the least amount of raw materials. To reduce environmental impacts, manufacturing and distribution divisions do their utmost to reduce, reuse, and recycle, with the goal of eliminating waste sent to landfills. To ensure the proper disposal of waste, we regularly audit contracted industrial waste processors and strive to enhance management using information systems.

We have also examined our water needs and are currently unlikely to be impacted by water shortages, in light of the locations of our business sites and the volume of water they use. Still, we remain committed to improving water management and efficiently using water to prepare for any serious global shortages in the future.

Building Recycling-Oriented Societies with the 3Rs



Mid-Term Targets (FY2016-2018)

Fiscal 2018 Targets

Development and design, manufacturing

Reduce waste of steel and auxiliary materials by changing processing methods

Manufacturing

Distribution

In Japan:			Outside Japan:		In Japan:
Achieve a 100% recycling rate* ¹ for waste* ² and maintain zero emissions* ³	Industrial waste / production unit* ⁴ 29.6% reduction from FY2011	Water withdrawal / production unit* ⁵ 23.1% reduction from FY2011	Achieve a waste recycling rate of at least 97.5%	Water withdrawal / production unit 31.0% reduction from FY2011	Packaging material waste / production unit* ⁶ 20.7% reduction from FY2007

*1 Recycling rate = Recycled amount / (Total waste - reduction amount) × 100 *2 Waste includes valuable resources and waste.

*3 Defined as "zero landfill disposal." *4 Industrial waste per production unit = Industrial waste / Value-added production output

*5 Water withdrawal per production unit = Amt. of water consumption / Value-added production output *6 Packaging material waste per production unit = Packaging material waste / Production output

We are strengthening initiatives to achieve the rigorous goals we set to effectively utilize resources, improve our recycling rate, and reduce disposal in landfills as well as water consumption. Through these efforts, we constantly pursue better performance on the 3Rs. Manufacturing sites in Japan achieved "zero emissions" with a 100% recycling rate at the end of fiscal 2015, and they have worked hard to maintain this success. Manufacturing sites outside Japan are aiming for a 97.5% or higher recycling rate for waste.

● Initiatives in Fiscal 2017

NSK has steadily reduced steel material waste by changing the shapes of forged parts.

Our plants in Japan achieved a waste recycling rate of 100%, or "zero landfill disposal," by thoroughly sorting waste and expanding recycling. Plants outside Japan managed a recycling rate of 97.1%. Globally, the recycling rate was 98.6%.

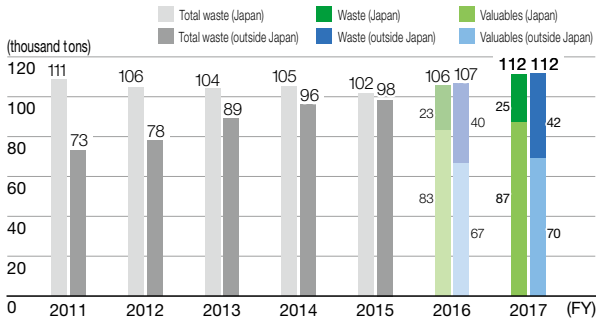
Plants in Japan reduced industrial waste per production unit by 32.4%, surpassing the initial target 28.9% reduction from fiscal 2011.

They also reduced packaging material waste per production unit by 28.9%, exceeding the target 19.9% reduction from fiscal 2007.

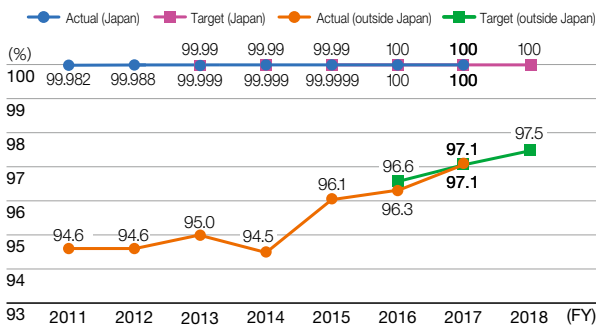
Compared with fiscal 2011 levels, we sought to reduce water withdrawal per production unit by 22.3% at plants in Japan and by 30.3% outside Japan. We exceeded these goals, achieving a 33.8% reduction at plants in Japan and a 29.5% reduction outside Japan.

Total Waste and Recycling Rate

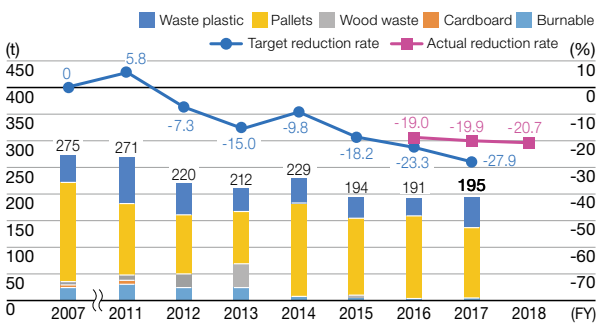
Total Waste (Manufacturing)



Recycling Rate (Manufacturing)

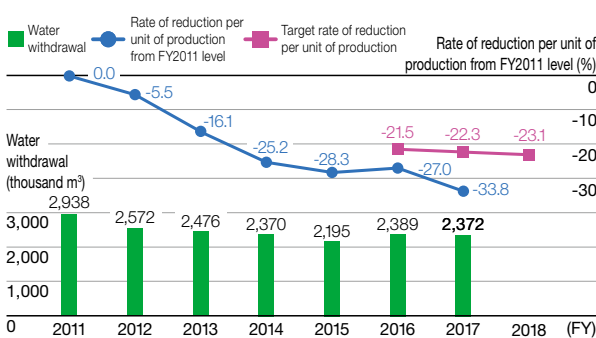


Amount of Packaging Material Waste per Production Unit (Distribution in Japan)

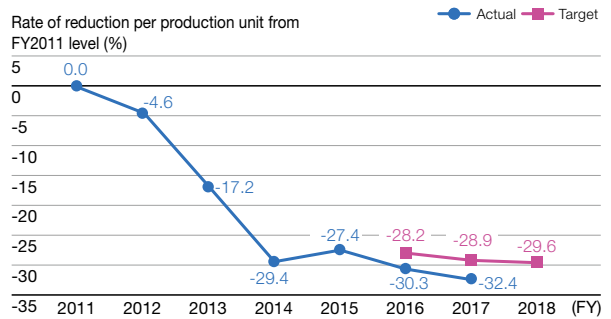


Water Consumption

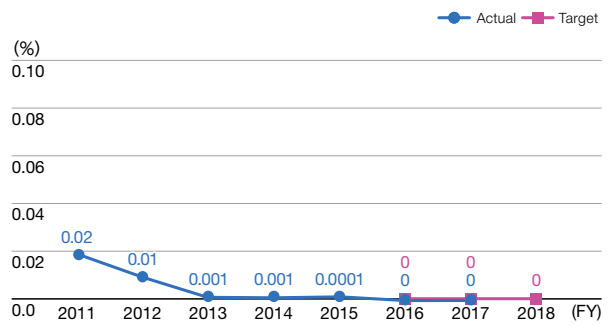
Water Withdrawal per Unit of Production (Plants in Japan)



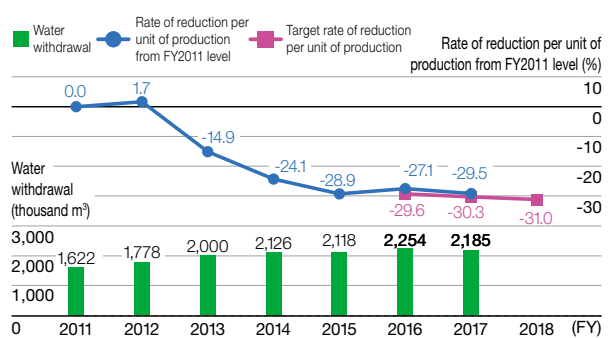
Industrial Waste per Production Unit (Plants in Japan)



Landfill Disposal Rate (Plants in Japan)



Water Withdrawal per Unit of Production (Plants outside Japan)

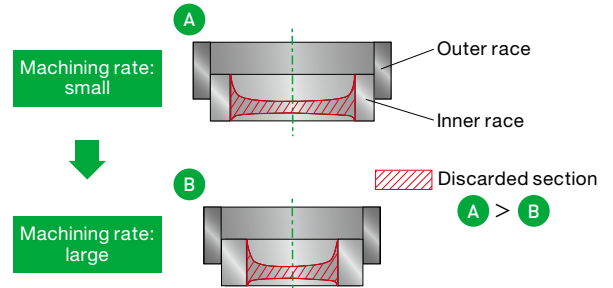


Due to a change in calculation criteria, the reduction rate was recalculated. The target rate also changed as a result.

Main Initiatives in Fiscal 2017

Manufacturing Reducing Waste Steel by Changing the Machining Method for Ball Bearings (Japan)

Typically, the outer and inner races of ball bearings are punched out from steel and rolled to expand to the proper dimensions. We have started a new method of punching out smaller yet thicker pieces of steel and increasing how much expansion occurs during the rolling process. Making the unused cores smaller has allowed us to reduce waste steel by 20%.



Manufacturing Extending Life and Reducing Use of Grinding Fluids and Coolants (Japan)

The NSK Group often uses water as a grinding and cutting fluid to reduce the heat generated when processing bearings and other parts. We also use water to cool production equipment and ancillary equipment such as air conditioners and air compressors. Our business sites closely monitor water consumption by application and have implemented reduction measures. We are reducing water consumption by using air instead to cool air-conditioning equipment and extending the life of cutting and grinding fluids.

In Japan, NSK Kyushu Co., Ltd. and NSK Steering Systems Co., Ltd. reduced water use and cooling towers by changing air conditioners to electric heat pumps.

Distribution Increasing Reuse and Recycling of Used Packing Materials (Japan)

The NSK Group works to use fewer packaging materials by meticulously sorting used packaging.

In fiscal 2017, we reduced the amount of packaging material waste by about 37 tons. We achieved this by recycling imported pallets into export packaging and by converting wooden pallets into fuel for heating.

Reducing Use of Environmentally Harmful Substances

Basic Approach

The NSK Group strives to create products that use no environmentally harmful substances. We aim to exceed discretionary standards and to stay ahead of worldwide laws and regulations such as the EU's ELV Directive, RoHS Directive, and the REACH regulation. We use the NSK List of Environmentally Harmful Substances to tightly control environmentally harmful substances in each stage of development and design, procurement, manufacturing, and distribution to ensure that our customers receive safe products. In addition, we press suppliers to practice rigorous management based on the NSK Group Green Procurement Standard.

Mid-Term Targets (FY2016-2018)

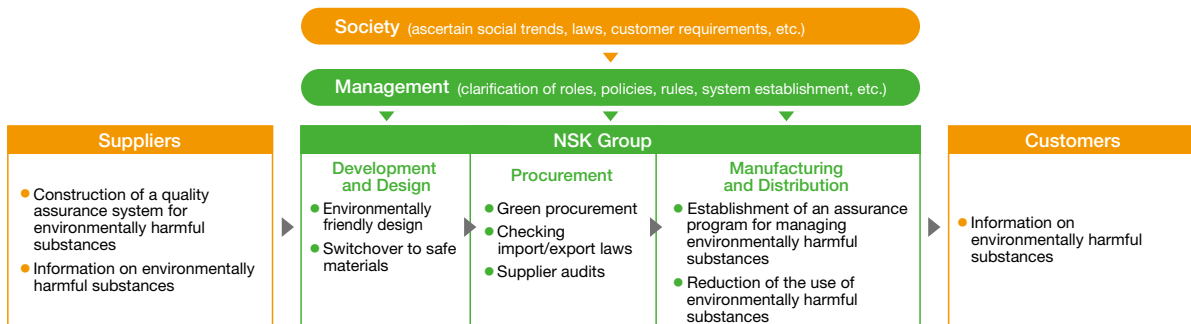
Fiscal 2018 Targets

Development and design	Procurement	Manufacturing	
Establish a development and design management system that ensures environmentally harmful substances are not contained in products	Complete rollout of NSK green procurement to key suppliers worldwide	Complete a global chemical substance quality assurance system for products	In Japan Handling of PRTR-designated substances per production unit 26.6% reduction from FY2011

The NSK Group is committed to providing safe products. This is why we are reinforcing our global management of environmentally harmful substances. By collaborating between departments and procurement, we also aim to reduce or eliminate environmentally harmful substances used during design, development, and production.

To achieve our goals, we are enhancing development and design processes and rolling out green procurement to our global production sites. We use the latest NSK List of Environmentally Harmful Substances to survey the inclusion of these substances in parts and auxiliary materials. This list reflects current laws in each country and region as well as customer requests. Furthermore, we are establishing a global framework to ensure that environmentally harmful substances are managed effectively.

Management of Environmentally Harmful Substances



● **Initiatives in Fiscal 2017**

In fiscal 2017, the NSK Group again revised the NSK List of Environmentally Harmful Substances in response to revised regulations in Europe and strengthened management of these substances.

We conducted a survey of parts and auxiliary materials containing environmentally harmful substances at production sites worldwide and reconfirmed that substances prohibited by NSK are not used in products. We also made efforts to replace fuels that contain substances designated by the Pollutant Release and Transfer Register (PRTR) Law in Japan and reduced volumes handled.

Main Initiatives in Fiscal 2017

● **Chemicals Management System**

The NSK Group strives to strengthen chemical management by undertaking worldwide initiatives and audits to reliably ensure that prohibited substances are not included in or adhered to our products.

In fiscal 2017, we conducted more rigorous on-site audits at 14 plants in Japan, reinforcing our management system. Outside Japan, audits were conducted at four plants in Europe, nine plants in China, and one plant in ASEAN. These audits identified problems and points requiring further attention. Furthermore, we trained four new environmentally harmful substance auditors in Japan, bringing the total up to 379. This ensures that each plant can autonomously conduct self-audits and supplier audits.

In fiscal 2018, we will upgrade the auditor-training curriculum and provide further training to auditors with already advanced skills.

Design, Procurement, and Manufacturing

Managing Chemicals Based on the NSK List of Environmentally Harmful Substances (Global)

NSK manages environmentally harmful substances appropriately with the help of the NSK List of Environmentally Harmful Substances. We have registered nearly 4,500 chemical substances on this list as "prohibited," "reduced," or under "observation." "Prohibited" substances must not be present in or on parts or sub-materials. We examine and select substitutes for "reduced" substances. Finally, the amounts and parts where "observation" substances are used are closely monitored. We start this management in design and development to ensure that harmful substances do not make it into our products. Each plant in the NSK Group manages parts and auxiliary materials based on this list in an effort to reduce risks related to environmentally harmful substances throughout the entire product lifecycle.

The NSK List of Environmentally Harmful Substances is reviewed in a timely manner to keep it up-to-date with new and revised chemical substance regulations worldwide, including the EU's REACH*1 regulation. Substances of Very High Concern (SVHC*2) are added to REACH about every six months. As of June 2018, the regulation contained 191 substances (the existing 181 + 10 new). These additional substances are now included in NSK's list.



