

IGNITE YOUR SPIRIT

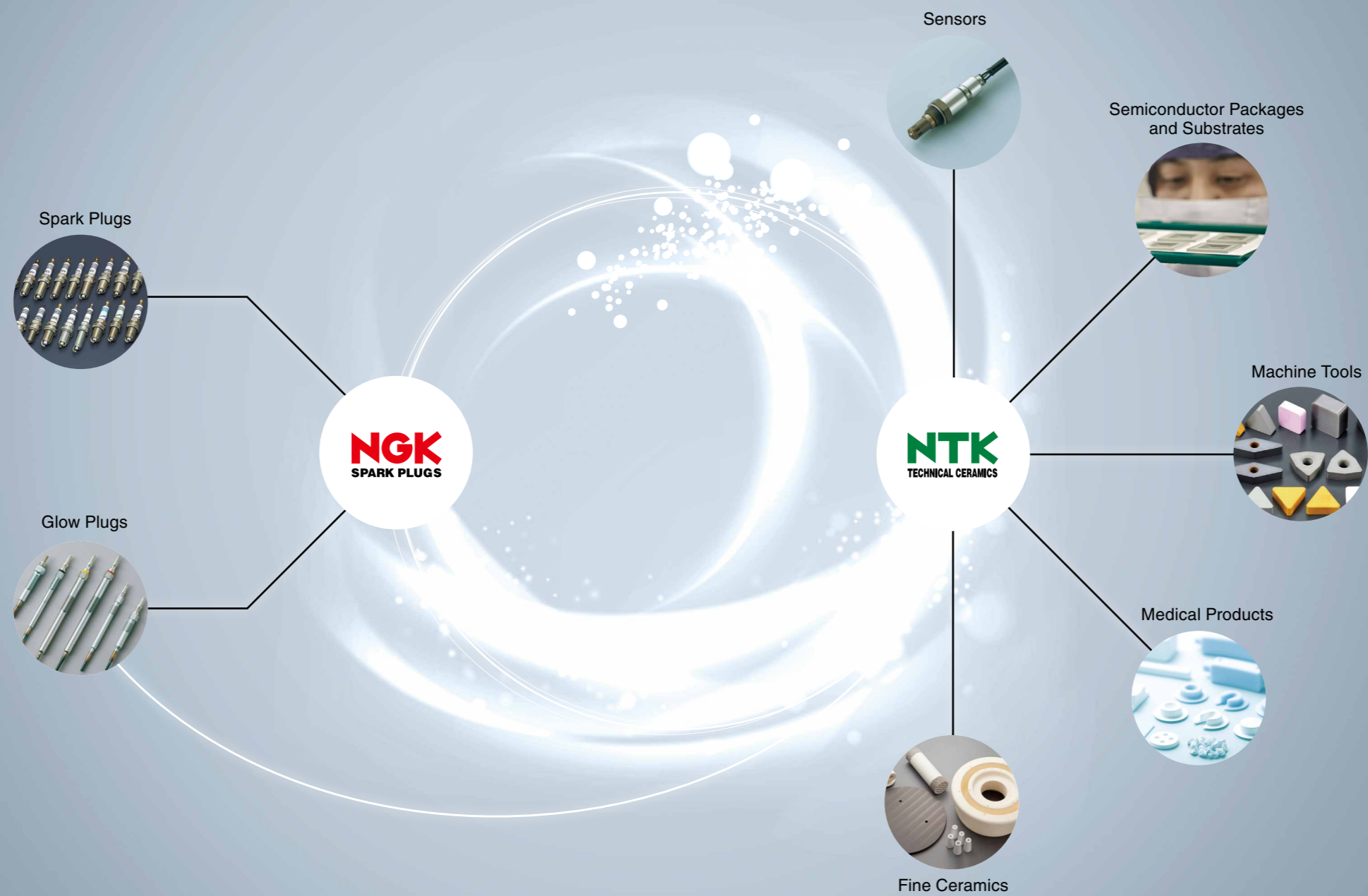
NGK SPARK PLUG CO., LTD.
Integrated Report 2017

IGNITE YOUR SPIRIT

—IGNITE YOUR drive, dreams and SPIRIT—

Our new corporate message was conceived to celebrate our 80th anniversary in November 2016. In marking this anniversary, we looked back over the 80-year history of our company, including its corporate philosophy and products, and have formulated our corporate message as a portrait of NGK SPARK PLUG CO., LTD. to collectively express the DNA that flows deep within us and our expectations of how we should be in the future.

Based on the idea expressed in our corporate message, all members of the company are determined to undertake concerted efforts to make NGK SPARK PLUG indispensable to the world through cutting-edge, innovative manufacturing.



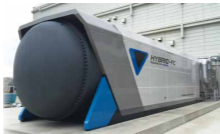
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Source for Value Creation

Founded in 1876, the Morimura Group is a corporate group whose name is synonymous with Japan's ceramic industry. Over the 140 years since its founding, the Group has been sincerely committed to delivering high-quality products on time and at a reasonable price. Inheriting the corporate DNA of the Morimura Group, the NGK SPARK PLUG Group will deliver Real Value beyond customers' expectations.

The Nittoku Way—The Nittoku Group’s Shared Values—

NGK SPARK PLUG has newly set the values to be shared across the company by reviewing and outlining the ideas that have been valued since the founding of Morimura Gumi, from which the Morimura Group originated. By never straying from the values passed down through the generations and reaffirming the role that we are committed to fulfill, we will continue to make steady progress.

Shisei-Shinjitsu
Sincerely,
do our very best

Morimura Gumi began international trade to get back the assets that had left Japan. With a sincere attitude in line with its basic policy of honesty, eagerness and kindness, it succeeded in building a large business outside the country. *Shisei-Shinjitsu* is a core value that supports this policy, and our Group will continue to conduct business in a sincere and faithful manner.

Shikai-Keitei
Unite efforts with the
people of the world,
and utilize each
other's differences

Shikai-Keitei means to cooperate with the people of the world (*Shikai*) like brothers and sisters. This is the value that Morimura Gumi treasured since its founding. The NGK SPARK PLUG Group conducts global business by embracing individual differences in nationality, culture, gender and others, and by helping each other advance toward the common goals.

Dokuritsu-Jiei
Believe in one's own
ability, and take
actions by oneself

Dokuritsu-Jiei is a word uttered by Ichizaemon Morimura. It means to keep your grace and dignity by acting autonomously. In keeping with this ideal, we will strive to act independently and with pride, respond nimbly to day-to-day changes in the internal and external environments, and continue to take on new challenges.

Soshi-Kantetsu
Have cherished desire,
and carry it through
till the end

Soshi-Kantetsu means to make an accomplishment with a sense of mission and without giving up halfway. It originates from the oath of Nippon Toki Gomei Kaisha. The *Soshi* of NGK SPARK PLUG is described in its Corporate Philosophy: "With full use of the most suitable technology and our accumulated experience, we continue striving to offer new values to the people of the world." We will decidedly fulfill this commitment.

Startup Period Contributed greatly to Japan's post-war recovery and motorization by manufacturing the country's first spark plugs with high-performance and uniform quality.



Around **1930**
Developed Japan's first spark plug

Magoemon Ezoe, who was convinced of the advent of a motorized society in Japan, decided to manufacture spark plugs domestically, even though the number of automobiles produced in the country was only 49 units at that time. He succeeded in developing Japan's first spark plug in 1930 and began selling the product. In 1936, he established NGK SPARK PLUG as Japan's first plug manufacturer.

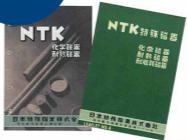
1958



Commercialized cutting tools

In 1958, started the manufacture of ceramic cutting tools. This has since been contributing to cost reduction and higher efficiency in product processing by developing ceramic tools that are far superior in terms of cutting speed, product life and finished surfaces compared with cemented carbide tools.

1949



Started the sale of
NTK-branded products

Began conducting R&D to realize long-standing plan to release products other than spark plugs in 1947, and unveiled a range of "NTK TECHNICAL CERAMICS"-branded products in and after the spring of 1949 for full-scale participation in the ceramic industry.

“Suppose that we produce only one defective product per 1,000 products. To the customer who purchases that one product, our defect rate is 100%.”

Commitment to quality
Words of Magoemon Ezoe, first president of the company
On the day immediately before the spark plugs were to be released, defects were found in a few of the products. Magoemon Ezoe, the founder of the company, took the following view: "Suppose that we produce only one defective product per 1,000 products. To the customer who purchases that one product, our defect rate is 100%." Accordingly, he had all the plugs, which had already been shipped to different regions across Japan, recalled. He then resumed R&D activities for the manufacture of products with uniform quality. The commitment to quality and uniformity has been maintained since before the company was founded up to the present day, supporting the quality of our manufacturing.



The Morimura Group's history starts with Morimura Gumi, a business established in 1876 by two brothers: Ichizaemon Morimura and Toyo Morimura. This entity (presently Morimura Brothers Inc.) was a pioneer of Japan's trading industry. The founders of Morimura Gumi went on to establish Nippon Toki Gomei Kaisha (later called Nippon Toki Co., Ltd. and presently Noritake Co., Ltd.) in January 1904 and, in May 1917, the Sanitary Ceramics Division of Nippon Toki was separated to become Toyo Toki Co., Ltd. (presently TOTO Ltd.). Subsequently, in May 1919, the Insulator Division of Nippon Toki was spun off to become the

present NGK Insulators, Ltd. Other companies that grew out of Morimura Gumi include Okura Art China (presently Okura Art China Inc.) established in May 1919, Ina Seito Co., Ltd. established in February 1924 (presently LIXIL Corporation, which was integrated with Tostem in 2001), Nitto Sekko Co., Ltd. established in September 1936 (and merged into Noritake Co., Ltd. in June 1985), and NGK SPARK PLUG CO., LTD. (former Spark Plug Division of NGK Insulators, Ltd.). These companies provide the foundation of today's Morimura Group.

1876
Founding of
Morimura
Gumi

Major events



(Left)
Toyo Morimura
(Right)
Ichizaemon Morimura



Ichizaemon Morimura
in his later years

1890
1886
Invention of
gasoline-fueled
cars

1900
1904
Yamaha's Steam
Car manufactured
as Japan's first
domestic car

1910
1914
Outbreak of
World War I



1920
1923
Great Kanto
Earthquake



1930
Around
1930

1936
Founding of
NGK SPARK
PLUG

1940
1939
Outbreak of
World War II

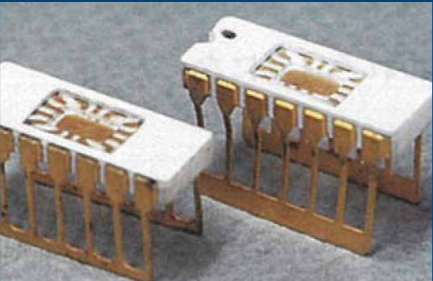


1949
1950
1948
Invention of
the transistor

1958
1951
Treaty of Peace
with Japan signed
in San Francisco

Establishment
Period

Subsequently, the company began applying its core ceramic technologies also to sensors, semiconductors, and IC packages in addition to spark plugs, thereby making its position in the industry unshakable and entering overseas markets ahead of competitors.



1965

Developed ceramic IC packages

The development of new technology to metalize ceramic surfaces made it possible to hermetically seal metal components in a ceramic package. In 1967, it began producing IC packages and has since developed a range of new technologies through the development and production of ceramic packages.

1971



Developed various sensors

As countermeasures for pollution resulting from the full-scale motorization of society, developed an exhaust temperature sensor in 1971, a zirconia oxygen sensor in 1982, and a wide range oxygen sensor in 1988. We are proactively expanding the sensor business in response to exhaust gas regulations that are being made even stricter for environmental protection reasons.

1959



Establishment of the first overseas base in Brazil

Upon request of the Brazilian government, the company established its first overseas base, Ceramica e Velas de Ignicao NGK do Brasil Ltda. At that time there were only few Japanese manufacturers of automobiles and automotive components operating bases overseas, making us a forerunner in this regard.

1964

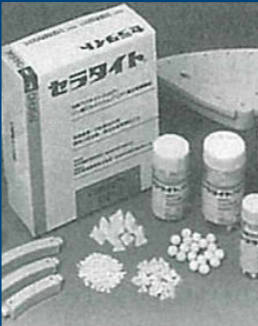


Supporting racing teams

We have been supporting motorsports ever since a machine equipped with our spark plugs took the championship at the Isle of Man TT Race. Since then, many more races have been won by machines fitted with our high-quality, reliable plugs, resulting in the products being recognized across the world.

Development
Period

We are developing a range of application technologies based on the technologies and know-how accumulated in the automotive components business to expand our business domain to include next-generation vehicles and environmental and medical fields.



1990

Developed bone prosthesis

The company began developing and evaluating materials for bioceramics in the mid 1970s in recognition of the tremendous potential for ceramic materials to contribute to the future of medicine in an aging society. Starting with the development of the bone prosthesis "CERATITE®" in the 1990s, we have been expanding our medical product lineup, including the development and sale of "CERATITE®," which can be flexibly shaped, and the absorbable and replaceable artificial bone "CERAREBORN®."

2007



Developed a hydrogen leak detection sensor

Developed the world's first MEMS-based thermal conductivity hydrogen sensor. Our technology to detect trace amounts of leaked hydrogen is indispensable for a society powered by hydrogen energy.

2016



Established the Fuel Cell Div.

As one of the next-generation solutions for energy and environmental issues, we have been proactively developing solid oxide fuel cell (SOFC) and established the Fuel Cell Div. in 2016. We are focusing on the product that incorporates our core ceramic molding, printing and sintering technologies, and are fostering R&D for both planar and tubular SOFC.

1996



Developed an iridium plug

This world's first plug made by adopting an iridium alloy chip for the central electrode and a platinum alloy chip for the external electrode provides high durability and ignitability.

1999



Developed an oxygen concentrator

Developed an oxygen concentrator for use by patients with a respiratory illness to allow them to receive medical care at home for higher QOL.

Consolidated net sales
372.9 billion yen

Net sales Unconsolidated Consolidated


Major events




NGK SPARK PLUG's Value Creation Model

We will exercise our strengths to meet social challenges, provide additional value to a range of stakeholders, and increase our own corporate value, which will collectively serve as the driving force of our sustainable growth.

Social challenges




SDGs



COP21

The SDGs, formulated under the UN's leadership, are global goals to be pursued not only by national governments but also by companies. Also, the Paris Agreement concluded at COP 21 is aimed at limiting the average rise in global temperatures to below 2 degrees Celsius. In regard to both of these, companies are increasingly expected to fulfill roles that benefit society.



Environment surrounding NGK SPARK PLUG

Business risks

- Shift from internal combustion engine vehicles to electric vehicles and fuel cell vehicles
- Car sharing
- Cheap products made in emerging countries
- Insufficient workforce in Japan

Business opportunities

- Motorization in emerging countries
- Stricter environmental regulations
- Downsizing of components driven by downsized engines

NGK SPARK PLUG's strengths

1

Global

Starting with the establishment of a base in Brazil in 1959, we expanded our business overseas ahead of other Japanese companies and steadily increased our sales channels. Furthermore, by supporting global racing teams, we increased our presence in overseas markets and established a robust sales network globally.

We presently have 33 domestic and 39 overseas sites supplying high-quality products all over the world.

2

Technology

We have been developing and manufacturing ceramic products and materials for as long as we have been manufacturing spark plugs. By combining ceramics with other materials, we developed various products, such as sensors and IC packages, to diversify our business portfolio. Also, we have been committed to stringent quality management to manufacture uniformly high-quality products since the company began.

By utilizing our ceramic technology, technology to make combined use of ceramic and other materials, and quality management as our strengths, we are taking on the challenge of creating new value for people and society, including developing new materials and process technologies.

3

Finance

We have long built a firm management foundation and are highly evaluated by international rating bodies in recognition of our sound management. Our capital adequacy ratio is as high as 62.5%, demonstrating the stability of our financial status.

Rating and Investment Information, Inc.

A+

(As of July 1, 2017)

Japan Credit Rating Agency, Ltd.

A+

Our Ideal Image in the Year 2020

Monozukuri Company, Highly Profitable Company, Progressive Company, and Human "Asset" Company



NGK SPARK PLUG's Business Process

Planning
 R&D
 Procurement
 Production and quality management
 Logistics
 Sales



NGK SPARK PLUG CO., LTD.

— NGK SPARK PLUG's products —

Spark plugs
 Sensors
 Glow plugs
 Cutting tools
 IC packages
 Fuel cells
 Medical products

Local communities and international society

Suppliers

Customers

Value provided by NGK SPARK PLUG

Real Value

Shareholders and investors

Environment

Employees

Starting point (basis for corporate activities)

Corporate Philosophy

| 07 |

| 08 |



Soaring to New Heights to Deliver Real Value, Which Is Always Needed

Shinichi Odo
Representative Director and
Chairman of the Board
Chief Executive Officer
President Officer

Looking Back on the Long-Term Management Plan, “NITTOKU SHINKARON”

Ending the first year of the seventh medium-term management plan

In 2010, the NGK SPARK PLUG Group formulated a long-term management plan called “NITTOKU SHINKARON” and broke down the targeted period into separate stages: the Delving, Renovating and Evolving stages, with an eye to providing all stakeholders with Real Value in 2020. For this seventh medium-term management plan (from the year ended March 31, 2017 to the year ending March 31, 2021), we are working on a five-year plan for delivering real value. This period, which includes the three years of the last step, “Evolving,” is the most important in completing our NITTOKU SHINKARON long-term management plan. Now, as we end the initial year of the medium-term plan, I believe that we have managed to make mindset reforms to implement specific measures to deliver Real Value, although the annual results might not be 100% satisfactory.

As for our business strategy, we are focusing on three mainstays: “Strengthening current businesses,” “Establishing new business pillars” and “Establishing strong business infrastructure,” and are making Group-wide efforts to attain these targets. For the creation of new business pillars, we will proactively make effective use of M&As. However, M&A projects entail various risks, particularly outside Japan, including difficulties in establishing a shared corporate culture with the merged company and understanding its financial situation. In this age, however, I believe that avoiding taking risks could actually pose the highest risk. The management team will therefore take risks and take on corresponding responsibilities while gaining experience in dealing with risks. Next, I will outline the business strategy.

1. Strengthening current businesses

● Automotive components business

We have continued to achieve growth by supplying plugs and sensors to multiple automakers and also by promoting sales of our products as repair parts. Demand for repair parts will continue to expand, mainly in emerging markets; moreover, customers are increasingly looking to our products for help in complying with environmental regulations. We therefore find ourselves in a favorable business environment. Under these circumstances we will further enhance the business to ensure profit, and will invest the earned profit into new businesses and new equipment.

● Technical ceramics business

In the semiconductor package business, we are fostering structural reforms and growth strategies. We are revitalizing this business by: (1) establishing NTK CERAMIC CO., LTD. as an independent company serving the business; (2) concentrating on selected products; (3) restructuring the production bases; and (4) employing top officers from outside the company. This revitalization project is being implemented almost exactly as planned.

2. Establishing new business pillars

● Environment- and energy-related fields

We are proactively developing a solid oxide fuel cell (SOFC). This fuel cell provides particularly high power generation efficiency among fuel cells using hydrogen to generate power, and could be made smaller and cheaper. We are also developing a tubular SOFC stack for use in business and industrial systems as well as a planar SOFC stack for use in household cogeneration systems. In April 2017, we began the operation of a demonstration unit for industrial systems at the Komaki Plant, aiming to increase our presence as a manufacturer of fuel cell stacks.

● Medical field

In 2016, in order to make contributions in the medical field by using our unique ceramic technologies, we acquired 30% of the shares of Japan Medical Dynamic Marketing, INC., which is expanding its orthopedic implant business, including by entering overseas markets. In 2017, we founded a medical division and formed partnerships with the National Institute of Advanced Industrial Science and Technology (AIST) and Hokkaido University for joint development projects. Through these measures we will meet the increasing needs for biocompatible materials

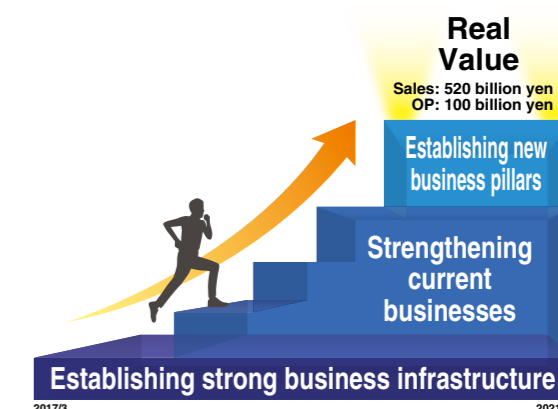
and medical equipment against the background of super-aging society.

3. Establishing strong business infrastructure

We are establishing an organizational structure that helps our diverse team members demonstrate their abilities globally, thereby enhancing our organization and personnel as the major elements of the infrastructure that supports our businesses.

Through my overseas assignments, I have found that Japan is behind other countries in terms of women's empowerment, and am thus fostering the active participation of women at our company. To promote diversity management, we established the Working Styles Reforming Office in 2016 for higher work efficiency and the leveling of the playing field. Furthermore, we implemented a project to develop the next generation of global leaders. We are thus speeding up the transformation of our company into an organization where a diverse group of workers can demonstrate their abilities. We have yet to attain this goal, but the Japanese Ministry of Economy, Trade and Industry (METI) selected our company to be one of the New Diversity Management Selection 100 companies in recognition of our human resource-related efforts and approaches in February 2017. Moreover, we newly established the Corporate Strategy Group to enhance the corporate functions and turned our major overseas bases into regional headquarters (RHQs) to make speedy responses on a global scale.

We will continue to make organizational reforms to provide individual employees with workplaces that allow them to demonstrate their full potential, thereby fostering not only the growth of the company but also the welfare of employees.



Outline of the seventh medium-term management plan

Changes in the External Environment

Risks and opportunities for NGK SPARK PLUG

At NGK SPARK PLUG, sales of automotive components account for 85% of total sales. Sales outside Japan also account for 80% of the total. For the company, it is critical to appropriately identify and promptly deal with the risks and opportunities posed by trends and changes in the market. It is difficult for all employees of a large organization to have the same idea, but if at least 20 to 30% of employees share a sense of crisis and lead the organization to reform, that organization can move in a desirable direction. I attribute importance to being committed to achieving results through perseverance and never giving up halfway. At NGK SPARK PLUG, risks and opportunities will be treated as detailed below to enable us to overcome risks and seize all possible opportunities for the further growth of the company.

1. Dealing with risks

In anticipation of the expanded use of next-generation vehicles that have no internal combustion engines, we are developing and commercializing hydrogen leak detection sensors that help ensure the safety of fuel cell vehicles. As for EVs, I cannot at the moment specify the product items to be developed, but we may be able to offer ceramic packages for such self-driving components and LED headlights, whose use is expanding. The spread of car sharing could result in a decrease in the number of automobiles themselves; accordingly, we are proactively creating businesses in new fields, such as environmental, energy and medical

fields. We are also hedging the risks posed by changes in the foreign exchange market, which have tremendous impact on our profits, by measures such as expanding the overseas production ratio on a long-term basis and procuring components in foreign currencies.

2. Opportunities for further growth

Exhaust gas regulations have been made stricter year by year not only in developed countries but also in emerging markets. In response, NGK SPARK PLUG is promoting the sales of high value-added products. These products include the oxygen sensors that help exhaust gas purification systems function effectively; wide range oxygen sensors that enable precise control of the air-fuel ration to near the stoichiometric point; and NOx sensors that are compliant with strict NOx regulations. At the same time we are developing sensors to detect particulate matter (PM) contained in exhaust gas. Automobile engines need to be made smaller and lighter for higher fuel efficiency, for which advanced materials should be developed for plug insulators. Our company has long conducted research into ceramic materials and has an integrated system for the production of materials through to the assembly of products. Also, as the world's top manufacturer of spark plugs, we have a responsibility to supply repair parts that will meet the needs of customers in the after-sale market as a business opportunity.

The Nittoku Way—The Nittoku Group's Shared Values

Passing the corporate DNA of NGK SPARK PLUG down through the generations

Our company was officially founded in 1936 but traces its origins to Morimura Gumi, which was established by Ichizaemon Morimura and his brother in 1876. Celebrating the 80th anniversary of the founding in 2016, we launched a project to look back over our history, from the starting point to the present, to decide what we should keep and what we should change going forward. The Nittoku Way summarizes NGK SPARK PLUG's shared values in the Morimura Group's cross-generational philosophy of producing quality products with participation by all employees. We plan to translate the Nittoku Way into multiple languages to help the roughly 15,000 employees working within our global network to deepen their understanding and awareness of our values.

The four values the Nittoku Group shares are:

- **Shisei-Shinjitsu: Sincerely, do our very best**

When each one of us embodies the Value *Shisei-Shinjitsu*, credit and trust are created among us, and such slow but steady efforts result in the largest assets for our company.

- **Dokuritsu-Jiei: Believe in one's own ability, and take actions by oneself**

We do not wait for changes. We take actions by ourselves and expand possibilities. Self-motivation makes people grow, supports an organization's evolution, and becomes the driving force to unfold the future.

- **Shikai-Keitei: Unite efforts with the people of the world, and utilize each other's differences**

By uniting efforts with the coworkers of the world, and by utilizing our different characters and strengths, we



can create new values and offer them to the world.

- **Soshi-Kantetsu: Have cherished desire, and carry it through till the end**

What are the resolutions that we can never compromise? Is your sense of mission clear in what we will accomplish? The Soshi and challenge in each one of us support the growth and evolution of the company.

Let me introduce an anecdote that is relevant to our shared values as described in the Nittoku Way. A customer who had been conducting an investigation to select a partner for new technology development eventually chose us from among a number of companies boasting the industry's leading technologies. I asked the customer why they chose us, and the answer was because all our employees were working with sincerity. This story shows the commitment we make in the Nittoku Way.

We have been achieving growth by pursuing technologies aimed at meeting the needs of the world's automakers regarding the engines of their products. We have striven to listen to and meet the requests of customers, respond to any problems in a steady manner, and continue a process of trial and error to achieve all that we can. I believe this is the strength that we have gained by adhering to the shared values described in the Nittoku Way.

To Our Stakeholders

Delivering Real Value to all stakeholders

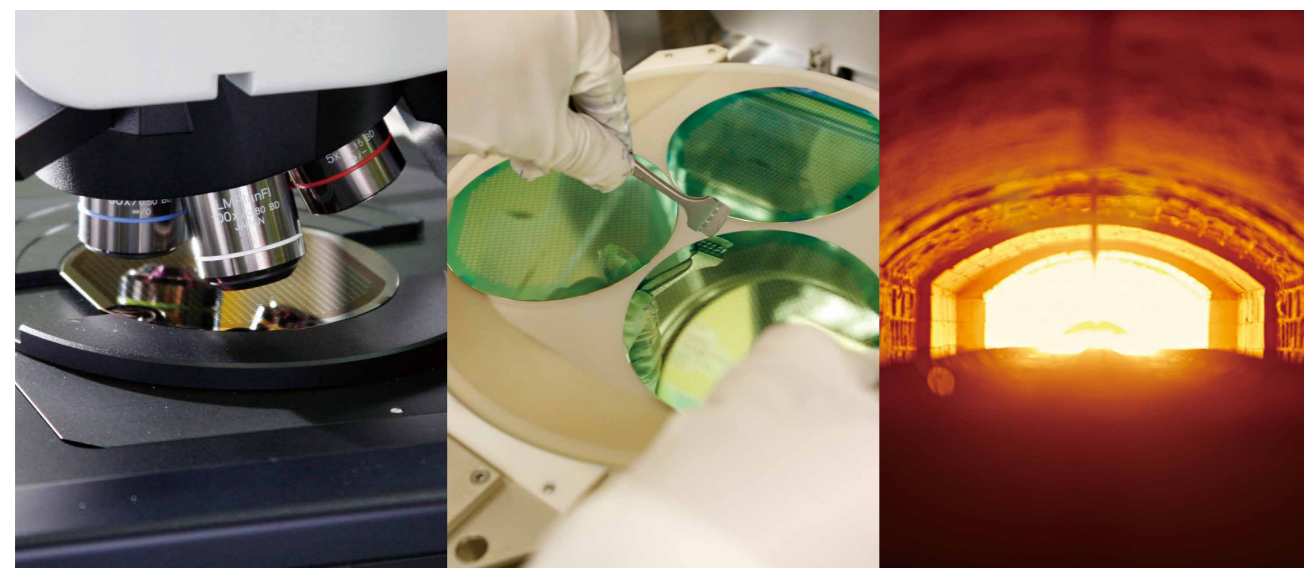
Thank you for your kind support of NGK SPARK PLUG.

The company upholds the target of posting sales of 520 billion yen and operating income of 100 billion yen by the fiscal year ending March 31, 2021, and I deem it my responsibility to attain this target by making the best use of our technologies and strengths. I also think it is important to clarify what value the company will offer and have that value evaluated and recognized by stakeholders for the delivery of Real Value to them.

NGK SPARK PLUG signed the UN Global Compact in

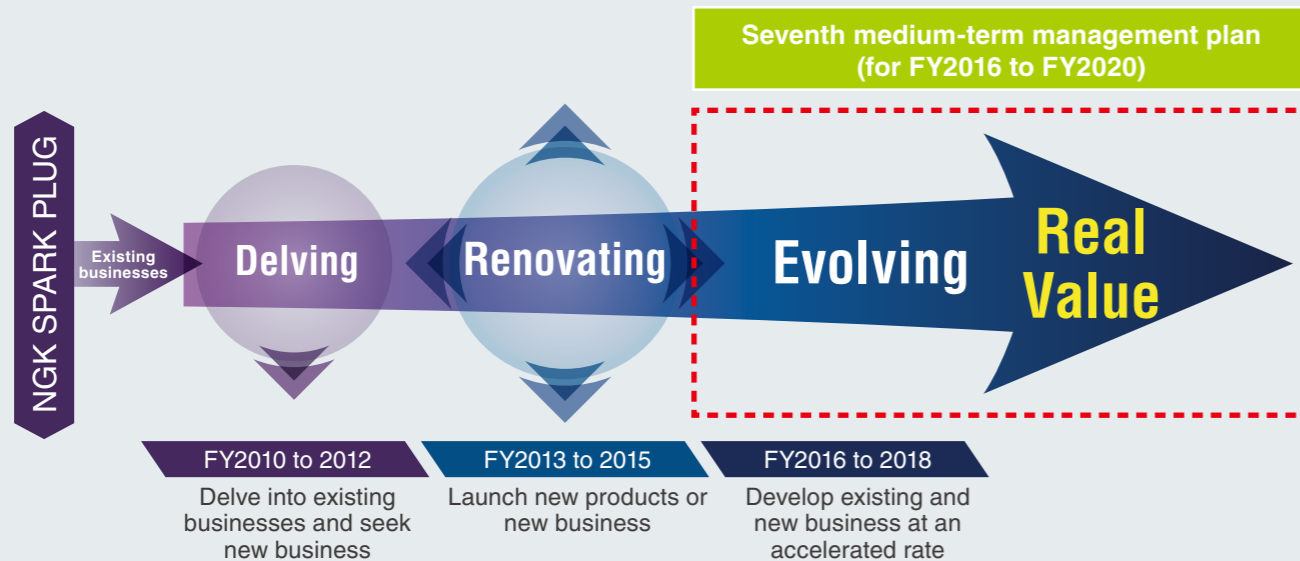
November 2016. As a good corporate citizen, we will comply with the ten principles of the Compact and contribute to the creation of a sustainable society through the achievement of the Sustainable Development Goals (SDGs).

