



*shaping your dreams*

# OSG REPORT 2020

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Fiscal year ended November 2020



**OSG Corporation**

# ZERO-ONE

## From Imagination to Creation

Building on its leadership in the world market for taps, OSG has evolved into an integrated manufacturer and supplier of tools, including drills, end mills, and rolling dies.

With an approach that emphasizes communication through tools we have built a network spanning 33 countries as part of our commitment to our customers' expectations.

We aim to be the world's number one manufacturer of hole-making cutting tools.

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### "Hanging Earth"

A chain that splits magma from the earth, extending from the core as if it is hanging the planet, leading it toward the universe. A representation of OSG's corporate philosophy.

Sculptor: Kenji Misawa  
October 6, 2020

### Editorial Policy

The OSG Report is published primarily for investors. As an integrated report, it encompasses management strategies for medium- to long-term growth, and information about the environmental, social, and governance (ESG) systems on which our growth is based, together with results and financial information for the fiscal year ended November 2020. Various information about OSG is also available on our corporate website. We hope that this report and the information on the website will help readers to achieve a fuller understanding of our activities. We will continue our efforts to provide editorial content that meets readers' expectations.

### Disclaimer Regarding Forward-Looking Statements

Apart from information based on historical facts, all references in this report to plans, strategies, forecasts, or management initiatives pertaining to the future business performance of OSG are forward-looking statements and as such represent assumptions and judgments based on information currently available. Actual results may differ from the results predicted in this report due to various factors, including trends in the economic environment in which OSG operates, product demand and price trends, the development of new products, sales, raw material prices, and exchange rate fluctuations.

# PHILOSOPHY

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## Tool Communication

OSG's products are created through communication with our customers. Communication is indispensable to our ability to supply products and services that truly meet customers' needs, and to our continuing efforts to develop better products.

## Global Presence

As a comprehensive cutting tool manufacturer, we make products that at a fundamental level contribute to enhancing people's quality of life. Through continuous growth, we have established a production, sales, and technical support network spanning 33 countries. Our corporate aim is to continue to expand our operations globally and strengthen our contribution to the manufacturing industries in the world.

## shaping your dreams

We want to give shape to the aspirations of every customer. That goal motivates us to continue taking up new challenges as we work to support manufacturing industries worldwide.

## Message from Top Management

We would like to begin by expressing our sincere sympathy to everyone affected by the COVID-19 pandemic, and our profound respect for all medical professionals working in the frontline to combat the disease.

During the COVID-19 crisis, we have made the safety of our employees our first priority. We have continually gathered information about the impact on our business operations, including our supply chains, and used that information as the basis for timely decision-making about the measures needed to ensure business continuity. The entire OSG Group remains united in our efforts to overcome the present difficulties while fulfilling our responsibilities to all stakeholders.

The global economic environment worsened rapidly in the year ended November 2020 with the spread of the COVID-19 pandemic. The situation had a severe impact on the automotive and aerospace industries, which are major users of our products, with the result that we were unable to achieve our targets under the "Next Stage 17" Medium-term Management Plan, which we launched in 2017.

In November 2021, we revamped OSG's management structure in response to this situation.

We want the OSG Group to be the world's top manufacturer of hole-making cutting tools, and we are working to realize this ambition through wide-ranging growth strategies. They include the expansion of product sales, M&A that is intended to grow our sales channels and business operations, and initiatives that improve productivity through digital transformation. The OSG Group is also determined to contribute to sustainable social development by strengthening environmental protection measures, and enhancing governance systems. We will also focus on ESG initiatives that reflect the philosophy behind the Sustainable Development Goals (SDGs). By making this transition to our new structure, we aim to build flexible and more robust management systems to carry the OSG Group forward amid the uncertainties of the with-COVID and post-COVID eras.

We are confident that humanity will overcome the COVID-19 threat. However, it seems unlikely the world will ever return to its pre-COVID state, and that we will need to adapt to a 'new normal', in which our past assumptions are no longer valid. Regardless of how the environment changes from now on, the entire OSG Group will continue to approach all of our business operations in good faith and with the shared goal of achieving growth by enhancing the added value of OSG as a brand trusted by our customers.

We look forward to the continuing support and understanding of our stakeholders.





*Norio Ishikawa*

Norio Ishikawa  
Chairman & CEO

*Nobuaki Osawa*

Nobuaki Osawa  
President & COO

# Building the future with our own hands

ALWAYS MOVING FORWARD

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**Nobuaki Osawa**

President & COO



**Profile**

Nobuaki Osawa was born in Aichi Prefecture. He joined OSG Sales (now OSG) in 1991. He became the director in charge of European operations in 2006, a Managing Director in 2010, and Senior Managing Officer and Director in 2019. In February 2021, he was appointed Representative Director, President, and Chief Operating Officer (COO).