NSK List of Environmentally Harmful Substances

*1 EU's REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals A comprehensive chemical substance regulation system that came into force in the EU in June 2007.

*2 SVHC: Substances of Very High Concern, which are candidates for inclusion under REACH.

NSK Group's Main Initiatives to Reduce Environmentally Harmful Substances

FY	Action	FY	Action
1994	Completely eliminated cleaning CFCs Completely eliminated trichloroethylene	2006	Came into full compliance with the EU's RoHS Directive and ELV Directive Reinforced chemical management system for compliance with the EU's REACH regulation
1999	Phased out in-house incinerators (a measure against dioxins)		
2003	Completely eliminated chlorinated organic solvents	2015	Phased out machining oil with chlorine-based extreme pressure additives (a measure against dioxins)

In fiscal 2017, we audited our suppliers of parts and auxiliary materials—244 companies in Japan and 224 companies outside Japan—based on the latest version of the NSK List of Environmentally Harmful Substances to reconfirm that substances prohibited by NSK are not included in our products. Based on the results, we made a list of all components that are free of the prohibited substances. Design departments use this list to check that products under development contain no harmful substances, while production departments use it to ensure procured parts are free of harmful substances.

Procurement Promoting Improvement with Local Supplier Audits (Global)

The NSK Group periodically audits suppliers who deliver parts and secondary materials that are highly likely to have environmentally harmful substances present in or on them. In-house auditors qualified in environmentally harmful substances visit and conduct audits using NSK’s audit check sheet to strengthen the entire supply chain. In fiscal 2017, we conducted on-site audits of 41 suppliers in Japan and 142 suppliers outside Japan. We are following up on issues found in the audit through collaborative improvements with suppliers.

Manufacturing 1 Complying with Japan’s Amended Law Concerning the Discharge and Control of Fluorocarbons*

Proper management is required to ensure that the fluorocarbons used in air conditioners and other equipment do not leak out. Japan amended its Law Concerning the Discharge and Control of Fluorocarbons in 2015. The law requires regular inspections, proper equipment repairs, and recordkeeping regarding leakage amounts. A report must be submitted to the national government when leaks total 1,000 t-CO₂e or more per year. In fiscal 2017, NSK inspections found fluorocarbon leaks to total 12 kg-CO₂e.

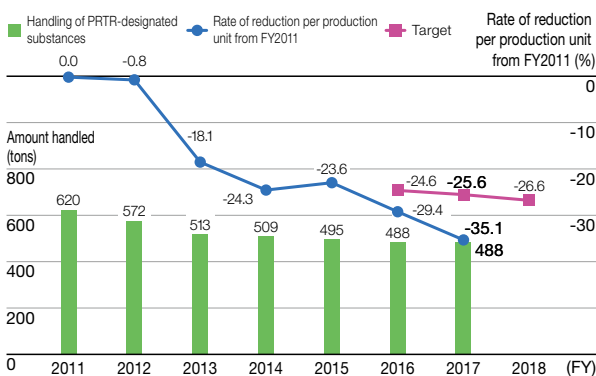
* Law Concerning the Discharge and Control of Fluorocarbons: Act on Rationalized Use and Proper Management
Japan’s law establishing comprehensive measures covering the entire lifecycle of fluorocarbons, from manufacture to disposal, to reduce their effect on ozone layer destruction and global warming.

Manufacturing 2 Reducing Handling of PRTR*-Designated Substances (Japan)

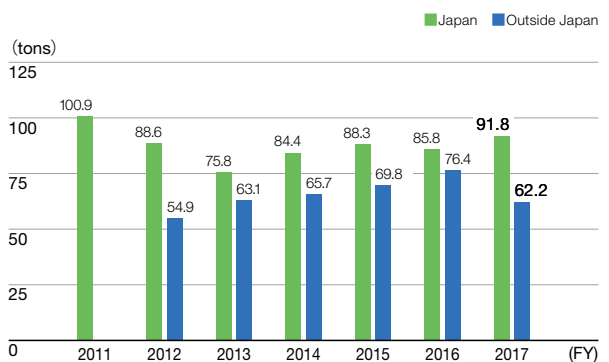
In Japan, the NSK Group targeted a 26.6% reduction from the fiscal 2011 level in the handling of PRTR-designated substances used in fluids and fuels during manufacturing processes under its Mid-Term Management Plan through fiscal 2018. In fiscal 2017, we surpassed the goal with a 35.1% reduction thanks to measures such as switching the fuel used in air conditioning equipment and improving flocculants used in wastewater treatment. For fiscal 2019, we have set a target 1% reduction from the fiscal 2018 level.

* Law Concerning Pollutant Release and Transfer Register (PRTR): Act on Confirmation, etc., of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.
A Japanese law intended to facilitate improved chemical substance management by ensuring that amounts released into the environment are understood and reported to authorities.

Handling of PRTR-Designated Substances (Plants in Japan)



Emissions of Volatile Organic Compounds (VOCs) at Plants



The calculation criteria were expanded in fiscal 2017 to include data outside Japan. As a result, past data were recalculated.

Reference data is available on our website.

www.nsk.com > Sustainability > Supply Chain Management > NSK Group Green Procurement Standards

■ NSK Group Green Procurement Standards ■ NSK List of Environmentally Harmful Substances

Biodiversity Conservation

Basic Approach

Although NSK's business operations have a comparatively minor direct impact on biodiversity, we make strong efforts in areas such as energy conservation and air and water quality management. When opening new business sites, we strive to determine and understand their effects on the local ecosystem. The materials we procure also have an indirect impact on biodiversity when traced back through the supply chain. We are steadfast in our commitment to conserving biodiversity by identifying the direct and indirect impacts of our business and using the findings to improve our operations and enhance our social contributions.

NSK Biodiversity Guidelines

Basic Policy

The NSK Group minimizes the environmental impact of its products at every stage—from R&D and design, to production, usage, and disposal—by upholding the following standards:

Action Agenda

1. Research and Development

We will contribute to the conservation of biodiversity by developing products that save energy and resources.

2. Procurement and Purchasing

We will contribute to the conservation of biodiversity throughout the supply chain when procuring main materials, sub-materials, and packaging/packaging materials. We will promote the purchase of the environmentally-friendly products, and consider the conservation of biodiversity in product selection criteria.

3. Manufacturing and Logistics

We will minimize the impact of our production on biodiversity by reducing consumption of energy and resources, and emission of environmentally harmful substances.

4. Plant and Office Grounds

We will consider the impact on the ecosystem when acquiring land for our places of business and during greening initiatives.

5. Social Contribution Activities

We will perform social contribution initiatives as a member of international society, and value our collaboration with public and private institutions.

6. Communications

We will actively disclose information on biodiversity-related initiatives to persons both inside and outside the company. We will heighten employee awareness of biodiversity-related issues, and constantly work to improve the quality and efficiency of initiatives.

Established October 5, 2010 NSK Ltd.

Mid-Term Targets (FY2016-2018)

Under the Mid-Term Plan, the NSK Group implements education on biodiversity and makes social contributions that reduce our impact.

● Initiatives in Fiscal 2017

The NSK Group identifies the factors behind operations that negatively impact biodiversity and aims to raise the awareness of its employees through education. We foster this kind of mindfulness through social contribution activities at business sites in and outside Japan.



Reference data is available on our website.

www.nsk.com > Sustainability > Environmental Activity > Environmental Management

■ NSK Biodiversity Guidelines

Main Initiatives in Fiscal 2017

Surveying Biodiversity on Plant Premises (Japan)

We continued to protect precious wildlife at our sites, such as the wild grey-headed lapwings*1 that live at NSK's Fukushima Plant and the Golden Orchids*2 that grow at the Kirihara Branch.



*1 Class I endangered species on the Fukushima Red List.
 *2 Class II endangered species on the Ministry of Environment Red List and Class II endangered species on the Kanagawa Prefecture Red List.

Tournament for Catching and Removing Invasive Fish (Japan)

As part of our biodiversity conservation activities, since 2014 NSK's Ohtsu Plant has held fishing tournaments to catch and remove invasive fish species from Lake Biwa. There are many species that only live in Lake Biwa, but invaders such as bluegill and black bass are threatening the survival of these rare species. Forty-four people, including employees and their families, participated in the July 2017 tournament and removed 260 fish.



Natural Treasure Preservation (Japan)

Since fiscal 2016, the NSK Saitama Plant and NSK Machinery have conserved biodiversity by working to preserve the native habitat of the waterwheel plant (Aldrovanda vesiculosa), a nationally designated natural treasure, in Houzouji-numa in Hanyu City, Saitama Prefecture. In June 2017, 20 employees and their families received environmental training from Hanyu City staff and cut down invasive grass species.



Satoyama Preservation and Nature Observation Workshops (Japan)

Since 2015, the Fujisawa Plant, Fujisawa Technology Center, Kirihara Building, NSK Micro Precision Co., Ltd., and AKS East Japan Co., Ltd. have held *satoyama* (community forest) conservation activities and nature observation workshops in green zones with Fujisawa City and the NPO Fujisawa Green Staff no Kai. In June and November 2017, 120 people including employees and their families participated.



Mangrove Planting (Thailand)



Siam NSK Steering Systems Co., Ltd. in Thailand engages in annual mangrove planting as part of its CSR efforts. "Mangrove" is the generic name for a plant that grows in tropical and subtropical regions and is said to help control global warming due to its ability to absorb and store significant amounts of CO₂. The mangrove serves as a home for many organisms and plays a role as a "green breakwater" that protects people and ecosystems from natural disasters, such as high waves and tsunamis. In fiscal 2017, a total of 127 executives, employees, and family members participated in planting trees in a mangrove forest in eastern Thailand.

Tree Planting (Thailand)

In June 2017, 10 employees from NSK Bearings Mfg. (Thailand) Co., Ltd. joined in a tree-planting event with 300 participants from the national and local government, research institutions, and other organizations.



Distributing Saplings to Employees (India)

On Environment Day, Rane NSK Steering Systems Ltd. in India distributed 150 saplings, including guava, lemon, and pomegranate. This effort aimed to showcase the importance of trees and empower employees to create a green environment.





7

Working with Local Communities

Social Contributions Targeting Community Development

The world is facing a variety of challenges today. While the circumstances and specific problems faced differ by country and region, in order to create sustainable societies, it is crucial for companies to actively address these challenges and to conduct their business activities with an awareness of local community development.

CONTENTS

P.90 Social Contribution Initiatives

Social Contribution Initiatives

Basic Approach

The NSK Group strives to understand the needs of each country and region, and it trains personnel, develops technology, and promotes community-based activities accordingly. Seeking to contribute to sustainable development and continue being a company that is needed, trusted, and considered a valued member of each community, NSK conducts social contribution activities in the three priority areas of “promoting science and technology,” “development of the next generation,” and “mutual harmony and benefit with communities.”

Priority Areas for NSK’s Social Contribution Initiatives

Promoting science and technology that supports the prosperity of society

Promotion of science and technology


The NSK Group contributes to the development of industry, not only through its technology and products, but also through a broad range of unique initiatives that support the promotion of science and technology.



Fostering the development of the next generation

Development of the next generation

The NSK Group is committed to supporting the education of children and young adults long into the future.



Engaging in activities designed to build mutual harmony and benefit with communities

Mutual harmony and benefit with communities

The NSK Group values communication with local communities in the countries and regions where it does business, and aims to ensure mutual prosperity as an upstanding corporate citizen.



Examples of initiatives in the three priority areas are: (1) providing aid to research institutions, under promotion of science and technology; (2) providing scholarships, offering students work experience opportunities, and holding classes about bearings, under development of the next generation; and (3) cooperating in community events and welfare programs, under mutual harmony and benefit with communities. The NSK Group also values communication with community members and strives to build better relationships so that it can accurately assess and respond to community needs.

Additionally, by compiling social contribution activities undertaken at each site and sharing them group-wide, we aim to foster a corporate culture in which each and every employee is aware of and can engage in community development.

Establishment of Social Contribution Action Period

Taking the opportunity of our 100th anniversary to further enhance social contribution initiatives, we have designated the months of, before, and after NSK’s founding (October through December) as the Social Contribution Action Period, starting in fiscal 2016. During this period, we will work to strengthen our social contribution initiatives Group-wide, making the most of the unique features of each region.

Example Social Contribution Actions in Fiscal 2017

NSK Ltd.

Received Commendation from Shinagawa City, Tokyo



In celebration of NSK's 100th anniversary, since 2016 NSK has donated bicycle helmets to elementary schools in Shinagawa City, where its head office is located. This initiative was highly acclaimed and Shinagawa City commended NSK for its contribution.

Donated Calendars and Notebooks to Shinagawa City



NSK donates unused calendars and notebooks to the Shinagawa Ward Council on Social Welfare. The donated calendars and notebooks are donated to people in need within the Ward. This activity has been conducted since 2013.

NSK Steering Systems Co., Ltd.

Scholarship Assistance for Asian Students



As part of NSK's Centennial Projects, NSK established the NSK Scholarship Foundation with the goal of helping to develop the next generation of human resources in Asia. In fiscal 2017, NSK provided scholarship assistance to three Asian students. Starting next fiscal year, NSK plans to select and assist eight students (four Japanese social sciences and engineering students, and four Asian engineering students) every year.

Volunteered at a Nursing Home



Participants in welfare fund activities at the Soja and Akagi plants volunteered to help run a refreshment booth at the autumn festival held at a local nursing home.

NSK Micro Precision Co., Ltd.

Held Science Class



Every year the company holds a science class for the children and parents of NSK Group employees.

Local Cleanup Activities



As a member of the Miyamae-cho Neighborhood Association in Fujisawa City, Kanagawa Prefecture, which is home to an NSK Micro Precision plant, the company participated in a cleanup of the prefecture's coast sponsored by the Kanagawa Coastal Environmental Foundation.

Amatsuji Steel Ball Mfg. Co., Ltd.

Invited Local Elementary School Students to Headquarters



Amatsuji Steel Ball Mfg. Co., Ltd. (Kadoma City, Osaka Prefecture) invited local elementary school students to its headquarters as part of its community outreach. The company hopes that letting the students see videos introducing Amatsuji's steel balls, hear employee lectures, and visually compare extremely small and extra-large steel balls will serve as a catalyst for learning about Japanese monozukuri (craftsmanship) and the local area.



NSK Vietnam Co., Ltd.

Participated in Educational Charity Project



To improve the educational environment, the company donated a solar generator to an elementary school in an area without electricity. Backpacks were also donated to the schoolchildren.



PT NSK Indonesia

Donated Wheelchairs



As part of its social contribution activities, the company donated 20 wheelchairs to local hospitals. The wheelchairs were helpful for outpatients visiting the hospitals.



NSK Europe Ltd.

Donated to UNICEF



The company donated 20,000 euros to UNICEF to assist mothers and children in developing countries where food and stationery for studying are not sufficiently available due to poverty and other reasons.



NSK Deutschland Gmbh

Introduced Donation-Based Vending Machines



A portion of vending machine sales is donated to help improve the quality of children's education and welfare.