Toward its 90th and 100th anniversary, the NGK SPARK PLUG Group should become more united, make more contributions, achieve further growth as an indispensable entity for society, and deliver Real Value to all our stakeholders, for which I would ask for your continued understanding and support.



Our Strategy

Looking Back on the Medium-term Management Plan



Pursuing Real Value to Increase the Significance of NGK SPARK PLUG

In 2010, the NGK SPARK PLUG Group formulated a long-term management plan called NITTOKU SHINKARON (The Evolution of NGK SPARK PLUG).

In the plan, we have upheld a goal for the year ending March 31, 2021, which is to become a Monozukuri Company, a Highly Profitable Company, a Progressive Company, and a

Human "Asset" Company.

In order to attain this goal and provide all stakeholders with Real Value as a company, we are steadily moving forward by progressing through the three separate three-year steps: Delving, Renovating and Evolving.

We aim to deliver Real Value to all stakeholders in 2020.

Core elements of the seventh medium-term management plan

Strengthening current businesses

- Expand our market share in emerging markets, mainly in China and India
- Enhance products designed to respond to environmental regulations
- Expand the lineup of automotive components through Wells
- Revitalize the ceramic packaging business
- Expand the lineup of components for semiconductor manufacturing equipment through NTK CERATEC

Establishing new business pillars

- Launch new products for next-generation vehicles, which have no internal combustion engines
- Commercialize products in the environmental, energy and medical fields

Establishing strong business infrastructure

- Foster speedy management for total optimization on a global scale
- Utilize human resources globally based on fair treatment
- Restructure the organization to clarify responsibilities and authorities and add cross-organizational supervisory functions

—Slogan for the seventh medium-term management plan—
Accelerating Current & New Businesses



Review of Operations
by Segment

Automotive Components
Business

Outline of the business

We are supporting the world's motorization through the supply of products, mainly components for internal combustion engines. These include spark plugs to serve as a "lighter" for the electrical ignition of fuel-air mixture; various automobile sensors that greatly contribute to the purification of exhaust gas from gasoline-or diesel-powered vehicles; and glow plugs to assist the autoignition of diesel engines. We are also developing and selling hydrogen leak detection sensors to ensure safety in a world powered by hydrogen energy.

Results for the year ended March 31, 2017 and forecast for the year ending March 31, 2018

Due to the favorable sales of new cars in rising emerging markets including China, we recorded steady sales for automotive components. Also, our sales of repair parts were satisfactory, being driven by sales in China and ASEAN. In North America, despite a decrease in the growth rate of automobile sales, our sales of repair parts remained robust. However, the stronger yen in the foreign exchange market caused a decrease in our sales and operating income. As a result, in the automotive components business, we posted net sales of 318,149 million yen (down 1.5% year on year) and operating income of 57,988 million yen (down 18.5% year on year).

For the year ending March 31, 2018, we expect that sales will increase by 2.8% year on year to 327.1 billion yen while

operating income will decrease by 0.9% to 57.4 billion yen.

Although the growth rate will decrease for the global production of automobiles, we expect that sales quantities of our plugs and sensors will increase to produce more profits, while operating income will slightly decrease due to changes in the foreign exchange market.

Medium-term measures

It is predicted that sales quantities will continue to increase for next-generation vehicles such as electric vehicles and fuel cell vehicles (see p. 20).

Demand for plugs and sensors is on the rise, coming mostly from emerging markets, with higher fuel efficiency and measures to comply with local environmental regulations being increasingly required. Accordingly, the role to be played by NGK SPARK PLUG, which has the ability to develop high value-added products including their materials, will continue to expand. In response, we will steadily make and maximize profits.

As for the plug business, we will establish a system to sell 1 billion plugs in the year ending March 31, 2021, thereby further enhancing our competitiveness. Environmental regulations are becoming stricter not only in developed countries but also in emerging economies (see p. 20), and we will enhance the sensor business, in particular for emerging markets, while also focusing on the establishment of our technological superiority for the expansion of our business.



Strategies for the automobile repair parts market in North America

In July 2015 we acquired all shares of Wells from UCI Holdings, one of the leading automotive component companies in the United States, with an eye to expanding the sales of our own and Wells' products in the repair parts market.

However, the transaction size abruptly diminished after our acquisition of Wells due to changes in the external environment after the M&A, resulting in our posting an impairment loss of about 20.2 billion yen in the consolidated financial settlement for the year ended March 31, 2017.

In response, we will make necessary improvements and rebuild our strategies for the repair parts market.

Transfer of the sales function

We will increase product quality and the speed of related operations by transferring the sales functions played by Wells to NGK SPARK PLUGS (U.S.A.) and NGK SPARK PLUGS

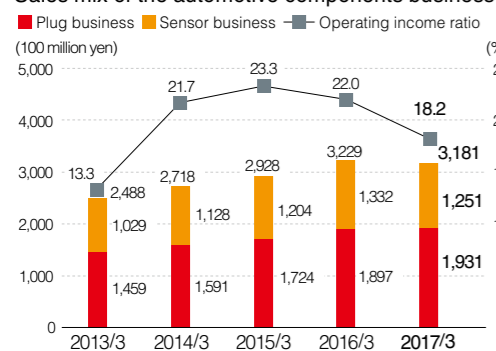
Canada, and by Wells specializing in the development and manufacture of products for the global repair parts market.

Use of Wells' plant in Mexico

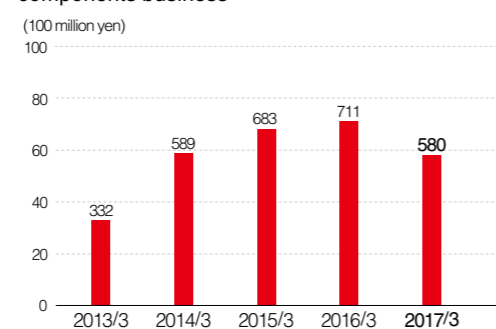
NGK SPARK PLUG will make use of the Wells plant in Reynosa, Mexico to expand the product lineup while also taking advantage of the cost benefits provided by the plant. We are now making examinations to identify what products are to be manufactured at the plant in consideration of market needs.

To press forward with these measures, we invited new managers from outside the company and renewed the sales and production systems. We will make keen efforts to sell more of Wells' products by making use of our global sales network.

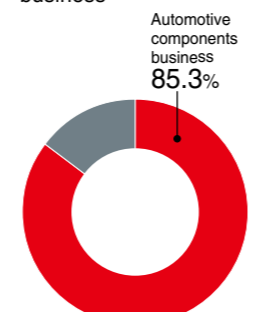
Sales mix of the automotive components business



Operating income from the automotive components business



Sales ratio of the automotive components business



Review of Operations by Segment

Semiconductor-div. Business

Outline of the business

Our semiconductor packages and substrates made by using our unique ceramic multilayer technology are adopted for a range of products, including communication devices, smart devices, medical equipment and cameras.

Results for the year ended March 31, 2017 and forecast for the year ending March 31, 2018

In this business we faced a substantial decrease in the sales quantity of crystal device and SAW filter packages, and the stronger yen also brought to stagnant sales.

However, we reduced deficits on a consolidated basis from the previous year by restructuring the production bases with the establishment of a subsidiary tasked with profit-making in July 2016, building a matrix for profit management, improving productivity, and concentrating on selected products for cost reduction.

As a result, on a consolidated basis, sales came to 19,449 million yen (down 18.4% year on year) and operating loss amounted to 4,842 million yen (as compared to 7,116 million yen in the previous fiscal year).

For the year ending March 31, 2018, we will record net sales of 16.7 billion yen, down 13.7% year on year and operating loss of 4.1 billion yen.

Sales will decrease due to the withdrawal from the crystal filter package business, which will be completed by the end of March 2018, and also because we will concentrate more on selected products. For operating income, we will continue our streamlining efforts, including reducing personnel. However, the stronger yen and relocation necessitated by the

consolidation of our production sites will impose extra cost on us, allowing us to achieve only a minor reduction of deficit.

Medium-term measures

Since the year ended March 31, 2017, we have been implementing various measures, including the initiatives listed below, to revitalize the ceramic package business based on four basic policies: (1) establish a subsidiary for the business; (2) invite officers from outside the company; (3) concentrate on selected products; and (4) restructure our production bases. We will continue to improve our profitability to move into the black.

Reform the corporate culture

- Change the mindset of employees and speed up business management
- Clarify responsibilities by matrix management (business unit system)

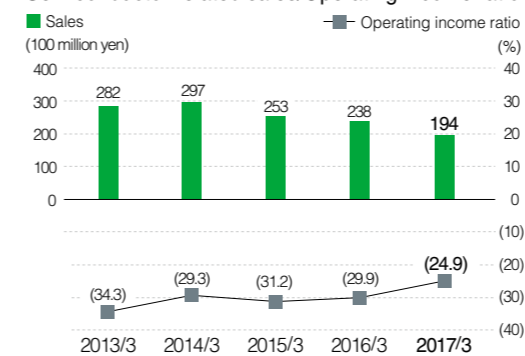
Improve the profit-making system

- Consolidate the production bases to reduce the fixed cost (reduce the number of plants from four to three and streamline the process flow)
- Concentrate resources on high value-added products (appropriate allocation of personnel)

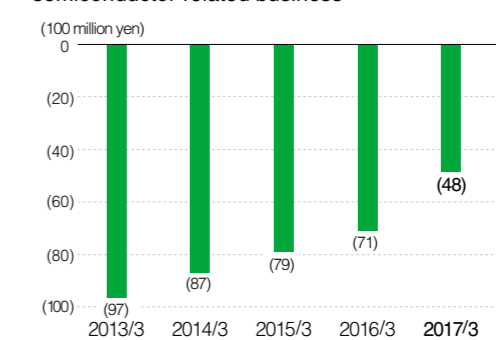
Concentrate on selected products

- Withdraw from the manufacture of commodity products
- Keep the prices of products with technological superiority at appropriate levels

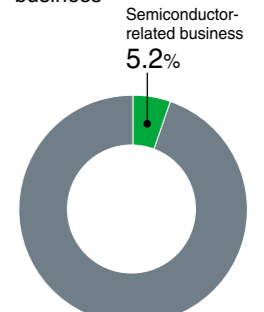
Semiconductor-related sales/Operating income ratio



Operating income from the semiconductor-related business



Sales ratio of the semiconductor-related business





Outline of the business

In the cutting tool business, we manufacture cutting tools to be used to process components for automobiles, industrial equipment and aircraft. We are developing new materials in addition to ceramic materials to supply a range of products to support industries around the world. Our ceramic products for industrial use include components for semiconductor manufacturing equipment, bearing balls and other products that make use of the unique features of ceramics. We are also engaged in and developing new business fields, including the fuel cell business and the medical business, in which we deal with bone prosthesis.

Results for the year ended March 31, 2017 and forecast for the year ending March 31, 2018

In the ceramics-div. business, our shipments remained favorable for cutting tools and ceramic products to be used in industrial equipment. Profit from the business dropped, however, as the yen was stronger relative to the previous fiscal year and an extra burden was imposed

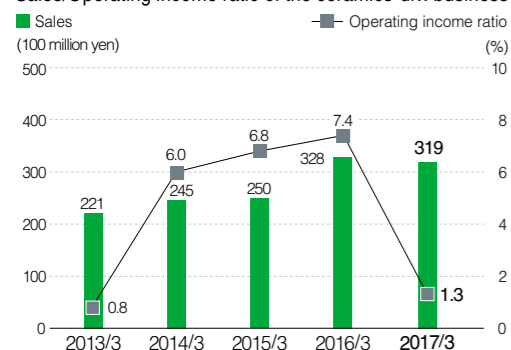
by the increased depreciation cost due to the expanded investment in equipment. As a result, consolidated sales for the business came to 31,855 million yen (down 2.9% year on year) and operating income to 400 million yen (down 83.4% year on year).

The industrial ceramics business were also impacted by the foreign exchange market and recorded a decrease in sales year on year, although the adoption of our electrostatic chucks greatly increased due to the expanded demand for semiconductor manufacturing equipment and substantially contributed to increasing our sales.

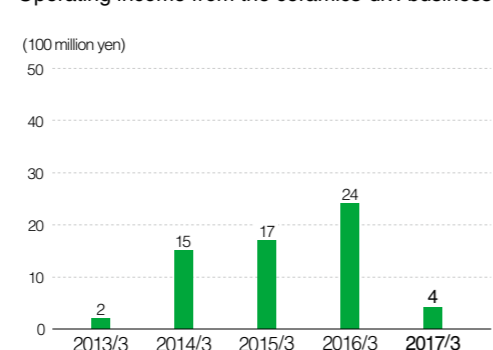
Sales will increase to 37.2 billion yen, up 16.9% year on year, and operating income to 40 million yen for the year ending March 31, 2018.

For the industrial ceramics business, the semiconductor manufacturing equipment market will continue to be favorable, which will in turn boost our sales. However, operating income will decrease year on year due to the equipment investment planned for the year ending March 2018 and to the influence of the depreciation cost.

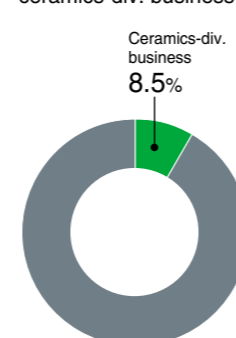
Sales/Operating income ratio of the ceramics-div. business



Operating income from the ceramics-div. business



Sales ratio of the ceramics-div. business



Measures to Develop New Business

1. Fuel cell business

Operation of a demonstration unit at the Komaki Plant

We are developing solid oxide fuel cells (SOFC^{*1}) by making use of our core ceramic molding, printing and sintering technologies. Specifically we are developing two types: planar and tubular SOFC^{*2}.

In April 2017, we installed a tubular SOFC and micro gas turbine (MGT)-combined pressurized hybrid power generation system (made by MHPS) and began operating this demonstration unit^{*3}. The system is also equipped with our own developed SOFC stack.



Pressurized hybrid power generation system installed at the Komaki Plant

By operating the demonstration unit, we will make further progress for the practical and wider use of SOFC, thereby contributing to solving energy and environmental problems.

^{*1} SOFC: Generate electricity by using oxygen (O₂) in the air as well as carbon monoxide (CO) and hydrogen (H₂) derived from city gas.

^{*2} We have formed business partnership with Mitsubishi Hitachi Power Systems, Ltd. (MHPS).

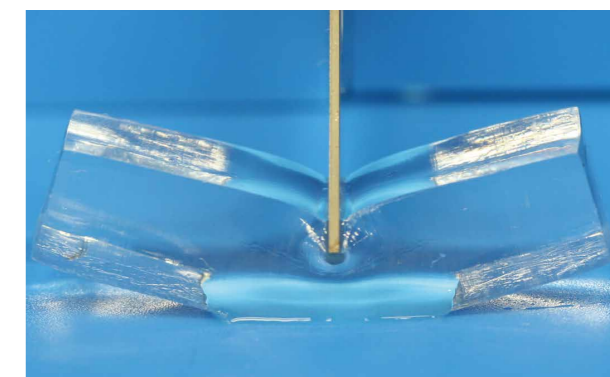
^{*3} The demonstration test is conducted with financial support from the New Energy and Industrial Technology Development Organization (NEDO).

2. Enhancement of the medical business

Research into artificial cartilage with Hokkaido University

Hokkaido University is fostering the practical use of double network (DN) gels as artificial cartilage with a view to helping patients with cartilage diseases, which are becoming prevalent as society ages, to improve their quality of life (QOL) by providing their doctors with new treatment materials and methods.

NGK SPARK PLUG has strengths in developing products with high reliability and durability by using fine ceramics as materials. In light of the current aging of society, Hokkaido University and NGK SPARK PLUG will collaborate to assert their respective strengths to help patients with incurable cartilage diseases improve their QOL. The joint research will be conducted at a department established within the University's facilities to foster the application of tough hydrogels as cartilage.



DN gel with high toughness

Joint research laboratory for healthcare materials established by NGK SPARK PLUG and AIST

NGK SPARK PLUG
 ●Has manufactured and sold artificial bones and other products
 ●Regards the medical field as one of its new key business domains

AIST
 ●Has high potentials regarding the development of materials, including medical materials

Joint Research Laboratory

●Develops innovative healthcare products

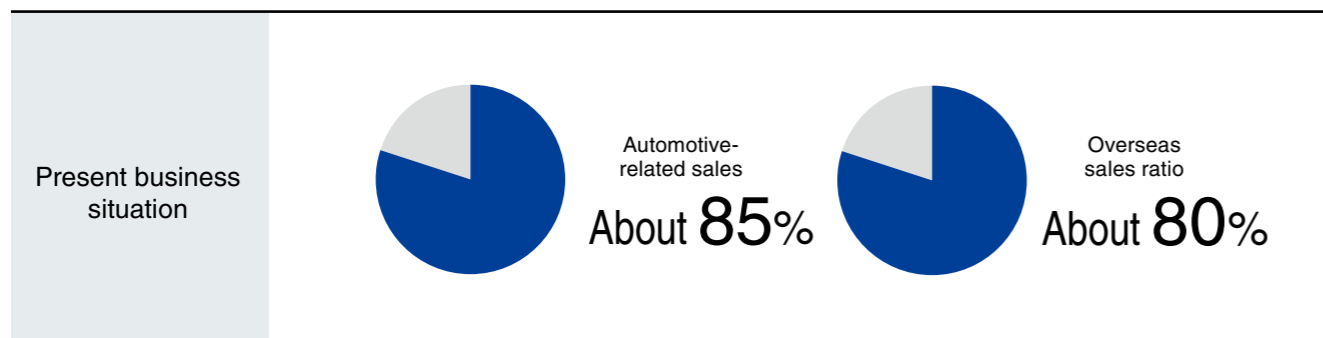
Establishment of a research laboratory with AIST

NGK SPARK PLUG and the National Institute of Advanced Industrial Science and Technology (AIST) established a materials and chemistry research laboratory to conduct joint research into healthcare materials.

This laboratory was established under the collaborative research system fostered by AIST to conduct R&D more speedily and intensively and with closer links to corporations. It is based in the AIST Chubu Center as the Institute's first joint research laboratory located in the Chubu region. The laboratory has also become AIST's first joint research laboratory called by a name that includes the name of a manufacturer/seller of fine ceramics and applied products.

Risks and Opportunities

NGK SPARK PLUG’s major short-, medium- and long-term risks and opportunities



	Short-term	Medium-term	Long-term
Business risks	<div>1. Decreased use of internal combustion engines</div> <div>2. Global operations</div> <div>3. Spread of car sharing</div> <div>4. Sudden rise in the prices of materials and metals</div>		
Business opportunities	<div>1. Stricter environmental regulations</div> <div>2. Expanded demand in emerging markets</div> <div>3. Advantages provided by the ability to develop materials to suit the downsizing trend</div> <div>4. Development competition intensified by technological innovations</div>		
ESG risks & opportunities	E	<ul style="list-style-type: none"> Environmental issues Energy shortage Resource shortage 	
	S	<ul style="list-style-type: none"> Aging of Japanese society and decreasing birthrate Labor shortage Increase in population and economic growth in emerging market countries Progress of urbanization 	<ul style="list-style-type: none"> Promotion of diversity
	G	<ul style="list-style-type: none"> Management transparency Enhancement of the risk management system Enhancement of compliance 	

Risk 1 Decreased use of internal combustion engines

Plugs and sensors are the core products of our company in the automotive components business and they are used in internal combustion engines. There are growing concerns that the number of automobiles powered by internal combustion engines might decrease in the future as more electric vehicles, fuel cell vehicles and other next-generation cars are developed and popularized. In emerging markets, however, demand for gasoline-powered vehicles (Opportunity 2) tends to expand while environmental regulations are being enhanced (Opportunity 1). Accordingly, demand for plugs and sensors will

continue to increase in those countries. Under these circumstances, value-added products are becoming mainstream and NGK SPARK PLUG, which has the ability to develop materials, can boost its business and make it more profitable. We are also developing products for electric vehicles and fuel cell vehicles hydrogen leak detection sensors for next generation cars. By continuing to invest in new businesses for the future, we are proactively creating new management pillars and improving the profit-making structure in which automotive components presently account for 80% of our total sales.

Risk 2 Global operations

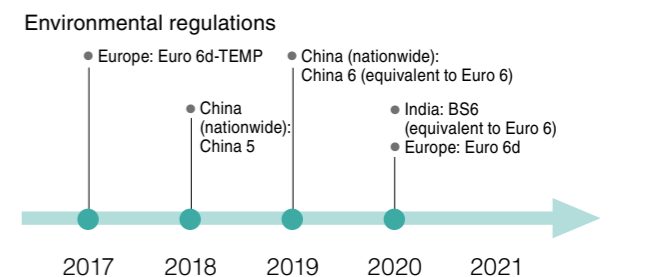
The NGK SPARK PLUG Group’s overseas sales ratio amounts to about 80% of the total, but we avoid risks by producing our core ceramic components largely in Japan to prevent the outflow of technologies as well as by also conducting the sintering process, which imposes large equipment investment burdens, in a stable manner in Japan. For materials, however, we procure many of them from overseas and also produce, assemble and sell products across the globe. We are therefore subject to changes in the political situations and economic trends of

countries in which we operate, and the foreign exchange market has impacts on both our production and sales results.

In order to mitigate the impact caused to our global business by changes in exchange rates and others, the Group is increasing its overseas production and assembly rates and enhancing manufacturing systems, mainly in the Asian region. We are thus hedging risks through business optimization across the globe.

Opportunity 1 Environmental regulations

In Europe, environmental regulations, particularly those on exhaust gas, have been strengthened, including the launch of the Euro 6d-TEMP regulation in 2017. Plugs, sensors and other products can directly help increase fuel efficiency and ensure compliance with exhaust gas regulations. In particular, sensors will be more strictly regulated and demand for value-added sensors with higher performance will expand. Moreover, to comply with stricter environmental regulations, we are developing new products, such as sensors to detect particulate matter (PM) contained in exhaust gas, expecting that demand for our sensors and other products will further increase.



Opportunity 2 Expansion of demand in emerging markets

In emerging markets such as China and India, demand for gasoline-powered vehicles will further expand, and we are promoting sales in these markets.

In China, users of high-end vehicles are already aware of our brand, and we are now promoting sales in the “volume zone,” including users of mid-range vehicles. To this end, we are expanding sales channels to include inland areas in addition to

coastal areas, and selling low-priced plugs to expand the local Chinese market. In India, meanwhile, we are giving more support to retailers and distributors to earn more recognition and trust for the NGK brand.

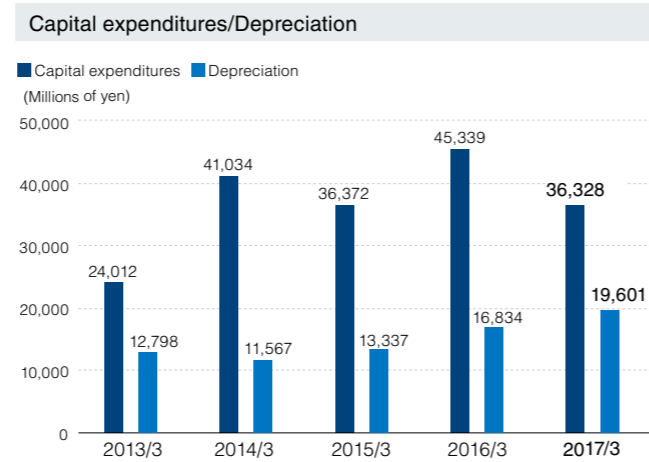
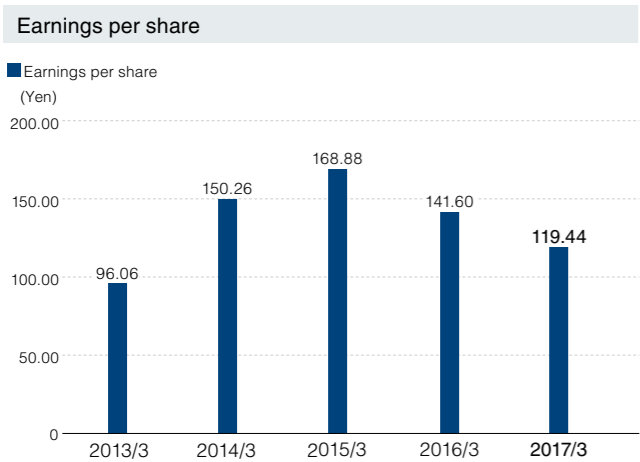
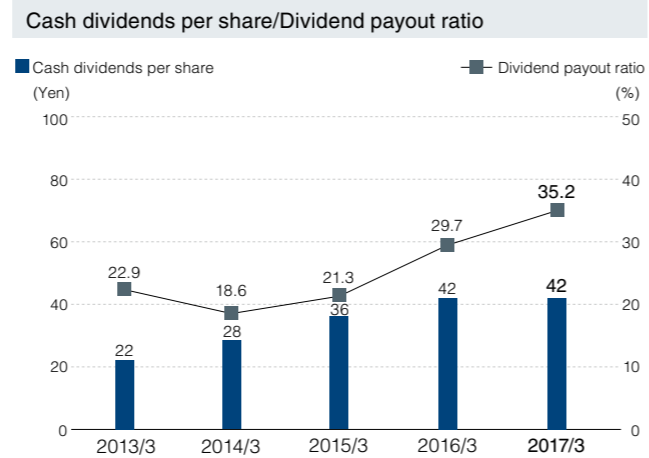
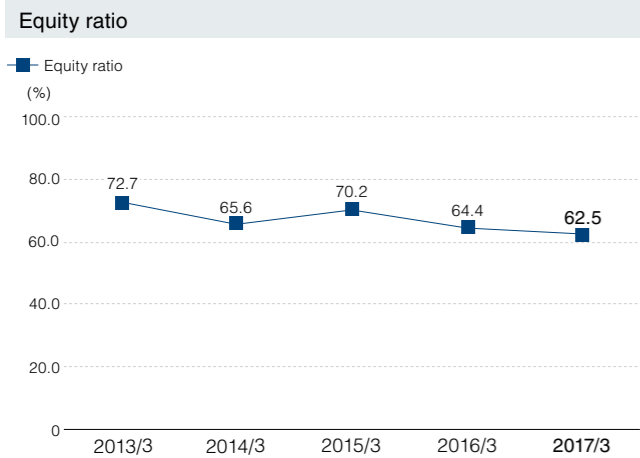
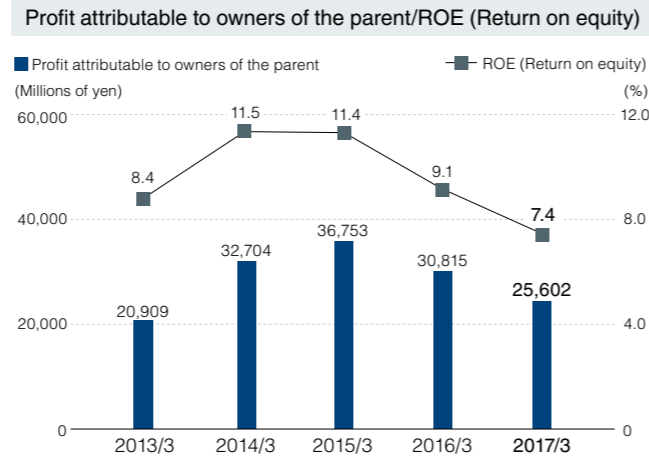
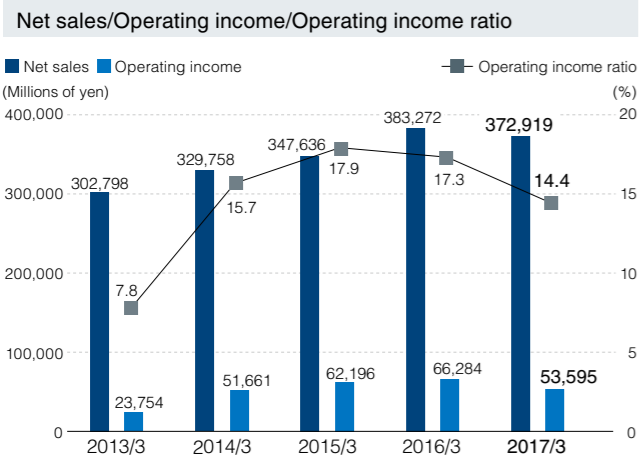
Moreover, we are working to identify the models of local automakers for which we could promote sales in the repair parts market and conduct OEM business with such makers.