NSK (China) Investment Co., Ltd.

Planted Trees at Local Park



Referred to as the NSK Sakura Memorial Forest, 200 cherry blossom tree (sakura) seedlings were planted in the local Zhoupu Wetland Park and other areas in cooperation with the local government.



Kunshan NSK Co., Ltd.

Provided Scholarships to a Local High School



Since 2005, the company has provided scholarships to the local Kunshan Economic & Technological Development Zone High School to develop talented human resources and prepare them to be future leaders.



Changshu NSK Needle Bearing Co., Ltd.

Donated Stationery to an Elementary School



As a part of its social contribution activities, the company donated stationery and books to a local elementary school.



Social contribution activities including nature conservation are also introduced in the "Biodiversity" section of this report.

(See pp. 87 - 88 for details.)

Appendix

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Business Risks and Other Risk Factors

The risks that NSK addresses with risk management are wide-ranging. The entire list of the principal risk factors that could have an effect on the NSK Group's business development, business performance, and financial condition is given in NSK's Securities Report, but the especially important ones are described below. Any forward-looking statements in the following section are the NSK Group's judgments as of the date of submission of the Annual Securities Report (June 22, 2018).

For risks related to compliance, see pp.24–29 of this report.

1 Economic Conditions in Countries, Regions and Industries

The NSK Group manufactures and sells products for the automotive and other diverse industries in countries all across the globe. As a result, the business performance and financial position of the Group could be adversely affected by changes in the economic environments of those specific countries and regions in which it operates.

2 Market Changes and Competition

Volatile market conditions attributable to such factors as increasingly intense competition within the corporate sector and global business expansion by business partners are affecting product sales. The appearance of local bearing manufacturers in China, for example, has driven down the price of general-purpose items, affecting the market for standard ball bearings in the industrial machinery business. The NSK Group is working to create a competitive advantage beyond pricing, by expanding its business in the field of high-quality bearings and improving its technical services. Nevertheless, the business performance and financial position of the NSK Group could be adversely affected by the rapid expansion of low-priced products from Chinese and other bearing manufacturers. In the automotive business, it is now often a business requirement to have global supply locations in order to support customers' global production expansion and the standardization of models and parts specifications around the world. Despite the Group's efforts to enhance its competitive advantage outside Japan by expanding production early on, the business performance and financial position of the NSK Group could be adversely affected by the loss of sales opportunities due to delays in entering markets outside Japan or a failure to respond quickly enough to demand fluctuations in certain business segments and regions.

3 Reliance on Specific Industries

Specific fields on which the NSK Group is heavily dependent include automotive bearings and automotive products, which account for some 70% of its sales; in precision machinery, the sales ratio is high for semiconductor production and machine tool industry products. For industrial machinery bearings and precision machinery products, NSK strives to increase the relative sales ratio of the broader general machinery field and aftermarket to mitigate the impact from downward fluctuations in those fields upon which NSK is highly dependent. Nonetheless, there is a risk that the business performance and financial position of the Group could be adversely affected by sudden declines in demand from the aforementioned industries.

4 Credit Risks

The NSK Group sells a high percentage of its products to large and relatively stable customers, and recoverability risk relating to notes and accounts receivable and other claims is considered negligible. Doubtful claims are covered by reserves based on the likelihood of recovery. Although the Group systematically monitors the credit status of customers on a day-to-day basis, there is a possibility that unforeseen changes in the business environment and other factors could trigger a recoverability risk relating to notes and accounts receivable and other claims. In the event of a decline in the credit standing of a business partner, a debt default, or other such circumstance, it is possible that the NSK Group's business performance and financial position could be adversely affected. The Group systematically monitors the credit status of customers on a day-to-day basis, there is a possibility that unforeseen changes in the business environment an

5 Business Alliance Risks

The NSK Group works diligently to create global business alliance benefits with multiple companies in a variety of ways including the mutually effective use of management resources, technology development, and production activities. However, in the event that the benefits of a business alliance fail to materialize in accordance with expectations, due to such factors as a change in the management strategies of an alliance partner or deterioration in a partner's financial condition, the business performance and financial position of the NSK Group could be adversely affected.

6 Reliance on Specific Suppliers

The NSK Group's basic strategy is to avoid reliance on a single supplier by procuring components and materials from multiple sources. However, the Group could become unable to source necessary items due to the inability of some suppliers to meet technical requirements, or a supplier's lack of production capacity, poor-quality products, fires, natural disasters including earthquakes, bankruptcy, or other reasons, which could in turn impede the Group's ability to supply products to customers. Such a contingency could adversely affect the business performance and financial position of the NSK Group.

Related information P. 32 Responding to Disaster Risk, PP. 47–50 Supply Chain Management

7 Rising Prices of Raw Materials

Fluctuations in the international economy or in demand trends might substantially affect the prices of such raw materials as iron ore, coking coal, scrap, and crude oil; an increase in these raw material prices could drive up the cost of materials and parts used in the products of the NSK Group. The Group is working to reduce costs by procuring items from outside Japan, and conducting Value Analysis (VA) and Value Engineering (VE) campaigns while also reflecting cost increases in higher product prices. However, there is a risk that the NSK Group might not be able to recover cost increases fully and that business performance could be adversely affected as a result.

8 Quality Risks

The NSK Group's products are used in a broad range of industries and end-user products, and high-precision performance is essential for parts used in automobiles, rolling stock, airplanes, and other end-user products where safety is paramount. The NSK Group recognizes the importance of quality, and has put in place a high quality assurance system. However, in the event of a product defect leading to large-scale recalls or product liability lawsuits, the business performance and financial position of the Group could be adversely affected by substantial costs and reputational damage. Although the NSK Group has obtained global product liability insurance, and recall insurance for some products, there is a risk that this might not be sufficient to cover all compensation payments and other losses.

Related information PP. 39–45 Quality Management System

9 Product Development Risks

The purpose of new product development is to bring new products to the market, which is an important priority from the viewpoint of income expansion. Product development needs in the market for the NSK Group's products are diversifying; the pace of change in these needs has also accelerated. New product development does not contribute to income until the market values a product and it begins to sell, but product development comes with a range of risks, including those given below. If not avoided, the following risks could adversely affect the business performance and financial position of the NSK Group:

- i) sales of newly developed products might be weaker than anticipated due to the Group misjudging market needs;
- ii) sales of products of the NSK Group might decrease due to delays in product development and mass production;
- iii) newly developed products might inadvertently infringe on the intellectual property rights of a competitor's products and technologies; and
- iv) other companies might introduce new products or new technologies that could be used as alternatives to those developed by the Group.

Related information PP. 34–37 Research and Development, PP. 71–73 Creating Environmentally Friendly Products

10 Intellectual Property Risks

The NSK Group believes in the importance of filing patents on the technologies it develops, and otherwise protecting its intellectual property rights. The NSK Group obtains intellectual property rights in Japan and abroad to sustain and improve the competitiveness of its businesses. However, with intellectual property increasing in importance, it is not possible to entirely eliminate the prospect that the business performance of the NSK Group could be adversely affected by the following risks:

- i) the risk of invalidation claims concerning the intellectual property of the NSK Group;
- ii) the risk that royalty payments might arise regarding the use of the intellectual property rights of a third party for the Group's business, or the risk that the Group might not be able to obtain permission to use the intellectual property of other parties;
- iii) the risk of intellectual property infringement by third parties; and
- iv) the risk that the NSK Group might not be able to eliminate counterfeit products effectively in certain countries or regions.

11 Global Expansion Risks

The NSK Group conducts business worldwide, and in the fiscal year under review, sales outside Japan accounted for more than 60% of consolidated net sales. The Group's businesses outside Japan share the following common risks related to global expansion:

- i) unforeseen changes in local government laws and regulations;
- ii) changes in social, political, and economic conditions, or a deterioration in public safety;
- iii) transportation delays or damage to electrical power and other infrastructure;
- iv) foreign exchange restrictions and exchange rate fluctuations;
- v) unfavorable changes in tax systems or taxation;
- vi) invocation of protective trade restrictions;
- vii) credit risk in business partners due to differing business practices;
- viii) unfamiliar employment systems and social insurance systems;
- ix) changes in labor conditions and difficulty in hiring personnel; and
- x) outbreak of contagious diseases.

12 Disaster and Terrorism Risks

The production and sales activities of the NSK Group could be adversely affected in the event that its business sites or those of its suppliers and customers are hit by earthquake, flood, fire, heavy snow, nuclear incident, the outbreak of a new infectious disease, terrorist attack, or damage or injury resulting from social unrest caused by changes in political conditions.

Furthermore, insurance does not completely cover all damage resulting from fire, natural disasters, and the like. The Group's response to natural disasters and terrorism is a key management issue, and the Group will do its utmost in this regard, including taking precautionary measures to minimize damage and ensure that the NSK Group can continue operations. However, the Group cannot completely eliminate such risks.

Related information → P.32 Responding to Disaster Risk

13 Litigation Risks

Plaintiffs in the United States and Canada, including representatives of purchasers of bearings and other products, have filed class actions against certain parties, including NSK and some of its subsidiaries in Japan, the United States, Canada and Europe. The plaintiffs allege, among other things, that the defendants conspired with each other to restrict competition in sales of bearings and other products in these countries, and seek damages, injunctions, and other legal remedies against the defendants. NSK and some of its subsidiaries in Japan and the United States have agreed on a settlement with indirect purchasers and some other plaintiffs in the class actions in the United States. Furthermore, in the United Kingdom, plaintiffs, including some Group customers, have filed a claim against defendants including NSK and some of its subsidiaries in Europe, for damages related to the past violation of European competition law. However on March 15, 2018 (local time), NSK agreed to a settlement with the plaintiffs. (See NSK's Securities Report and Consolidated Results for the Three Months.)

NSK, its subsidiaries or its affiliated companies could face additional future actions similar to the above; the NSK Group will manage these actions appropriately. Furthermore, as cases proceed, the NSK Group will consider the possibility of reaching settlements with such plaintiffs.

Additionally, the NSK Group is in the manufacturing industry, and could face litigation related to product transactions. NSK particularly faces the risk of lawsuits for product liability. The NSK Group has product liability insurance that covers alleged claims in litigation for product liability. This insurance will apply in some cases, but it does not provide unlimited and unconditional coverage for claims against the NSK Group for product liability. In addition, there is a possibility that the NSK Group will face litigation other than that listed above in the future. In such an event, the possibility that it would influence the NSK Group's business performance cannot be denied.

14 Information System Risks

The NSK Group uses a variety of networks and systems to manage and support its diverse business operations, including sales, production, logistics, R&D, and accounting. Sufficient safety measures have been put in place in these systems, but there is a possibility that system restoration could require a substantial amount of time in the event of a cyberattack by hackers, a service outage by an outside systems provider, or failure due to natural disaster, etc. There is a risk that such a situation could impede production operations, warehouse management and sales activities, and that the disruption of product shipments could affect customers' production plans, potentially leading to compensation claims and loss of customer confidence in the NSK Group.

15 Information Management Risks

The NSK Group follows appropriate procedures in obtaining and handling substantial amounts of important data and personal information. The Group has adopted an information security policy designed to prevent external disclosure of this information or its use for unauthorized purposes, and works to disseminate and effectively administer this policy. However, the possibility of leaks resulting from cyberattacks or other unforeseen circumstances cannot be ruled out. There is a risk of important work being suspended, of legal claims, of damage to the NSK Group's reputation, and of substantial costs being incurred in such an event. The NSK Group's brand image, management, financial position, and cash flow could be adversely affected as a result.

16 Information Disclosure and Shareholder Income Risks

The NSK Group has established timely disclosure systems and strives to ensure the fair disclosure of corporate information and the accuracy of financial data. However, if the Group is unable to adapt its systems effectively to reflect the enactment or amendment of laws and regulations, or changes in Financial Instruments Exchange rules, there is a possibility that its information disclosure might be inadequate. This could cause a decline in the market price of its shares and adversely affect the interests of shareholders. There is also a possibility that assessments or audits of the effectiveness of internal controls over financial reporting under the Financial Instruments and Exchange Act could lead to the identification of any material weaknesses.

17 Environmental Risks

The NSK Group's business operations are subject to wide-ranging environmental laws and regulations, covering air pollution, water pollution, environmentally harmful substances, waste disposal, prevention of climate change, energy, and more. The NSK Group has identified environmental protection activities as an important aspect of its management policies and has worked to improve its environmental management systems. To date, the Group has had no major environmental problems. However, there is a risk that environmental problems could occur in the future, leading to costs relating to compensation payments, product recalls, the suspension of production, and clean-up operations, as well as fines and other official penalties, and reputational damage. The introduction of new regulations could also result in substantial costs being incurred.

Related information

PP. 65-88 Environment

18 Recruitment Risks

The NSK Group recognizes that to stay competitive, it needs to continuously recruit, hire and train talented people. Competition for talent in the Group's business fields is growing increasingly fierce, and if the NSK Group is unable to recruit and train personnel, it could impair business expansion and have an adverse effect on operations.

Related information → PP. 51–64 Good Labor Practices

19 Labor Dispute Risks and the Labor Environment

The NSK Group strives to establish and maintain stable labor relations. The NSK Group considers that there is little risk of deterioration in labor relations in Japan because it holds labor-management council meetings regularly to discuss improving the labor environment and labor conditions. However, there is a risk that labor relations outside Japan could deteriorate due to differing labor practices, or such unforeseeable contingencies as changes in the legal, economic or social environment, leading to labor disputes and other problems. In such cases, there is a possibility that the Group's business operations might be curtailed.

The NSK Group is taking initiatives to provide a safe and comfortable work environment, but there is also a risk of industrial accidents caused by malfunctioning equipment or improper operation by workers. A particularly serious industrial accident could adversely affect the Group's operations.

Related information → PP. 51–64 Good Labor Practices

20 Foreign Exchange and Interest Rate Risks

The NSK Group conducts sales, production, and other business operations around the globe, and is exposed to fluctuations in foreign exchange rates and losses arising from commercial transactions and investment activities denominated in foreign currencies. The NSK Group also focuses on reducing interest-bearing debt in its efforts to strengthen its financial position, and a rise in interest rates would increase the amount of interest being paid, with possible repercussions on the NSK Group's business performance and financial position. The Group seeks to reduce the effects of exchange rate and interest rate fluctuations by balancing its foreign currency credits and debts and by using hedging when required, as stipulated in internal regulations. However, the risk of adverse effects cannot be entirely eliminated. Fluctuations in foreign exchange rates could also have a detrimental effect on sales and production costs due to higher prices for materials and parts supplies. The financial statements of affiliates outside Japan are mainly given in the local currency and translated into yen when producing consolidated financial statements. Even where the stated values do not change in the local currency, changes in foreign exchange rates might affect the amounts for assets, liabilities, income, and expenses after they are converted into yen.

21 Projected Pension Obligations (Liability for Retirement Benefits)


NSK and its subsidiaries in Japan have pension schemes, including defined benefit corporate pension schemes, and lump-sum payment plans to provide retirement benefits for employees. Some subsidiaries in the United Kingdom and other locations also have defined benefit pension schemes. The retirement benefit costs, retirement benefit liabilities, and pension funds of the NSK Group are calculated using discount rates and other actuarial assumptions. Accordingly, there is a risk that the business performance and financial position of the NSK Group could be adversely affected by retirement benefit costs and liabilities if there are changes in the assumptions on which pensions are based, a decline in returns on the investment of pension funds, a fall in the value of shares held in trust, or changes in accounting standards.


Certification for Quality, Environmental, and Occupational Health and Safety Management Systems

(As of October 2018)

Region	Country	Site name	Quality Management System	Environmental and Energy Management System	Occupational Health and Safety Management System
Japan	Japan	NSK Ltd., Fujisawa Plant / Fujisawa Plant Kirihara branch / Fujisawa Technology Center	ISO 9001, EN/JISQ/AS 9100, ISO/TS 22163	ISO 14001	
		NSK Ltd. Ohtsu Plant	IATF 16949	ISO 14001	
		NSK Ltd. Ishibe Plant	IATF 16949	ISO 14001	
		NSK Ltd. Saitama Plant	IATF 16949	ISO 14001	
		NSK Ltd. Saitama Precision Machinery Plant	ISO 9001	ISO 14001	
		NSK Ltd. Kirihara Precision Machinery Plant	ISO 9001	ISO 14001	
		NSK Ltd., Fukushima Plant	ISO 9001	ISO 14001	
		NSK Ltd., Takasaki Plant	IATF 16949	ISO 14001	
		NSK Ltd., Haruna Plant	IATF 16949	ISO 14001	
		NSK Ltd., Steering Technology Center	IATF 16949	ISO 14001	
		NSK Steering Systems Co., Ltd., Soja Plant (Soja)	IATF 16949	ISO 14001	
		NSK Steering Systems Co., Ltd., Soja Plant (Akagi)	IATF 16949	ISO 14001	
		NSK Micro Precision Co., Ltd., Fujisawa Plant	ISO 9001	ISO 14001	
		NSK Micro Precision Co., Ltd., Matsukawa Plant	ISO 9001	ISO 14001	
		NSK Kyushu Co., Ltd.	ISO 9001	ISO 14001	
		Asahi Seiki Co., Ltd.	ISO 9001	ISO 14001	
		Amatsuji Steel Ball Mfg. Co., Ltd., Main Works	IATF 16949	ISO 14001	OHSAS 18001
		Amatsuji Steel Ball Mfg. Co., Ltd., Shiga Works	IATF 16949	ISO 14001	OHSAS 18001
		AKS East Japan Co., Ltd.	IATF 16949	ISO 14001	
		NSK Toyama Co., Ltd., Head Office & Factory		ISO 14001	
		NSK Toyama Co., Ltd., Yatsuo Factory		ISO 14001	
		Shinwa Seiko Co., Ltd. Shin-asahi Plant	ISO 9001	ISO 14001	
		Shinwa Seiko Co., Ltd. Kutsuki Plant	ISO 9001	ISO 14001	
Kuribayashi Seisakusho Co., Ltd.	ISO 9001	ISO 14001			
NSK Machinery Co., Ltd.	ISO 9001	ISO 14001			
NSK Logistics Co., Ltd. (headquarters; logistics centers in Kanto, Chubu, and Kansai regions)	IATF 16949	ISO 14001			
Inoue Jikuuke Kogyo Co., Ltd.	ISO 9001, IATF 16949	ISO 14001			
NSK-Warner K.K.	ISO 9001, ISO/TS 16949	ISO 14001			
Chitose Sangyo Co., Ltd.	ISO 9001	ISO 14001			
The Americas	U.S.A.	NSK Corporation (administration, technology)	ISO 9001	ISO 14001	
		NSK Corporation, Clarinda Plant	ISO 9001, IATF 16949	ISO 14001	
		NSK Corporation, Franklin Plant	ISO 9001, IATF 16949	ISO 14001	
		NSK Corporation, Liberty Plant	IATF 16949	ISO 14001	
		NSK Precision America, Inc.	ISO 9001	ISO 14001	
		NSK Steering Systems America, Inc., Bennington Plant	IATF 16949	ISO 14001	
		NSK Steering Systems America, Inc., Dyersburg Plant	IATF 16949	ISO 14001	
		NSK-AKS Precision Ball Company	IATF 16949	ISO 14001	
	Canada	NSK Canada Inc.	ISO 9001		
	Mexico	NSK Rodamientos Mexicana, S.A. de C.V.	ISO 9001		
NSK Bearings Manufacturing Mexico S.A. de C.V.		IATF 16949	ISO 14001		

Region	Country	Site name	Quality Management System	Environmental and Energy Management System	Occupational Health and Safety Management System	
The Americas	Brazil	NSK Brasil LTDA.,	ISO 9001			
		NSK Brasil LTDA., Suzano Plant	IATF 16949	ISO 14001		
Europe	U.K.	NSK Europe Ltd. (administration, technology, sales, distribution)	ISO 9001	ISO 14001		
		NSK Bearings Europe Ltd., Newark Plant	ISO 9001	ISO 14001	OHSAS 18001	
		NSK Bearings Europe Ltd., Peterlee Plant	ISO 9001, IATF 16949	ISO 14001	OHSAS 18001	
		NSK Steering System Europe (England)	ISO 9001	ISO 14001		
		NSK Precision UK Ltd.	ISO 9001	ISO 14001	OHSAS 18001	
		AKS Precision Ball Europe Ltd.	IATF 16949	ISO 14001	OHSAS 18001	
	Germany	Neuweg Fertigung GmbH, Munderkingen Plant	ISO 9001	ISO 14001 ISO 50001	OHSAS 18001	
	Netherlands	NSK European Distribution Centre B.V.	ISO 9001		OHSAS 18001	
	Poland	NSK Bearings Polska S.A., Kielce Plant	ISO 9001, IATF 16949	ISO 14001	OHSAS 18001	
		NSK Needle Bearing Poland Sp. Z O.O.	IATF 16949	ISO 14001		
		NSK Steering Systems Europe (Polska) Sp. Z O.O.	IATF 16949	ISO 14001	OHSAS 18001	
		AKS Precision Ball Polska Sp. Z O.O.	IATF 16949	ISO 14001		
	Africa	South Africa	NSK South Africa (Pty) Ltd.	ISO 9001	ISO 14001	
	China	China	Kunshan NSK Co., Ltd.	ISO 9001, IATF 16949	ISO 14001	
Changshu NSK Needle Bearings Co., Ltd.			IATF 16949	ISO 14001		
Dongguan NSK Steering Systems Co., Ltd.			IATF 16949	ISO 14001		
Zhangjiagang NSK Precision Machinery Co., Ltd.			ISO 9001, IATF 16949	ISO 14001	OHSAS 18001	
Suzhou NSK Needle Bearings Co., Ltd.			IATF 16949	ISO 14001		
AKS Precision Ball (Hangzhou) Co., Ltd.			ISO 9001, IATF 16949	ISO 14001		
NSK-Warner (Shanghai) Co., Ltd.			IATF 16949	ISO 14001		
NSK-WANDA Electric Power Assisted Steering Systems Co., Ltd.			IATF 16949	ISO 14001		
NSK-Yagi Precision Forging (Zhangjiagang) Co., Ltd.			ISO 9001, IATF 16949	ISO 14001		
Shenyang NSK Precision Co., Ltd.			ISO 9001	ISO 14001		
Shenyang NSK Co., Ltd.			ISO 9001	ISO 14001		
Hefei NSK Co., Ltd.	ISO 9001, IATF 16949	ISO 14001				
South Korea	South Korea	NSK Korea Co., Ltd. Cheonan Plant	IATF 16949			
		NSK Korea Co., Ltd., Changwon Plant	IATF 16949	ISO 14001	OHSAS 18001	
ASEAN	Indonesia	PT. NSK Bearings Mfg. Indonesia	IATF 16949	ISO 14001		
		PT. AKS Precision Ball Indonesia	ISO 9001, IATF 16949	ISO 14001		
		PT. NSK-Warner Indonesia		ISO 14001		
	Thailand	NSK Bearings Mfg. (Thailand) Co., Ltd.	IATF 16949	ISO 14001	OHSAS 18001	
		Siam NSK Steering Systems Co., Ltd.	IATF 16949	ISO 14001	OHSAS 18001	
	Malaysia	NSK Micro Precision (M) Sdn. Bhd.	ISO 9001	ISO 14001	OHSAS 18001	
ISC Micro Precision Sdn. Bhd.		ISO 9001	ISO 14001	OHSAS 18001		
India	India	NSK Bearings Manufacturing India Private Limited	ISO 9001, IATF 16949	ISO 14001	OHSAS 18001	
		Rane NSK Steering Systems Ltd., Chennai Plant	ISO 9001, IATF 16949	ISO 14001	OHSAS 18001	
		Rane NSK Steering Systems Ltd., Bawal Plant	ISO 9001, IATF 16949	ISO 14001	OHSAS 18001	
		Rane NSK Steering Systems Ltd., Pantnagar Plant	ISO 9001, IATF 16949	ISO 14001	OHSAS 18001	

 Reference data is available on NSK's website.

www.nsk.com > Sustainability > Creating Quality to Earn the Confidence of Society
 **Certification for Quality Management Systems**

www.nsk.com > Sustainability > Environmental Activity > Environmental Management
 **Acquiring ISO 14001 Certification**

Scope of Environmental Management

In order to increase coverage and reliability, the Global Environmental Department at NSK headquarters and each Group site confirm environmental information and data. The NSK Group decides which information and data is to be disclosed by taking into account relevant laws and regulations, guidelines, social concerns and materiality.

	Category	Scope	
Environmental Management	INPUT	Steel	Procurement volume from main suppliers
		Oils and greases	
		Energy	NSK Group
		Water	
	OUTPUT	Environmentally harmful substances	Sites with ISO14001 certification in Japan
		Atmospheric Gases	Sites with ISO14001 certification
		Waste	Sites with ISO14001 certification (Production)
		Water Quantity	Sites with ISO14001 certification
		Environmentally harmful substances	Sites with ISO14001 certification in Japan (Sites with ISO14001 certification for VOCs)
	CSR Report 2018 p. 69: Fiscal 2017 Number of Environmental Education Courses and Participants (in Japan)		NSK group companies in Japan
Creating Environmentally Friendly Products	CSR Report 2018 p. 73: Number of environmentally friendly products developed CSR Report 2018 p. 72: Table: Environmentally Friendly Products Developed in Fiscal 2017	NSK Group (Products Development Divisions)	
Global Warming Countermeasures	CSR Report 2018 p. 76: Figure: Energy Used in Manufacturing by Region Figure: Total GHG Emissions from Manufacturing by Region		Sites with ISO14001 certification (Production)
	CSR Report 2018 p. 74: Breakdown of Energy Used by Energy Type and Application in Fiscal 2017 (Japan/Production) CO ₂ Emissions by Application		
	CSR Report 2018 p. 76: Figure: CO ₂ Emissions from Manufacturing in Japan: Total Volume and per Production Unit Figure: CO ₂ Emissions from Manufacturing Outside		
	CSR Report 2018 Appendix p. 104: Change in Energy Consumption and CO ₂ Emissions (by Region and Country, Production Sites)		
	CSR Report 2018 Supplemental Materials (website) : Energy Consumption and CO ₂ Emissions (by Site)		
	CSR Report 2018 p. 78: Figure: CO ₂ Emissions per Transportation Volume and CO ₂ Emissions from Distribution in Japan		NSK Logistics Co., Ltd., and main distribution contractors
	CSR Report 2018 p. 74: Energy Saving Activities in Offices (in Japan)		NSK Group sites in Japan (Headquarters, Branch Offices and Sales Offices)
CSR Report 2018 p. 79: NSK Group's (Global) Scope 3 Emissions in FY2017		NSK Group (Headquarters, Branch Offices, Sales Offices, Production and Technical Divisions)	

Category		Scope
Resource Conservation and Recycling Measures	CSR Report 2018 p. 82: Figure: Recycling Rate (Manufacturing)	
	CSR Report 2018 p. 82: Figures: Landfill Disposal Rate (Plants in Japan)	Sites with ISO14001 certification (Production)
	CSR Report 2018 p. 82: Figure: Total Waste (Manufacturing)	
	CSR Report 2018 p. 79: Figure: Industrial Waste per Production Unit (Plants in Japan)	Sites with ISO14001 certification (Production)
	CSR Report 2018 p. 82: Figure: Amount of Packaging Material Waste per Production Unit (Distribution in Japan)	NSK Logistics Co., Ltd.
	CSR Report 2018 p. 82: Figure: Water Withdrawal per Unit of Production (Plants in Japan) Figure: Water Withdrawal per Unit of Production (Plants outside Japan)	
	CSR Report 2018 Appendix p. 104: Total Waste, Landfill Disposal Volume and Recycling Rate (by Region and Country,* Production Sites) Recycling Rate (Manufacturing)	Sites with ISO14001 certification (Production)
	CSR Report 2018 Supplemental Materials (website): Water Usage, Wastewater Amounts, and Waste Emissions by Business Site	
	CSR Report 2018 Appendix p. 105: Water Withdrawal and Wastewater Amounts (by Region and Country,* Production Sites)	
Reducing Use of Environmentally Harmful Substances	CSR Report 2018 p. 86: Figure: Handling of PRTR-Designated Substances (Plants in Japan)	Sites with ISO14001 certification in Japan (Production)
	CSR Report 2018 p. 86: Emissions of VOCs (Plants in and outside Japan)	Sites with ISO14001 certification (Production)
	CSR Report 2018 Supplemental Materials (website): Volume of PRTR-Designated Substances Handled (Japan)	Sites with ISO14001 certification in Japan (Production)
	CSR Report 2018 Supplemental Materials (website): Air Pollutant Measurement Results	Sites with ISO14001 certification in Japan (Production)
	CSR Report 2018 Supplemental Materials (website): Water Contaminant Measurement Results	
Appendix	CSR Report 2018 p. 103: Environmental Accounting	NSK Ltd. (Headquarters, plants and technical divisions) NSK Steering Systems Co., Ltd. NSK-Warner K.K. NSK Kyushu Co., Ltd. NSK Machinery Co., Ltd. Inoue Jikuu Kogyo Co., Ltd. NSK Micro Precision Co., Ltd., Fujisawa Plant NSK Micro Precision Co., Ltd., Matsukawa Plant Amatsuji Steel Ball Mfg. Co., Ltd. AKS East Japan Co., Ltd. Asahi Seiki Co., Ltd. Shinwa Seiko Co., Ltd. Kuribayashi Seisakusho Co., Ltd.
Third-Party Comments	CSR Report 2018 p. 107: Independent Assurance Statement	NSK Group (Headquarters, Branch Offices, Sales Offices, Production and Technical Divisions)

Environmental Accounting

The NSK Group has disclosed the results of environmental accounting, a tool for quantitatively ascertaining and evaluating the costs and results of environmental protection activities. The Group also has introduced environmental accounting as an information tool to broaden people's understanding of the Group's activities. The environmental conservation cost in fiscal 2017 included approximately 3.7 billion yen in investments and about 15.1 billion yen in expenses. The economic benefits came to roughly 1.6 billion yen.