Financial Results Highlights for the Past 11 Years

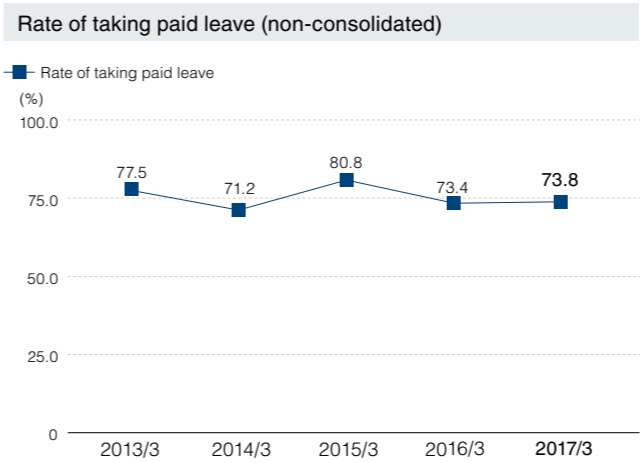
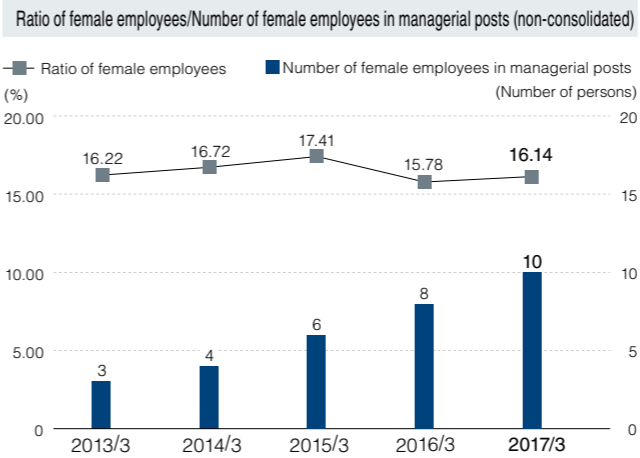
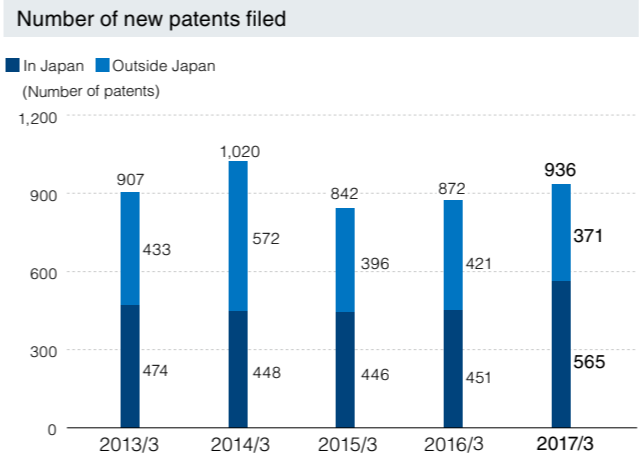
(Millions of yen)												
	2007/3	2008/3	2009/3	2010/3		2011/3	2012/3	2013/3	2014/3	2015/3	2016/3	2017/3
Net sales	344,891	345,584	292,121	243,914		269,232	284,746	302,798	329,758	347,636	383,272	372,919
Operating income (loss)	52,401	35,039	(5,222)	10,683		28,770	24,478	23,754	51,661	62,196	66,284	53,595
Ordinary income (loss)	53,855	34,938	(7,528)	10,758		27,379	23,740	27,674	54,960	67,907	64,483	55,559
Profit (loss) attributable to owners of the parent	34,072	22,144	(71,669)	13,509		23,680	25,524	20,909	32,704	36,753	30,815	25,602
Capital expenditures	29,271	63,231	24,173	10,977		8,767	14,004	24,012	41,034	36,372	45,339	36,328
Depreciation	18,861	25,474	31,767	18,825		16,646	15,438	12,798	11,567	13,337	16,834	19,601
R&D expenses	16,253	17,444	17,575	13,907		15,763	16,036	17,100	19,400	21,337	23,123	23,416
Cash flows from operating activities	36,481	37,728	36,603	34,255		35,398	21,079	26,194	54,697	36,593	56,465	49,764
Cash flows from investing activities	(22,924)	(43,820)	(27,153)	(17,270)		(20,412)	(15,850)	(15,442)	(61,148)	(12,865)	(82,331)	(53,410)
Free cash flows	(1,125)	(25,520)	3,820	27,834		30,684	8,507	8,456	3,541	13,995	(25,866)	6,335
Dividend payout	5,953	5,917	2,941	2,396		4,791	4,789	4,788	6,093	7,834	9,140	8,942
Net assets	288,976	288,299	184,384	207,006		218,159	235,613	268,309	302,793	343,380	341,044	354,710
Total assets	413,769	412,150	275,995	331,476		337,318	340,295	366,489	458,148	485,497	526,103	563,801
Interest bearing debt	16,919	37,289	37,042	39,814		36,697	37,399	27,418	57,339	46,153	80,212	99,275
(Yen)												
Earnings (losses) per share	154.24	100.93	(328.90)	62.01		108.71	117.25	96.06	150.26	168.88	141.60	119.44
Net assets per share	1,302.52	1,312.72	838.11	942.41		994.36	1,075.24	1,223.41	1,381.38	1,566.80	1,557.16	1,660.06
Cash dividends per share	27.00	27.00	13.50	11.00		22.00	22.00	22.00	28.00	36.00	42.00	42.00
Operating income ratio (%)	15.2	10.1	(1.8)	4.4		10.7	8.6	7.8	15.7	17.9	17.3	14.4
Return on net sales (%)	9.9	6.4	(24.5)	5.5		8.8	9.0	6.9	9.9	10.6	8.0	6.9
Gross profit on sales (%)	27.9	24.1	13.8	21.0		27.4	25.1	24.2	32.6	35.8	35.6	33.0
ROE (Return on equity) (%)	12.5	7.7	(30.6)	7.0		11.2	11.3	8.4	11.5	11.4	9.1	7.4
ROA (Return on assets) (%)	8.5	5.4	(20.8)	4.4		7.1	7.5	5.9	7.9	7.8	6.1	4.7
ROIC (Return on invested capital) (%)	11.4	7.3	(3.1)	6.1		10.3	10.9	6.4	10.5	10.8	11.6	9.1
Equity ratio (%)	69.4	69.4	66.2	61.9		64.2	68.8	72.7	65.6	70.2	64.4	62.5
Total asset turnover (times)	0.9	0.8	0.8	0.8		0.8	0.8	0.9	0.8	0.7	0.8	0.7
Dividend payout ratio (%)	17.5	26.8	–	17.7		20.2	18.8	22.9	18.6	21.3	29.7	35.2

Financial Highlights

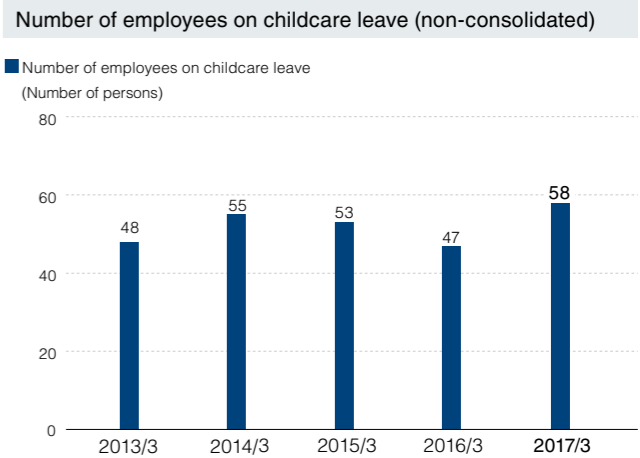
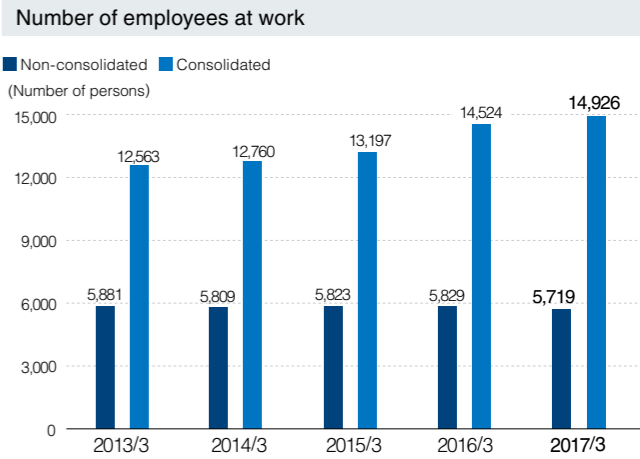
Performance



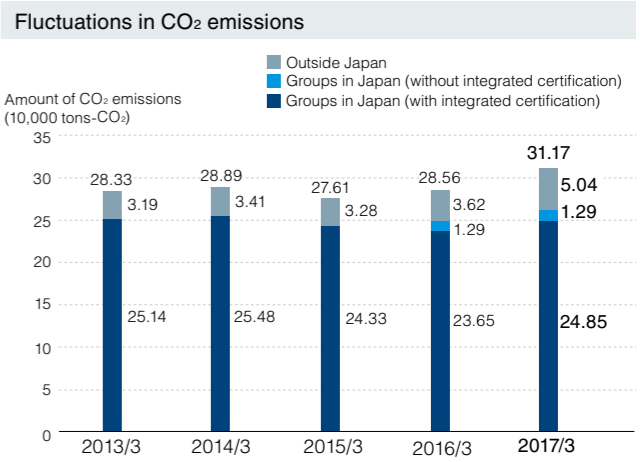
Non-financial Highlights



Data related to employees



Data related to environment



Executive Officers

(As of June 29, 2017)

Directors



Shinichi Odo
Representative Director and Chairman of the Board
Chief Executive Officer
President Officer

April 1977 Joined our company
July 2005 President, NGK SPARK PLUGS (U.S.A.), INC.
June 2007 Member of the Board, NGK SPARK PLUG CO., LTD.
June 2010 Managing Director, Member of the Board
June 2011 President
April 2012 President & CEO
April 2016 Representative Director and Chairman of the Board
Chief Executive Officer
President Officer (up to today)



Shinji Shibagaki
Representative Director and Vice Chairman of the Board

April 1977 Joined our company
October 2003 General Manager, Accounting & Finance Dept.
April 2007 President, NGK SPARK PLUGS (U.S.A.) HOLDING, INC.
June 2007 Member of the Board, NGK SPARK PLUG CO., LTD.
June 2010 Managing Director, Member of the Board
June 2011 Senior Managing Director, Member of the Board
April 2012 Senior Managing Officer, Member of the Board
April 2013 Vice President, Member of the Board
June 2013 Executive Vice President, Member of the Board
April 2016 Representative Director and Vice Chairman of the Board (up to today)



Teppei Okawa
Representative Director
Vice President Officer

April 1981 Joined our company
February 2011 General Manager, Procurement Group
Procurement Dept.
June 2011 Member of the Board
April 2012 Corporate Officer, Member of the Board
June 2012 Corporate Officer
June 2013 Corporate Officer, Member of the Board
April 2014 Managing Officer, Member of the Board
April 2015 Senior Managing Officer, Member of the Board
April 2016 Representative Director
Vice President Officer (up to today)



Shogo Kawajiri
Member of the Board
Vice President Officer

April 1979 Joined our company
June 2008 Vice Senior General Manager, Communication Media Components Group
Semiconductor Components Div.
June 2008 Member of the Board
June 2011 Managing Director, Member of the Board
April 2012 Managing Officer, Member of the Board
April 2013 Senior Managing Officer, Member of the Board
April 2014 Vice President Officer, Member of the Board (up to today)



Takeshi Nakagawa
Member of the Board
Senior Managing Officer

April 1979 Joined our company
February 2007 General Manager, Purchasing Dept.
June 2008 Member of the Board
June 2011 Managing Director, Member of the Board
April 2012 Managing Officer, Member of the Board
April 2013 Senior Managing Officer, Member of the Board (up to today)



Takeshi Kawai
Member of the Board
Senior Managing Officer

April 1987 Joined our company
February 2011 General Manager, Sensor Engineering Dept. II, Automotive Components Group Sensor Div.
April 2012 Corporate Officer
April 2015 Managing Officer
June 2015 Managing Officer, Member of the Board
April 2016 Senior Managing Officer, Member of the Board (up to today)




Mikihiko Kato
Member of Board
Corporate Officer

April 1985 Joined our company
February 2012 General Manager, Corporate Planning Dept.
August 2012 President of CERAMICA E VELAS DE IGNICAO NGK DO BRASIL LTDA.
October 2015 General Manager, Corporate Planning Dept.
April 2016 Corporate Officer
June 2017 Member of the Board, Corporate Officer (up to today)



Morihiko Otaki
Member of the Board (Outside Director)

August 1996 President & CEO, JOHNSON & JOHNSON K.K. VISION CARE COMPANY
August 2011 Vice Chairman of the Board, PASONA INC.
June 2013 Member of the Board, NGK SPARK PLUG CO., LTD. (up to today)
August 2016 Vice Chairman, PASONA INC. (up to today)



Kanemaru Yasui
Member of the Board (Outside Director)

March 1981 Registered as a Certified Public Accountant
April 1999 Representative Partner, Central Audit Corporation
August 2007 Representative Partner, KPMG AZSA LLC
June 2008 Representative Partner, Executive Director, Head of Nagoya Office, KPMG AZSA LLC
July 2013 Head of the Office Yasui Certified Public Accountant (up to today)
June 2014 Member of the Board, NGK SPARK PLUG CO., LTD. (up to today)



Megumi Tamagawa
Member of the Board (Outside Director)

August 1990 Registered as a Certified Public Accountant
March 2006 Representative Director, Maruyahonsya CO., LTD.
March 2016 Member of the Board, Maruyahonsya CO., LTD. (up to today)
June 2016 Member of the Board, NGK SPARK PLUG CO., LTD. (up to today)

Audit & Supervisory Board Members




Fumio Mizuno
Audit & Supervisory Board Member, Standing

April 1981 Joined our company
February 2006 General Manager, Semiconductor Components Div. Production Dept. Sec. I Communication Media Components Group
June 2009 General Manager, Production Dept. Ceramic Package Div. Communication Media Components Group
April 2011 President, NTK CERAMIC CO., LTD.
July 2011 Senior General Manager, NGK SPARK PLUG CO., LTD.
April 2013 Vice Senior General Manager, Technical Ceramics Group Semiconductor Div.
June 2015 Audit & Supervisory Board Member, Standing (up to today)



Yasuhiko Hotta
Audit & Supervisory Board Member, Standing

April 1980 Joined our company
February 2008 General Manager, Accounting & Finance Dept.
November 2008 General Manager, Semiconductor Components Div., Communication Media Components Gr.
June 2009 General Manager, Planning Dept., Communication Media Components Gr.
February 2011 General Manager, Information Systems Dept.
July 2011 Senior General Manager
April 2016 Senior General Manager, Working Styles Reforming Office, Corporate Strategy Gr.
June 2017 Audit & Supervisory Board Member, Standing (up to today)



Kenichi Masuda
Outside Auditor

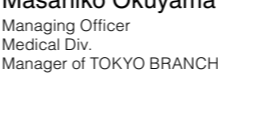
May 1970 Joined THE MITSUBISHI BANK, LTD.
June 1997 Member of the Board, THE BANK OF TOKYO-MITSUBISHI, LTD.
May 2001 Managing Director, THE BANK OF TOKYO-MITSUBISHI, LTD.
June 2001 Executive Vice President, KOKUSAI SECURITIES CO., LTD.
June 2005 Chairman, KOKUSAI ASSET MANAGEMENT CO., LTD.
June 2006 President, KOKUSAI ASSET MANAGEMENT CO., LTD.
October 2007 Chairman, KOKUSAI ASSET MANAGEMENT CO., LTD.
June 2008 External Auditor, TODA CORPORATION
June 2012 Audit & Supervisory Board Member, NGK SPARK PLUG CO., LTD. (up to today)



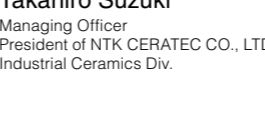
Fumiko Nagatomi
Outside Auditor

April 1981 Registered as an attorney, Joined Hachisuka Law Firm
March 1989 Resigned from Hachisuka Law Firm
April 1989 Opened Nagatomi Law Firm (up to today)
May 2006 Audit & Supervisory Board Member, UCS CO., LTD. (up to today)
June 2016 Outside Corporate Auditor, CHUBU Electric Power Co. Inc. (up to today)
June 2017 Audit & Supervisory Board Member, NGK SPARK PLUG CO., LTD. (up to today)

Corporate Officers



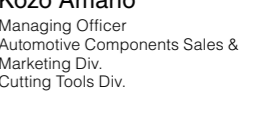
Masahiko Okuyama
Managing Officer
Medical Div.
Manager of TOKYO BRANCH



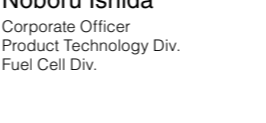
Takahiro Suzuki
Managing Officer
President of NTK CERATEC CO., LTD.
Industrial Ceramics Div.



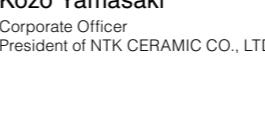
Yoshitaka Narita
Managing Officer
President of NGK SPARK PLUGS (U.S.A.) HOLDING, INC.
President of NGK SPARK PLUGS (U.S.A.), INC.




Kozo Amano
Managing Officer
Automotive Components Sales & Marketing Div.
Cutting Tools Div.



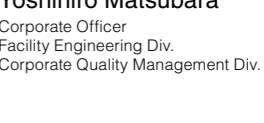
Noboru Ishida
Corporate Officer
Product Technology Div.
Fuel Cell Div.



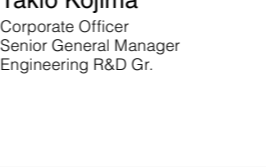
Kozo Yamasaki
Corporate Officer
President of NTK CERAMIC CO., LTD.




Nobuyuki Tokioka
Corporate Officer
AEC Div.



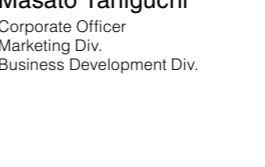
Yoshihiro Matsubara
Corporate Officer
Facility Engineering Div.
Corporate Quality Management Div.



Takio Kojima
Corporate Officer
Senior General Manager
Engineering R&D Gr.



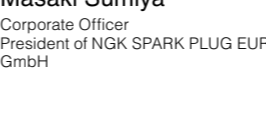
Yutaka Tanaka
Corporate Officer
Sensor Div.
Glow Plug Div.



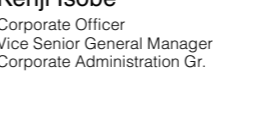
Masato Taniguchi
Corporate Officer
Marketing Div.
Business Development Div.



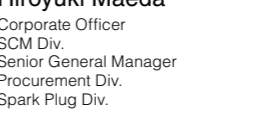
Toru Matsui
Corporate Officer
President of NGK SPARK PLUG (SHANGHAI) CO., LTD.
President of NGK SPARK PLUG (SHANHAI) TRADING CO., LTD.
Automotive Components Sales & Marketing Div.



Masaki Sumiya
Corporate Officer
President of NGK SPARK PLUG EUROPE GmbH



Kenji Isobe
Corporate Officer
Vice Senior General Manager
Corporate Administration Gr.



Hiroyuki Maeda
Corporate Officer
SCM Div.
Senior General Manager
Procurement Div.
Spark Plug Div.



Hiroyuki Tanabe
Corporate Officer
President of CERAMICA E VELAS DE IGNICAO NGK DO BRASIL LTDA.

NGK SPARK PLUG's Definition of CSR

NGK SPARK PLUG adopts an easy-to-understand definition of CSR, which is “meeting stakeholder expectations and needs through our business to make stakeholders happy.”

Our CSR

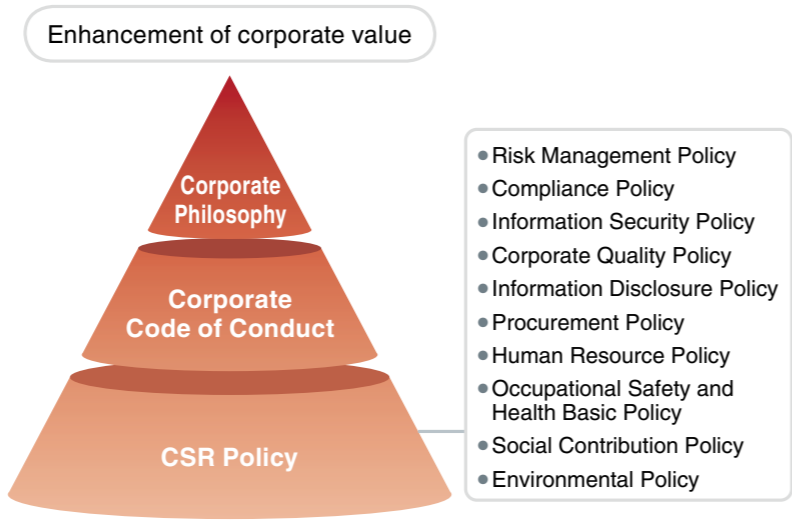
We view CSR not just as a responsibility but as an opportunity to be accountable through review of the NGK SPARK PLUG Group's economic, environmental and social activities from a global perspective, to enhance corporate value, and to contribute to the sustainable development of society in accordance with our Corporate Philosophy.

Our CSR activities are wide-ranging and diverse, and to provide our Group's action guidelines for fulfilling CSR, we established the CSR Policy in April 2011, which comprises 10 policies, such as the Compliance Policy and others. In line with the CSR Policy, we review and promote CSR based on a multifaceted approach.

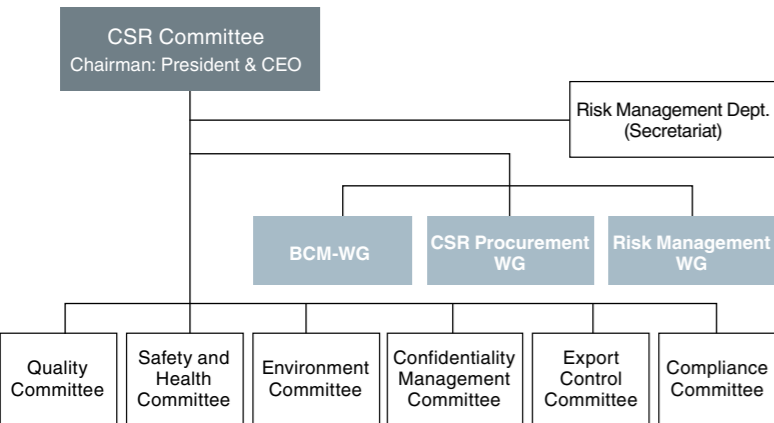
Corporate Philosophy



Our CSR Philosophy and Policy



CSR promotion system



CSR Promotion System

As well as determining each year's key tasks for implementation of the CSR Policy, the CSR Committee oversees and evaluates the CSR-related activities implemented by the respective task force committees and divisions, and makes proposals regarding them, in order to achieve total optimization of CSR activities, thereby strengthening the business foundation.

Working groups are established as necessary to discuss specific themes and develop countermeasures.

Through close collaboration among the CSR Committee, the task force committees, and working groups, a company-wide CSR promotion system is put in place.

Our Connections with Society

NGK SPARK PLUG engages in business activities with the aspiration of “serving society through business.” Society here indicates the people and organizations with which we have relations and they are called “stakeholders.”

“Stakeholders” refers to the suppliers that deliver raw materials and equipment to us, the customers that buy the products we sell, and the employees involved in our

business activities. The shareholders and investors that provide us with capital and the local communities and international society where we have production and sales sites are also our important stakeholders. Consideration for the environment is also a responsibility that a company should fulfill.

Dialogue with Stakeholders

To deepen mutual understanding, we are fostering dialogue with our stakeholders through various opportunities. We

will continue these dialogues to make more stakeholders happy and thereby increase our corporate value.

Dialogue with shareholders and investors	<ul style="list-style-type: none">• 117th Ordinary General Meeting of Shareholders held on June 29, 2017 Number of participating shareholders: 205 Voting rate: 82.6%• Dialogue with institutional investors and securities analysts: Results for the year ended March 2017 Number of companies that had face-to-face meetings with us: 348• Dialogue with personal investors: Results for the year ended March 2017 Number of events held: 12 Total number of participants: 1,148	 General Meeting of Shareholders
Dialogue with customers	We publicize our technologies by participating in various exhibitions and events every year.	
Dialogue with suppliers	We annually hold a briefing on our policies for our major suppliers to help them understand our present situation and targets.	
Dialogue with local communities	We have business sites across the globe. At each location, we respect the local culture and customs and value smooth communication with local people.	
Dialogue with employees	To provide employees with safe and sound workplaces where they can work hard and make a meaningful contribution, the management team proactively visits individual workplaces and talks with workers on-site.	

Participation in the United Nations Global Compact

The NGK SPARK PLUG Group participated in the United Nations Global Compact in November 2016.

The Global Compact is an initiative proposed in 1999 by then Secretary-General of the United Nations Kofi Annan to address various issues facing the world, such as global warming, environmental problems and disparities in society. It was established formally at the UN headquarters in July 2000 as a set of voluntary action principles to be followed by companies.

The NGK SPARK PLUG Group will support the Global Compact's 10 principles set in four fields (human rights, labor, environment and anti-corruption) and conduct activities to contribute to building a sustainable society.



Selected for ESG Indexes

NGK SPARK PLUG was selected for inclusion in the FTSE Blossom Japan Index developed by FTSE Russell^{*1} as well as in the MSCI Japan ESG Select Leaders Index and the MSCI Japan Empowering Women Index developed by US firm MSCI^{*2}. The Government Pension Investment

Fund (GPIF) has adopted these three indexes for ESG investment.

^{*1} FTSE Russell: This wholly owned subsidiary of the London Stock Exchange Group is a leading global index provider. It creates and manages indexes, data and analysis solutions for investors.

^{*2} MSCI: A leading provider of various tools that help institutional investors around the world make investment decisions



Our ESG Approach: Governance

Corporate Governance

Basic Philosophy

We believe that it is our foundational and important managerial task to establish and maintain a fair and efficient management system, while securing soundness and transparency in management, in order to enhance corporate value by fulfilling our corporate social responsibilities. We will enhance our corporate governance to ensure the efficiency and soundness of our corporate activities in line with our corporate philosophy, thereby fulfilling our responsibilities to our stakeholders.

Corporate Governance System

We choose to have a Board of Corporate Auditors, who audit our directors objectively from an independent position. We have also separated the managerial decision-making and supervision function from the business execution function by introducing the corporate officer system. In the fiscal year ended March 31, 2017, the Board of Directors met 13 times. As for decision-making, the Board of Directors makes decisions on the most important

matters for management, while decisions on other matters are made by the Corporate Management Committee and others for greater speed in decision-making.

We also appoint three outside directors and two outside auditors with an eye to introducing independent external viewpoints to enhance the supervision function and ensure transparency in management.

Internal Auditing System

Our Internal Auditing Office performs audits of NGK SPARK PLUG and its Group companies as an independent department, reports the results to management, and makes proposals to the audited companies on improvements regarding the identified problems. Departments that receive such proposals formulate and implement improvement plans, and the Internal Auditing Office monitors and checks the implementation status. To ensure the reliability of financial reporting, the Office assesses the effectiveness of internal control over financial reporting based on the internal control reporting system set pursuant to the Financial Instruments and Exchange Act of Japan.

The Internal Auditing Office works to improve the effectiveness of internal audits by exchanging views on each of the audit plans and results with corporate auditors and/or independent external auditors regularly or as required.

Chronological table of measures taken for corporate governance	
2005	• Changed the term of service of a director from two years to one year
2008	• Established the Internal Auditing Office • Abolished the retirement allowance system
2010	• Founded the CSR Committee
2011	• Established the CSR Policy
2012	• Decreased the upper limit of the number of directors from 25 to 13 • Introduced the corporate officer system
2013	• Appointed an outside director
2014	• Increased the number of outside directors to two
2015	• Formulated the criteria for the appointment of independent directors • Began assessing the effectiveness of the Board of Directors
2016	• Increased the number of outside directors to three
2017	• Established the Nomination and Remuneration Committees • Introduced the performance-based stock remuneration system

ESG stands for “environment, society and governance,” and the idea that companies need to take ESG-oriented views to ensure their long-term growth is becoming more widespread around the world. In response, NGK SPARK PLUG is taking necessary measures, which we introduce in this report.

Independence of Outside Directors and Auditors

Outside directors play supervisory roles in positions independent from business operations, including expressing their opinions by taking a broader view at important meetings, including the Board of Directors meetings. Outside auditors play auditing functions by drawing on their expertise to carry out audits from multifaceted viewpoints and express their opinions at important meetings including

the Board of Directors meetings.

We appoint independent outside directors and auditors in line with our own selection criteria as well as the criteria set by the securities exchanges to ensure that candidates for independent positions have no special relationships with the management team or major shareholders and that they have no conflicts of interest with general shareholders.

Appointment reasons for outside directors and auditors

Title	Name	Reason for appointment	Frequency of attendance
Outside director	Morihiro Otaki	He has a wealth of experience in global companies and expertise as an executive, and is expected to supervise management in an appropriate manner.	Attended 12 of the 13 Board of Directors meetings held during the term*.
Outside director	Kanemaru Yasui	He is expected to make recommendations to management by using his expertise and experience gained over the course of his long career as a certified public accountant.	Attended all of the 13 Board of Directors meetings held during the term*.
Outside director	Megumi Tamagawa	She is expected to make a range of recommendations by drawing upon her wealth of experience as an executive in a different industry as well as the expertise developed as a certified public accountant.	Attended all 10 of the meetings held since her appointment to the position of outside director at the ordinary general meeting of shareholders held in June 2016.
Outside auditor	Kenichi Masuda	He has served as a director at financial institutions and is expected to use his abundant expertise and knowledge regarding finance and corporate management for the benefit of the company.	Attended all of the 13 Board of Directors meetings held during the term*.
Outside auditor	Fumiko Nagatomi	She is expected to use the expertise and knowledge that she has accumulated during her long career as an attorney for the company.	Newly appointed to the position of outside auditor at the general meeting of shareholders held in June 2017.