The NSK Group seeks to ensure that its products contribute to environmental preservation. As a result, approximately 68% of environmental conservation costs comprised R&D costs for environmentally friendly products and environmental conservation technologies.

Table1: Environmental Conservation Cost

Category	Investment			Cost			
	FY2016 Millions of yen	FY2017 Millions of yen	(%)	FY2016 Millions of yen	FY2017 Millions of yen	(%)	
Business area costs	Pollution prevention costs	345.2	475.8	12.8%	529.0	574.4	3.8%
	Global environment conservation costs	892.2	1,282.8	34.4%	955.6	1,180.4	7.8%
	Resource circulation costs	250.3	426.0	11.4%	794.3	1,012.4	6.7%
	Subtotal	1,487.8	2,184.7	58.6%	2,278.9	2,767.2	18.3%
Upstream and downstream costs	0.0	0.0	0.0%	258.7	524.2	3.5%	
Administration costs	40.5	17.3	0.5%	502.2	543.5	3.6%	
Research and development costs	2,017.5	1,527.5	41.0%	10,058.1	11,179.2	74.1%	
Social activity costs	0.0	0.0	0.0%	41.4	48.9	0.3%	
Environmental remediation costs	5.8	0.0	0.0%	18.9	29.4	0.2%	
Total	3,551.5	3,729.5	100.0%	13,158.1	15,092.4	100.0%	

Category	Key activities	
Business area costs	Pollution prevention costs	<ul style="list-style-type: none"> • Repaired underground tanks and pipes • Maintained and inspected dust collectors and smoke removal units
	Global environment conservation costs	<ul style="list-style-type: none"> • Upgraded to equipment with high energy efficiency and installed photovoltaic facilities
	Resource circulation costs	<ul style="list-style-type: none"> • Installed grinding-dust briquette-making equipment. • Took countermeasures to reduce and recycle waste material.
Upstream and downstream costs	<ul style="list-style-type: none"> • Practiced green procurement (low-polluting vehicles, paper, uniforms, and office equipment and supplies). 	
Administration costs	<ul style="list-style-type: none"> • Maintained and followed procedures for ISO 14001. • Measured and analyzed environmental impact. 	
Research and development costs	<ul style="list-style-type: none"> • Conducted research and development with the main goal of environmental protection for new product development. 	
Social activity costs	<ul style="list-style-type: none"> • Participated in and donated to the Keidanren Nature Conservation Fund. 	
Environmental remediation costs	<ul style="list-style-type: none"> • Maintained discharge treatment facilities. 	

Table 2: Economic Benefits Associated with Environmental Conservation Activities

Category	FY2016	FY2017
	Millions of yen	Millions of yen
Reductions in energy costs through energy conservation activities	117	129
Reductions in waste disposal costs through waste reduction activities	51	40
Sales of recyclable waste material	793	1,421
Total	961	1,590

Table 3: Physical Benefits Associated with Environmental Conservation Activities

Area	Indicators	FY2016	FY2017
Plants	CO ₂ emissions / production unit	2.0% improvement	4.6% improvement
	Water withdrawal / production unit	8.0% improvement	9.2% improvement
	Landfill waste disposal ratio	No change	No change
	Waste recycling ratio	No change	No change
Distribution	CO ₂ emissions / ton-kilometer	2.1% improvement	5.4% deterioration

Method of Calculation

- Criteria for environmental protection costs**
 Environmental costs and expenses determined in accord with the *Environmental Accounting Guidelines 2005* issued by the Ministry of the Environment in Japan.
 Depreciation is entered as a cost using the 5-year straight-line depreciation method.
 Compound costs are divided in proportion to the relevant environmental objective.
 Costs incurred through green procurement are entered as full amounts and not as differential amounts.
- Criteria for environmental protection benefits**
 Includes economic benefits (in monetary units) calculated from tangible evidence and physical benefits gained from environmental policies.
 Does not include imputed benefits (risk avoidance benefits, estimated profit contribution benefits, etc.).

Environmental Data by Country and Region

Energy Consumption and CO₂ Emissions*¹ (by Region and Country,*² Production Sites)

Region	Country	FY2013		FY2014		FY2015		FY2016* ³		FY2017* ³	
		Energy Consumption (TJ)	CO ₂ Emissions (1000t-CO ₂)	Energy Consumption (TJ)	CO ₂ Emissions (1000t-CO ₂)	Energy Consumption (TJ)	CO ₂ Emissions (1000t-CO ₂)	Energy Consumption (TJ)	CO ₂ Emissions (1000t-CO ₂)	Energy Consumption (TJ)	CO ₂ Emissions (1000t-CO ₂)
Japan	Japan	7,117	403	7,203	408	7,079	401	7,372	420	7,729	437
The Americas	U.S.A.	1,127	56	1,206	60	1,121	56	1,093	55	1,080	54
	Mexico	0	0	41	2	60	3	71	3	60	3
	Brazil	220	4	226	4	214	4	201	4	263	5
	The Americas sub-total	1,347	60	1,474	67	1,395	63	1,364	62	1,403	62
Europe	U.K.	601	26	613	27	661	29	650	28	598	26
	Germany	36	2	36	2	36	2	33	2	32	2
	Poland	1,296	100	1,253	96	1,329	102	1,405	108	1,501	115
	Europe sub-total	1,933	128	1,903	125	2,026	133	2,088	138	2,132	143
Asia	Indonesia	922	70	956	72	966	73	977	74	1,007	76
	Thailand	339	19	363	20	371	20	378	21	368	20
	Malaysia	455	31	467	32	478	33	447	30	468	32
	China	2,045	142	2,230	155	2,363	165	2,542	177	2,791	195
	Korea	392	21	417	22	442	23	488	26	493	26
	India	125	10	147	12	187	15	211	17	253	21
	Asia sub-total	4,278	292	4,580	313	4,808	329	5,042	345	5,379	369
NSK Group total		14,676	883	15,160	912	15,307	925	15,867	964	16,643	1,012

*1 Including CO₂ emitted from production sites by combusting fuel and CO₂ emitted from power plants regarded as generated by the user of electricity (sum of scope 1 and scope 2).

*2 Adding the actual values of all in-scope production sites by country.

*3 Figures in previous years have been revised retrospectively due to a change in the standard for calculation.

Total Waste, Landfill Disposal Volume and Recycling Rate (by Region and Country,* Production Sites)

Region	Country	FY2013			FY2014			FY2015		
		Total Waste (1000-t)	Landfill Disposal Volume (t)	Recycling Rate (%)	Total Waste (1000-t)	Landfill Disposal Volume (t)	Recycling Rate (%)	Total Waste (1000-t)	Landfill Disposal Volume (t)	Recycling Rate (%)
Japan	Japan	104.4	1	99.999	105.1	1	99.999	101.8	0	99.9999
The Americas	U.S.A.	14.9	1,148	92.3	16.9	1,292	92.3	17.0	778	95.4
	Mexico	—	—	—	—	—	—	0.5	132	62.3
	Brazil	3.9	57	98.5	3.6	60	98.3	3.1	55	98.2
	The Americas sub-total	18.8	1,205	93.5	20.5	1,352	93.4	20.6	888	95.6
Europe	U.K.	5.4	1,267	72.4	6.2	1,483	72.9	7.0	1,412	77.3
	Germany	1.3	0	100.0	1.3	0	100.0	1.3	0	100.0
	Poland	20.4	136	99.3	19.5	77	99.6	20.5	75	99.6
	Europe sub-total	27.0	1,403	94.5	27.1	1,561	93.9	28.7	1,486	94.6
Asia	Indonesia	8.4	121	98.6	8.6	120	98.6	8.3	30	99.6
	Thailand	4.5	109	97.4	5.2	148	97.0	5.2	118	97.6
	Malaysia	2.4	54	97.7	2.4	46	98.1	1.9	41	97.9
	China	23.3	1,190	94.2	27.4	1,647	93.4	28.9	1,083	95.6
	Korea	3.6	21	99.2	3.6	23	99.2	3.6	23	99.3
	India	0.7	93	86.1	0.7	75	90.0	0.8	65	92.3
	Asia sub-total	42.9	1,587	95.9	48.0	2,058	95.4	48.7	1,361	96.9
NSK Group total		193.2	4,197	97.7	200.7	4,972	97.4	199.9	3,735	98.0

Region	Country	FY2016			FY2017		
		Total Waste (1000-t)	Landfill Disposal Volume (t)	Recycling Rate (%)	Total Waste (1000-t)	Landfill Disposal Volume (t)	Recycling Rate (%)
Japan	Japan	105.5	0	100.0	111.5	0	100.0
The Americas	U.S.A.	17.0	888	94.8	16.3	717	95.6
	Mexico	0.6	12	100.0	0.5	21	87.7
	Brazil	3.5	42	94.8	3.3	59	98.2
	The Americas sub-total	21.0	943	94.0	20.1	798	95.9
Europe	U.K.	6.9	1,464	98.8	7.2	1,308	79.3
	Germany	0.9	0	95.4	1.0	0	100.0
	Poland	24.5	130	75.9	24.2	101	99.6
	Europe sub-total	32.3	1,593	100.0	32.4	1,409	95.4
Asia	Indonesia	9.5	29	99.5	9.8	16	99.8
	Thailand	4.9	29	94.8	4.6	14	99.7
	Malaysia	2.1	20	99.7	2.9	0	100.0
	China	31.8	1,000	99.4	36.4	720	97.6
	Korea	3.9	28	99.1	3.8	27	99.2
	India	1.1	22	96.3	2.0	28	98.6
	Asia sub-total	53.4	1,128	99.2	59.6	804	98.5
NSK Group total		212.2	3,664	98.0	223.5	3,011	98.6

* Adding the actual values of all in-scope production sites by country.

Water Withdrawal and Wastewater Amounts (by Region and Country,* Production Sites)

Region	Country	FY2013		FY2014		FY2015		FY2016		FY2017	
		Water Withdrawal (1000-m ³)	Wastewater (1000-m ³)	Water Withdrawal (1000-m ³)	Wastewater (1000-m ³)	Water Withdrawal (1000-m ³)	Wastewater (1000-m ³)	Water Withdrawal (1000-m ³)	Wastewater (1000-m ³)	Water Withdrawal (1000-m ³)	Wastewater (1000-m ³)
Japan	Japan	2,475.9	1,458.6	2,369.9	1,417.1	2,195.0	1,191.6	2,388.5	1,202.2	2,372.3	1,288.4
The Americas	U.S.A.	111.9	90.6	105.8	79.9	98.3	51.9	99.0	56.1	111.1	87.0
	Mexico	0.0	0.0	10.7	10.7	12.9	12.9	16.6	0.0	17.5	7.0
	Brazil	33.8	14.0	33.5	13.0	30.9	14.4	36.8	13.1	37.1	15.6
	The Americas sub-total	145.7	104.6	150.0	103.6	142.2	79.2	152.5	69.2	165.7	109.6
Europe	U.K.	60.8	60.8	73.6	73.6	76.1	64.2	75.7	64.4	68.5	56.7
	Germany	3.6	3.6	2.9	2.9	4.2	3.3	3.8	3.1	2.7	2.0
	Poland	242.9	126.0	227.8	122.0	247.5	135.2	267.5	146.6	260.7	144.4
	Europe sub-total	307.3	190.4	304.4	198.6	327.8	202.7	347.0	214.1	331.9	203.0
Asia	Indonesia	235.0	210.7	241.5	214.6	270.0	243.3	279.9	256.3	308.1	277.3
	Thailand	99.4	79.5	109.1	87.3	146.1	101.8	154.7	106.8	128.8	111.0
	Malaysia	72.0	72.0	46.4	46.4	125.0	69.8	120.2	9.4	137.0	36.5
	China	1,028.2	738.0	1,156.8	865.0	1,009.9	801.1	1,091.9	848.7	987.5	800.5
	Korea	55.4	22.7	56.6	23.3	60.0	41.7	72.1	50.2	75.5	75.5
	India	57.5	27.9	61.3	5.5	36.7	8.1	36.1	7.0	50.3	23.3
	Asia sub-total	1,547.4	1,150.8	1,671.7	1,242.1	1,647.7	1,265.8	1,754.8	1,278.4	1,687.2	1,324.1
NSK Group total		4,476.3	2,904.3	4,496.0	2,961.4	4,312.7	2,739.3	4,642.8	2,763.9	4,557.2	2,925.2

* Adding the actual values of all in-scope production sites by country.

Employee Data

Employee Composition by Employment Status

	FY2013	FY2014	FY2015	FY2016	FY2017
Regular employees	8,237	8,100	7,867	9,192	9,391
Non-regular employees	719	753	721	1,203	1,174
Total	8,956	8,853	8,588	10,395	10,565

* NSK and main group companies in Japan.

Employee Composition by Region

	FY2013	FY2014	FY2015	FY2016	FY2017
Japan	11,223	11,036	11,291	11,291	11,607
The Americas	3,078	3,294	3,229	3,065	3,080
Europe	3,498	3,563	3,531	3,667	3,908
Asia (excluded Japan)	12,655	13,195	13,536	13,478	13,266
Total	30,454	31,088	31,587	31,501	31,861

* NSK and main group companies in Japan.

Employee Composition by Gender

	FY2013	FY2014	FY2015	FY2016	FY2017
Men	7,692	7,555	7,317	8,395	8,570
Women	545	545	550	797	821
Total	8,237	8,100	7,867	9,192	9,391

* Includes employees of NSK Ltd. and major NSK Group companies in Japan.

Average Years of Employment

	FY2013	FY2014	FY2015	FY2016	FY2017
Men	19	19	19	17	17
Women	13	14	14	10	10
Total	18	18	19	15	16

* NSK and main group companies in Japan.

Average age

	FY2013	FY2014	FY2015	FY2016	FY2017
Men (age)	42	42	42	42	42
Women (age)	36	36	37	36	37
Total (age)	41	41	42	41	41

* NSK and main group companies in Japan.

Percentage of Directors and Management Positions Held by Women

	FY2013	FY2014	FY2015	FY2016	FY2017
Director (%)	0.00	0.00	0.00	0.00	5.00
Senior manager rank (%)	0.47	0.44	0.88	0.82	0.83
Manager rank (%)	0.61	1.20	1.20	1.34	1.83

* NSK and main group companies in Japan.

Number of New Graduates Hired

	April 2014	April 2015	April 2016	April 2017	April 2018
Men	65	66	68	100	89
Women	6	8	11	18	13

* Includes employees of NSK Ltd. and major NSK Group companies in Japan. (only corporate staff)

Retention Status of Employees

	FY2013	FY2014	FY2015	FY2016	FY2017
Turnover rate (%)	1.26	1.19	2.54	1.36	1.88

* NSK and main group companies in Japan.

* Turnover rate: Percentage of employees at the end of the previous year who have retired as of the end of the current year.

Number of Employees Who Took Childcare Leave

	FY2013	FY2014	FY2015	FY2016	FY2017
Men	6	13	25	34	40
Women	17	17	26	41	29

* NSK and main group companies in Japan.