* Fiscal year ended March 31, 2017

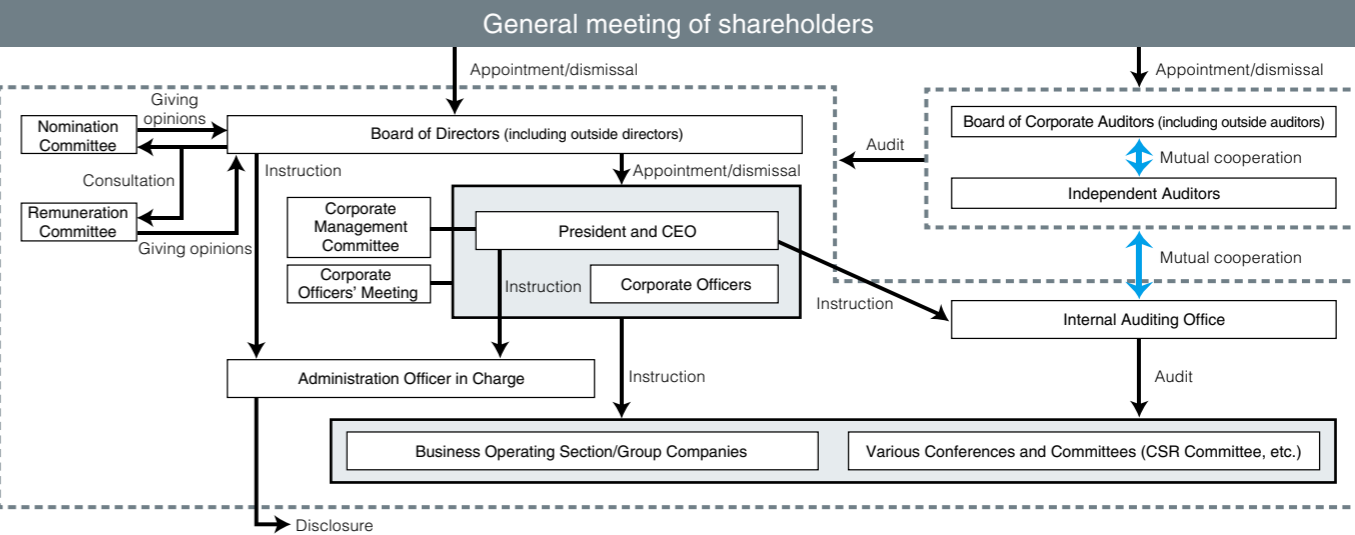
Compensations for Directors

NGK SPARK PLUG established its voluntary Nomination and Remuneration Committees in April 2017 to ensure rationality and transparency in the nomination and remuneration of its directors. We also introduced a performance-linked and highly transparent and objective stock remuneration system for directors and corporate officers in June 2017, aiming to improve our corporate performance on a medium- to long-term basis and make our executives more aware of their roles to increase corporate value.

Future Measures

We will increase the functionality of the Nomination and Remuneration Committees and the performance-linked stock remuneration system, which were introduced to enhance our corporate governance in 2017, thereby increasing the transparency, fairness and speed of our business management while strengthening our competitiveness. We also began implementing measures to evaluate the effectiveness of the Board of Directors in 2015 and will further enhance its effectiveness for the continuous improvement of our corporate governance.

Corporate governance system



Compliance

Basic Philosophy

We work to increase awareness among employees regarding compliance to act in a socially sensible manner, helping them to bear in mind that our enterprise is a member of society.

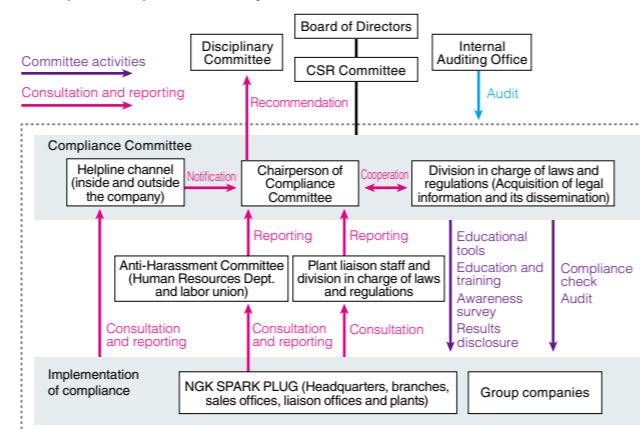
Compliance Policy	With recognition that our company is a member of society, we enhance corporate ethics and understand the spirit and meaning of laws, company regulations, international rules, and social norms in order to appropriately meet social demand and become a company trusted by the international community.
Action Guidelines	<ul style="list-style-type: none"> • We not only comply with laws and regulations, but also act in good faith with common sense and responsibility as a member of society. • We regularly educate and raise the awareness of all our employees to impart a high level of ethics and correct knowledge, with which they can act voluntarily to prevent a violation. • Should a violation occur, we will promptly investigate the causes and take remedial actions. We will strive to take appropriate countermeasures to prevent recurrence and fulfill our accountability.

Compliance Promotion

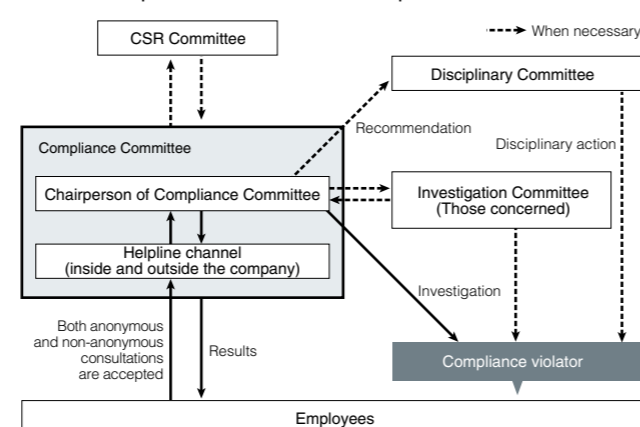
The Compliance Committee, headed by the Representative Director and made up of representatives of the departments in charge of legal and regulatory matters and of the divisions, meets every three months to monitor and make corrections on key issues and actions concerning them. To raise employees' awareness of compliance, we provide ongoing education at our workplaces, including level-specific seminars, using the Compliance Guidebook and the Compliance Newsletter.

In particular, taking the antitrust law (the Antimonopoly Act of Japan) violation that we were confronted with in fiscal 2014 seriously, we have been implementing a program to prevent the recurrence of similar problems, specifically by appointing a director in charge of compliance and founding a team specializing in antitrust law-related issues and legal compliance.

Compliance promotion system



Flow after report is received via the Helpline



Corporate Ethics Helpline

The Corporate Ethics Helpline is an internal reporting system available to employees seeking consultation regarding compliance. We have worked to increase user convenience by establishing channels not only inside the company but also via an external expert service provider and enabling employees to seek consultation and make reports also outside of business hours and on holidays. Regarding consultations and reports received, facts are investigated with discretion so that the reporting employee is neither identified nor feels uncomfortable, and if problems are confirmed, they are dealt with promptly. There were 54 consultations and reports in the fiscal year ended March 31, 2017, including those from employees of Group companies. The numbers have been increasing year on year as a result of the permeation of compliance awareness throughout the workforce.

Risk Management

Basic Philosophy

We will build and operate a company-wide risk management system in order to strategically deal with risks against the background of a business environment that is becoming more complex and diversified. To this end, we will implement measures continuously and in an integrated manner in cooperation with our domestic and overseas Group companies.

Risk Management Policy	We will identify the risks that could have serious impact on our business activities based on the comprehensive understanding of the risks related to our Group, and take necessary measures to prevent the occurrence and recurrence so that the risks are reduced to an acceptable level. Even if such a risk should occur, we will also strive to restore and continue smooth business operations, thereby maintaining trust from our stakeholders.
Action Guidelines	<ul style="list-style-type: none"> • We conduct our activities with top priority on the protection of human life. • We strive to prevent factors that could affect business continuity. • We minimize impact on related parties. • We strive for rapid restoration of business operations and stable supply of products and services. • We take measures to prevent the recurrence of risks.

Information Security

We have established the Group Information Security Regulations and Confidentiality Management Regulations, and strive for the appropriate management of confidential information belonging to the NGK SPARK PLUG Group, our customers and our suppliers. When we use wireless LAN, mobile terminals and other electronic information devices, we give all possible consideration to information security

Intellectual Property

To protect its existing and newly developed products, NGK SPARK PLUG takes steps to actively acquire intellectual property rights and make effective use of them. We investigate the intellectual property rights of third parties in all production processes, from early stages of development to mass production, thereby avoiding the risk of infringing the intellectual property rights of third parties or violating contracts, laws or regulations. We also verify the appropriateness of the intellectual property-related provisions in various contracts. In addition, we are

while also ensuring compliance with the relevant laws and regulations.

To prepare against disasters, we have sequentially moved our Internet systems and data exchange systems to a highly disaster-resistant data center located outside the company. Moreover, we have installed double lines for communication with the data center to ensure business continuity.

educating employees on the importance of intellectual property. In the future, we will strengthen the management of intellectual property across the Group as the basis for our continued evolution as a “Monozukuri Company.”

As for our measures against counterfeit goods, a number of our Group companies, mainly in China and the Middle East, are proceeding with activities in partnership with law firms, and we have also been strengthening measures in ASEAN countries and India, where economic growth continues.

Preparation against Large Earthquakes

We restructure the plants of Group companies in consideration of damage that might be inflicted by large earthquakes in the future.

We also set out the initial responses to be made and measures to be taken to ensure business continuity in the event of a large earthquake in our guidelines on business continuity plans (BCPs) against earthquakes. Guidelines on initial responses include those on employees' actions, such

Initiatives to Prevent Corruption

For the fiscal year ending March 31, 2018, we are implementing anti-corruption measures as a priority across the Group.

In our Compliance Guidebook, we set rules concerning the prevention of corruption, including the prohibition of involvement in political contributions or bribery, and are

as evacuation and safety reporting, and on emergency headquarters, internal firefighting teams and reserves. Every November, our plants, sales offices and Group companies in Japan concurrently hold evacuation drills, which include the examination of the guidelines. Guidelines on BCPs include those on the time required for the recovery of important operations, recovery plans, organization of recovery teams and the implementation of BCPs.

raising awareness of the rules among employees. We conduct surveys on related local laws and provide local employees with relevant education also in our Group companies outside Japan.



Our ESG Approach Roundtable Meeting with Outside Directors

Megumi Tamagawa

Member of the Board
MARUYAHONSHA Co., Ltd.
Outside director of
NGK SPARK PLUG since 2016



Morihiro Otaki

Vice Chairman, PASONA Inc.
Outside director of
NGK SPARK PLUG since 2013



Kanemaru Yasui

Head of the Office Yasui
Certified Public Accountant
Outside director of
NGK SPARK PLUG since 2014

Q1

What is your impression of NGK SPARK PLUG? What is your understanding of the company's present situation?

Otaki: NGK SPARK PLUG is definitely a typical committed manufacturer. The company has been manufacturing spark plugs as its core product for 80 years to achieve tremendous sales and profits, and has maintained its market position at the same level to the present day. This is indeed rare in the market and is both a source of strength for NGK SPARK PLUG and a challenge.

Yasui: I agree with you. The company has been supplying an overwhelmingly competitive product item, that is, spark plugs, for 80 years. However, nobody knows if it can keep doing so for another 80 years. The company therefore upholds "Strengthening current businesses" and "Establishing new business pillars" in its medium-term management plan, and I think the former implies strength and the latter a challenge for the company.

Tamagawa: I was appointed outside director less than one year ago and am actively absorbing knowledge of the company. As my first impression, however, I was simply surprised to know that the company had long been highly profitable due to a single product item, and wondered how it could be. However, in our rapidly changing motorized society, I think it should skillfully utilize the assets it has accumulated to build its next business pillar.



Otaki: I want workers to boldly take on new challenges.

Q2

For the challenge that you have just mentioned, what advice do you give at Board meetings?

Otaki: I have been urging the company to boldly take on the challenge of developing new products, businesses and services. NGK SPARK PLUG implemented its M&A project practically two years ago. Until then, the company seemed to avoid taking on new challenges that could present risks. But M&A and business partnerships help you broaden your outlook as you adopt new products and new corporate cultures, and even if the project is not as successful as planned, you can still learn great lessons. I want the company to make progress through a process of trial and error, and expect that it will include something different in its brand, which is currently known widely as the brand for spark plugs.

Yasui: The company has an open culture and can provide a foundation for employees to take on challenges without worrying about failure. However, no outstandingly innovative initiatives have been implemented so far, perhaps because the company has long been doing well in the automotive components business, and its past failure to get the semiconductor-related business on a growth track made it reluctant to take further steps. But the environment surrounding the business has improved, and I believe the company should actually establish new business pillars in the next several years, as upheld in the medium-term management plan.

Tamagawa: I can feel a sense of openness also at the Board meetings. Chairman Odo has assigned different

roles to individual directors in full consideration of corporate governance, and Mr. Otaki and Mr. Yasui express their opinions very frankly at the meetings. I can raise questions in a straightforward manner about anything that is unclear to me at the meetings. I therefore think that the environment fully allows management to start a new business with a spirit of challenge.

Q3

Regarding the corporate governance system, please share your opinions about what makes for a desirable system and the roles that you are playing for the company.

Otaki: As I said, my impression of NGK SPARK PLUG is that it is a committed manufacturer, and the company is also working hard for corporate governance. But I am worried about its homogeneity. In its 80-year history, the first M&A was done just recently, which implies that people with similar backgrounds and mindsets have been working together in the same location for decades. This is both a source of strength and a challenge for the company.

We outside directors are therefore necessary for the company, but I think it is critical for the company to have a diverse team serving as its operational staff as well. Diversity in the company will help people deal with inefficiencies in things that have been taken for granted and identify problems that would otherwise be left ignored, and this will eventually help improve corporate governance. The company has only just started moving in this direction, but I feel it is making steady progress.

Yasui: I agree that the company is proactively implementing measures for corporate governance. For the formulation of the medium-term management plan, the directors lodged together to ensure sufficient time was spent discussing the details. For corporate governance, it is essential to make a plan, and the Board of Directors is tasked with managing the progress of the plan and must play a monitoring function. In fact, the Board checks and discusses the execution of business by corporate officers on a quarterly basis. Also, for the supervisory function, the company established the Nomination and Remuneration Committees to enhance that function step by step.

Tamagawa: While the company is taking measures proactively and flexibly in some aspects, it also seems to take a careful trial-and-error approach. What do you think about the speed?

Yasui: A careful manner indeed. For example, the company announced that it "plans to" establish its Nomination and Remuneration Committees in



Yasui: The supervisory function is being enhanced step by step.

its governance report released in response to the application of Japan's Corporate Governance Code in June 2015. Then, during this term, the Committees were actually established, after sufficient discussion had taken place. However, I think the period was indeed necessary for the company to ensure the functionality of the Committees.

Otaki: Making achievements not in a superficial but in a careful and steady manner is part of NGK SPARK PLUG's culture, and is something that does not need to be changed forcefully. I regard this as a unique feature of a manufacturer that is committed to delivering high-quality products.

Q4

Since your appointment to the position of outside director, have you noticed any changes in the company? What goal do you think it needs to attain in the future?

Yasui: Mr. Odo has been aggressively implementing reforms, including investing in new fields and enhancing PR activities, and as a result I strongly feel that the internal atmosphere has been substantially changed. However, as Mr. Otaki said, homogeneity still remains a feature of the company and I believe it is important for the company to proactively embrace diversity while clarifying the values to be shared across the company, with an eye to boldly pursuing new business through M&A.

Otaki: Yes, indeed. I can understand that having no defects is an ideal target to be pursued, but at the same time the company should establish a system to appropriately deal with product defects, which you may yet face even if you make your best effort to prevent them. The company needs someone with a different background who can propose a starting point for compromise, for which diversity is necessary. As one of the changes already made, The Nittoku Way was announced globally. In line with this philosophy, I hope that the company will allow each employee to uphold broader values so that they can make decisions and take actions independently. The management team should be responsible for ensuring that workers are allowed to uphold broader values, which is the core of corporate governance.

Tamagawa: I got involved in the company after it began to change, but hope that it will continue to be committed to manufacturing as its strength, while working to build an environment where a diverse group of people can take on new challenges. I want to help the company speed up its measures for diversity, including empowering women and providing employees with a more flexible working style.



Tamagawa: I expect that a diverse range of employees will work for the company.



Our ESG Approach: Social Diversity & Work-Life Balance

Basic Philosophy

Employees are the most important management resource. We promote the sustainable growth of the NGK SPARK PLUG Group by striving for human resources development that respects the diversity and individuality of our employees and by encouraging individual employees to reach their own full potential, to grow and to participate actively in a state of physical and mental health.

Human Resource Policy	We acknowledge that employees are the most important management resource. In light of this, we respect the diversity and individuality of our employees and promote the cultivation of physically and mentally healthy human beings, striving to promote the further development of our Group as a whole.
Action Guidelines	<ul style="list-style-type: none"> Respecting the rights of our employees, we eliminate discrimination and harassment in employment, and avoid the use of forced labor or child labor. We secure and foster human resources who help pass down our quality products principle to the following generations. To this end, we provide learning opportunities and other programs to support the career development of our employees. We strive to smoothly introduce a personnel system that ensures that people with different qualities can fully realize their own capabilities into our Group.

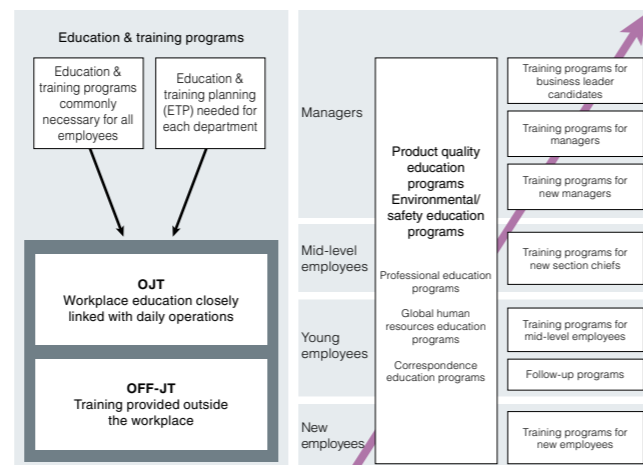
Human Resource Development

Our education and training activities mainly consist of on-the-job-training (OJT), through which employees are trained to acquire technologies and knowledge in their normal working situation. We also offer off-the-job-training (OFF-JT), providing employees with new technologies, knowledge and skills outside their respective workplaces.

We have a wide range of OFF-JT programs that include training by organizational level and role to provide needed knowledge and skills, product quality education, environment and safety education, manufacturing education, education in global business, and career development support.

In addition, we have been providing education through the Monozukuri Education and Training Center established to give employees opportunities to acquire necessary knowledge and skills in a timely fashion to maintain and improve their manufacturing skills.

Education and training system



Promotion of Diversity

We promote diversity as one of our top management priorities, believing that helping individual employees use their unique capabilities to make a meaningful contribution will not only enhance employee welfare but will also help the company achieve further growth. As the first step for this, we have worked to create workplaces where women can fulfill

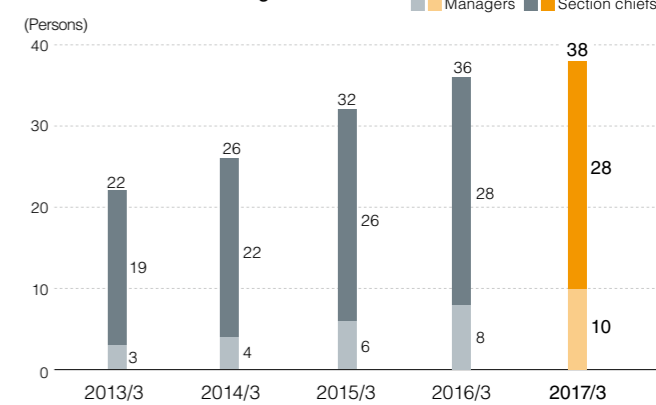
DIAMOND Project to Promote the Active Participation of Women at Our Workplaces

The DIAMOND Project was launched in 2013 with the following principles: change the corporate culture, change the consciousness, and change the environment. Regarding the empowerment of women as a driving force for the reform of our corporate culture, we have been raising the awareness of managers and female employees themselves about the issue.

Specifically, we implemented a training program in which a female employee is paired with her manager. Under the program, she takes on the challenge of performing a task that is one level higher than the task presently assigned to her for nine months, and her manager offers advice to help her fulfill the task, thereby supporting her growth. Furthermore, all our departments have formulated action plans to empower their female members and are conducting activities in a planned manner in line with the policies they have established to develop female employees.

their potential, and have recently been expanding the target of empowerment to provide all workers, not just women, with an environment that allows them to demonstrate their abilities on a global scale. To this end, we will devote even more efforts to diversity-oriented management.

Number of female managers



Personnel Appointment on a Global Basis

Since 2013 we have regularly conducted the global personnel conference with the participation of personnel managers from major overseas Group companies to speedily share and meet challenges related to global human resource development.

Also in 2013, we began focusing on the employment of foreign nationals. Every year we employ three or more non-Japanese new graduates, including not only those who studied in Japan but also those who have studied the Japanese language outside the country and want to work in Japan.

We also rotate young employees around our overseas bases to foster human resource development by using our global network.

In 2016 we started to implement a program to develop the next generation of global business leaders, aiming to employ and promote people regardless of nationality and provide them with appropriate opportunities and workplaces that will allow them to demonstrate their abilities.



Training held for female employees



Global personnel conference

Work-Life Balance

We are committed to providing a work environment where a diverse range of people can demonstrate their abilities and work flexibly.

● Working style reform

We established a working style reform committee in cooperation with the labor union to proactively reduce working hours by measures such as prohibiting work after 10:00 p.m. in principle and setting every Wednesday as “no overtime day” and urging employees to leave work on time on that day. Furthermore, in 2016 we founded the Working Styles Reforming Office to reduce burdens imposed on the indirect departments by utilizing IT for higher productivity.

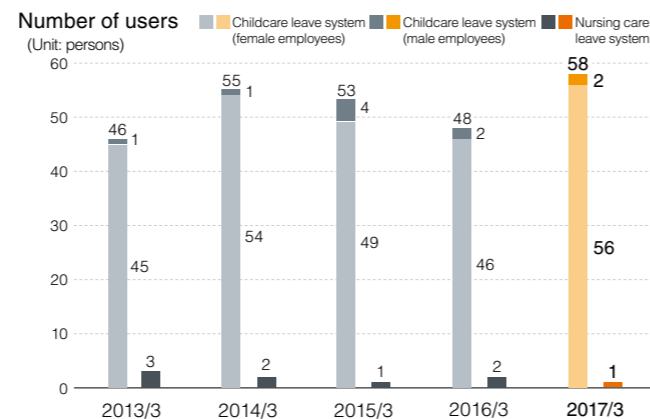
● Support for childcare

The number of employees on childcare leave exceeded 50 in the fiscal year ended March 31, 2014, and male employees have also been taking leave each year recently. Moreover, almost all employees returned to work after taking childcare leave.

For the system for shorter working hours for childcare, in the fiscal year ended March 31, 2015 we extended eligibility to parents with a child up to the third year of elementary school, and made it possible for employees to use the system intermittently for up to three times during the period of eligibility in the fiscal year ended March 31, 2017. We are thus continuously improving the system to provide employees with a more comfortable working environment.

● Mental health

We provide employees with mental health training for self-management. We also hold training to teach managers how to deal with employees with mental problems as part of our effort to build a company-wide mental health support system. In cooperation with external rehabilitation facilities, we give full support to employees experiencing mental health issues until they get well and return to work. Moreover, we verify the effect of the training with reference to the employee workplace return rate and problem recurrence rate.



Workers and managers encourage employees to leave work on time

Occupational Safety and Health

Basic Philosophy

Occupational safety and health is the most familiar theme for employees in their daily duties. It is the most important theme for enterprises as well. We are well aware that offering a secure and safe workplace is our important corporate responsibility. To this end, we established our occupational safety and health management system (OSHMS) in 2006, aiming to realize “zero accidents” and secure safety at all workplaces. We will continue strengthening our safety and health management activities at a company-wide level, aiming to establish a corporate culture of “safety first.”

Basic Policy on Occupational Safety and Health

We strive for occupational safety and health as the starting point of business activities on the basis of respect for human life and dignity.

Action Guidelines

- Observe the laws and regulations, and voluntary standards on occupational safety and health.
- Prevent occupational accidents and decrease risks by continuously improving on the management system and performance of occupational safety and health.
- Conduct efforts to increase physical and mental health, and prevent health disabilities of employees.
- Disseminate this policy to all employees, promote awareness by education and enlightenment, and expand the occupational safety and health activities by involving all employees.

Toward Elimination of Occupational Accidents

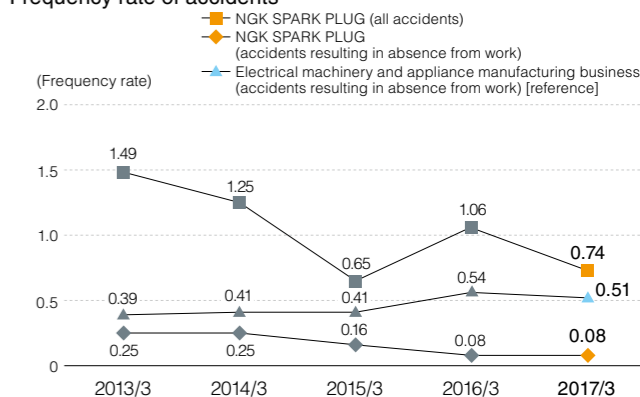
With the aim of eliminating occupational accidents and creating a comfortable and safe work environment, we have built an OHSAS 18001¹-based system for safety manuals and standards and a JISHA OSHMS Standards²-based system for actual operations and activities. We are a JISHA OSHMS Standards-certified business establishment.

In line with the Basic Policy on Occupational Safety and Health, we set the policies, targets and plans for the occupational safety and health activities of our plants. The results of the activities are checked by our internal auditors as well as by the plant safety and health committee and the central safety and health committee. We are thereby working on the step-by-step improvement of our occupational safety and health level.

¹OHSAS 18001: Organizations can show their commitment to occupational health and safety to employees and society by meeting this standard. Although not an ISO standard, it is widely adopted internationally.

²JISHA OSHMS Standards: Standards set by the Japan Industrial Safety & Health Association (JISHA). The certification bodies accredited by JISHA give certification to organizations meeting the standards, which include items specific to Japan, such as KY, hiyari-hatto and 4S activities.

Frequency rate of accidents



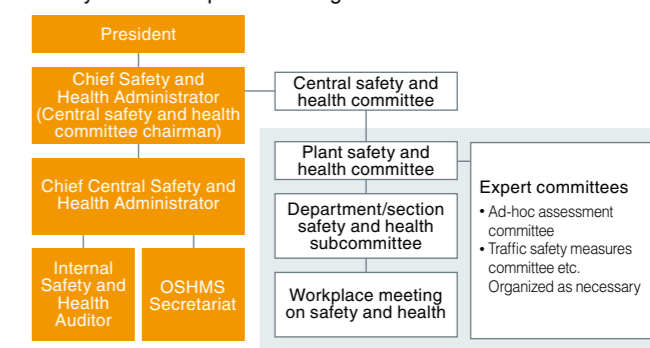
* The frequency rate of accidents of NGK SPARK PLUG includes that of temporary workers.

Occupational Safety and Health Education

We are conducting a range of activities to prevent the occurrence and recurrence of incidents. We are working to build a “safety first” culture from the aspects of people, things and systems.

In the fiscal year ended March 31, 2017, the total number of occupational accidents came to nine (13 in the fiscal year ended March 31, 2016), and the total frequency rate was 0.74. Because four incidents involving temporary workers occurred in the previous fiscal year, we cooperated with the temporary employment agencies to create teaching materials in Japanese, English and Portuguese to reinforce related education. As a result, in the fiscal year ended March 31, 2017, we had no incidents involving temporary workers.

Safety and health promotion organizations



* “Each plant” refers to the Headquarters Plant, Nagoya Plant, Komaki Plant, Miyanojo Plant and Ise Plant.

TOPICS

Receiving High Evaluation for Diversity Promotion and Health-Oriented Management

In 2017 we received an award from the Japanese Minister of Economy, Trade and Industry as one of the New Diversity Management Selection 100 companies. We were also certified as one of the Excellent Enterprises of Health and Productivity Management (“White 500”) and were designated to be one of the “Semi-Nadeshiko Brands,” The Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange jointly grant this designation to companies that are outstanding in terms of the empowerment of women and announce their names. We are thus rated highly for our diversity promotion measures and health-oriented management.





Our ESG Approach: Social Social Contribution

Basic Philosophy

The NGK SPARK PLUG Group has established sites in every region of the world. We hold respect for local culture and customs, and engage in smooth communication with local communities. As members of those communities, we aim to work together in building a comfortable society, while striving to participate in regional development, environmental preservation, and other activities that contribute to society.

Social Contribution Policy

As a good corporate citizen, we at the NGK SPARK PLUG Group aim to contribute to society through the effective use of management resources.

Action Guidelines

- We focus on the following activities:
 - Activities closely related to our business fields and also to local communities
 - Activities that respect the cultures of individual countries and local communities, as well as activities that contribute to society such as traffic safety education programs
 - Activities that contribute to the next-generation society, focusing on environmental conservation, science, and education, as well as cultures to be bequeathed to the next generation, etc.
- We strive to create a corporate culture that encourages executives and employees to participate together in social contribution activities as social citizens. We also respect and support their active involvement in society.

Social Contribution Activities in Japan

[Naming rights and musical event for families]

We have been a naming rights partner for the municipal hall in Nagoya since 2012 and have been holding a free family musical event in the hall, named "NTK Hall," since 2013.

We invite about 3,000 people to the performance, including families who suffered damage in the Great East Japan Earthquake as well as children from elementary schools, kindergartens and care facilities in Aichi Prefecture.



Theater Company HIKOSEN

[FC Gifu]

NGK SPARK PLUG now has three subsidiaries in Gifu Prefecture and is the top sponsor of FC Gifu, a J2 League football team based in the prefecture. We provide this sponsorship as a means of contributing to the revitalization of our local communities and to express our gratitude for the tremendous way in which these communities support our daily operations.



[Marathon festival]

We participated in the Marathon Festival Nagoya Aichi 2017 as a sponsor with its head office in Nagoya City. During the festival period, we gave a demonstration of our oxygen concentrator in our booth, and our employees also participated in the race as runners. We thus proactively supported the organization of this exciting local event.



Social Contribution Activities of Our Sites Worldwide

● NGK Spark Plugs (U.S.A.), Inc.

[Supporting a local firefighting team]

The company provides space for the local firefighting team to perform practical drills within the premises of its plant.



● Ceramica e Velas de Ignicao NGK do Brasil

[Supporting a running event]

The company supported the organization of a local running and walking event aimed at health promotion. About 3,000 people, including its employees, participated in the event and interacted with each other.



● Bujias NGK de Mexico S.A. de C.V.

[Donation of wheelchairs]

Metal rings collected from employees were sold through a charity organization and the proceeds were used to donate wheelchairs to those in need.



● NGK Spark Plugs (UK) Ltd.

[Participation in a charity event]

Female employees participated in a charity event (Race for Life) to raise funds for an organization supporting breast cancer patients.



● NGK Spark Plugs (Vietnam) Co., Ltd.

[Beach cleanup activity]

Employees conducted a beach cleanup activity for environmental protection. The activity attracted the attention of locals and helped raise their environmental awareness.



● Woojin Industry Co., Ltd.

[Donating umbrellas to elementary school students]

The company donates transparent umbrellas with high frontal visibility to elementary schools as a means of protecting students from traffic accidents.





Basic Philosophy

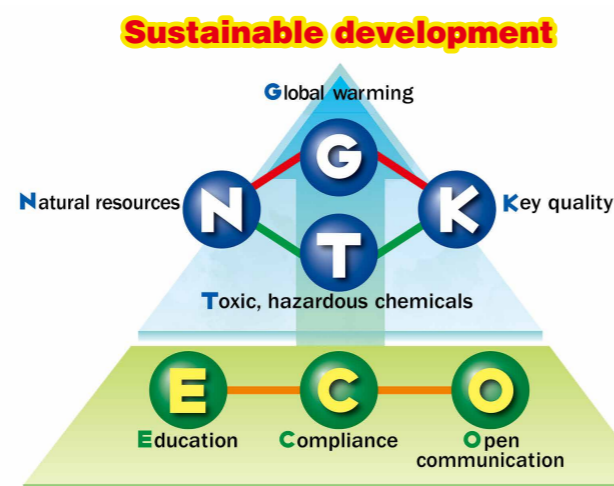
Environmental issues are a common challenge for all mankind. Every member of the NGK SPARK PLUG Group will work towards reducing environmental burdens from our business activities as much as possible and developing and providing products and technologies that contribute to improving the environment. We will also endeavor to communicate in greater depth with our stakeholders including our local communities so that we may all work together to contribute to creating a sustainable society.

<p>Environmental Policy</p>	<p>As a globally developing core manufacturing corporation, we are aiming to simultaneously realize environmental preservation and corporate growth, based on the participation of all our employees, in order to contribute to the construction of a sustainable society.</p>
<p>Action Guidelines</p>	<ul style="list-style-type: none"> ● We strive to utilize our unique technology to develop and offer environment-friendly products. ● Through all of our business activities, we make particular efforts to prevent global warming, make efficient use of resources, and control chemical substances, in order to conserve the environment. ● We strive to raise awareness of the environment among our employees to ensure that they all make positive efforts to conserve the environment. ● We observe the laws, ordinances, and agreements concerning environmental conservation. ● We aim to substantiate our information disclosure and communication activities, and also carry out environmental contribution activities aimed at coexistence with the regional community. ● In order to achieve these targets, we will strive to make ongoing improvements to our environmental management system.

Formulating Global Eco Vision 2020 and Launching Activities

In our activities for environmental conservation, we set medium-term environmental targets. From the fiscal year ended March 31, 2017, we have drawn up a vision for our company and launched activities under Global Eco Vision 2020.

We set four important environmental tasks, “Natural resources,” “Global warming,” “Toxic, hazardous chemicals” and “Key quality (development of environment-friendly products),” under Global Eco Vision 2020. By tackling these tasks through our business activities and on a foundation of legal compliance, communication, and raising consciousness of the environment we will work to enhance our manufacturing power, increase our brand value, and contribute to not only the sustainable development of our company, but of society, also.



Environmental Burdens from Business Activities

INPUT		Scope covered ^{*1}		
		NGK SPARK PLUG	Group companies in Japan ^{*2}	Overseas subsidiaries ^{*3}
Raw materials	Ceramic and metal materials Ceramic and metal materials purchased	○	○	○
	50,000 tons			
Energy	Electricity Used in offices and plants	○	○	○
	439.60 million kWh			
	City gas Used in offices and plants	○	○	○
	18.13 million m ³			
	LPG Used in offices and plants and for testing, travel and transportation	○	○	○
	7,700 tons			
Other fuels Used in offices and plants and for testing, travel and transportation	2,007 kL (crude oil equivalent)	○	○	○
	350,000 kWh			
	Renewable energy Generated by solar power generators and small hydroelectric generators	○	○	○
Water	Tap water, well water Tap water and groundwater used	○	○	○
	1.67 million m ³			
Chemical substances	PRTR Handled and notified by sites	○	○	
	909 tons			
Logistics	Fuels used for transportation (outsourced) Fuels used for transportation by trucks, ships, and aircraft	○	○	
	985 kL (crude oil equivalent)			

Suppliers

Research, Design, Manufacturing, Sales

Products

Logistics

Customers

OUTPUT		Scope covered ^{*1}		
		NGK SPARK PLUG	Group companies in Japan ^{*2}	Overseas subsidiaries ^{*3}
Output into waters	Wastewater Released into sewerage systems and public waters; output from sites not equipped with water meters was deemed to be equivalent to the total volume of water consumed.	○	○	○
	1.49 million m ³			
Chemical substances (PRTR) Released into waters and notified by sites	1 ton	○	○	
Output into air	CO ₂ from energy use CO ₂ emissions due to electricity and city gas consumption	○	○	○
	310,000 tons-CO ₂			
	Other GHG emissions GHG emissions calculated on the basis of activities at sites, excluding CO ₂ emitted from energy use	○	○	
	532 tons-CO ₂			
Chemical substances (PRTR) Released into air and notified by sites	140 tons	○	○	
Waste	Waste generated (and treated on commission)			
	Total: 19,758 tons			
	Waste recycled (including waste sold)	○	○	○
Sent to landfill or incinerated	18,159 tons			
	1,599 tons			
Logistics	CO ₂ emitted by external transporters CO ₂ emissions due to externally commissioned transportation	○	○	
	2,623 tons-CO ₂			

Product shipment

Customers

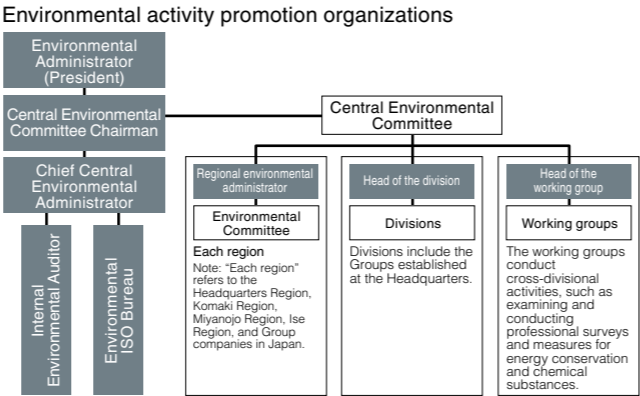
*1 For each INPUT and OUTPUT amount, companies included in the scope of reporting are indicated with O.

*2 Group companies in Japan: Nittoku Alpha Service Co., Ltd., Nittoku Unyu Co., Ltd., Ceramic Sensor Co., Ltd., NTK Ceramic Co. Ltd., CS Nakatsugawa Co., Ltd., Nansei Ceramic Co., Ltd., Kamioka Ceramic Co., Ltd., Spark Tec WKS Co., Ltd. (excluding the main factory in Okusa), Nichiwa Kiki Co., Ltd., Spark Tech Tono Co., Ltd., which are inside the scope of integrated ISO 14001 certification; and Nittoku Denshi Co., Ltd., NTK Ceratec Co., Ltd., as well as the main factory of Spark Tec WKS Co., Ltd. in Okusa, which are outside the scope of the integrated certification

*3 "Overseas subsidiaries" refers to the following manufacturing and sales organizations: NGK Spark Plug (Shanghai) Co., Ltd., Changshu NGK Spark Plug Co., Ltd., Wooton Industry Co., Ltd., NTK Technical Ceramics Korea Co., Ltd., NGK Spark Plugs (Thailand) Co., Ltd., Siam NGK Spark Plug Co., Ltd., NGK SPARK PLUGS (ASIA) CO., LTD., NGK Plugs Malaysia Berhad, PT NGK Busi Indonesia, NGK Spark Plugs (India) Pvt. Ltd., NGK Spark Plugs (U.S.A.), Inc., Wells Vehicle Electronics, L.P., Ceramica e Velas de Ignicao NGK do Brasil Ltda., NGK Spark Plugs (France) S.A.S., NGK Spark Plugs SA (Pty) Ltd., and to the following sales organizations: Taiwan NGK Spark Plugs Co., Ltd., NGK Spark Plugs (Vietnam) Co., Ltd., GNK Spark Plugs (Philippines), Inc., NGK Spark Plug (Australia) Pty. Ltd., NTK Technologies, Inc., NGK Spark Plugs Canada Limited, Bujias NGK de Mexico S.A. de C.V., Bujias NGK del Ecuador Cia. Ltda, NGK Spark Plug Europe GmbH, NGK Spark Plugs (UK) Ltd., LLC NGK Spark Plugs (Eurasia), and NGK Spark Plug Middle East FZE.

Environmental Management

To conduct environmental conservation activities in a systematic and effective manner, we established an environmental management system in line with the environmental policy shared across the Group. Under this system all Group employees are working to achieve the Eco Vision. Regarding individual activities, progress toward goals and problems are checked through inter audits to facilitate continuous improvement at the meetings of the Central Environmental Committee, which is attended by the president and other directors, heads of the divisions, environmental administrators of each region, and the heads of the working groups.



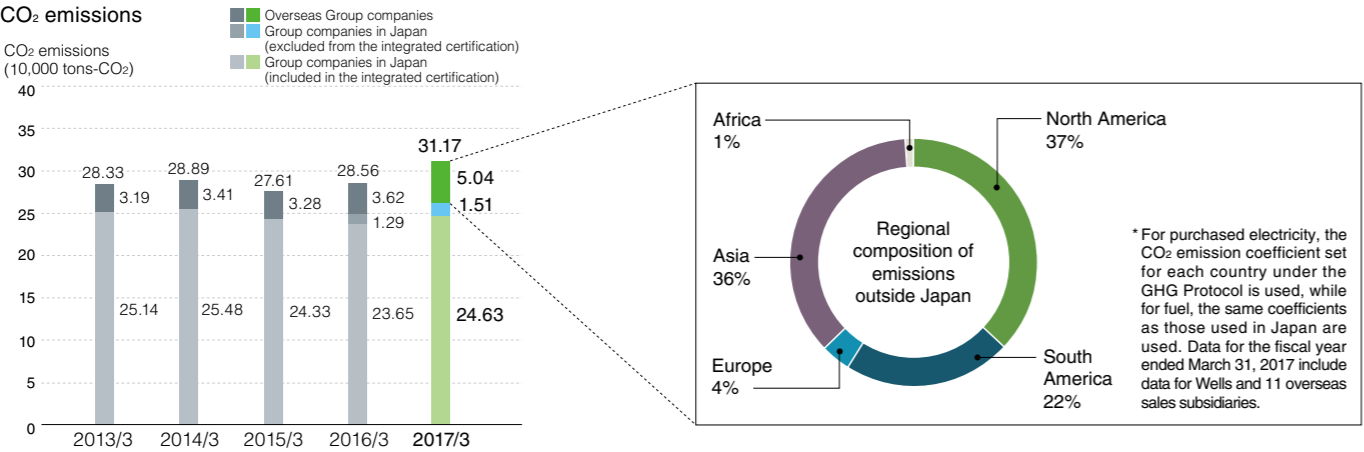
Environmental action plan

Major item	Minor item	Target for the fiscal year ending March 31, 2021	Result for the fiscal year ended March 31, 2017
Global warming	Production	Reduce per-unit CO ₂ emissions by 5% relative to the fiscal year ended March 31, 2016 (Average yearly reduction of 1%)	Target: Reduce per-unit CO ₂ emissions by 1% relative to the fiscal year ended March 31, 2016 Result: Reduced the emissions by 3.3% relative to the fiscal year ended March 31, 2016 Conducted cross-departmental energy conservation activities under the leadership of the energy conservation working group.
	Logistics	Increase efficiency for logistics	Increased the efficiency of transportation between plants
Depletion of resources	Waste	Reduce defective products to reduce waste	Reduced waste through measures taken as part of core business activities, including increasing product yield
		Design products in consideration of waste reduction	Made environmental impact assessments in consideration of product life cycle at the design stage
	Water	Use water more efficiently	Reduced water use by remodeling equipment and reviewing operational methods
	Raw materials	Design products in consideration of the saving of raw materials	Made environmental impact assessments in consideration of the product life cycle at the design stage
Environment-friendly products	—	Build an environment-friendly product certification system and expand the lineup of such products	Created an environment-friendly product certification system and partially implemented it on a trial basis
Hazardous chemical substances	—	Ensure compliance with ELV, RoHS, REACH and other regulations	Shared regulatory information across departments and made necessary responses to the regulations under the leadership of the chemical substances management working group
	—	Foster the replacement of substances of concern with substitutes	Replaced phthalic acid, whose use will be prohibited by RoHS in 2019, with a substitute
	—	Totally discontinue the use of HCFCs	Fostered a planned update of HCFC refilling equipment

Reducing CO₂ Emissions

We are working to reduce our CO₂ emissions under Global Eco Vision 2020 to contribute to the mitigation of climate change, which poses threat to a sustainable society. In Global Eco Vision 2020, we set the target for per-unit CO₂ emissions to be achieved in the fiscal year ending

March 31, 2021, and to attain this target we are implementing measures to manage energy use in a more detailed manner and reduce the power used by air conditioners with a focus on ventilation in our buildings.



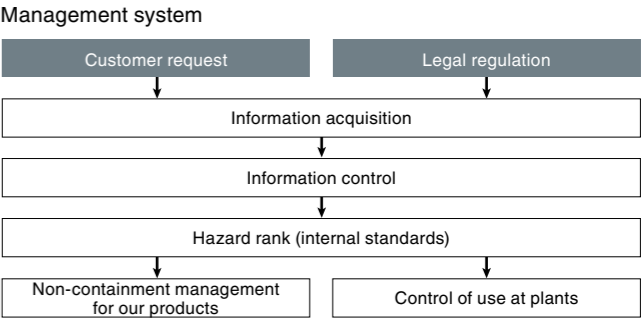
Biodiversity

The NGK SPARK PLUG Group deems biodiversity an environmental theme that is as important as the recycling of resources and mitigation of global warming. Accordingly, in April 2013, we established the NGK SPARK PLUG Group Biodiversity Action Guidelines to explain our approach to biodiversity. Based on the guidelines, and with the recognition that our activities such as the use of energy and resources have an impact on biodiversity, we will work to reduce that impact in cooperation with suppliers and external organizations.

[Major initiatives]	
1. Basic policy	We will comply with biodiversity-related laws, regulations and others.
2. Sites	When establishing, expanding or closing our sites, we will give due consideration to its impact on ecosystems and will work to reduce energy and resource use and emissions of substances of concerns as well as noise and vibrations throughout the course of our business activities.
3. Products	We will develop and release products that contribute to energy and resource conservation and the reduction of emissions of substances of concern, while also giving due consideration to their recyclability.
4. Procurement	We will foster green procurement in consideration of biodiversity and seek the understanding and cooperation of suppliers regarding biodiversity.
5. Awareness	We will raise our employees' awareness of biodiversity and empower them to conduct biodiversity conservation activities on an ongoing basis.

Handling of Hazardous Chemical Substances within the Group

Regulations on chemical substances are becoming stricter worldwide. In response, we appropriately perform non-containment management for our products and usage management within plants. For hazardous chemical substances, we categorize them into different hazard ranks according to their toxicity and the strictness of the related regulations, and handle them based on the criteria set for each of the ranks. We will continue to expand the use of substitutes for hazardous chemical substances and enhance their management to ensure compliance with the relevant laws and regulations and to meet customers' related requests without fail.



Hazard rank

	Handling standard	Substances in the rank
Prohibited	Use is prohibited.	Substances whose use is prohibited or strictly regulated by laws and regulations
Restricted	Make a plan to use a substitute to reduce the use	Substances that are as hazardous as the prohibited substances but cannot be immediately replaced due to their special properties
Monitored	Check for use in materials purchased for products	Substances whose use is not prohibited or restricted but the use of which in products (or not) needs to be checked

TOPICS

Aichi Environmental Award 2017

As exhaust gas regulations are being made stricter around the world, the fuel efficiency of automobiles needs to be increased based on the understanding and control of variants, such as vibrations and oxygen concentrations in exhaust gas. NGK SPARK PLUG develops and manufactures a range of sensors that detect changes in the automobile's status and accurately communicate them to the control system. In recognition of our contributions via these sensors to the reduction of environmental impacts, including through higher fuel efficiency, reduction of CO₂ emissions, and cleaner exhaust gas, we received the gold prize—the highest prize in the Aichi Environmental Award 2017.

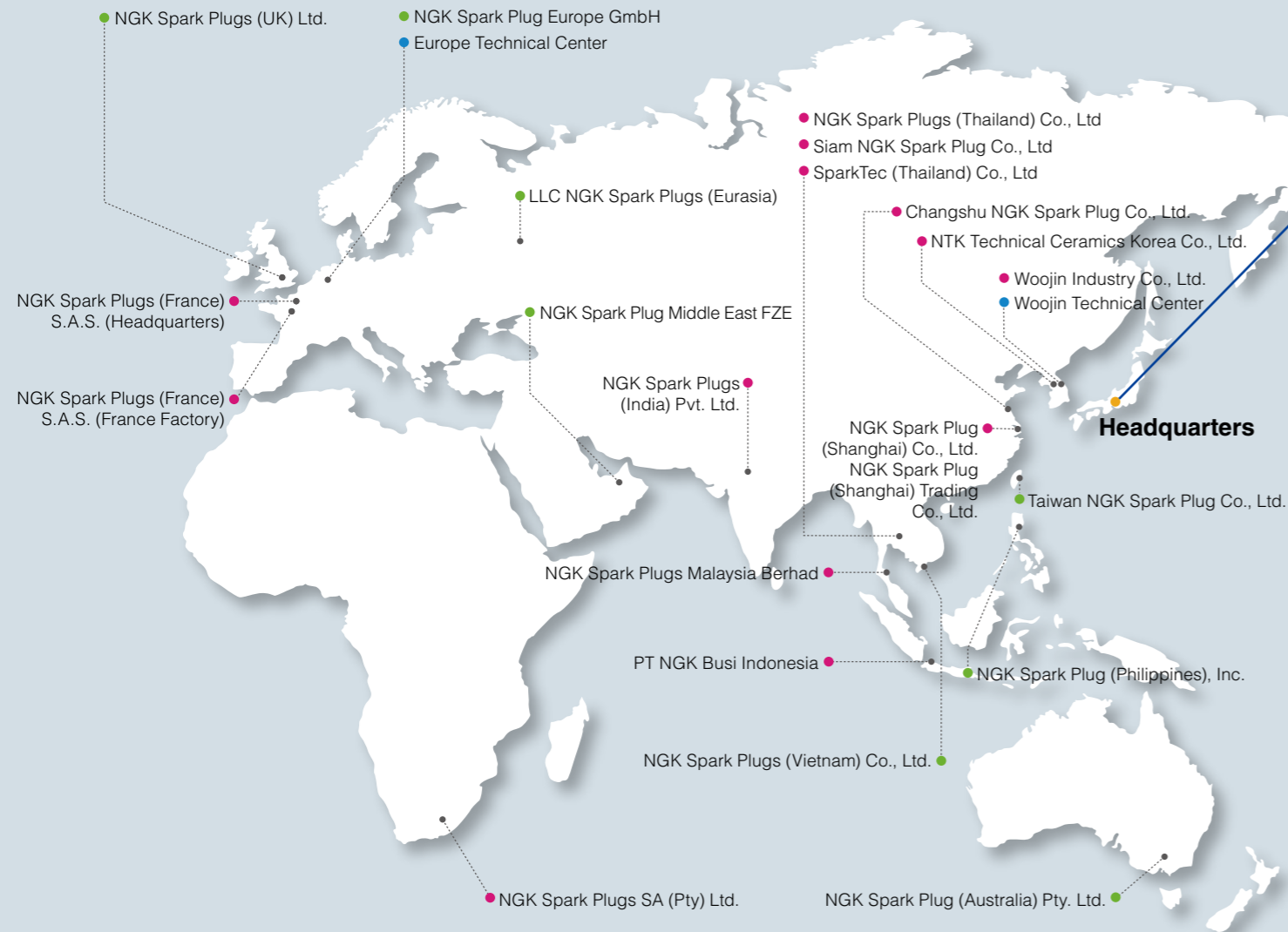


Global and Domestic Networks

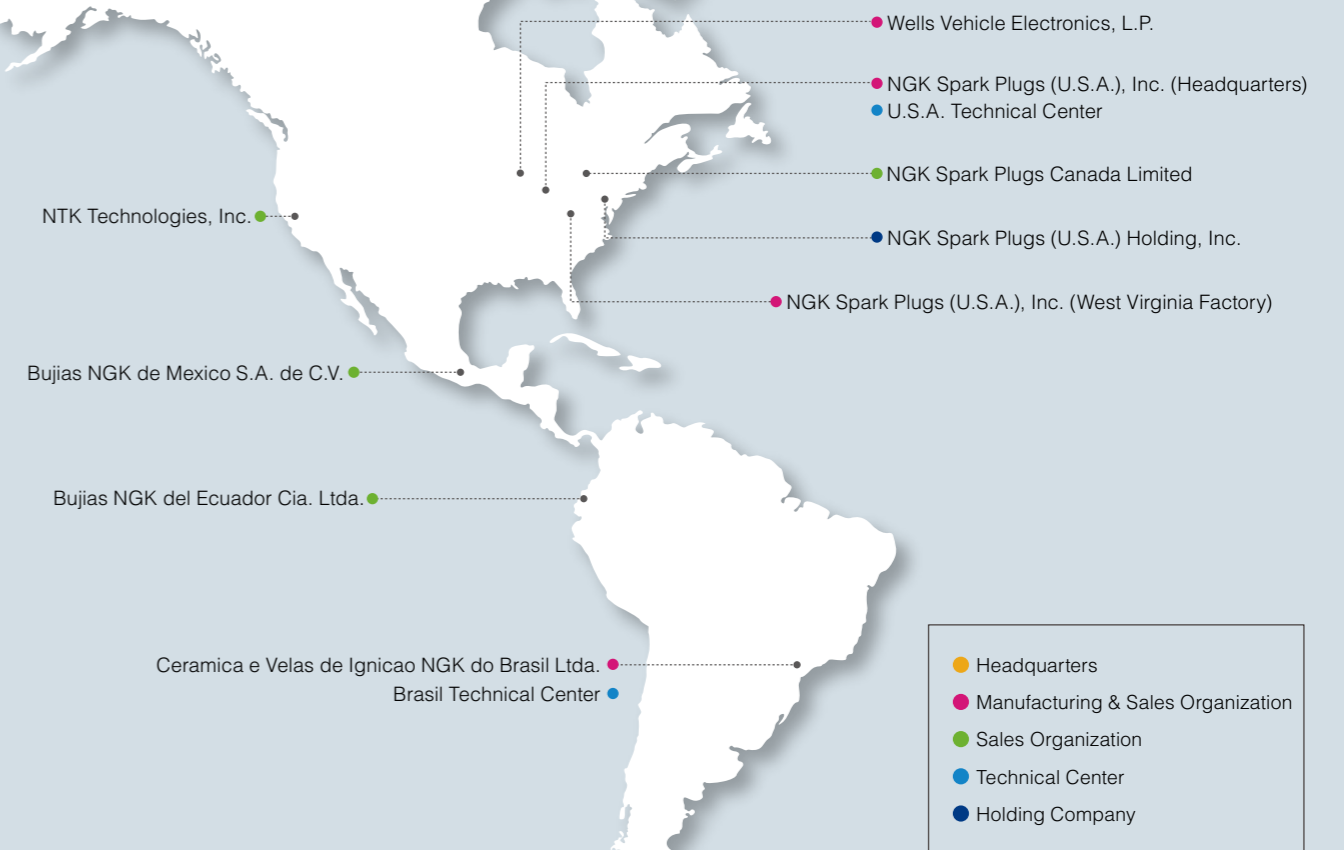
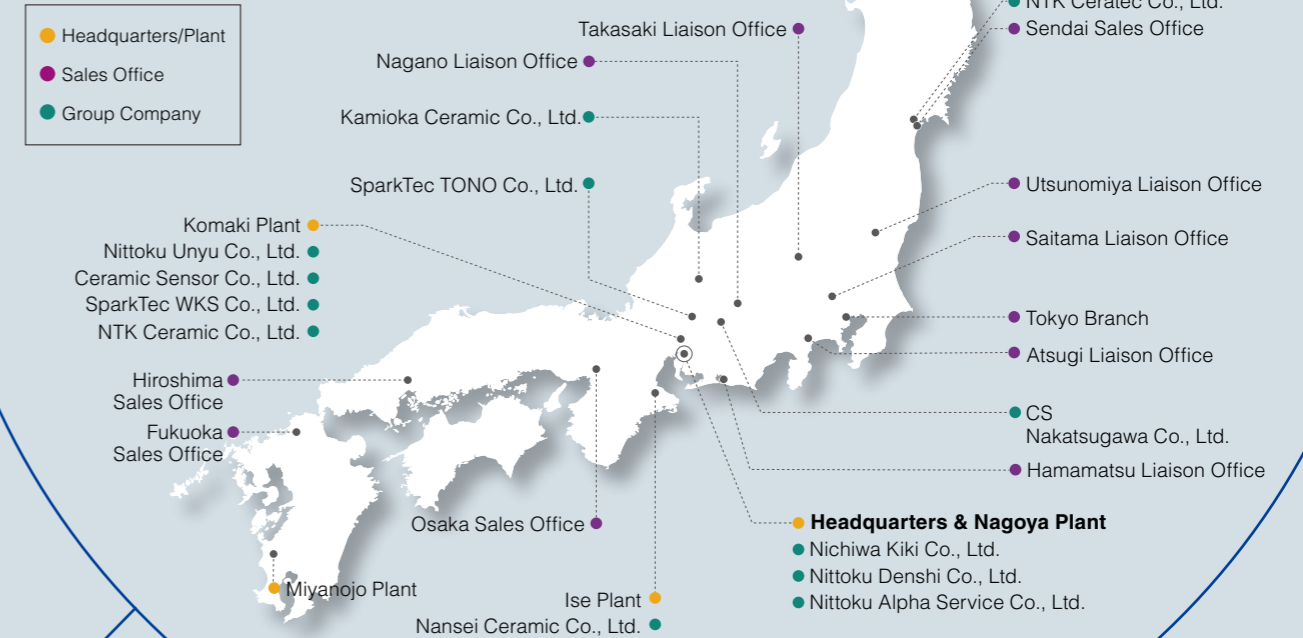
We are responding to worldwide needs by the NGK SPARK PLUG GROUP's global network, mobilizing our resources.

NGK SPARK PLUG CO., LTD. has built a production system in collaboration with local subsidiaries around the world and is providing top-quality products that meet the same high standard from anywhere around the world. It is also getting its production and sales network up to full speed in BRICs and other emerging markets.

Global Network



Domestic Network



Analysis of Consolidated Financial Results for the Fiscal Year Ended March 31, 2017

1. Overview of Results

Looking at the global economy in the fiscal year ended March 31, 2017, there was no change in the composition supporting public investment in China. However, in exports, there was a growth trend, particularly in the U.S., with signs of bottoming out. Also in the U.S., there was an improvement in the domestic and overseas business environment, with market sentiment in the manufacturing industry recovering and a rally in capital investments. Furthermore, stocks continued to climb due to anticipation for the Trump administration's economic policies, forming a strong base for consumer spending. While the manufacturing industry in Europe also saw an upswing, sluggish wages and rising prices were major factors effecting consumer spending. Also, anxieties over the political situation of the region caused uncertainty for the future. Turning to the Japanese economy, the manufacturing industry saw a recovery in exports, market sentiment improved amidst high stock prices and good business results, and an increase in public works drove non-manufacturing industries, causing a consumption-related recovery.

In the Company's main business field of the automotive

industry, automobile sales were favorable particularly in the China and Europe markets, while there was a decrease in sales in the U.S. compared to the previous fiscal year. On the other hand, sales were strong in Japan during the second half of the fiscal year, with sales for the entire fiscal year exceeding those in the previous fiscal year.

In the semiconductor industry, Chinese manufacturers made rapid progress, particularly in the smartphone market.

Looking at the NGK SPARK PLUG Group's results for the fiscal year under review, consolidated net sales decreased 2.7% year on year to ¥372,919 million, operating income declined 19.1% year on year to ¥53,595 million, and ordinary income dropped 13.8% year on year to ¥55,559 million. Profit attributable to owners of the parent decreased 16.9% year on year to ¥25,602 million, impacted by a ¥20,187 million impairment loss on the goodwill and other assets of Wells, which we acquired in the previous year. Major changes in the management environment triggered the loss, which was recorded as an extraordinary loss in the Automotive Components Group.

2. Capital Expenditures

Capital expenditures for the fiscal year ended March 31, 2017, amounted to ¥36,328 million. The breakdown in spending is ¥27,577 million for the Automotive Components Group, and in the Technical Ceramics Group, ¥2,364 million for the Semiconductors

Business and ¥6,383 million in the Ceramics Business. Our forecast for capital expenditures in the next fiscal year (April 1, 2017–March 31, 2018) is ¥48.4 billion.

3. R&D

R&D expenses in the fiscal year under review totaled ¥23,416 million, which included expenses related to improvements of existing products and applied research. The “research and

development cost” pursuant to the “Accounting Standard for Research and Development Cost” (Business Accounting Council) amounted to ¥4,089 million.

4. Financial Policy

NGK SPARK PLUG Group's financial policy is to secure working capital to underpin smooth business operations and to systematically prepare for medium- to long-term funding needs enabling flexible capital expenditures in the future, in order to support stable management and the ability to respond to changing circumstances. For this purpose, as well as retention and management of current funds in accordance with financial planning, we are implementing ongoing measures to enhance the efficiency of receivables, payables and inventories. At the same time, in order to reduce investment risks, the Group is focusing on internal rules, such as management regulations, as well as the Investment Committee and other organizations. To satisfy short-term funding requirements, the Group uses indirect financing, in addition to internal reserves. For medium- to long-term funding

needs, the Group engages in direct financing from financial markets through the issuance of corporate bonds, etc.