Number of Employees Who Took Nursing Care Leave

	FY2013	FY2014	FY2015	FY2016	FY2017
Men	2	2	2	3	1
Women	1	0	1	1	2

* NSK and main group companies in Japan.

Number of labor-management consultations

	FY2013	FY2014	FY2015	FY2016	FY2017
Number of times Central Management Council meetings held	7	8	6	6	7

* NSK and main group companies in Japan.

Rate of Labor Union Participation

	FY2013	FY2014	FY2015	FY2016	FY2017
Non-management employees (%)	100	100	100	100	100
All employees including management (%)	81	81	82	81	82

* NSK and main group companies in Japan.

Independent Verification Report



No.1811003359

Independent Verification Report

To: NSK Ltd.

1. Objective and Scope

Japan Quality Assurance Organization (hereafter "JQA") was engaged by NSK Ltd. (hereafter "the Company") to provide an independent verification on "FY2017* NSK Group GHG emission calculation report", "FY2017 NSK Group Water withdrawal calculation report", "FY2017 NSK Group Waste and valuable resources calculation reports" and "FY2017 NSK Group VOC emission calculation report" (hereafter "the Reports"). The content of our verification was to express our conclusion, based on our verification procedures, on whether the statement of information regarding GHG emissions, Energy Use, Water withdrawal, Industrial waste and valuables, and VOC emissions in the Reports was correctly measured and calculated, in accordance with the "NSK Group GHG emission calculation standard (Scope 1 and 2)" (Ver. 02-03, as of May 16, 2018), "NSK Group GHG emission calculation standard (Scope 3)" (Ver. 01-03, as of July 24, 2018), "NSK Group Water withdrawal calculation standard (Ver. 01-02, as of June 19, 2018)" and "NSK Group Total waste of industrial waste and valuables, and Recycling rate, calculation standard (Ver. 01-01, as of May 25, 2018)" and "NSK Group VOC emission calculation standard (Ver.01-01, as of May 25, 2018)" (hereafter "the Rules"). The purpose of the verification is to evaluate the Reports objectively and to enhance the credibility of the Reports.

*The fiscal year 2017 of the Company ended on March 31, 2018.

2. Procedures Performed

JQA conducted verification in accordance with "ISO 14064-3" for GHG emissions and Energy use, and with "ISAE3000" for Water withdrawal, Industrial waste and valuables and VOC emissions, respectively. The scope of this verification assignment covers Scope 1, 2 and Scope 3 (Category 1, 2, 3, 4, 5, 6, 7, 8, 12, 13 and 15) as GHG emissions, Energy Use, Water withdrawal, Industrial waste and valuables, and VOC emissions. The verification was conducted to a limited level of assurance and quantitative materiality was set at 5 percent each of the total emissions and total amount of Water withdrawal in the Reports. The organizational boundaries of this verification cover all NSK Group sites in Japan and overseas, including production sites, technology centers and non-production sites of NSK Ltd., NSK equity affiliates* and NSK brand producing companies. * NSK equity affiliates which 50 percent or more of the voting stock is owned by NSK.

Our verification procedures included:

- For on-site verification except for Scope 3, visiting four domestic sites: NSK Ltd., Steering & Actuator Technology Center, NSK Kyushu Co., Ltd., Kuribayashi Seisakusho Co., Ltd. Head Office & Sakaki Plant and NSK Toyama Ltd., Takaoka Factory, selected by the Company.
- On-site assessment to check the report scope and boundaries; monitoring points of activity data; monitoring and calculation system; and activity data. The number and location of sampling sites for on-site assessment were selected by the Company.
- Visiting the Company's Head Office for validation of the Rules and verification of Scope 3. Checking calculation scenario and allocation method for Scope 3; monitoring and calculation system; and emission data.

3. Conclusion

Based on the procedures described above, nothing has come to our attention that caused us to believe that the statement of the information regarding the Company's FY2017 GHG emissions, Energy Use, Water withdrawal, Industrial waste and valuables, and VOC emissions in the Report is not materially correct, or has not been prepared in accordance with the Rules.

4. Consideration

The Company was responsible for preparing the Reports, and JQA's responsibility was to conduct verification of GHG emissions, Energy Use, Water withdrawal, Industrial waste and valuables, and VOC emissions in the Reports only. There is no conflict of interest between the Company and JQA.

Sumio Asada, Board Director

For and on behalf of Japan Quality Assurance Organization

1-25, Kanda-sudacho, Chiyoda-ku, Tokyo, Japan

August 7, 2018

Independent Assurance Statement



Independent Assurance Statement

September 11, 2018

Mr. Toshihiro Uchiyama
President & CEO
NSK Ltd.

1. Purpose

We, Sustainability Accounting Co., Ltd., have been engaged by NSK Ltd. ("the Company") to provide limited assurance on the Company's Lost-Worktime Injury Rates for FY 2017 which were 0.23 in Japan, 0.79 outside Japan, and 0.59 globally ("the performance data"). The purpose of this process is to express our conclusion on whether the performance data were calculated in accordance with the Company's standards. The Company's management is responsible for calculating the performance data. Our responsibility is to independently carry out a limited assurance engagement and to express our assurance conclusion.

2. Procedures Performed

Our assurance engagement has been planned and performed in accordance with International Standard on Assurance Engagement 3000 (ISAE3000).

The key procedures we carried out included:

- Interviewing the Company's responsible personnel to understand the Company's standards
- Reviewing the Company's standards
- Performing cross-checks on a sample basis and performing a recalculation to determine whether the performance data were calculated in accordance with the Company's standards.

3. Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the performance data have not been calculated, in all material respects, in accordance with the Company's standards.

We have no conflict of interest relationships with the Company.

Takashi Fukushima
Representative Director
Sustainability Accounting Co., Ltd.

GRI Content Index

This report refers to GRI Sustainability Reporting Standards (GRI Standards) 2016/2018. The relevant information is described as follows.

GRI 102: General Disclosures 2016

Indicator		Report Page
1. Organizational profile		
102-1	Name of the organization	a. Name of the organization. p. 3
102-2	Activities, brands, products, and services	a. A description of the organization's activities. b. Primary brands, products, and services, including an explanation of any products or services that are banned in certain markets. pp. 3-4
102-3	Location of headquarters	a. Location of the organization's headquarters. p. 3
102-4	Location of operations	a. Number of countries where the organization operates, and the names of countries where it has significant operations and/or that are relevant to the topics covered in the report. p. 5
102-5	Ownership and legal form	a. Nature of ownership and legal form. p. 3
102-6	Markets served	a. Markets served, including: i. geographic locations where products and services are offered; ii. sectors served; iii. types of customers and beneficiaries. pp. 3-5 NSK Report 2018 pp. 30-37
102-7	Scale of the organization	a. Scale of the organization, including: i. total number of employees; ii. total number of operations; iii. net sales (for private sector organizations) or net revenues (for public sector organizations); iv. total capitalization (for private sector organizations) broken down in terms of debt and equity; v. quantity of products or services provided. pp. 3, 5
102-8	Information on employees and other workers	a. Total number of employees by employment contract (permanent and temporary), by gender. b. Total number of employees by employment contract (permanent and temporary), by region. c. Total number of employees by employment type (full-time and part-time), by gender. d. Whether a significant portion of the organization's activities are performed by workers who are not employees. If applicable, a description of the nature and scale of work performed by workers who are not employees. e. Any significant variations in the numbers reported in Disclosures 102-8-a, 102-8-b, and 102-8-c (such as seasonal variations in the tourism or agricultural industries). f. An explanation of how the data have been compiled, including any assumptions made. pp. 3, 104
102-9	Supply chain	a. A description of the organization's supply chain, including its main elements as they relate to the organization's activities, primary brands, products, and services. p. 47
102-10	Significant changes to the organization and its supply chain	a. Significant changes to the organization's size, structure, ownership, or supply chain, including: i. Changes in the location of, or changes in, operations, including facility openings, closings, and expansions; ii. Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations); iii. Changes in the location of suppliers, the structure of the supply chain, or relationships with suppliers, including selection and termination. No change
102-11	Precautionary Principle or approach	a. Whether and how the organization applies the Precautionary Principle or approach. pp. 84-86
102-12	External initiatives	a. A list of externally-developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes, or which it endorses. p. 29
102-13	Membership of associations	a. A list of the main memberships of industry or other associations, and national or international advocacy organizations. web: Related Association
2. Strategy		
102-14	Statement from senior decision-maker	a. A statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy for addressing sustainability. pp. 12-14
102-15	Key impacts, risks, and opportunities	a. A description of key impacts, risks, and opportunities. pp. 9, 12-14, 94-98
3. Ethics and integrity		
102-16	Values, principles, standards, and norms of behavior	a. A description of the organization's values, principles, standards, and norms of behavior. p. 7
102-17	Mechanisms for advice and concerns about ethics	a. A description of internal and external mechanisms for: i. seeking advice about ethical and lawful behavior, and organizational integrity; ii. reporting concerns about unethical or unlawful behavior, and organizational integrity. pp. 26, 48
4. Governance		
102-18	Governance structure	a. Governance structure of the organization, including committees of the highest governance body. b. Committees responsible for decision-making on economic, environmental, and social topics. pp. 10, 18, 66
102-19	Delegating authority	a. Process for delegating authority for economic, environmental, and social topics from the highest governance body to senior executives and other employees. pp. 10, 18, 66
102-20	Executive-level responsibility for economic, environmental, and social topics	a. Whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental, and social topics. b. Whether post holders report directly to the highest governance body. pp. 10, 18, 66

Indicator		Report Page	
102-21	Consulting stakeholders on economic, environmental, and social topics	a. Processes for consultation between stakeholders and the highest governance body on economic, environmental, and social topics. b. If consultation is delegated, describe to whom it is delegated and how the resulting feedback is provided to the highest governance body.	pp. 10, 18, 66
102-22	Composition of the highest governance body and its committees	a. Composition of the highest governance body and its committees by: i. executive or non-executive; ii. independence; iii. tenure on the governance body; iv. number of each individual's other significant positions and commitments, and the nature of the commitments; v. gender; vi. membership of under-represented social groups; vii. competencies relating to economic, environmental, and social topics; viii. stakeholder representation.	pp. 18-23
102-23	Chair of the highest governance body	a. Whether the chair of the highest governance body is also an executive officer in the organization. b. If the chair is also an executive officer, describe his or her function within the organization's management and the reasons for this arrangement.	pp. 18-19, 21-22
102-24	Nominating and selecting the highest governance body	a. Nomination and selection processes for the highest governance body and its committees. b. Criteria used for nominating and selecting highest governance body members, including whether and how: i. stakeholders (including shareholders) are involved; ii. diversity is considered; iii. independence is considered; iv. expertise and experience relating to economic, environmental, and social topics are considered.	pp. 19-20
102-25	Conflicts of interest	a. Processes for the highest governance body to ensure conflicts of interest are avoided and managed. b. Whether conflicts of interest are disclosed to stakeholders, including, as a minimum: i. Cross-board membership; ii. Cross-shareholding with suppliers and other stakeholders; iii. Existence of controlling shareholder; iv. Related party disclosures.	pp. 19-21
102-26	Role of highest governance body in setting purpose, values, and strategy	a. Highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental, and social topics.	pp. 18-23
102-27	Collective knowledge of highest governance body	a. Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental, and social topics.	pp. 20
102-28	Evaluating the highest governance body's performance	a. Processes for evaluating the highest governance body's performance with respect to governance of economic, environmental, and social topics. b. Whether such evaluation is independent or not, and its frequency. c. Whether such evaluation is a self-assessment. d. Actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental, and social topics, including, as a minimum, changes in membership and organizational practice.	pp. 19-20
102-29	Identifying and managing economic, environmental, and social impacts	a. Highest governance body's role in identifying and managing economic, environmental, and social topics and their impacts, risks, and opportunities – including its role in the implementation of due diligence processes. b. Whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental, and social topics and their impacts, risks, and opportunities.	pp. 18-23
102-30	Effectiveness of risk management processes	a. Highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental, and social topics.	pp. 18, 30-32
102-31	Review of economic, environmental, and social topics	a. Frequency of the highest governance body's review of economic, environmental, and social topics and their impacts, risks, and opportunities.	p. 32
102-33	Communicating critical concerns	a. Process for communicating critical concerns to the highest governance body.	pp. 10, 23, 24-26, 30-32
102-35	Remuneration policies	a. Remuneration policies for the highest governance body and senior executives for the following types of remuneration: i. Fixed pay and variable pay, including performance-based pay, equity-based pay, bonuses, and deferred or vested shares; ii. Sign-on bonuses or recruitment incentive payments; iii. Termination payments; iv. Clawbacks; v. Retirement benefits, including the difference between benefit schemes and contribution rates for the highest governance body, senior executives, and all other employees. b. How performance criteria in the remuneration policies relate to the highest governance body's and senior executives' objectives for economic, environmental, and social topics.	pp. 21-22
102-36	Process for determining remuneration	a. Process for determining remuneration. b. Whether remuneration consultants are involved in determining remuneration and whether they are independent of management. c. Any other relationships that the remuneration consultants have with the organization.	p. 21
5. Stakeholder engagement			
102-40	List of stakeholder groups	a. A list of stakeholder groups engaged by the organization.	pp. 10, 67
102-41	Collective bargaining agreements	a. Percentage of total employees covered by collective bargaining agreements.	p. 53, web: Labor and Management Cooperate to Develop Better Working Environment
102-42	Identifying and selecting stakeholders	a. The basis for identifying and selecting stakeholders with whom to engage.	p. 10

Indicator		Report Page
102-43	Approach to stakeholder engagement	a. The organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process. pp. 10, 67
102-44	Key topics and concerns raised	a. Key topics and concerns that have been raised through stakeholder engagement, including: i. how the organization has responded to those key topics and concerns, including through its reporting; ii. vthe stakeholder groups that raised each of the key topics and concerns. pp.10, 26, 28, 41-44, 48-49
6. Reporting practice		
102-45	Entities included in the consolidated financial statements	a. A list of all entities included in the organization's consolidated financial statements or equivalent documents. b. Whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report. The Securities Report (157th term, Japanese only) pp. 8-12
102-46	Defining report content and topic Boundaries	a. An explanation of the process for defining the report content and the topic Boundaries. b. An explanation of how the organization has implemented the Reporting Principles for defining report content. p. 1
102-47	List of material topics	a. A list of the material topics identified in the process for defining report content. p. 9
102-48	Restatements of information	a. The effect of any restatements of information given in previous reports, and the reasons for such restatements. pp. 15-16, 82, 86, 104
102-49	Changes in reporting	a. Significant changes from previous reporting periods in the list of material topics and topic Boundaries. No change
102-50	Reporting period	a. Reporting period for the information provided. p. 1
102-51	Date of most recent report	a. If applicable, the date of the most recent previous report. Back Cover
102-52	Reporting cycle	a. Reporting cycle. Back Cover
102-53	Contact point for questions regarding the report	a. The contact point for questions regarding the report or its contents. Back Cover
102-55	GRI content index	a. The GRI content index, which specifies each of the GRI Standards used and lists all disclosures included in the report. b. For each disclosure, the content index shall include: i. the number of the disclosure (for disclosures covered by the GRI Standards); ii. the page number(s) or URL(s) where the information can be found, either within the report or in other published materials; iii. if applicable, and where permitted, the reason(s) for omission when a required disclosure cannot be made. pp. 109-117
102-56	External assurance	a. A description of the organization's policy and current practice with regard to seeking external assurance for the report. b. If the report has been externally assured: i. A reference to the external assurance report, statements, or opinions. If not included in the assurance report accompanying the sustainability report, a description of what has and what has not been assured and on what basis, including the assurance standards used, the level of assurance obtained, and any limitations of the assurance process; ii. The relationship between the organization and the assurance provider; iii. Whether and how the highest governance body or senior executives are involved in seeking external assurance for the organization's sustainability report. pp. 107-108