Total assets were ¥563,801 million, an increase of ¥37,698 million or 7.2% from the end of the previous fiscal year, while total liabilities came to ¥209,091 million, up ¥24,032 million or 13.0% from the end of the previous fiscal year.

Net assets totaled ¥354,710 million, an increase of ¥13,665 million or 4.0% from the end of the previous fiscal year. Retained earnings increased ¥16,546 million, and accumulated other comprehensive income rose ¥6,889 million, while we acquired approximately ¥10 billion in treasury stock. As a result, net assets per share amounted to ¥1,660.06, compared with ¥1,557.16 at the end of the previous fiscal year.

5. Cash Flows

Cash and cash equivalents at the end of the fiscal year under review totaled ¥65,817 million, excluding the effect of exchange rate changes on cash and cash equivalents amounting to ¥1,147 million, having decreased ¥5,338 million from the end of the previous fiscal year.

Cash Flows from Operating Activities

Net cash provided by operating activities was ¥49,764 million, having decreased ¥6.7 billion from the previous fiscal year. The decline was largely attributable to a decrease in profit before income taxes.

Cash Flows from Investing Activities

Net cash used in investing activities amounted to ¥53,410 million, having increased ¥28,920 million from the previous fiscal year. This increase was mainly attributable to expenditures for the purchase of shares of subsidiaries resulting in a change in the scope of consolidation in the previous fiscal year.

Cash Flows from Financing Activities

Net cash used in financing activities amounted to ¥544 million, compared to net cash provided by financing activities of ¥25,121 million in the previous fiscal year. The main factors were a decrease in financing by borrowing and the issuance of corporate bonds as well as the acquisition of treasury stock.

6. Dividend Policy

NGK SPARK PLUG regards returning profits to shareholders as one of its most important management policies and will continue to meet the expectations of shareholders under the basic policy of continuing to pay stable dividends. We also think it is important to provide shareholders with returns in line with earnings. While aiming for a consolidated dividend payout ratio of at least 30%, we decide the amount of dividends by comprehensively taking into consideration the basic policy of paying stable dividends and of setting aside sufficient internal reserves for R&D, capital expenditures for business expansion and for rationalization of operations as well as investments, which are essential to future

growth. We intend to maintain payments of an interim dividend and a year-end dividend. NGK SPARK PLUG recognizes the effectiveness of share buybacks for enhancing capital efficiency and intends to repurchase its shares, as necessary.

In order to ensure flexibility in returning profits to shareholders, the Company's Articles of Incorporation specify dividends from surplus as a matter requiring a resolution of the board of directors. The Company paid dividends per share of ¥42.0 for the fiscal year ended March 31, 2017, consisting of an interim dividend of ¥21.0 and a year-end dividend of ¥21.0.

Consolidated Balance Sheets

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries
March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Assets			
Current assets			
Cash and deposits (Notes 7 and 9)	¥ 45,733	¥ 37,984	\$ 408,330
Notes and accounts receivable - trade (Note 9)	91,594	74,942	817,804
Short-term investment securities (Notes 9 and 10)	57,210	59,548	510,804
Inventories (Note 3)	86,857	82,122	775,509
Deferred tax assets (Note 13)	11,023	12,080	98,420
Other	14,614	12,040	130,482
Allowance for doubtful accounts	(463)	(406)	(4,134)
Total current assets	306,570	278,313	2,737,232
Noncurrent assets			
Property, plant and equipment			
Buildings and structures, net	62,400	58,443	557,143
Machinery, equipment and vehicles, net	86,358	73,286	771,054
Land	19,659	19,764	175,527
Construction in progress	9,726	13,393	86,839
Other, net	3,156	3,586	28,179
Total property, plant and equipment (Note 3)	181,302	168,473	1,618,768
Intangible assets			
Goodwill (Note 16)	460	9,372	4,107
Software	4,005	3,554	35,759
Other	234	10,498	2,089
Total intangible assets	4,701	23,426	41,973
Investments and other assets			
Investment securities (Notes 3, 9 and 10)	68,252	53,064	609,393
Deferred tax assets (Note 13)	1,496	987	13,357
Other	2,000	1,966	17,857
Allowance for doubtful accounts	(523)	(127)	(4,670)
Total investments and other assets	71,226	55,890	635,946
Total noncurrent assets	257,230	247,790	2,296,696
Total assets	¥563,801	¥526,103	\$5,033,938

See accompanying Notes to Consolidated Financial Statements.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Liabilities			
Current liabilities			
Accounts payable - trade (Note 9)	¥ 30,045	¥ 28,049	\$ 268,259
Short-term loans payable (Notes 9 and 20)	11,259	11	100,527
Lease obligations (Note 20)	87	174	777
Income taxes payable	7,697	2,038	68,723
Other	36,486	36,062	325,768
Total current liabilities	85,577	66,335	764,080
Noncurrent liabilities			
Bonds payable (Notes 9 and 20)	55,000	55,000	491,071
Long-term loans payable (Notes 9 and 20)	32,848	24,859	293,286
Lease obligations (Note 20)	80	167	714
Net defined benefit liability (Note 12)	29,263	32,185	261,277
Deferred tax liabilities (Note 13)	5,324	5,325	47,536
Other	998	1,185	8,911
Total noncurrent liabilities	123,514	118,723	1,102,804
Total liabilities	209,091	185,058	1,866,884
Net assets			
Shareholders' equity			
Common stock	47,869	47,869	427,402
Capital surplus	54,825	54,824	489,509
Retained earnings	262,010	245,463	2,339,375
Treasury stock	(17,649)	(7,647)	(157,580)
Total shareholders' equity	347,056	340,510	3,098,714
Accumulated other comprehensive income			
Net unrealized gains on available-for-sale securities	27,580	22,733	246,250
Foreign currency translation adjustments	(16,527)	(15,640)	(147,563)
Remeasurements of defined benefit plans (Note 12)	(5,804)	(8,734)	(51,821)
Total accumulated other comprehensive income	5,249	(1,640)	46,866
Noncontrolling interests	2,404	2,174	21,464
Total net assets	354,710	341,044	3,167,054
Total liabilities and net assets	¥563,801	¥526,103	\$5,033,938

Consolidated Statements of Income

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries
For the Years Ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Net sales (Note 16)	¥372,919	¥383,272	\$3,329,634
Cost of sales (Note 4)	250,017	246,774	2,232,295
Gross profit	122,901	136,497	1,097,330
Selling, general and administrative expenses			
Selling expenses	25,252	25,076	225,464
General and administrative expenses	44,053	45,137	393,330
Total selling, general and administrative expenses (Notes 4 and 12)	69,306	70,213	618,804
Operating income (Note 16)	53,595	66,284	478,527
Nonoperating income			
Interest income	1,157	1,382	10,330
Dividend income	1,422	1,265	12,696
Equity in earnings of associates	604	–	5,393
Other	1,815	1,934	16,205
Total nonoperating income	4,999	4,582	44,634
Nonoperating expenses			
Interest expense	342	343	3,054
Equity in losses of associates	–	65	–
Foreign exchange loss	963	4,575	8,598
Contribution	311	33	2,777
Depreciation of idle property, plant and equipment	201	214	1,795
Other	1,217	1,151	10,866
Total nonoperating expenses	3,036	6,383	27,107
Ordinary income	55,559	64,483	496,063
Extraordinary income			
Gain on sale of noncurrent assets (Note 4)	487	494	4,348
Total extraordinary income	487	494	4,348
Extraordinary loss			
Loss on sale or disposal of noncurrent assets (Note 4)	773	1,306	6,902
Impairment loss (Note 4)	20,187	2,427	180,241
Loss on valuation of investment securities	74	–	661
Loss on sale of shares of associates	–	1,788	–
Loss on violation of antitrust law	77	856	688
Settlement package	99	14,837	884
Total extraordinary loss	21,212	21,216	189,393
Profit before income taxes	34,833	43,761	311,009
Income taxes - current	11,434	10,543	102,089
Income taxes - deferred	(2,598)	2,098	(23,196)
Total income taxes (Note 13)	8,836	12,642	78,893
Profit	25,997	31,119	232,116
Profit attributable to:			
Noncontrolling interests	394	304	3,518
Owners of the parent	¥ 25,602	¥ 30,815	\$ 228,589

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries
For the Years Ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Profit	¥25,997	¥ 31,119	\$232,116
Other comprehensive income:			
Unrealized gains (losses) on available-for-sale securities	4,837	(7,527)	43,188
Foreign currency translation adjustments	(1,007)	(11,480)	(8,991)
Remeasurements of defined benefit plans (Note 12)	2,928	(5,236)	26,143
Share of other comprehensive income of associates accounted for using equity method	113	(531)	1,009
Total other comprehensive income (Note 5)	6,872	(24,776)	61,357
Comprehensive income	¥32,870	¥ 6,343	\$293,482
Comprehensive income attributable to:			
Owners of the parent	¥32,492	¥ 6,392	\$290,107
Noncontrolling interests	377	(48)	3,366

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statements of Changes in Net Assets

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries
For the Years Ended March 31, 2017 and 2016

	Shareholders' equity					Accumulated other comprehensive income					
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity	Net unrealized gains on available-for-sale securities	Foreign currency translation adjustments	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Noncontrolling interests	Total net assets
Millions of yen											
Balance at April 1, 2015	¥47,869	¥54,824	¥223,135	¥ (7,640)	¥318,189	¥30,297	¥ (4,017)	¥(3,496)	¥22,782	¥2,407	¥343,380
Changes during the fiscal year											
Dividends of surplus			(8,487)		(8,487)						(8,487)
Profit attributable to owners of the parent			30,815		30,815						30,815
Purchase of treasury stock				(7)	(7)						(7)
Disposal of treasury stock		0		0	0						0
Net changes in items other than shareholders' equity						(7,563)	(11,622)	(5,237)	(24,423)	(233)	(24,656)
Total changes in items during the period	—	0	22,327	(7)	22,321	(7,563)	(11,622)	(5,237)	(24,423)	(233)	(2,335)
Balance at March 31, 2016	47,869	54,824	245,463	(7,647)	340,510	22,733	(15,640)	(8,734)	(1,640)	2,174	341,044
Changes during the fiscal year											
Dividends of surplus			(9,055)		(9,055)						(9,055)
Profit attributable to owners of the parent			25,602		25,602						25,602
Purchase of treasury stock				(10,001)	(10,001)						(10,001)
Disposal of treasury stock		0		0	0						0
Net changes in items other than shareholders' equity						4,846	(887)	2,930	6,889	230	7,120
Total changes in items during the period	—	0	16,546	(10,001)	6,545	4,846	(887)	2,930	6,889	230	13,665
Balance at March 31, 2017	¥47,869	¥54,825	¥262,010	¥(17,649)	¥347,056	¥27,580	¥(16,527)	¥(5,804)	¥ 5,249	¥2,404	¥354,710
Thousands of U.S. dollars											
Balance at March 31, 2016	\$427,402	\$489,500	\$2,191,634	\$ (68,277)	\$3,040,268	\$202,973	\$(139,643)	\$(77,982)	\$(14,643)	\$ 19,411	\$3,045,036
Changes during the fiscal year											
Dividends of surplus			(80,848)		(80,848)						(80,848)
Profit attributable to owners of the parent			228,589		228,589						228,589
Purchase of treasury stock				(89,295)	(89,295)						(89,295)
Disposal of treasury stock		0		0	0						0
Net changes in items other than shareholders' equity						43,268	(7,920)	26,161	61,509	2,054	63,571
Total changes in items during the period	—	0	147,732	(89,295)	58,438	43,268	(7,920)	26,161	61,509	2,054	122,009
Balance at March 31, 2017	\$427,402	\$489,509	\$2,339,375	\$(157,580)	\$3,098,714	\$246,250	\$(147,563)	\$(51,821)	\$46,866	\$21,464	\$3,167,054

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statements of Cash Flows

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries
For the Years Ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Cash flows from operating activities			
Profit before income taxes	¥ 34,833	¥ 43,761	\$ 311,009
Depreciation and amortization	19,601	16,834	175,009
Impairment loss	20,187	2,427	180,241
Increase (decrease) in net defined benefit liability	1,147	(449)	10,241
Interest and dividend income	(2,579)	(2,648)	(23,027)
Interest expense	342	343	3,054
Equity in (earnings) losses of associates	(604)	65	(5,393)
Loss on disposal of noncurrent assets	286	811	2,554
Loss on valuation of investment securities	74	–	661
Loss on sale of shares of associates	–	1,788	–
Increase in notes and accounts receivable - trade	(17,715)	(1,167)	(158,170)
Increase in inventories	(6,348)	(1,949)	(56,679)
Increase in notes and accounts payable - trade	2,232	5,157	19,929
Other, net	1,950	4,973	17,411
Subtotal	53,408	69,948	476,857
Interest and dividends received	2,336	2,932	20,857
Interest paid	(353)	(306)	(3,152)
Income taxes paid	(5,626)	(16,109)	(50,232)
Net cash provided by operating activities	49,764	56,465	444,321
Cash flows from investing activities			
Net increase in time deposits	(1,009)	(352)	(9,009)
Net increase in short-term investment securities	(8,973)	(8,865)	(80,116)
Purchase of property, plant and equipment	(34,921)	(42,892)	(311,795)
Proceeds from sale of property, plant and equipment	935	1,776	8,348
Purchase of intangible assets	(1,636)	(1,168)	(14,607)
Purchase of investment securities	(8,739)	(1,297)	(78,027)
Proceeds from sale and redemption of investment securities	1,002	7,504	8,946
Purchase of shares of subsidiaries resulting in change in scope of consolidation (Note 2)	–	(37,415)	–
Other, net	(69)	378	(616)
Net cash used in investing activities	(53,410)	(82,331)	(476,875)
Cash flows from financing activities			
Net increase (decrease) in short-term loans payable	10,866	(649)	97,018
Proceeds from long-term loans payable	8,000	19,848	71,429
Repayment of long-term loans payable	(10)	(12)	(89)
Proceeds from issuance of bonds	–	29,859	–
Redemption of bonds	–	(15,000)	–
Purchase of treasury stock	(10,001)	(7)	(89,295)
Cash dividends paid	(9,056)	(8,485)	(80,857)
Other, net	(341)	(430)	(3,045)
Net cash (used in) provided by financing activities	(544)	25,121	(4,857)
Effect of exchange rate changes on cash and cash equivalents	(1,147)	(3,639)	(10,241)
Net decrease in cash and cash equivalents	(5,338)	(4,384)	(47,661)
Cash and cash equivalents at beginning of year	71,155	75,540	635,313
Cash and cash equivalents at end of year (Note 7)	¥ 65,817	¥ 71,155	\$ 587,652

See accompanying Notes to Consolidated Financial Statements.

Notes to Consolidated Financial Statements

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries

1. Basis of Consolidated Financial Statements

The accompanying consolidated financial statements of NGK SPARK PLUG CO., LTD. (the “Company”) and its consolidated subsidiaries (together with the Company, the “NGK Spark Plug Group”) have been prepared in accordance with the provisions set forth in the Financial Instrument and Exchange Law of Japan and its related accounting regulations and in conformity with accounting principles generally accepted in Japan (“Japanese GAAP”), which are different in certain respects as to application and disclosure requirements from International Financial Reporting Standards (“IFRS”).

The accompanying consolidated financial statements are a translation, with some expanded descriptions, from the consolidated financial statements of the Company prepared in accordance with Japanese GAAP and filed with the appropriate Local Finance Bureau of the Ministry of Finance as required by the Financial Instrument and Exchange Law of Japan.

The amounts indicated in millions of yen are rounded down by truncating the figures below one million. Totals may not add up exactly because of such truncation. The translation of the Japanese yen amounts into U.S. dollar amounts is included solely for the convenience of readers outside Japan, using the approximate exchange rate prevailing at March 31, 2017, which was ¥112 to U.S.\$1.00. The translation should not be construed as a representation that the Japanese yen amounts have been, could have been or could in the future be converted into U.S. dollars at this or any other rate of exchange.

Certain comparative figures have been reclassified to conform to the current year’s presentation.

2. Summary of Significant Accounting Policies

(a) Principles of consolidation

The accompanying consolidated financial statements include the accounts of the Company and its significant subsidiaries. Investments in significant unconsolidated subsidiaries and associates are accounted for by the equity method. Investments in unconsolidated subsidiaries and associates not accounted for by the equity method are stated at cost. All intercompany transactions and accounts have been eliminated. The difference between the cost of investments in subsidiaries and the underlying equity in their net assets, adjusted based on the fair value at the time of acquisition, is deferred principally as goodwill and amortized over the estimated useful life, generally 5-10 years, on a straight-line basis.

The number of consolidated subsidiaries and associates accounted for by the equity method for the years ended March 31, 2017 and 2016 was as follows:

	2017	2016
Consolidated subsidiaries:		
Domestic	11	10
Overseas	30	30
Associates accounted for by the equity method	3	2

During the year ended March 31, 2017, NTK Ceramic Co., Ltd. (new N-CERA) and Ceramic Sensor Nakatsugawa Co., Ltd. which were newly established were included in the scope of consolidation. The Company merged former N-CERA as of January 1, 2017.

During the year ended March 31, 2016, Nihon Ceratec Co., Ltd. and Wells Vehicle Electronics Holdings Corp. and its subsidiaries were included in the scope of consolidation due to the acquisition of shares of these companies. In addition, NGK Spark Plug (Shanghai) Trading Co., Ltd. which was newly established was included in the scope of consolidation.

Investments in the remaining unconsolidated subsidiaries

and associated companies are stated at cost. If the equity method of accounting had been applied to the investments in these companies, the effect on the accompanying consolidated financial statements would not have been material.

The major subsidiaries that are not consolidated are Bujias NGK Del Ecuador Cia Ltda., Nittoku Denshi Co., Ltd. and Nittoku Smile Co., Ltd. for the year ended March 31, 2017 and Bujias NGK Del Ecuador Cia Ltda. and Nittoku Denshi Co., Ltd. for the year ended March 31, 2016, respectively.

There were no unconsolidated subsidiaries accounted for by the equity method for all periods presented.

The Company has three (two in 2016) associates accounted for by the equity method, namely, Woo Jin Industry Co., Ltd., Tokai Taima Kogu Co., Ltd. and Japan Medical Dynamic Marketing, INC. for the year ended March 31, 2017, Woo Jin Industry Co., Ltd. and Tokai Taima Kogu Co., Ltd. for the year ended March 31, 2016.

During the year ended March 31, 2017, Japan Medical Dynamic Marketing, Inc. became associates accounted for by the equity method due to the acquisition of their stock.

During the year ended March 31, 2016, Eastern Co., Ltd. was excluded from an associates accounted for by the equity method due to the sale of its all shares.

The major unconsolidated subsidiaries that are not accounted for by the equity method are Bujias NGK Del Ecuador Cia Ltda., Nittoku Denshi Co., Ltd. and Nittoku Smile Co., Ltd. for the year ended March 31, 2017 and Bujias NGK Del Ecuador Cia Ltda. and Nittoku Denshi Co., Ltd. for the year ended March 31, 2016, respectively.

The associate that is not accounted for by the equity method is Hayakawa Seiki Co., Ltd. for all periods presented.

These companies are excluded from the scope of the equity method because their net income (loss), retained earnings, accumulated other comprehensive income and others are immaterial, and the exclusion of these companies from the scope of companies accounted for by the equity method does not hinder a reasonable understanding of the Group's financial position and results of operations.

For the year ended March 31, 2017, the fiscal year-end date of NGK Spark Plug (Shanghai) Co., Ltd., Changshu NGK Spark Plug Co., Ltd., NGK Spark Plug (Shanghai) Trading Co., Ltd., Bujias NGK de Mexico S.A. de C.V., LLC NGK Spark Plugs (Eurasia), Woo Jin Industry Co., Ltd. and two other companies is December 31. However, when preparing the consolidated financial statements, the Company uses the financial statements of the seven consolidated subsidiaries and one associate that have been compiled by a temporary closing of their accounts as of March 31.

(Unification of accounting policies applied to foreign subsidiaries for consolidated financial statements)

The Company has adopted Practical Issues Task Force (“PITF”) No. 18, “Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements,” issued by the Accounting Standards Board of Japan (“ASBJ”). PITF No. 18 requires that accounting policies and procedures applied by a parent company and its subsidiaries to similar transactions and events under similar circumstances should, in principle, be unified for the preparation of the consolidated financial statements. PITF No. 18, however, as a tentative measure, allows a parent company to prepare consolidated financial statements using its foreign subsidiaries’ financial statements prepared in accordance with either IFRS or U.S. generally accepted accounting principles (“U.S. GAAP”). In this case, adjustments for the following four items are required in the consolidation process so that their impact on profit attributable to the owners of the parent is accounted for in accordance

with Japanese GAAP, unless the impact is not material.

- (a) Goodwill not subject to amortization
- (b) Actuarial gains and losses of defined benefit retirement plans recognized outside profit and loss
- (c) Capitalized expenditures for research and development activities
- (d) Fair value measurement of investment properties and revaluation of property, plant and equipment and intangible assets

(Unification of accounting policies applied to associates accounted for using the equity method)

The Company also has adopted ASBJ PITF No. 24, “Practical Solution on Unification of Accounting Policies Applied to Associates Accounted for Using the Equity Method.” PITF No. 24 requires that accounting policies and procedures applied by an investment company and its associates to similar transactions and events under similar circumstances should, in principle, be unified for applying the equity method. PITF No. 24, however, as a tentative measure, allows an investment company to apply the equity method using its foreign associates’ financial statements prepared in accordance with either IFRS or U.S. GAAP. In this case, adjustments for the same four items as PITF No. 18 are required in the consolidation process so that their impact on profit attributable to the owners of the parent is accounted for in accordance with Japanese GAAP, unless the impact is not material.

(b) Cash and cash equivalents

The NGK Spark Plug Group considers highly liquid debt instruments purchased with an original maturity of three months or less, which are readily convertible to known amounts of cash, and therefore present an insignificant risk of changes in value to changes in interest rates, to be cash equivalents.

(c) Investments and marketable securities

The NGK Spark Plug Group classifies certain investments in debt and equity securities as “held-to-maturity,” “trading” or “available-for-sale.” The classification determines the respective accounting method to be applied to the investments as stipulated by the accounting standards for financial instruments. The NGK Spark Plug Group has no securities categorized as trading or held-to-maturity securities. Available-for-sale securities are stated at fair value if such value is available, and net unrealized gain or loss on these securities is reported as a component of accumulated other comprehensive income, net of applicable income taxes. Gains and losses on the disposal of available-for-sale securities are computed by the moving average method. Available-for-sale securities without available fair value are carried at cost determined by the moving average method. Adjustments in the carrying values of individual investment securities are charged to income through write-downs when a decline in value is deemed other than temporary.

(d) Accounting for derivatives

Derivative instruments are valued at fair value if hedge accounting is not appropriate or when there is no hedging designation, and the gains and losses on the derivatives are recognized in current earnings. According to the special treatment permitted by the accounting standard for financial instruments, if interest rate and currency swap contracts are used as hedges and meet certain hedging criteria, the interest rate and currency swap contracts are not remeasured at market price, and the amount to be received under the interest rate and currency swap contracts is added to or deducted from the interest on the liabilities for which the swap

contracts are executed, and the liabilities denominated in foreign currencies for which the interest rate and currency swap contracts are executed are translated at the contracted rate. Measurement of hedge effectiveness is not considered necessary for interest rate and currency swap contracts that meet the requirements for the special treatment.

(e) Inventories

Inventories held for sale in the ordinary course of business are valued at the lower of cost, determined principally by the moving average method, or net realizable value. If net realizable value has fallen below cost as of the end of the period, the cost basis is reduced to net realizable value and regarded as decreased profitability of inventories.

(f) Allowance for doubtful accounts

Allowance for doubtful accounts has been provided for at the aggregate amount of estimated credit losses based on an individual review of certain doubtful or troubled receivables and a general reserve for other receivables based on the historical loss experience of a certain past period.

(g) Noncurrent assets and depreciation/amortization

Property, plant and equipment (except for lease assets), including significant renewals and additions, are stated at cost. Depreciation is calculated by the straight-line method based on the estimated useful life of the asset, principally ranging from 8 to 50 years for buildings and from 4 to 10 years for machinery, equipment and vehicles.

Intangible assets (except for lease assets), including software for internal use, are mainly amortized using the straight-line method over the estimated useful life of the asset. The estimated useful life of software for internal use is mainly 5 years.

Expenditures on maintenance and repairs are charged to income as incurred. Upon disposal, the cost and accumulated depreciation are removed from the related accounts and any gain or loss is recorded as gain or loss.

(h) Leases

The Company and its domestic consolidated subsidiaries capitalize the assets used under finance leases as lessee, except for certain immaterial or short-term finance leases which are accounted for as operating leases in accordance with the current accounting standard. Depreciation is calculated using the straight-line method over the lease term and assuming no residual value.

(i) Impairment of fixed assets

The Company and its domestic consolidated subsidiaries have adopted the “Accounting Standard for Impairment of Fixed Assets” and the related practical guidance. The standard requires that fixed assets be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. An impairment loss is recognized in the income statement by reducing the carrying amount of the impaired asset or a group of assets to the recoverable amount, measured by the higher of the asset’s net selling price or value in use. Fixed assets include land, plants, buildings and other forms of property, including intangible assets, and are to be grouped at the lowest level for which there are identifiable cash flows from other groups of assets. For the purpose of recognition and measurement of an impairment loss, fixed assets of the NGK Spark Plug Group, other than idle or unused property, are grouped into cash generating units based on managerial accounting classifications.

(j) Employee retirement benefits

The difference between retirement benefit obligations and plan assets has been recognized as net defined benefit liability. To calculate the retirement benefit obligations, the benefit formula basis is used to allocate estimated retirement benefits to periods of service. Past service cost that is yet to be recognized is amortized on a straight-line basis over ten years, a period not exceeding the average remaining service period of the employees. Actuarial gains and losses that are yet to be recognized are amortized on a straight-line basis over ten years, a period not exceeding the average remaining service period of employees, from the year following the year in which they arise. Net defined benefit liability and retirement benefit costs of certain consolidated subsidiaries are calculated using the simplified method as permitted by the accounting standard for retirement benefits.

(k) Translation of foreign currency accounts

Receivables, payables and securities, other than stocks of subsidiaries and certain other securities, are translated into Japanese yen at exchange rates prevailing at the fiscal year-end. Transactions in foreign currencies are recorded based on the exchange rates prevailing on the transaction dates. Resulting translation gains and losses are included in current earnings.

For financial statement items of the overseas consolidated subsidiaries, all asset and liability accounts are translated into Japanese yen by applying the exchange rate in effect at the respective fiscal year-end. All income and expense accounts are translated at the average rate of exchange prevailing during the year. Translation differences, after allocating portions attributable to noncontrolling interests, are reported in foreign currency translation adjustments as a component of accumulated other comprehensive income in the accompanying consolidated balance sheets.

(l) Research and development expenses

Expenses related to research and development are charged to income as incurred. Research and development expenses arise from a wide range of the NGK Spark Plug Group's activities, including basic and applied research for material development, planning and designing of new products and processes and activities aimed at improving existing products and processes. For the years ended March 31, 2017 and 2016, research and development expenses aggregated ¥23,416 million (\$209,078 thousand) and ¥23,123 million, respectively. These amounts included research and development activities for basic and applied research and the development of new products and processes in the amount of ¥4,089 million (\$36,509 thousand) and ¥5,401 million at March 31, 2017 and 2016, respectively, and were recorded as general and administrative expenses. The remaining expenses were recorded for the respective years in the accompanying consolidated statements of income as manufacturing costs.

(m) Income taxes

Income taxes are accounted for by the asset-liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss carryforwards. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date.

(n) Enterprise taxes

The NGK Spark Plug Group records enterprise taxes calculated based on the "added value" and "capital" amounts when levied as size-based corporate taxes for local government enterprise taxes, which are included in selling, general and administrative expenses.

(o) Appropriation of retained earnings

Cash dividends are recorded in the fiscal year when a proposed appropriation of retained earnings is approved by the Board of Directors of the Company.

(p) Per share data

Basic earnings per share is computed by dividing income available to common shareholders by the weighted average number of shares of common stock outstanding during the year. Diluted earnings per share is not disclosed as the NGK Spark Plug Group had no dilutive common shares. Cash dividends per share shown for each fiscal year in the accompanying consolidated statements of income represent dividends declared by the Company as applicable to the respective year.

(q) Consumption taxes

All figures are net of consumption taxes.

(r) Changing in presentation

(Consolidated Statements of Income)
"Contribution," which was included in "Other nonoperating expenses" for the previous fiscal year, exceeded 10% of total nonoperating expenses and is therefore presented separately from the current fiscal year. In order to reflect the change in presentation, the consolidated statement of income for the previous fiscal year has been reclassified to reflect a consistent presentation format.

As a result of this change, ¥1,184 million of "Other nonoperating expenses" for the previous fiscal year was reclassified as ¥33 million for "Contribution" and ¥1,151 million for "Other nonoperating expenses."

(s) Additional information

The Company and its domestic subsidiaries adopted "Revised Implementation Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No. 26, March 28, 2016 (hereinafter, "Guidance No. 26")) from the current fiscal year.

3. Notes to Consolidated Balance Sheets

(a) Inventories

At March 31, 2017 and 2016, inventories consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Finished goods	¥48,911	¥47,176	\$436,705
Work-in-process	25,581	23,088	228,402
Raw materials	12,364	11,857	110,393

(b) Accumulated depreciation of property, plants and equipment

At March 31, 2017 and 2016, accumulated depreciation of property, plant and equipment amounted to ¥301,800 million (\$2,694,643 thousand) and ¥298,371 million, respectively.

(c) Investment securities

Among investment securities, shares of unconsolidated subsidiaries and associates at March 31, 2017 and 2016, amounted to ¥12,256 million (\$109,429 thousand) and ¥5,338 million, respectively.

(d) Contingent liabilities

(1) Guarantee on loans

At March 31, 2017 and 2016, contingent liabilities in respect to guarantees of indebtedness, principally of employees, amounted to ¥14 million (\$125 thousand) and ¥18 million, respectively.

(2) The NGK Spark Plug Group is subject to investigations by overseas authorities regarding possible violations of competition laws in relation to certain past transactions in the automotive components segment. In connection, compensation for damage claims have been discussed with some customers and civil lawsuits have been filed. Additional losses may arise if new facts related to possible violations become known. However, the effect of these contingent liabilities on the consolidated financial statements is not estimable at this stage.

4. Notes to Consolidated Statements of Income

(a) Loss on valuation of inventories

For the years ended March 31, 2017 and 2016, a write-down of ¥274 million (\$2,446 thousand) and ¥800 million, respectively, was recognized as costs of goods sold.

(b) Selling, general and administrative expenses

Major components of selling, general and administrative expenses for the years ended March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Depreciation	¥ 3,044	¥ 2,789	\$ 27,179
Provision of allowance for doubtful accounts	183	53	1,634
Retirement benefit costs	1,356	920	12,107
Directors compensation and employee salaries and allowances	25,782	26,214	230,196
Packing and transportation expenses	6,188	6,103	55,250
Advertising expenses	5,602	5,874	50,018
Research and development expenses*	4,089	5,401	36,509

* The aggregate amounts of research and development expenses included in selling, general and administrative expenses for the years ended March 31, 2017 and 2016, were ¥4,089 million (\$36,509 thousand) and ¥5,401 million, respectively.

(c) Gain on sale of noncurrent assets

Major components of gain on sale of noncurrent assets for the years ended March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Buildings and Structures	¥287	¥321	\$2,563
Machinery, equipment and vehicles	59	53	527
Land	136	101	1,214
Software	0	4	0
Other	2	13	18

(d) Loss on disposal of noncurrent assets

Major components of loss on disposal of noncurrent assets for the years ended March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Buildings and Structures	¥337	¥294	\$3,009
Machinery, equipment and vehicles	287	76	2,563

Land	0	92	0
Software	1	12	9
Other	145	830	1,295

(e) Impairment loss

For the years ended March 31, 2017 and 2016, the NGK Spark Plug Group recognized an impairment loss on fixed assets in the amount of ¥20,187 million (\$180,241 thousand) and ¥2,427 million, respectively, as extraordinary loss.

For the year ended March 31, 2017, impairment loss consisted of ¥7,513 million (\$67,080 thousand) on goodwill, ¥8,765 million (\$78,259 thousand) on other intangible assets and ¥3,908 million (\$34,893 thousand) on machinery and equipment and other assets. The NGK Spark Plug Group revised the future business plan of a consolidated subsidiary, Wells Vehicle Electronics Holdings Corp. (hereinafter "Wells"), and its subsidiaries, as its business results were less than what was estimated upon acquiring Wells. As a result of careful consideration of future recoverability based on the revised business plan, the NGK Spark Plug Group recognize an impairment loss of goodwill, intangible assets and other properties related to Wells. The grouping of operating assets is based on managerial accounting categories. Idle assets are recorded separately in each fixed assets class. Recoverable amounts were estimated using value in use and amounted to nil.

For the year ended March 31, 2016, impairment loss consisted of ¥2,101 million on machinery and equipment, ¥192 million on construction in progress and ¥133 million on other assets. The loss arose in connection with property used for production of IC packages in the "Semiconductor" subsegment of the "Technical Ceramics" segment that became impaired because performance in the IC package business worsened due to a change in supply and demand and increased costs to stabilize quality. The grouping of operating assets is based on managerial accounting categories. Idle assets are recorded separately in each fixed assets class. Recoverable amounts were estimated using value in use and amounted to nil.

5. Notes to Consolidated Statements of Comprehensive Income

Amounts reclassified as profit in the current period that were recognized in other comprehensive income in the current or previous periods and the tax effects for each component of other comprehensive income were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Unrealized gains (losses) on available-for-sale securities			
Increase (decrease) during the year	¥6,879	¥(11,830)	\$61,420
Reclassification adjustments	64	–	571
Subtotal, before tax	6,943	(11,830)	61,991
Tax effect	(2,105)	4,302	(18,795)
Subtotal, net of tax	4,837	(7,527)	43,188

Foreign currency translation adjustments			
Decrease during the year	(1,007)	(11,480)	(8,991)
Remeasurements of defined benefit plans			
Increase (decrease) during the year	2,023	(8,027)	18,063
Reclassification adjustments	2,113	672	18,866
Subtotal, before tax	4,136	(7,354)	36,929
Tax effect	(1,208)	2,118	(10,786)

Subtotal, net of tax	2,928	(5,236)	26,143
Share of other comprehensive income of associates accounted for using equity method			
Increase (decrease) during the year	113	(539)	1,009
Reclassification adjustments	—	7	—
Subtotal	113	(531)	1,009
Total other comprehensive income	¥6,872	¥(24,776)	\$61,357

6. Notes to Consolidated Statements of Change in Net Assets

For the year ended March 31, 2017

(a) Class and total number of issued and outstanding shares and treasury stock

	Number of Shares			
	As of March 31, 2016	Increase	Decrease	As of March 31, 2017
Issued and outstanding shares				
Common stock	223,544,820	—	—	223,544,820
Total	223,544,820	—	—	223,544,820
Treasury stock				
Common stock	5,923,363	5,397,451	58	11,320,756
Total	5,923,363	5,397,451	58	11,320,756

Notes: 1) The increase of 851 shares in common stock of treasury stock was due to the purchase of shares in quantities of less than one share unit.
2) The increase of 5,396,600 shares in common stock of treasury stock was due to the repurchase of shares pursuant to the resolution at the meeting of the Board of Directors held on July 29, 2016.
3) The decrease of 58 shares in common stock of treasury stock was due to the sale of shares in quantities of less than one share unit.

(b) Dividends

i) Cash dividends paid

Resolution	Type of Shares	Total dividends	Dividend per share	Date of record	Payment date
Board of Directors on May 9, 2016	Common stock	¥4,570 million (\$40,804 thousand)	¥21 (\$188)	March 31, 2016	June 8, 2016
Board of Directors on Oct 31, 2016	Common stock	¥4,485 million \$40,045 thousand)	¥21 (\$188)	September 30, 2016	November 30, 2016

ii) Dividends for which the date of record falls within the fiscal year under audit but the payment date occurs in the following fiscal year

Resolution	Type of Shares	Source of dividends	Total dividends	Dividend per share	Date of record	Payment date
Board of Directors on May 9, 2017	Common stock	Retained earnings	¥4,456 million (\$39,786 thousand)	¥21 (\$188)	March 31, 2017	June 8, 2017

For the year ended March 31, 2016

(a) Class and total number of issued and outstanding shares and treasury stock

	Number of Shares			
	As of March 31, 2015	Increase	Decrease	As of March 31, 2016
Issued and outstanding shares				
Common stock	223,544,820	—	—	223,544,820

Total	223,544,820	—	—	223,544,820
Treasury stock				
Common stock	5,921,224	2,291	152	5,923,363
Total	5,921,224	2,291	152	5,923,363

Notes: 1) The increase of 2,291 shares in common stock of treasury stock was due to the purchase of shares in quantities of less than one share unit.
2) The decrease of 152 shares in common stock of treasury stock was due to the sale of shares in quantities of less than one share unit.

(b) Dividends

i) Cash dividends paid

Resolution	Type of Shares	Total dividends	Dividend per share	Date of record	Payment date
Board of Directors on May 8, 2015	Common stock	¥3,917 million	¥18	March 31, 2015	June 5, 2015
Board of Directors on Oct 30, 2015	Common stock	¥4,570 million	¥21	September 30, 2015	November 30, 2015

ii) Dividends for which the date of record falls within the fiscal year under audit but the payment date occurs in the following fiscal year

Resolution	Type of Shares	Source of dividends	Total dividends	Dividend per share	Date of record	Payment date
Board of Directors on May 9, 2016	Common stock	Retained earnings	¥4,570 million	¥21	March 31, 2016	June 8, 2016

7. Notes to Consolidated Statements of Cash Flows

(a) Cash and cash equivalents

Reconciliation of cash and cash equivalents on the consolidated statements of cash flows to the amounts disclosed on the consolidated balance sheets at March 31, 2017 and 2016, was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Cash and deposits	¥ 45,733	¥ 37,984	\$ 408,330
Short-term investment securities	57,210	59,548	510,804
Subtotal	102,943	97,533	919,134
Time deposits with deposit term of over 3 months	(9,115)	(7,328)	(81,384)
Short-term investment securities other than cash equivalents	(28,010)	(19,048)	(250,089)
Cash and cash equivalents	¥ 65,817	¥ 71,155	\$ 587,652

(b) Assets and liabilities of newly consolidated subsidiaries through acquisition of shares

For the year ended March 31, 2016

Assets acquired and liabilities assumed of Nihon Ceratec Co., Ltd., a newly consolidated subsidiary due to the acquisition of shares as of the acquisition date, related acquisition cost and net expenditure for the acquisition of shares for the year ended March 31, 2016 were as follows:

	Millions of yen
Current assets	¥4,884
Noncurrent assets	3,820
Goodwill	768
Current liabilities	(1,560)
Noncurrent liabilities	(612)

Acquisition cost of shares	¥7,300
Cash and cash equivalents of acquired company	(131)
Net cash used for acquisition of acquired company	¥7,168

Assets acquired and liabilities assumed of Wells Vehicle Electronics Holdings Corp. and its three subsidiaries, newly consolidated subsidiaries due to the acquisition of shares as of the acquisition date, related acquisition cost and net expenditure for the acquisition of shares for the year ended March 31, 2016 were as follows:

	Millions of yen
Current assets	¥ 13,184
Noncurrent assets	16,172
Goodwill	10,302
Current liabilities	(32,784)
Noncurrent liabilities	(5,100)
Acquisition cost of shares	¥ 1,773
Assumption of bank borrowings	28,841
Cash and cash equivalents of acquired company	(368)
Net cash used for acquisition of acquired company	¥30,246

8. Lease Commitments

(a) Finance lease transactions

Financing lease transactions without transfer of ownership of leased assets

i) Components of lease assets are as follows:

- Property, plant and equipment: Mainly equipment (tools, furniture and fixtures) for development in the automotive components segment.
- Intangible assets: Mainly intra-communication systems (software).

ii) Depreciation of lease assets:

Depreciation is calculated using the straight-line method over the lease term and assuming no residual value.

(b) Operating lease transactions

At March 31, 2017 and 2016, the NGK Spark Plug Group had annual commitments under operating leases as lessee. The aggregate future minimum payments for noncancelable operating leases were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Due within one year	¥ 644	¥ 693	\$ 5,750
Due after one year	1,840	2,235	16,429
	¥2,485	¥2,928	\$22,188

9. Financial Instruments

(a) Qualitative information on financial instruments

The NGK Spark Plug Group does not invest surplus funds in securities other than short-term bank deposits and debt securities with high liquidity from issuers with high credit ratings in accordance with its accounting rules and policies. The NGK Spark Plug Group uses indirect financing from financial institutions such as correspondent banks and direct financing from financial markets principally by the issuance of corporate bonds to satisfy short-term and long-term funding requirements.

The NGK Spark Plug Group is exposed to credit risk primarily with respect to trade receivables. In order to reduce the credit risk of these receivables, the NGK Spark Plug Group sets payment terms according to the credit capability of its customers. In some cases, the NGK Spark Plug Group receives security deposits in advance.

The NGK Spark Plug Group holds investments in securities such as negotiable certificates of deposits, debt securities and equity securities whose fair values are monitored on a quarterly basis.

The NGK Spark Plug Group is a party to derivative instruments such as foreign currency forward exchange contracts, currency option contracts and interest rate and currency swap agreements in the normal course of business principally for hedging purposes in order to reduce its exposure to fluctuations in exchange rates and interest rates. The NGK Spark Plug Group does not hold or issue derivative financial instruments for trading purposes. Under the NGK Spark Plug Group's financial management policies, contract balances of currency derivatives are limited to certain anticipated export sales and import purchases.

(b) Fair value of financial instruments

The fair value and carrying value of financial instruments at March 31, 2017 and 2016, other than unlisted equity securities for which the fair value was extremely difficult to determine, were as follows:

	Carrying value	Fair value	Difference
	Millions of yen		
At March 31, 2017:			
Financial assets:			
Cash and deposits	¥ 45,733	¥ 45,733	¥ —
Notes and accounts receivable - trade	91,594	91,594	—
Short-term investment securities:			
Available-for-sale securities	57,210	57,210	—
Investment securities:			
Shares of associates	6,333	6,179	(154)
Available-for-sale securities	54,332	54,332	—
Total	¥255,205	¥255,050	¥(154)
Financial liabilities:			
Accounts payable - trade	¥ 30,045	¥ 30,045	¥ —
Short-term loans payable	11,259	11,259	—
Long-term loans payable	32,848	32,982	134
Bonds payable, including current portion	55,000	55,287	287
Total	¥ 129,153	¥ 129,574	¥ 421
Derivative instruments(*1)	¥ 253	¥ 253	¥ —

At March 31, 2016:

Financial assets:			
Cash and deposits	¥ 37,984	¥ 37,984	¥ —
Notes and accounts receivable - trade	74,942	74,942	—
Short-term investment securities:			
Available-for-sale securities	59,548	59,548	—
Investment securities:			
Available-for-sale securities	46,543	46,543	—
Total	¥ 219,019	¥ 219,019	¥ —
Financial liabilities:			
Accounts payable - trade	¥ 28,049	¥ 28,049	¥ —
Short-term loans payable	11	11	—

Long-term loans payable	24,859	25,055	195
Bonds payable, including current portion	55,000	55,376	376
Total	¥ 107,919	¥ 108,491	¥ 571

Derivative instruments(*1)	¥ 152	¥ 152	¥ -
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Thousands of U.S. dollars

At March 31, 2017:			
Financial assets:			
Cash and deposits	\$ 408,330	\$ 408,330	\$ -
Notes and accounts receivable - trade	817,804	817,804	-
Short-term investment securities:			
Available-for-sale securities	510,804	510,804	-
Investment securities:			
Shares of associates	56,545	55,170	(1,375)
Available-for-sale securities	485,107	485,107	-
Total	\$2,278,616	\$2,277,232	\$(1,375)

Financial liabilities:			
Accounts payable - trade	\$ 268,259	\$ 268,259	\$ -
Short-term loans payable	100,527	100,527	-
Long-term loans payable	293,286	294,482	1,196
Bonds payable, including current portion	491,071	493,634	2,563
Total	\$ 1,153,152	\$ 1,156,911	\$ 3,759

Derivative instruments(*1)	\$ 2,259	\$ 2,259	\$ -
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*1) The value of derivative instruments is shown as a net position.

Notes:

(1) The methods and assumptions used to estimate the fair value of financial instruments are summarized below:

The fair value of cash and deposits, notes and accounts receivable - trade, accounts payable - trade and short-term loans payable is approximately equal to the carrying value due to their short-term maturities. The fair value of investment equity securities is based on quoted market prices. The fair value of bonds and other securities included in investment securities, bonds payable and derivative instruments is based on the price provided by correspondent financial institutions. The fair value of long-term loans payable is computed based on the total amount of principal and interest discounted at an interest rate applicable to new loans under the same conditions.

(2) The following securities are not included in the table above because the fair value was extremely difficult to determine.

	Carrying value		
	Millions of yen	Thousands of U.S. dollars	
	2017	2016	2017
Investments (equity securities) in unconsolidated subsidiaries and associates	¥5,922	¥5,338	\$52,875
Unlisted equity securities	1,662	1,181	14,839

(3) Expected maturities of financial assets at March 31, 2017 and 2016, were as follows:

	Due in one year or less	Due in one year through five years	Due later than five years
	Millions of yen		

At March 31, 2017:			
Cash and deposits	¥ 45,733	¥ -	¥-
Notes and accounts receivable - trade	91,594	-	-
Investments			
Bonds	13,000	2,000	-
Negotiable deposits	29,200	-	-
Other	13,600	-	-
	¥193,127	¥2,000	¥-

At March 31, 2016:			
Cash and deposits	¥ 37,984	¥ -	¥-
Notes and accounts receivable - trade	74,942	-	-
Investments			
Bonds	7,100	1,129	-
Negotiable deposits	40,500	-	-
Other	10,600	-	-
	¥171,127	¥ 1,129	¥-

Thousands of U.S. dollars

At March 31, 2017:			
Cash and deposits	\$ 408,330	\$ -	\$-
Notes and accounts receivable - trade	817,804	-	-
Investments			
Bonds	116,071	17,857	-
Negotiable deposits	260,714	-	-
Other	121,429	-	-
	\$1,724,348	\$17,857	\$-

(4) Contractual maturities of bank loans and bonds payable at March 31, 2017 and 2016, were as follows:

	Millions of yen		
	2017		
Year ending March 31,	Short-term loans payable	Bonds payable	Long-term loans payable
2018	¥11,259	¥ -	¥ -
2019	-	25,000	9,962
2020	-	-	9,924
2021	-	30,000	4,962
2022	-	-	8,000
2023 and thereafter	-	-	-

	Millions of yen		
	2016		
Year ending March 31,	Short-term loans payable	Bonds payable	Long-term loans payable
2017	¥ 11	¥ -	¥ -
2018	-	-	11
2019	-	25,000	9,962
2020	-	-	9,924
2021	-	30,000	4,962
2022 and thereafter	-	-	-

	Thousands of U.S. dollars		
	2017		
Year ending March 31,	Short-term loans payable	Bonds payable	Long-term loans payable
2018	\$100,527	\$ -	\$ -
2019	-	223,214	88,946
2020	-	-	88,607

2021	-	267,857	44,304
2022	-	-	71,429
2023 and thereafter	-	-	-

10. Investment Securities

At March 31, 2017 and 2016, the cost and fair value of available-for-sale securities were summarized as follows:

A loss on the write-down of available-for-sale securities was not material for the year ended March 31, 2017, and no loss on the write-down of available-for-sale securities was recognized for the year ended March 31, 2016.

	Millions of yen		
	2017		
	Fair and carrying value	Cost	Unrealized gains (losses)
With unrealized gains:			
Equity securities	¥ 52,154	¥12,484	¥39,670
Bonds	5,004	4,999	4
Other	5,880	5,312	567
Subtotal	63,039	22,796	40,242
With unrealized losses:			
Equity securities	153	170	(17)
Bonds	10,050	10,112	(62)
Negotiable deposits	29,200	29,200	-
Other	9,099	9,100	(0)
Subtotal	48,503	48,583	(79)
Total	¥111,543	¥71,380	¥40,162

	Millions of yen		
	2016		
	Fair and carrying value	Cost	Unrealized gains (losses)
With unrealized gains:			
Equity securities	¥ 44,727	¥11,890	¥32,837
Bonds	16	16	0
Other	5,336	4,717	619
Subtotal	50,081	16,625	33,456
With unrealized losses:			
Equity securities	686	792	(106)
Bonds	8,224	8,243	(19)
Negotiable deposits	40,500	40,500	-
Other	6,599	6,600	(0)
Subtotal	56,010	56,136	(125)
Total	¥106,092	¥72,762	¥33,330

	Thousands of U.S.dollars		
	2017		
	Fair and carrying value	Cost	Unrealized gains (losses)
With unrealized gains:			
Equity securities	\$465,661	\$111,464	\$354,196
Bonds	44,679	44,634	36
Other	52,500	47,429	5,063
Subtotal	562,848	203,536	359,304
With unrealized losses:			
Equity securities	1,366	1,518	(151)
Bonds	89,732	90,286	(554)
Negotiable deposits	260,714	260,714	-
Other	81,241	81,250	(0)
Subtotal	433,063	433,777	(705)
Total	\$995,920	\$637,321	\$358,589

Note: For equity investments in nonpublic companies with a carrying amount as of March 31, 2017 and 2016, amounting to ¥1,662 million (\$14,839 thousand) and ¥1,181 million, respectively, fair values were not included

in equity securities above as no quoted market prices were available and it was deemed extremely difficult to determine the fair values due to the impossibility of estimating future cash flows.

11. Derivative Instruments

At March 31, 2017 and 2016, derivative instruments, except for derivative instruments accounted for by hedge accounting, were stated at fair value and recognized for valuation gains and losses in current earnings as follows:

	Notional principal or contract amounts	Fair value	Valuation gains (losses)
	Millions of yen		
At March 31, 2017:			
Foreign exchange contracts:			
Forward contracts to sell	¥18,065	¥205	¥205
Currency call options	2,364	(8)	(8)
Currency put options	1,300	56	56
			¥253

At March 31, 2016:			
Foreign exchange contracts:			
Forward contracts to sell	¥14,671	¥166	¥166
Currency call options	500	(14)	(14)
Currency put options	376	1	1
			¥152

	Thousands of U.S. dollars		
At March 31, 2017:			
Foreign exchange contracts:			
Forward contracts to sell	\$161,295	\$1,830	\$1,830
Currency call options	21,107	(71)	(71)
Currency put options	11,607	500	500
			\$2,259

At March 31, 2017 and 2016, derivative instruments to which hedge accounting was applied were as follows:

	Hedged items	Notional principal or contract amounts	Contract amounts due after one year	Fair value
	Millions of yen			

At March 31, 2017:				
Interest rate and currency swaps:				
(floating rate receipt, fixed rate payment)				
(U.S.\$ receipt, Japanese yen payment)	Long-term bank loans	¥32,848	¥32,848	¥-

At March 31, 2016:				
Interest rate and currency swaps:				
(floating rate receipt, fixed rate payment)				
(U.S.\$ receipt, Japanese yen payment)	Long-term bank loans	¥24,848	¥24,848	¥-

Thousands of U.S. dollars				
At March 31, 2017:				
Interest rate and currency swaps:				
(floating rate receipt, fixed rate payment)				
(U.S.\$ receipt, Japanese yen payment)				
Long-term bank loans	\$293,286	\$293,286	\$—	

The above interest rate and currency swaps which qualify for hedge accounting and meet specific matching criteria are not separated from the hedged bank loans. The fair values of the derivative instruments are reflected in the calculation of the fair values of the related bank loans (see Note 9).

12. Employee Retirement Benefits

The Company has a lump-sum retirement benefit plan and a defined benefit pension plan that cover 80% of the retirement benefits for employees of the Company who retire at the compulsory retirement age after ten years or more of service. Certain domestic consolidated subsidiaries have similar retirement benefit plans. Certain overseas consolidated subsidiaries have defined contribution plans. The Company contributes certain plan assets to the employee retirement benefit trust under the defined benefit pension plan. Net defined benefit liability and retirement benefit costs of certain consolidated subsidiaries are calculated using the simplified method as permitted by the accounting standard for retirement benefits.

Information about employee retirement benefits for the years ended March 31, 2017 and 2016 was as follows:

(a) Defined benefit plans

Movement in retirement benefit obligations, except for plans applying the simplified method:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Balance at April 1	¥68,381	¥57,360	\$610,545
Service cost	3,751	3,276	33,491
Interest cost	349	644	3,116
Actuarial loss	(1,213)	6,300	(10,830)
Benefits paid	(2,521)	(3,045)	(22,509)
Past service cost	142	(114)	1,268
Increase due to newly consolidated subsidiaries	—	4,297	—
Other	18	(338)	161
Balance at March 31	¥68,909	¥68,381	\$615,259

Movement in plan assets, except for plans applying the simplified method:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Balance at April 1	¥36,440	¥33,584	\$325,357
Expected return on plan assets	1,054	1,004	9,411
Actuarial gain (loss)	932	(1,847)	8,321
Contributions paid by the employer	3,232	3,385	28,857
Benefits paid	(1,729)	(2,184)	(15,438)
Increase due to newly consolidated subsidiaries	—	2,780	—
Other	(38)	(282)	(339)
Balance at March 31	¥39,893	¥36,440	\$356,188

Movement in net defined benefit liability for plans applying the simplified method:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Balance at April 1	¥245	¥236	\$2,188
Retirement benefit costs	43	44	384
Benefits paid	(19)	(14)	(170)
Contributions paid by the employer	(22)	(21)	(196)
Balance at March 31	¥247	¥245	\$2,205

Reconciliation from retirement benefit obligations and plan assets to net defined benefit liability:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Funded retirement benefit obligations	¥ 47,786	¥ 47,607	\$ 426,661
Plan assets	(40,057)	(36,591)	(357,652)
	7,729	11,016	69,009
Unfunded retirement benefit obligations	21,533	21,169	192,259
Total net defined benefit liability	29,263	32,185	261,277
Net defined benefit liability	29,263	32,185	261,277
Total net defined benefit liability	¥ 29,263	¥ 32,185	\$ 261,277

Note: Includes those under plans applying the simplified method.

Retirement benefit costs:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Service cost	¥ 3,751	¥ 3,276	\$33,491
Interest cost	349	644	3,116
Expected return on plan assets	(1,054)	(1,012)	(9,411)
Net actuarial loss amortization	2,091	664	18,670
Past service cost amortization	22	8	196
Retirement benefit costs based on the simplified method	43	44	384
Total	¥ 5,204	¥ 3,626	\$46,464

Remeasurements of defined benefit plans included in other comprehensive income (before adjusting for tax effects):

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Past service costs	¥ 119	¥ (123)	\$ 1,063
Actuarial losses	(4,256)	7,478	(38,000)
Total	¥(4,136)	¥7,354	\$ (36,929)

Remeasurements of defined benefit plans included in accumulated other comprehensive income (before adjusting for tax effects):

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Past service cost yet to be recognized	¥ (14)	¥ (134)	\$ (125)
Actuarial losses yet to be recognized	8,136	12,393	72,643
Total	¥8,121	¥12,258	\$72,509

Plan assets:

(1) Plan assets comprise:

	2017	2016
Bonds	22%	19%
Equity securities	27%	24%
General life insurance accounts	25%	29%
Alternative investments	16%	16%
Other	10%	12%
Total	100%	100%

Notes: 1) Alternative investments are mainly investments in hedge funds and infrastructure funds.
2) As of March 31, 2017 and 2016, 8% and 7% of plan assets, respectively, were assets held by the employee retirement benefit trust under the defined benefit pension plan.

(2) Long-term expected rate of return:

Current and target asset allocation and historical and expected returns on various categories of plan assets have been considered in determining the long-term expected rate of return.

Actuarial assumptions:

The principal actuarial assumptions at March 31, 2017 and 2016 were as follows:

	2017	2016
Discount rate	Mainly 0.4%	Mainly 0.3%
Long-term expected rate of return	Mainly 2.75%	Mainly 2.75%

Note: In calculating retirement benefit obligations, the NGK Spark Plug Group uses mainly an index for salary increase by age based on a point system.

(b) Defined contribution plans

For the years ended March 31, 2017 and 2016, the amount of required contribution to the defined contribution plans of the overseas consolidated subsidiaries was ¥218 million (\$1,946 thousand) and ¥212 million, respectively.

13. Income Taxes

The tax effects of temporary differences that gave rise to a significant portion of deferred tax assets and liabilities at March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Deferred tax assets:			
Net operating loss carryforwards	¥ 1,119	¥ 2,778	\$ 9,991
Impairment loss on fixed assets	5,297	5,575	47,295
Net defined benefit liability	8,938	9,730	79,804
Depreciation	3,125	3,475	27,902
Accrued expenses	4,368	4,376	39,000
Inventories	2,988	2,741	26,679
Intercompany profits	4,762	5,481	42,518
Other	1,663	1,915	14,848
Less valuation allowance	(8,598)	(7,130)	(76,768)
Total deferred tax assets	23,666	28,943	211,304
Deferred tax liabilities:			
Unrealized gains on available-for-sale securities	(12,116)	(9,992)	(108,179)
Retained earnings of overseas consolidated subsidiaries	(2,943)	(5,578)	(26,277)
Depreciation	(1,106)	(5,374)	(9,875)
Other	(303)	(255)	(2,705)
Total deferred tax liabilities	(16,469)	(21,200)	(147,045)
Net deferred tax assets	¥ 7,196	¥ 7,743	\$ 64,250

At March 31, 2017 and 2016, deferred tax assets and liabilities were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Deferred tax assets:			
Current	¥11,023	¥12,080	\$98,420
Noncurrent	1,496	987	13,357
Deferred tax liabilities:			
Current	—	—	—
Noncurrent	(5,324)	(5,325)	(47,536)
Net deferred tax assets	¥ 7,196	¥ 7,743	\$64,250

In assessing the realizability of deferred tax assets, management of the NGK Spark Plug Group considers whether some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which the temporary differences become deductible. At March 31, 2017 and 2016, a valuation allowance was provided to reduce deferred tax assets to the amount that management believed the deferred tax assets were realizable.

For the years ended March 31, 2017 and 2016, the reconciliation of the differences between the combined Japanese statutory tax rate and the effective income tax rate on pretax income reflected in the accompanying consolidated statements of income was as follows:

	Percentage of pre-tax income (%)	
	2017	2016
Combined Japanese statutory tax rate	30.7	32.8
Increase (decrease) due to:		
Permanently nondeductible expenses	0.7	0.4
Tax exempt income	(0.4)	(0.5)
Tax credits for research and development expenses	(6.2)	(4.4)
Differences between Japanese and foreign tax rates	(2.9)	(1.1)
Changes in valuation allowance	11.9	(1.7)
Retained earnings of overseas consolidated subsidiaries	(7.9)	1.8
Effect of income tax rate changes	—	1.5
Loss on violation of antitrust law	0.1	0.6
Transfer of net loss carried forward resulting from merger of a consolidated subsidiary	(6.5)	—
Impairment loss on goodwill	6.6	—
Other	(0.7)	(0.5)
Effective income tax rate	25.4	28.9

On March 31, 2016, amendments to the Japanese tax regulations were enacted into law. Based on the amendments, the statutory income tax rates utilized for the measurement of deferred tax assets and liabilities expected to be settled or realized from April 1, 2016 to March 31, 2018 and on or after April 1, 2018 were changed from 32.1% to 30.7% and 30.5%, respectively, as of March 31, 2016.

Due to these changes in statutory income tax rates, net deferred tax assets (after deducting the deferred tax liabilities) decreased by ¥334 million as of March 31, 2016, deferred income tax expense recognized for the fiscal year ended March 31, 2016 increased by ¥675 million, net unrealized gains on available-for-sale securities increased by ¥515 million and remeasurements of defined benefit plans included in accumulated other comprehensive income decreased by ¥175 million compared with the amounts that would have been reported without the changes.