GRI 103: Management Approach 2016

Indicator		Report Page
GRI 103: Management Approach		
103-1	Explanation of the material topic and its Boundary	a. An explanation of why the topic is material. b. The Boundary for the material topic, which includes a description of: i. where the impacts occur; ii. the organization's involvement with the impacts. For example, whether the organization has caused or contributed to the impacts, or is directly linked to the impacts through its business relationships. c. Any specific limitation regarding the topic Boundary. pp. 9-10, 15-16, 18, 24-26, 30, 34-35, 39-40, 47, 52-54, 60-61, 63-64, 66, 71, 90
103-2	The management approach and its components	a. An explanation of how the organization manages the topic. b. A statement of the purpose of the management approach. c. A description of the following, if the management approach includes that component: i. Policies ii. Commitments iii. Goals and targets iv. Responsibilities v. Resources vi. Grievance mechanisms vii. Specific actions, such as processes, projects, programs and initiatives pp. 9-10, 15-16, 18, 24-26, 30, 34-35, 39-40, 47, 52-54, 60-61, 63-64, 66, 71, 90
103-3	Evaluation of the management approach	a. An explanation of how the organization evaluates the management approach, including: i. the mechanisms for evaluating the effectiveness of the management approach; ii. the results of the evaluation of the management approach; iii. any related adjustments to the management approach. pp. 9-10, 15-16, 18, 24-26, 30, 34-35, 39-40, 47, 52-54, 60-61, 63-64, 66, 71, 90

GRI 200: Economic topics 2016

Indicator		Report Page	
GRI 201: Economic Performance 2016			
201-1	Direct economic value generated and distributed	<p>a. Direct economic value generated and distributed (EVG&D) on an accruals basis, including the basic components for the organization's global operations as listed below. If data are presented on a cash basis, report the justification for this decision in addition to reporting the following basic components:</p> <ul style="list-style-type: none"> i. Direct economic value generated: revenues; ii. Economic value distributed: operating costs, employee wages and benefits, payments to providers of capital, payments to government by country, and community investments; iii. Economic value retained: 'direct economic value generated' less 'economic value distributed'. <p>b. Where significant, report EVG&D separately at country, regional, or market levels, and the criteria used for defining significance.</p>	NSK Report 2018 p. 13
201-2	Financial implications and other risks and opportunities due to climate change	<p>a. Risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue, or expenditure, including:</p> <ul style="list-style-type: none"> i. a description of the risk or opportunity and its classification as either physical, regulatory, or other; ii. a description of the impact associated with the risk or opportunity; iii. the financial implications of the risk or opportunity before action is taken; iv. the methods used to manage the risk or opportunity; v. the costs of actions taken to manage the risk or opportunity. 	pp. 67, 71-79, 97, 103 NSK Report 2018 pp. 4-9
201-3	Defined benefit plan obligations and other retirement plans	<p>a. If the plan's liabilities are met by the organization's general resources, the estimated value of those liabilities.</p> <p>b. If a separate fund exists to pay the plan's pension liabilities:</p> <ul style="list-style-type: none"> i. the extent to which the scheme's liabilities are estimated to be covered by the assets that have been set aside to meet them; ii. the basis on which that estimate has been arrived at; iii. when that estimate was made. <p>c. If a fund set up to pay the plan's pension liabilities is not fully covered, explain the strategy, if any, adopted by the employer to work towards full coverage, and the timescale, if any, by which the employer hopes to achieve full coverage.</p> <p>d. Percentage of salary contributed by employee or employer.</p> <p>e. Level of participation in retirement plans, such as participation in mandatory or voluntary schemes, regional, or country-based schemes, or those with financial impact.</p>	The Securities Report (157th term, Japanese only), pp. 24, 95-98
GRI 205: Anti-corruption 2016			
205-2	Communication and training about anti-corruption policies and procedures	<p>a. Total number and percentage of governance body members that the organization's anti-corruption policies and procedures have been communicated to, broken down by region.</p> <p>b. Total number and percentage of employees that the organization's anti-corruption policies and procedures have been communicated to, broken down by employee category and region.</p> <p>c. Total number and percentage of business partners that the organization's anti-corruption policies and procedures have been communicated to, broken down by type of business partner and region. Describe if the organization's anti-corruption policies and procedures have been communicated to any other persons or organizations.</p> <p>d. Total number and percentage of governance body members that have received training on anti-corruption, broken down by region.</p> <p>e. Total number and percentage of employees that have received training on anti-corruption, broken down by employee category and region.</p>	pp. 27-28, 47-50
GRI 206: Anti-competitive Behavior 2016			
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	<p>a. Number of legal actions pending or completed during the reporting period regarding anti-competitive behavior and violations of anti-trust and monopoly legislation in which the organization has been identified as a participant.</p> <p>b. Main outcomes of completed legal actions, including any decisions or judgments.</p>	N/A

GRI 300: Environmental topics

Indicator		Report Page	
GRI 301: Materials 2016			
301-1	Materials used by weight or volume	<p>a. Total weight or volume of materials that are used to produce and package the organization's primary products and services during the reporting period, by:</p> <ul style="list-style-type: none"> i. non-renewable materials used; ii. renewable materials used. 	p. 68
301-3	Reclaimed products and their packaging materials	<p>a. Percentage of reclaimed products and their packaging materials for each product category.</p> <p>b. How the data for this disclosure have been collected.</p>	p. 82

Indicator		Report Page	
GRI 302: Energy 2016			
302-1	Energy consumption within the organization	<p>a. Total fuel consumption within the organization from non-renewable sources, in joules or multiples, and including fuel types used.</p> <p>b. Total fuel consumption within the organization from renewable sources, in joules or multiples, and including fuel types used.</p> <p>c. In joules, watt-hours or multiples, the total:</p> <ul style="list-style-type: none"> i. electricity consumption ii. heating consumption iii. cooling consumption iv. steam consumption <p>d. In joules, watt-hours or multiples, the total:</p> <ul style="list-style-type: none"> i. electricity sold ii. heating sold iii. cooling sold iv. steam sold <p>e. Total energy consumption within the organization, in joules or multiples.</p> <p>f. Standards, methodologies, assumptions, and/or calculation tools used.</p> <p>g. Source of the conversion factors used.</p>	pp. 68, 76, 104
302-4	Reduction of energy consumption	<p>a. Amount of reductions in energy consumption achieved as a direct result of conservation and efficiency initiatives, in joules or multiples.</p> <p>b. Types of energy included in the reductions; whether fuel, electricity, heating, cooling, steam, or all.</p> <p>c. Basis for calculating reductions in energy consumption, such as base year or baseline, including the rationale for choosing it.</p> <p>d. Standards, methodologies, assumptions, and/or calculation tools used.</p>	p. 104
GRI 303: Water and Effluents 2018			
303-3	Water withdrawal	<p>a. Total water withdrawal from all areas in megaliters, and a breakdown of this total by the following sources, if applicable:</p> <ul style="list-style-type: none"> i. Surface water; ii. Groundwater; iii. Seawater; iv. Produced water; v. Third-party water. <p>b. Total water withdrawal from all areas with water stress in megaliters, and a breakdown of this total by the following sources, if applicable:</p> <ul style="list-style-type: none"> i. Surface water; ii. Groundwater; iii. Seawater; iv. Produced water; v. Third-party water, and a breakdown of this total by the withdrawal sources listed in i-iv. <p>c. A breakdown of total water withdrawal from each of the sources listed in Disclosures 303-3-a and 303-3-b in megaliters by the following categories:</p> <ul style="list-style-type: none"> i. Freshwater ($\leq 1,000$ mg/L Total Dissolved Solids); ii. Other water ($> 1,000$ mg/L Total Dissolved Solids). <p>d. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.</p>	pp. 68, 82, 105
303-4	Water discharge	<p>a. Total water discharge to all areas in megaliters, and a breakdown of this total by the following types of destination, if applicable:</p> <ul style="list-style-type: none"> i. Surface water; ii. Groundwater; iii. Seawater; iv. Third-party water, and the volume of this total sent for use to other organizations, if applicable. <p>b. A breakdown of total water discharge to all areas in megaliters by the following categories:</p> <ul style="list-style-type: none"> i. Freshwater ($\leq 1,000$ mg/L Total Dissolved Solids); ii. Other water ($> 1,000$ mg/L Total Dissolved Solids). <p>c. Total water discharge to all areas with water stress in megaliters, and a breakdown of this total by the following categories:</p> <ul style="list-style-type: none"> i. Freshwater ($\leq 1,000$ mg/L Total Dissolved Solids); ii. Other water ($> 1,000$ mg/L Total Dissolved Solids). <p>d. Priority substances of concern for which discharges are treated, including:</p> <ul style="list-style-type: none"> i. how priority substances of concern were defined, and any international standard, authoritative list, or criteria used; ii. the approach for setting discharge limits for priority substances of concern; iii. number of incidents of non-compliance with discharge limits. <p>e. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.</p>	pp. 68, 105
303-5	Water consumption	<p>a. Total water consumption from all areas in megaliters.</p> <p>b. Total water consumption from all areas with water stress in megaliters.</p> <p>c. Change in water storage in megaliters, if water storage has been identified as having a significant water-related impact.</p> <p>d. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used, including whether the information is calculated, estimated, modeled, or sourced from direct measurements, and the approach taken for this, such as the use of any sector-specific factors.</p>	pp. 68, 82, 105

Indicator		Report Page	
GRI 304: Biodiversity 2016			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<p>a. For each operational site owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas, the following information:</p> <ul style="list-style-type: none"> i. Geographic location; ii. Subsurface and underground land that may be owned, leased, or managed by the organization; iii. Position in relation to the protected area (in the area, adjacent to, or containing portions of the protected area) or the high biodiversity value area outside protected areas; iv. Type of operation (office, manufacturing or production, or extractive); v. Size of operational site in km² (or another unit, if appropriate); vi. Biodiversity value characterized by the attribute of the protected area or area of high biodiversity value outside the protected area (terrestrial, freshwater, or maritime ecosystem); vii. Biodiversity value characterized by listing of protected status (such as IUCN Protected Area Management Categories, Ramsar Convention, national legislation). 	pp. 87-88
304-3	Habitats protected or restored	<p>a. Size and location of all habitat areas protected or restored, and whether the success of the restoration measure was or is approved by independent external professionals.</p> <p>b. Whether partnerships exist with third parties to protect or restore habitat areas distinct from where the organization has overseen and implemented restoration or protection measures.</p> <p>c. Status of each area based on its condition at the close of the reporting period.</p> <p>d. Standards, methodologies, and assumptions used.</p>	pp. 87-88
GRI 305: Emissions 2016			
305-1	Direct (Scope 1) GHG emissions	<p>a. Gross direct (Scope 1) GHG emissions in metric tons of CO₂ equivalent.</p> <p>b. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>c. Biogenic CO₂ emissions in metric tons of CO₂ equivalent.</p> <p>d. Base year for the calculation, if applicable, including:</p> <ul style="list-style-type: none"> i. the rationale for choosing it; ii. emissions in the base year; iii. the context for any significant changes in emissions that triggered recalculations of base year emissions. <p>e. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.</p> <p>f. Consolidation approach for emissions; whether equity share, financial control, or operational control.</p> <p>g. Standards, methodologies, assumptions, and/or calculation tools used.</p>	pp. 68, 74, 76
305-2	Energy indirect (Scope 2) GHG emissions	<p>a. Gross location-based energy indirect (Scope 2) GHG emissions in metric tons of CO₂ equivalent.</p> <p>b. If applicable, gross market-based energy indirect (Scope 2) GHG emissions in metric tons of CO₂ equivalent.</p> <p>c. If available, the gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>d. Base year for the calculation, if applicable, including:</p> <ul style="list-style-type: none"> i. the rationale for choosing it; ii. emissions in the base year; iii. the context for any significant changes in emissions that triggered recalculations of base year emissions. <p>e. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.</p> <p>f. Consolidation approach for emissions; whether equity share, financial control, or operational control.</p> <p>g. Standards, methodologies, assumptions, and/or calculation tools used.</p>	pp. 68, 74, 76
305-3	Other indirect (Scope 3) GHG emissions	<p>a. Gross other indirect (Scope 3) GHG emissions in metric tons of CO₂ equivalent.</p> <p>b. If available, the gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>c. Biogenic CO₂ emissions in metric tons of CO₂ equivalent.</p> <p>d. Other indirect (Scope 3) GHG emissions categories and activities included in the calculation.</p> <p>e. Base year for the calculation, if applicable, including:</p> <ul style="list-style-type: none"> i. the rationale for choosing it; ii. emissions in the base year; iii. the context for any significant changes in emissions that triggered recalculations of base year emissions. <p>f. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.</p> <p>g. Standards, methodologies, assumptions, and/or calculation tools used.</p>	pp. 78, 79
305-4	GHG emissions intensity	<p>a. GHG emissions intensity ratio for the organization.</p> <p>b. Organization-specific metric (the denominator) chosen to calculate the ratio.</p> <p>c. Types of GHG emissions included in the intensity ratio; whether direct (Scope 1), energy indirect (Scope 2), and/or other indirect (Scope 3).</p> <p>d. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p>	pp. 76, 78
305-5	Reduction of GHG emissions	<p>a. GHG emissions reduced as a direct result of reduction initiatives, in metric tons of CO₂ equivalent.</p> <p>b. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>c. Base year or baseline, including the rationale for choosing it.</p> <p>d. Scopes in which reductions took place; whether direct (Scope 1), energy indirect (Scope 2), and/or other indirect (Scope 3).</p> <p>e. Standards, methodologies, assumptions, and/or calculation tools used.</p>	pp. 76, 104
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	<p>a. Significant air emissions, in kilograms or multiples, for each of the following:</p> <ul style="list-style-type: none"> i. NOx ii. SOx iii. Persistent organic pollutants (POP) iv. Volatile organic compounds (VOC) v. Hazardous air pollutants (HAP) vi. Particulate matter (PM) vii. Other standard categories of air emissions identified in relevant regulations <p>b. Source of the emission factors used.</p> <p>c. Standards, methodologies, assumptions, and/or calculation tools used.</p>	pp. 68, 86

Indicator		Report Page	
GRI 306: Effluents and Waste 2016			
306-1	Water discharge by quality and destination	a. Total volume of planned and unplanned water discharges by: i. destination; ii. quality of the water, including treatment method; iii. whether the water was reused by another organization. b. Standards, methodologies, and assumptions used.	pp. 68, 105
306-2	Waste by type and disposal method	a. Total weight of hazardous waste, with a breakdown by the following disposal methods where applicable: i. Reuse ii. Recycling iii. Composting iv. Recovery, including energy recovery v. Incineration (mass burn) vi. Deep well injection vii. Landfill viii. On-site storage ix. Other (to be specified by the organization) b. Total weight of non-hazardous waste, with a breakdown by the following disposal methods where applicable: i. Reuse ii. Recycling iii. Composting iv. Recovery, including energy recovery v. Incineration (mass burn) vi. Deep well injection vii. Landfill viii. On-site storage ix. Other (to be specified by the organization) c. How the waste disposal method has been determined: i. Disposed of directly by the organization, or otherwise directly confirmed ii. Information provided by the waste disposal contractor iii. Organizational defaults of the waste disposal contractor	pp. 68, 82, 104, Independent Assurance Statement: p. 107
306-3	Significant spills	a. Total number and total volume of recorded significant spills. b. The following additional information for each spill that was reported in the organization's financial statements: i. Location of spill; ii. Volume of spill; iii. Material of spill, categorized by: oil spills (soil or water surfaces), fuel spills (soil or water surfaces), spills of wastes (soil or water surfaces), spills of chemicals (mostly soil or water surfaces), and other (to be specified by the organization). c. Impacts of significant spills.	p. 70
GRI 307: Environmental Compliance 2016			
307-1	Non-compliance with environmental laws and regulations	a. Significant fines and non-monetary sanctions for non-compliance with environmental laws and/or regulations in terms of: i. total monetary value of significant fines; ii. total number of non-monetary sanctions; iii. cases brought through dispute resolution mechanisms. b. If the organization has not identified any non-compliance with environmental laws and/or regulations, a brief statement of this fact is sufficient.	p. 70
GRI 308: Supplier Environmental Assessment 2016			
308-1	New suppliers that were screened using environmental criteria	a. Percentage of new suppliers that were screened using environmental criteria.	pp. 49, 86
308-2	Negative environmental impacts in the supply chain and actions taken	a. Number of suppliers assessed for environmental impacts. b. Number of suppliers identified as having significant actual and potential negative environmental impacts. c. Significant actual and potential negative environmental impacts identified in the supply chain. d. Percentage of suppliers identified as having significant actual and potential negative environmental impacts with which improvements were agreed upon as a result of assessment. e. Percentage of suppliers identified as having significant actual and potential negative environmental impacts with which relationships were terminated as a result of assessment, and why.	pp. 49, 86

GRI 400: Social topics

Indicator		Report Page	
GRI 401: Employment 2016			
401-1	New employee hires and employee turnover	a. Total number and rate of new employee hires during the reporting period, by age group, gender and region. b. Total number and rate of employee turnover during the reporting period, by age group, gender and region.	p. 106
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	a. Benefits which are standard for full-time employees of the organization but are not provided to temporary or part-time employees, by significant locations of operation. These include, as a minimum: i. life insurance; ii. health care; iii. disability and invalidity coverage; iv. parental leave; v. retirement provision; vi. stock ownership; vii. others. b. The definition used for 'significant locations of operation'.	p. 60

Indicator		Report Page
403-3	Parental leave	a. Total number of employees that were entitled to parental leave, by gender. b. Total number of employees that took parental leave, by gender. c. Total number of employees that returned to work in the reporting period after parental leave ended, by gender. d. Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work, by gender. e. Return to work and retention rates of employees that took parental leave, by gender. p. 106
GRI 403: Occupational Health and Safety 2018		
403-1	Occupational health and safety management system	a. A statement of whether an occupational health and safety management system has been implemented, including whether: i. the system has been implemented because of legal requirements and, if so, a list of the requirements; ii. the system has been implemented based on recognized risk management and/or management system standards/guidelines and, if so, a list of the standards/guidelines. b. A description of the scope of workers, activities, and workplaces covered by the occupational health and safety management system, and an explanation of whether and, if so, why any workers, activities, or workplaces are not covered. p. 63
403-2	Hazard identification, risk assessment, and incident investigation	a. A description of the processes used to identify work-related hazards and assess risks on a routine and non-routine basis, and to apply the hierarchy of controls in order to eliminate hazards and minimize risks, including: i. how the organization ensures the quality of these processes, including the competency of persons who carry them out; ii. how the results of these processes are used to evaluate and continually improve the occupational health and safety management system. b. A description of the processes for workers to report work-related hazards and hazardous situations, and an explanation of how workers are protected against reprisals. c. A description of the policies and processes for workers to remove themselves from work situations that they believe could cause injury or ill health, and an explanation of how workers are protected against reprisals. d. A description of the processes used to investigate work-related incidents, including the processes to identify hazards and assess risks relating to the incidents, to determine corrective actions using the hierarchy of controls, and to determine improvements needed in the occupational health and safety management system. pp. 63-64
403-3	Occupational health services	a. A description of the occupational health services' functions that contribute to the identification and elimination of hazards and minimization of risks, and an explanation of how the organization ensures the quality of these services and facilitates workers' access to them. p. 64
403-4	Worker participation, consultation, and communication on occupational health and safety	a. A description of the processes for worker participation and consultation in the development, implementation, and evaluation of the occupational health and safety management system, and for providing access to and communicating relevant information on occupational health and safety to workers. b. Where formal joint management-worker health and safety committees exist, a description of their responsibilities, meeting frequency, decision-making authority, and whether and, if so, why any workers are not represented by these committees. pp. 63-64
403-5	Worker training on occupational health and safety	a. A description of any occupational health and safety training provided to workers, including generic training as well as training on specific work-related hazards, hazardous activities, or hazardous situations. p. 64
403-6	Promotion of worker health	a. An explanation of how the organization facilitates workers' access to non-occupational medical and healthcare services, and the scope of access provided. b. A description of any voluntary health promotion services and programs offered to workers to address major non-work-related health risks, including the specific health risks addressed, and how the organization facilitates workers' access to these services and programs. pp. 61-62
403-9	Work-related injuries	a. For all employees: i. The number and rate of fatalities as a result of work-related injury; ii. The number and rate of high-consequence work-related injuries (excluding fatalities); iii. The number and rate of recordable work-related injuries; iv. The main types of work-related injury; v. The number of hours worked. b. For all workers who are not employees but whose work and/or workplace is controlled by the organization: i. The number and rate of fatalities as a result of work-related injury; ii. The number and rate of high-consequence work-related injuries (excluding fatalities); iii. The number and rate of recordable work-related injuries; iv. The main types of work-related injury; v. The number of hours worked. c. The work-related hazards that pose a risk of high-consequence injury, including: i. how these hazards have been determined; ii. which of these hazards have caused or contributed to high-consequence injuries during the reporting period; iii. actions taken or underway to eliminate these hazards and minimize risks using the hierarchy of controls. d. Any actions taken or underway to eliminate other work-related hazards and minimize risks using the hierarchy of controls. e. Whether the rates have been calculated based on 200,000 or 1,000,000 hours worked. f. Whether and, if so, why any workers have been excluded from this disclosure, including the types of worker excluded. g. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used. pp. 60, 64
GRI 404: Training and Education 2016		
404-2	Programs for upgrading employee skills and transition assistance programs	a. Type and scope of programs implemented and assistance provided to upgrade employee skills. b. Transition assistance programs provided to facilitate continued employability and the management of career endings resulting from retirement or termination of employment. p. 57
404-3	Percentage of employees receiving regular performance and career development reviews	a. Percentage of total employees by gender and by employee category who received a regular performance and career development review during the reporting period. p. 58

Indicator		Report Page
GRI 405: Diversity and Equal Opportunity 2016		
405-1	Diversity of governance bodies and employees	<p>a. Percentage of individuals within the organization's governance bodies in each of the following diversity categories:</p> <ul style="list-style-type: none"> i. Gender; ii. Age group: under 30 years old, 30-50 years old, over 50 years old; iii. Other indicators of diversity where relevant (such as minority or vulnerable groups). <p>b. Percentage of employees per employee category in each of the following diversity categories:</p> <ul style="list-style-type: none"> i. Gender; ii. Age group: under 30 years old, 30-50 years old, over 50 years old; iii. Other indicators of diversity where relevant (such as minority or vulnerable groups).
pp. 19, 55-56, 106, NSK Report 2018 p. 25		
GRI 412: Human Rights Assessment 2016		
412-2	Employee training on human rights policies or procedures	<p>a. Total number of hours in the reporting period devoted to training on human rights policies or procedures concerning aspects of human rights that are relevant to operations.</p> <p>b. Percentage of employees trained during the reporting period in human rights policies or procedures concerning aspects of human rights that are relevant to operations.</p>
pp. 29, 53		
GRI 413: Local Communities 2016		
413-1	Operations with local community engagement, impact assessments, and development programs	<p>a. Percentage of operations with implemented local community engagement, impact assessments, and/or development programs, including the use of:</p> <ul style="list-style-type: none"> i. social impact assessments, including gender impact assessments, based on participatory processes; ii. environmental impact assessments and ongoing monitoring; iii. public disclosure of results of environmental and social impact assessments; iv. local community development programs based on local communities' needs; v. stakeholder engagement plans based on stakeholder mapping; vi. broad based local community consultation committees and processes that include vulnerable groups; vii. works councils, occupational health and safety committees and other worker representation bodies to deal with impacts; viii. formal local community grievance processes.
pp. 90-92		
GRI 414: Supplier Social Assessment 2016		
414-1	New suppliers that were screened using social criteria	a. Percentage of new suppliers that were screened using social criteria.
pp. 47-50		
GRI 419: Socioeconomic Compliance 2016		
419-1	Non-compliance with laws and regulations in the social and economic area	<p>a. Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area in terms of:</p> <ul style="list-style-type: none"> i. total monetary value of significant fines; ii. total number of non-monetary sanctions; iii. cases brought through dispute resolution mechanisms. <p>b. If the organization has not identified any non-compliance with laws and/or regulations, a brief statement of this fact is sufficient.</p> <p>c. The context against which significant fines and non-monetary sanctions were incurred.</p>
N/A		

Third-Party Comments



As in fiscal 2017, NSK again this year asked Professor Emeritus Yoshinao Kozuma of Sophia University's Faculty of Economics to provide third-party comments on this report.

Yoshinao Kozuma

Professor Emeritus,
Faculty of Economics,
Sophia University, Japan

After earning credits in the latter half of the doctoral program at Sophia University Graduate School of Economics, Professor Kozuma worked as a research assistant at the Nagoya Institute of Technology, a visiting researcher at the Limperg Instituut in the Netherlands, an associate professor at the University of Shizuoka, and as an associate professor, then professor, in the Faculty of Economics at Sophia University, before taking up his current position. He has held successive positions as the chair or member of various CSR or environment-related advisory panels, study groups, and research conferences for the Ministry of the Environment; the Ministry of Economy, Trade and Industry; the Ministry of Land, Infrastructure and Transport; the Ministry of Agriculture, Forestry and Fisheries; the Cabinet Office; and the Japanese Institute of Certified Public Accountants. A specialist in environmental accounting, he chaired the Japanese Ministry of the Environment's Review Panel for Production of a Handbook on the Environmental Reporting Guidelines (2018) [provisional translation]. His recent work includes *Carbon Labeling to Visualize CO₂* (Chukeizai-sha, Inc., in Japanese).

1. Globalization of CSR Management

Considering that two-thirds of the NSK Group's sales by region and its workforce are outside Japan, it is plain that the NSK Group's CSR management must also be globalized. This year's CSR Report clearly conveys the Group's steady progress in that direction. For example, the report mentions a number of measures to integrate business activities and CSR management on a global level: (1) facilitator training workshops held around the world in an effort to spread and instill the NSK Vision 2026; (2) formation of a Group culture accepting of multiculturalism as symbolized by the Global Management College; (3) a global rollout of information security systems through a dramatic revision of management standards and rules; and (4) identifying goals in order to integrate SDGs into its next mid-term management plan. I look forward to the future progress on all of these initiatives.

2. Establishment of a Group Tax Policy

Issues faced by the local communities that host business sites overseas are an important ESG theme for global companies. Tax avoidance by improper setting of transfer prices in particular, coupled with the use of tax havens, can cause tremendous damage to a local economy and contribute to local poverty. The NSK Group has addressed this problem head-on by establishing the NSK Group Tax Policy. Notably, the policy was established not to minimize taxes, but to ensure appropriate tax payment at locations where NSK's business has created value, and that is outstanding. I highly commend the NSK Group for the commitment of its management to proactively address this issue.

3. Expansion of the Scope of Third-Party Assurance

As in the previous fiscal year, NSK again expanded the scope of third-party assurance, continuing to reinforce its initiatives aimed at ensuring the reliability of the information it disclosed. In particular, Scope 3 emissions of

greenhouse gases were included in the scope of assurance, together with the formulation of calculation standards for how much its products help to reduce emissions during use, which NSK is currently working on. This makes a strong statement that CSR management is being rolled out across the value chain. It is also a progressive initiative as an assurance practice.

4. External Evaluation of Health Management

In addition to external ratings that take sustainability as the basis for evaluation, such as DJSI and FTSE4Good, this fiscal year NSK's corporate health management initiatives were also recognized, with the company being certified as 2018 Health and Productivity Management Outstanding Organization (White 500) in the large enterprise category under the Certified Health and Productivity Management Organization Recognition Program of Japan's Ministry of Economy, Trade and Industry. NSK has established a basic policy and implementation structure for health management, and I hope that in the future it will extend these to all companies in the Group to promote health management group-wide.

5. Future Challenges

In the environmental management targets and performance management, there are several targets for which goals have been missed for several consecutive years, and their number is increasing. Regarding some of these, year after year the report has stated that the causes had been verified and measures implemented to prevent a recurrence. These explanations are inconsistent with the actual situation. Also, in terms of workstyle reform, the transition in total work time has been disclosed, but the specific course of action and goals for reform are not articulated, making it difficult to evaluate the reality of the situation. I hope to see improvement in the future regarding this matter, as well.

Response to Prof. Kozuma's Comments

Tamami Murata Vice President, Head of CSR Division HQ

Thank you very much for your valuable opinions. Your evaluation and advice regarding our CSR activities are a great encouragement to us as we work to enhance our efforts going forward. In preparing this year's CSR Report, we strove to disclose a broader range of initiatives and data on a global level, looking to go deeper into NSK's initiatives for mid- to long-term value creation, as explained in the *NSK Report* (Integrated Report), based on examples of specific initiatives and detailed data. I would like to express my sincere thanks for your commendation of points such as the globalization of our CSR management, establishment of a group tax policy, and expansion of the scope of third-party assurance. We will also reflect seriously on the points you raised regarding the environmental goals we have fallen short of, and work to set a course of action for reform related to working hours. We will utilize this valuable feedback to strengthen our activities in the future.





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