14. Business Combinations

For the year ended March 31, 2017

(a) Completion of accounting for the business combination following provisional accounting

The accounting with regard to the business combination for the acquisition of Wells Vehicle Electronics Holdings Corp. as of July 1, 2016 was completed in the current fiscal year. Due to the completion of accounting for this business combination, the change in initial purchase price allocation was reflected in the comparative information included in the consolidated financial statements of the current fiscal year as follows:

	Millions of yen	Thousands of U.S. dollars
Goodwill (pre-adjustment)	¥10,192	\$91,000
Other intangible assets	176	1,571
Deferred tax liabilities	(67)	(598)
Total Adjustment	109	973
Goodwill (after-adjustment)	¥10,302	\$91,982

As a result, goodwill increased by ¥93 million (\$830 thousand), other intangible assets decreased by ¥150 million (\$1,339 thousand), and total intangible assets, total noncurrent assets and total liabilities each decreased by ¥57 million (\$509 thousand). Because sales, general and administrative expenses decreased by ¥4 million (\$36 thousand), operating income, ordinary income and profit before income taxes for the previous fiscal year also increased by that amount.

(b) Business combination under common control

The Company, NTK Ceramic Co., Ltd., (hereafter “former N-CERA”) and NTK Ceramic Co., Ltd. (hereafter “new N-CERA”) and Ceramic Sensor Nakatsugawa Co., Ltd. which were newly established as of July 1, 2016, conducted an absorption-type company split as of October 1, 2016 subject to the Absorption-type Company Split Agreement concluded as of July 29, 2016.

(1) Overview of the combination

1. Name and nature of the split business
 - i) Split company

Company name	Name and nature of the split business
NGK Spark Plug Co., Ltd.	Ceramic IC packages
NTK Ceramic Co., Ltd. (former N-CERA)	Ceramic IC packages Automotive sensors

ii) Successor company

Company name	Name and nature of the split business
NTK Ceramic Co., Ltd. (new N-CERA)	Ceramic IC packages
Ceramic Sensor Nakatsugawa Co., Ltd.	Automotive sensors

2. Date of the combination

October 1, 2016

3. Legal form of the combination

Absorption-type company split with the split companies and successor companies as the Company and former N-CERA and new N-CERA and Ceramic Sensor Nakatsugawa Co., Ltd., respectively.

4. Name of the acquired company after the combination

NTK Ceramic Co., Ltd. (new N-CERA)
Ceramic Sensor Nakatsugawa Co., Ltd.

5. Other matters relating to overview of transaction

Toward the revitalization of our ceramic IC package business, we will establish a financially independent subsidiary with manufacturing and sales functions consolidated instead of the subsidiary with manufacturing functions only. With this reform, we aim to clarify responsibilities and authority, better visualize the financial management and achieve a positive turnaround as early as possible.

The Company merged former N-CERA as of January 1, 2017.

(2) Overview of accounting treatment adopted

The combination is accounted for as a business combination under common control based on the “Accounting Standard for Business Combinations” (ASBJ Statement No. 21) and the “Guidance on the Accounting Standard for Business Combinations and Accounting Standard for Business Divestitures” (ASBJ Guidance No. 10).

For the year ended March 31, 2016

Business combinations resulting from acquisitions

(a) Acquisition of Nihon Ceratec Co., Ltd.

(1) Overview of the combination

1. Name and business of the acquired company

Name: Nihon Ceratec Co., Ltd.
Business: Development, manufacturing and sales, also cleaning and regeneration of structural ceramics and various application products. Development, manufacturing and sales of piezoelectric ceramics and various application products.

2. Major reasons for the combination

The Company decided to acquire all the shares of Nihon Ceratec to utilizing its high-precision processing technology and cost competitiveness in the production of small components for semiconductor manufacturing equipment, the production of which the Company plans to expand.

3. Date of the combination

April 1, 2015

4. Legal form of the combination

Acquisition of shares

5. Name of the acquired company after the combination

Nihon Ceratec Co., Ltd.

6. Ratio of voting rights acquired

100%

7. Main reason for determining the acquiring company

The Company acquired 100% of the voting rights by acquiring shares of Nihon Ceratec in cash.

- (2) Period of operation of the acquired company included in the consolidated financial statements

From April 1, 2015 to March 31, 2016

(3) Acquisition cost of the acquired company

Consideration for acquisition	¥7,300 million	Cash
Acquisition cost	¥7,300 million	

(4) Expenses for the acquisition (advisory costs, etc.)

¥93 million

- (5) Amount of goodwill, reason for recognition and amortization method and period
 1. Amount of goodwill

¥768 million
 2. Reason for recognition

The acquisition cost exceeded the net amount of assets acquired and liabilities assumed.

3. Amortization method and period

Straight-line amortization over 5 years

(6) Assets acquired and liabilities assumed as of the date of the business combination

	Millions of yen
Current assets	¥4,884
Noncurrent assets	3,821
Total assets	¥8,705

Current liabilities	¥1,560
Noncurrent liabilities	613
Total liabilities	¥2,173

(b) Acquisition of Wells Vehicle Electronics Holdings Corp.

(1) Overview of the combination

1. Name and business of the acquired company

Name: UCI Acquisition Holdings (No. 2) Corp. (hereinafter, UCI Acquisition)
Business: Manufacturing and sales of automotive components, mainly operated by Wells Vehicle Electronics, L.P. (formerly, Wells Manufacturing L.P.) (hereinafter, “Wells”), which is owned by UCI Acquisition.

2. Major reasons for the combination

In order to strengthen the automotive components business, which is the core business of the Company, the Company aims to expand its business areas and develop new sales channels and customers by acquiring the business of Wells, which has strength in the US automotive repair market.

3. Date of the combination

July 1, 2015

4. Legal form of the combination

Acquisition of shares

5. Name of the acquired company after the combination

Wells Vehicle Electronics Holdings Corp.

6. Ratio of voting rights acquired

100%

7. Main reason for determining the acquiring company

The Company acquired 100% of the voting rights by acquiring shares of UCI Acquisition in cash.

- (2) Period of operation of the acquired company included in the consolidated financial statements

From July 1, 2015 to March 31, 2016

(3) Acquisition cost of the acquired company

Consideration for acquisition	\$249,718 thousand	Cash
Acquisition cost	\$249,718 thousand	

The consideration for the acquisition includes the repayment of a bank borrowing of the acquired company.

(4) Expenses for the acquisition (advisory costs, etc.)

¥950 million

- (5) Amount of goodwill, reason for recognition, and amortization method and period

1. Amount of goodwill

¥10,193 million
The amount of goodwill is provisionally calculated, because the allocation of the acquisition cost had not been completed as of the end of the fiscal year.

2. Reason for recognition

The acquisition cost exceeded the net amount of assets acquired and liabilities assumed

3. Amortization method and period

Straight-line amortization over 10 years

(6) Assets acquired and liabilities assumed as of the date of the business combination

	Millions of yen
Current assets	¥13,185
Noncurrent assets	16,349
Total assets	¥29,534

Current liabilities	¥32,785
Noncurrent liabilities	5,168
Total liabilities	¥37,953

(7) Amount allocated to intangible assets other than goodwill and weighted average amortization period

	Millions of yen
Customer related assets	¥12,195
(Amortization period: 10 years)	

- (8) Purchase price allocation

The purchase price allocation had not been completed as of March 31, 2016. Therefore, provisional accounting treatment was applied based on reasonable information available at that time.

- (9) Estimated impact on the consolidated financial results if the business combination had been completed as of the beginning of the fiscal year (April 1, 2015)

The impact on the accompanying consolidated financial statements is negligible. This amount has not been audited.

15. Net Assets

Under Japanese laws and regulations, the entire amount paid for new shares is required to be designated as common stock. However, a company may, by a resolution of the Board of Directors, designate an amount not exceeding one half of the price of the new shares as additional paid-in capital, which is included in capital surplus.

Under Japanese Corporate Law (the “Law”), in cases in which a dividend distribution of surplus is made, the smaller of an amount equal to 10% of the dividend or the excess, if any, of 25% of common stock over the total of additional paid-in capital and legal earnings reserve must be set aside as additional paid-in capital or legal earnings reserve. Legal earnings reserve is included in retained earnings in the accompanying consolidated balance sheets.

Under the Law, legal earnings reserve and additional paid-in capital can be used to eliminate or reduce a deficit by a resolution of the shareholders’ meeting. Additional paid-in capital and legal earnings reserve may not be distributed as dividends. All additional paid-in capital and all legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends.

At March 31, 2017 and 2016, respectively, capital surplus consisted principally of additional paid-in capital. In addition, retained earnings included legal earnings reserve of the Company in the amount of ¥5,837 million (\$52,116 thousand) at March 31, 2017 and 2016, respectively.

The maximum amount that the Company can distribute as dividends is calculated based on the separate financial statements of the Company in accordance with Japanese laws and regulations.

16. Segment Information

(a) General information about reportable segments

The reportable segments of the Company are the business units for which the Company is able to obtain financial information separately in order for the Board of Directors of the Company to conduct periodic investigations to determine the distribution of management resources and evaluate business results. The Company has its business units identified by products. Each business unit plans its own comprehensive domestic and overseas strategies for its own products and conducts its own business activities. Accordingly, the NGK Spark Plug Group consists of two reportable segments: "Automotive components" and "Technical ceramics." The "Technical ceramics" segment consists of the "Semiconductor" and "Ceramics" subsegments.

- In the "Automotive components" segment, the Company manufactures and sells spark plugs, glow plugs, various automotive sensors, ceramic engine parts and other automotive components.
- In the "Technical ceramics" segment, the Company manufactures and sells IC packages and other semiconductor components in the "Semiconductor" subsegment and manufactures and sells cutting tools and ceramics products for industrial use in the "Ceramics" subsegment.

(b) Methods to determine net sales, income or loss, assets, and other items by reportable business segment

Accounting methods by reportable segment are principally the same as those written in Note 2 Summary of Significant Accounting Policies. Profit by reportable business segment is stated on an operating income basis.

(c) Information about reportable segment profit and loss, segment assets and other material items

Information about reportable segments as of and for the years ended March 31, 2017 and 2016 was as follows:

	Reportable segments						Total	Adjustments	Consolidated
	Automotive components	Technical ceramics			Total				
		Semiconductor	Ceramics	Total Technical ceramics					
Millions of yen									
For the year 2017:									
Operating revenue - net sales:									
External customers	¥ 318,149	¥ 19,449	¥ 31,855	¥ 51,305	¥ 369,454	¥ 3,464	¥ 372,919	¥—	¥ 372,919
Intersegment sales	—	—	—	—	—	—	—	—	—
Total net sales	318,149	19,449	31,855	51,305	369,454	3,464	372,919	—	372,919
Segment income (loss)	¥ 57,988	¥ (4,842)	¥ 400	¥ (4,441)	¥ 53,546	¥ 49	¥ 53,595	¥—	¥ 53,595
Segment assets	¥ 478,647	¥ 30,246	¥ 53,603	¥ 83,849	¥ 562,497	¥ 1,304	¥ 563,801	¥—	¥ 563,801
Other items:									
Depreciation	¥ 17,158	¥ 308	¥ 2,123	¥ 2,431	¥ 19,590	¥ 10	¥ 19,601	¥—	¥ 19,601
Impairment loss on fixed assets	20,187	—	—	—	20,187	—	20,187	—	20,187
Increase in property, plant and equipment and intangible assets	27,577	2,364	6,383	8,747	36,325	2	36,328	—	36,328

For the year 2016:

Operating revenue - net sales:									
External customers	¥ 322,856	¥ 23,828	¥ 32,802	¥ 56,631	¥ 379,487	¥ 3,785	¥ 383,272	¥—	¥ 383,272
Intersegment sales	—	—	—	—	—	—	—	—	—
Total net sales	322,856	23,828	32,802	56,631	379,487	3,785	383,272	—	383,272
Segment income (loss)	¥ 71,139	¥ (7,116)	¥ 2,419	¥ (4,697)	¥ 66,442	¥ (158)	¥ 66,284	¥—	¥ 66,284
Segment assets	¥ 453,261	¥ 39,799	¥ 31,835	¥ 71,634	¥ 524,896	¥ 1,206	¥ 526,103	¥—	¥ 526,103
Other items:									
Depreciation	¥ 14,857	¥ 1,061	¥ 905	¥ 1,966	¥ 16,823	¥ 10	¥ 16,834	¥—	¥ 16,834
Impairment loss on fixed assets	—	2,427	—	2,427	2,427	—	2,427	—	2,427
Increase in property, plant and equipment and intangible assets	37,682	4,110	3,537	7,647	45,330	8	45,339	—	45,339

Thousands of U.S. dollars

For the year 2017:

Operating revenue - net sales:									
External customers	\$ 2,840,616	\$ 173,652	\$ 284,420	\$ 458,080	\$ 3,298,696	\$ 30,929	\$ 3,329,634	\$—	\$ 3,329,634
Intersegment sales	—	—	—	—	—	—	—	—	—
Total net sales	2,840,616	173,652	284,420	458,080	3,298,696	30,929	3,329,634	—	3,329,634
Segment income (loss)	\$ 517,750	\$ (43,232)	\$ 3,571	\$ (39,652)	\$ 478,089	\$ 438	\$ 478,527	\$—	\$ 478,527
Segment assets	\$ 4,273,634	\$ 270,054	\$ 478,598	\$ 748,652	\$ 5,022,295	\$ 11,643	\$ 5,033,938	\$—	\$ 5,033,938

Other items:									
Depreciation	\$ 153,196	\$ 2,750	\$ 18,955	\$ 21,705	\$ 174,911	\$ 89	\$ 175,009	\$—	\$ 175,009
Impairment loss on fixed assets	180,241	—	—	—	180,241	—	180,241	—	180,241
Increase in property, plant and equipment and intangible assets	246,223	21,107	56,991	78,098	324,330	18	324,357	—	324,357

Notes: 1) From the year ended March 31, 2017, the assignment of components for semiconductor manufacturing equipment has been changed from the "Semiconductor" to the "Ceramics" subsegment. Segment information for the fiscal year ended March 31, 2016, including the above notes, is based on the reportable segments for the fiscal year ended March 31, 2017.
2) The "Other" segment includes business such as material sales, welfare program services and transportation not included in reportable segments.

(d) Related information

i) Information on products and services

Information on products and services is the same as that already reported in (c) Information about reportable segment profit and loss, segment assets and other material items. Therefore, the information is omitted here.

ii) Geographic information

Information about geographic areas as of and for the years ended March 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Operating revenue - net sales:			
Japan	¥ 61,947	¥ 63,015	\$ 553,098
North America	104,357	111,965	931,759
Europe	96,170	95,861	858,661
Asia	70,109	71,470	625,973
Other area	40,334	40,958	360,125
	¥ 372,919	¥ 383,272	\$ 3,329,634

Note: Net sales are categorized by country or region based on the location of the customer.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Property, plant and equipment:			
Japan	¥ 146,415	¥ 133,597	\$ 1,307,277
Other area	34,886	34,876	311,482
	¥ 181,302	¥ 168,473	\$ 1,618,768

iii) Information by major customer

The NGK Spark Plug Group had no single external customer which accounted for more than 10% of net sales for the years ended March 31, 2017 or 2016.

(e) Information about impairment of fixed asset by business segment

Information about impairment of fixed assets is presented in (c) Information about reportable segment profit and loss, segment assets and other material items.

(f) Information about goodwill as of and for the years ended March 31, 2017 and 2016 was as follows:

	Reportable segments						Total	Adjustments	Consolidated
	Automotive components	Technical ceramics			Total				
		Semiconductor	Ceramics	Total Technical ceramics					
Millions of yen									
March 31, 2017									
Amortization	¥ 910	¥—	¥153	¥153	¥1,064	¥—	¥1,064	¥—	¥1,064
Balance	—	—	460	460	460	—	460	—	460
March 31, 2016									
Amortization	¥ 757	¥—	¥153	¥153	¥ 910	¥—	¥ 910	¥—	¥ 910
Balance	8,758	—	614	614	9,372	—	9,372	—	9,372
Thousands of U.S. dollars									
March 31, 2017									
Amortization	\$8,125	\$—	\$1,366	\$1,366	\$9,500	\$—	\$9,500	\$—	\$9,500
Balance	—	—	4,107	4,107	4,107	—	4,107	—	4,107

Note: For the year ended March 31, 2017, the NGK Spark Plug Group recognized impairment loss on goodwill in the amount of ¥7,513 million (\$67,080 thousand) in the Automotive components segment.

(g) Information about negative goodwill by business segment

No items to report.

17. Information on Related Parties

No items to report.

18. Per Share Information

Basic and diluted net assets per share and earnings per share for the years ended March 31, 2017 and 2016, were as follows:

	Yen		U.S. dollars
	2017	2016	2017
Basic net assets per share	¥ 1,660.06	¥ 1,557.16	\$ 14.82
Basic earnings per share	119.44	141.60	1.07

(a) Basis for calculation of net assets per share

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Total net assets	¥ 354,710	¥ 341,044	\$ 3,167,054
Amount deducted from total net assets	2,404	2,174	21,464
of which, noncontrolling interests	(2,404)	(2,174)	(21,464)
Net assets allocated to common stock	352,305	338,870	3,145,580
Number of shares of common stock outstanding at fiscal year end used in calculation of net assets per share (thousands)	212,224	217,621	1,894,857



Independent Auditor’s Report

To the Board of Directors of
NGK SPARK PLUG CO., LTD.:

We have audited the accompanying consolidated financial statements of NGK SPARK PLUG CO., LTD. and its consolidated subsidiaries (the “NGK Spark Plug Group”), which comprise the consolidated balance sheets as at March 31, 2017 and 2016, and the consolidated statements of income, consolidated statements of comprehensive income, consolidated statements of changes in net assets and consolidated statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

Management’s Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor’s Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity’s preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity’s internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the NGK Spark Plug Group as at March 31, 2017 and 2016, and their financial performance and cash flows for the years then ended in accordance with accounting principles generally accepted in Japan.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2017 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 of Notes to the consolidated financial statements.

KPMG AZSA LLC

July 28, 2017
Nagoya, Japan

KPMG AZSA LLC, a limited liability audit corporation incorporated under the Japanese Certified Public Accountants Law and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative (“KPMG International”), a Swiss entity.

(b) Basis for calculation of earnings per share

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Profit attributable to owners of the parent	¥ 25,602	¥ 30,815	\$ 228,589
Amount not attributable to common stock shareholders	—	—	—
Profit attributable to common stock owners of the parent	25,602	30,815	228,589
Weighted average number of shares of common stock (thousands)	214,349	217,622	1,913,830

Note: As the Company had no dilutive shares at March 31, 2017 or 2016, the Company has not disclosed diluted net income per share for the years ended March 31, 2017 and 2016.

19. Significant Subsequent Events

No items to report.

20. Borrowings

(a) Bonds payable at March 31, 2017 and 2016, comprised the following:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
0.391% unsecured bonds due September 2018	¥25,000	¥25,000	\$223,214
0.296% unsecured bonds due October 2020	30,000	30,000	267,857
Total	¥55,000	¥55,000	\$491,071

Note: The aggregate annual maturities of bonds payable after March 31, 2017, are as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2018	—	—
2019	25,000	223,214
2020	—	—
2021	30,000	267,857
2022	¥ —	\$ —

(b) Loans payable and lease obligations at March 31, 2017 and 2016, comprised the following:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Short-term loans payable with interest rate of 1.94%	¥11,259	¥ 11	\$100,527
Current portion of long-term loans payable	—	—	—
Current portion of lease obligations	87	174	777
Long-term loans payable (except portion due within one year) with interest rate of 0.16%	32,848	24,859	293,286
Lease obligations (except portion due within one year)	80	167	714
Other	—	—	—
Total	¥44,275	¥25,212	\$395,313

Notes: 1) Interest rates shown are weighted average interest rates for the balance outstanding at March 31, 2017.
2) Average interest rates for lease obligations are omitted because lease obligations include assumed interest amounts.
3) The aggregate annual maturities of long-term loans payable and lease obligations (except portion due within one year) after March 31, 2017, are as follows:

Corporate Data

NGK SPARK PLUG CO., LTD.

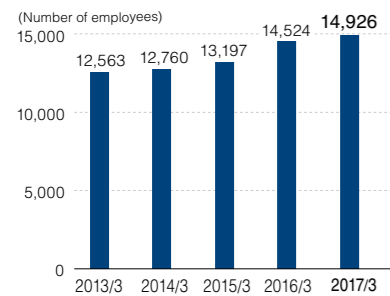
Headquarters
14-18 Takatsuji-cho, Mizuho-ku,
Nagoya 467-8525, Japan

Established
October 1936

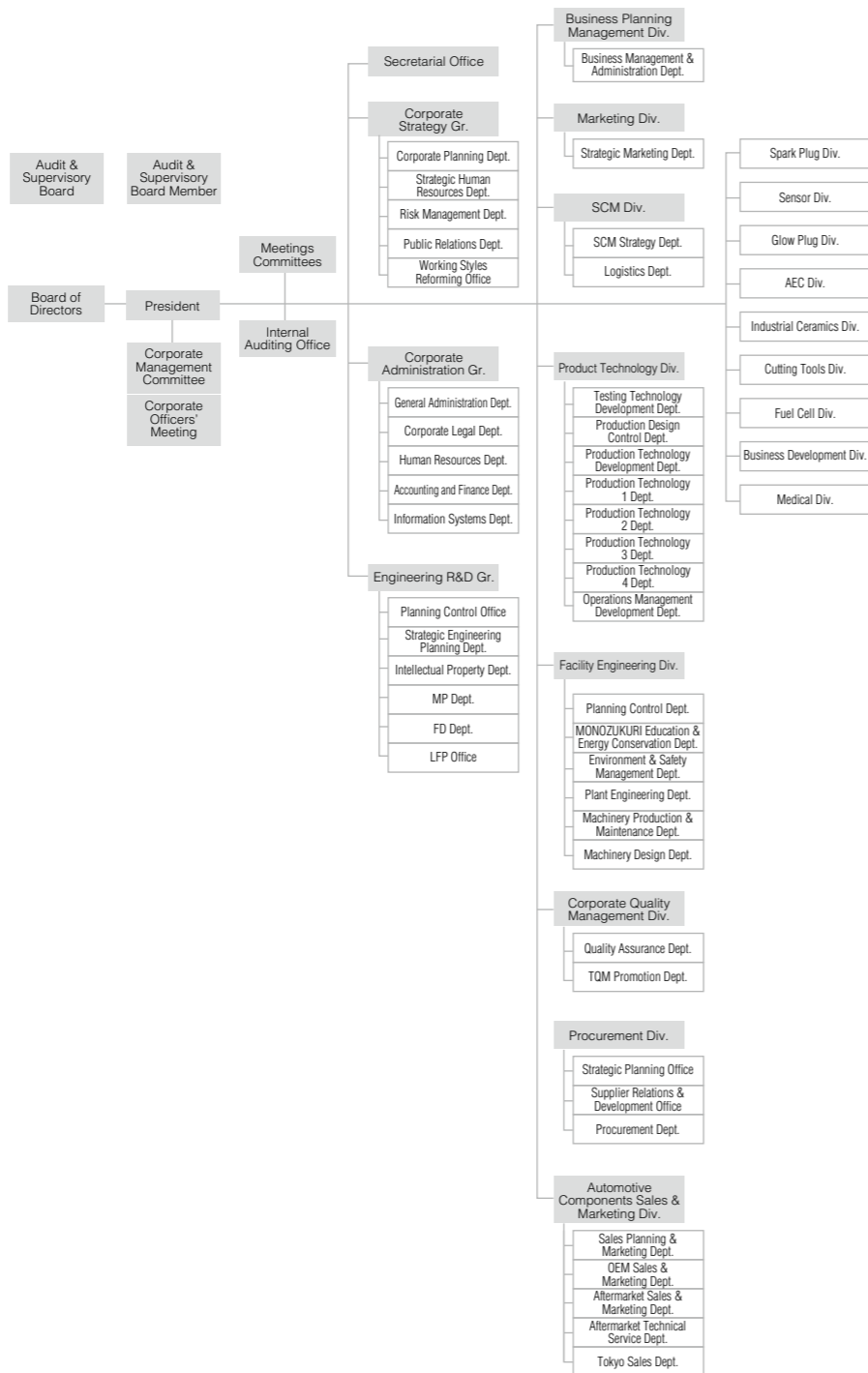
Paid-in Capital
¥47,869 million

Number of Employees
Non-Consolidated: 5,719 (March 2017)
Consolidated: 14,926 (March 2017)

Number of employees at work
(Consolidated)



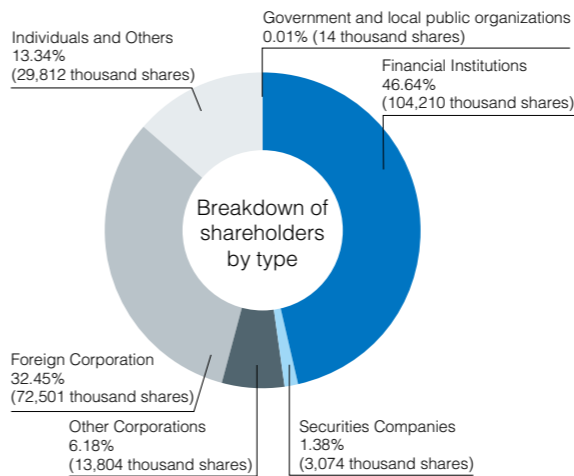
Organization



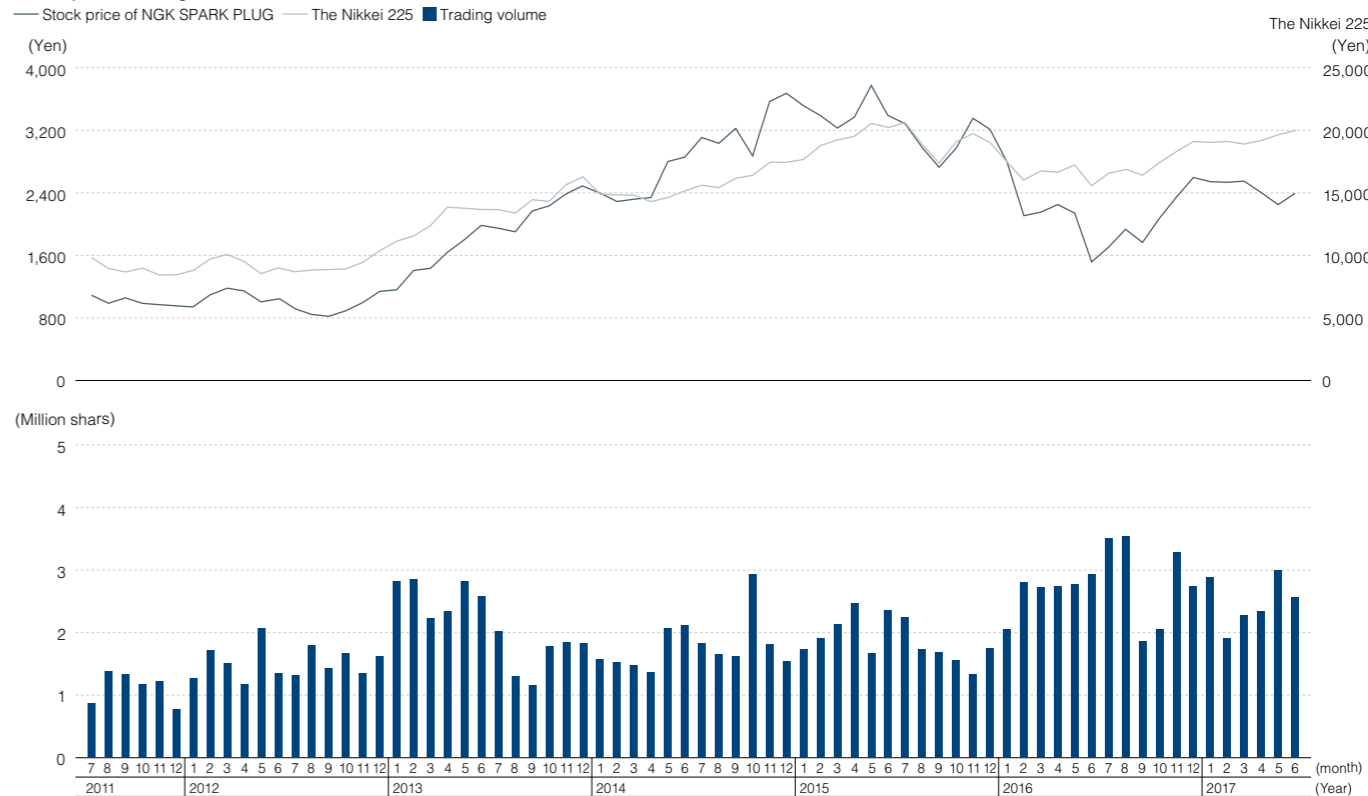
Number of Shares and Shareholders

Total number of authorized share 390,000,000
Total number of issued shares 223,544,820
Listed market First section of the Tokyo Stock Exchange and Nagoya Exchange
Shareholder registry administrator Mitsubishi UFJ Trust and Banking Corporation
Accounting auditor KMPG
Number of shareholders 13,110

Breakdown of shareholders by type



Stock price/trading volume



Major Shareholders

Name of shareholders	Shares held (thousands)	Ownership ratio
The Dai-ichi Life Insurance Company, Limited	16,752	7.49
The Master Trust Bank of Japan, Ltd. (Trust Account)	13,938	6.23
Meiji Yasuda Life Insurance Company	13,794	6.17
Japan Trustee Services Bank, Ltd. (Trust Account)	11,516	5.15
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	6,541	2.93
STATE STREET BANK AND TRUST COMPANY	6,358	2.84
National Mutual Insurance Federation of Agricultural Cooperatives	6,138	2.75
The Master Trust Bank of Japan, Ltd. (for Toyota Motor Corporation)	3,929	1.76
STATE STREET BANK AND TRUST COMPANY 505223	3,710	1.66
Japan Trustee Services Bank, Ltd. (Trust Account 9)	3,633	1.63

As of March 31, 2017, the Company holds 11,320 thousand shares of treasury stock other than those listed above.



NGK SPARK PLUG CO., LTD.

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CSR Promotion, Risk Management Dept.,
Corporate Strategy Gr.
Phone: 81-52-872-6248 Fax: 81-52-872-5999



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in implementing the principles of the
United Nation's Global Compact and
supporting broader UN goals.

We welcome feedback on its content.