## **A Path to Success Stretching 10 Years, 20 Years into the Future**

Everywhere people are working to survive and make progress amid the continuing uncertainty in a world transformed by the emergence of a previously unknown virus.

In the year ending November 2021, we have taken the first steps on a new path to the future by adopting a new management structure for OSG. The entire OSG organization is united in our determination to overcome the difficulties resulting from this uncertain situation by drawing on the full potential of OSG's unique spirit of meeting and overcoming every challenge, and by adopting new perspectives in a changing environment.

This year marks the 83rd anniversary of OSG's founding. The entire management team recognizes the next five years as a pivotal period for achieving growth in the run-up to our centenary and is determined to build an even brighter future for OSG. My mission as President and COO is to provide steady leadership, and to strengthen and enhance our management structure so that we can achieve further improvement in our corporate value.

## **Achievements under the "Next Stage 17" Medium-term Management Plan**

The current year marks the completion of the "Next Stage 17" Medium-term Management Plan, which we launched in the year ended November 2017. Strategic initiatives designed to increase our shares of global markets for key products resulted in sustained growth in our financial indicators through the year ended November 2018. However, subsequent performance trends were impacted by the emergence of trade friction between the United States and China in the second half of 2019, and by the recession triggered by the COVID-19 pandemic in the year ended November 2020. As a result, we were ultimately unable to achieve our targets of net sales of ¥150 billion, operating income of ¥30 billion, and an operating income margin of 20%.

However, we believe that our efforts over the past four years have brought tangible progress, and we are confident that the OSG Group will be able to move forward steadily toward our goal of becoming the world's top manufacturer of hole-making cutting tools.

The COVID-19 pandemic caused a temporary

slowdown in our major end-user strategy, under which we produce order-made tools and suggest processing methods. Despite this, we succeeded in building relationships with new customers in the automotive and aerospace industries, which are major users of our products. We also made progress with our catalogue item sales strategy, through which we help customers to improve their productivity by supplying tools that provide excellent cost performance. In addition to the global expansion of the A Brand series of high-performance tools, we also steadily increased our market share by introducing many new products. Another key growth driver was the global expansion of the "A-Club" distribution organization as an additional source of momentum for sales.

We have made good progress with our efforts to improve productivity through the OSG 4.0 Project. The focus of this project is to use digital technology to create production systems that allow us to reduce lead times and maximize profit with ultra-high-variety low-volume production, while improving efficiency through the automation of large-lot production. In May 2020, we commenced operations on schedule at the NEO Shinshiro Factory, which will be the test bed for OSG 4.0. Packed with next-generation technology, this new factory will enhance our capacity to win orders and contribute to profit maximization as our core manufacturing facility. We plan to extend innovations at the NEO Shinshiro Factory progressively to our other plants.

Under another key strategy for the OSG Group, we maintained a dynamic M&A program targeting the expansion of both sales channels and business areas with the aim of strengthening our business operations, especially in Europe and The Americas. The OSG Group has grown to over 90 companies in 33 countries.

The new Medium-term Management Plan will be formulated during the fiscal year ending November 30, 2021, in light of the changing business environment due to the impact of the spread of the COVID-19 infection.

## **Basic Policies for the Year Ending November 2021**

Forecasting remains difficult in the year ending November 2021 because of continuing uncertainty about the world economic outlook due to the effects of the COVID-19 pandemic. However, encouraging signs are increasingly emerging, with both the Chinese and U.S. economies now

## Message from the President

on recovery trends. There is also evidence of an emerging recovery in the European automotive sector. We are also seeing a recovery in orders received by the OSG Group since the fall of 2020. In the year ending November 2021, we will move forward steadily with the measures outlined below.

Our most important priority is to expand our shares of overseas markets. The catalogue business will play a central role under the 'new normal,' and we will actively focus our efforts toward the expansion of sales of our flagship range of A Brand products through our extensive overseas network. We will also work to raise our market presence by aggressively launching new products.

In addition, we will seek out new customers for our order-made products, which are developed to meet specific user needs. In addition to our traditional focus on the automotive and aerospace industries, we will also target areas with future growth potential, such as 5G, electric vehicles (EVs), and healthcare. Communication with customers is vital in these areas. We aim to strengthen our presence in growth markets by using face-to-face and online meetings to gather up-to-the-minute information, and by demonstrating OSG's superior technology, exceptional service, and competitiveness.

In addition, we will continue to strengthen our coating business in anticipation of demand growth in a wide spectrum of industries.

Our priority for post-merger integration (PMI) for companies newly added through M&A is to ensure that

each company is managed in a way that maximizes returns and synergies.

### Adapting to the Accelerating Shift to Electric Vehicles (EVs)

Our business environment is changing dramatically. The most important issue for OSG at present is the automotive sector's accelerating shift to electric vehicles. While this trend is expected to result in reduced processing of parts for fuel-powered engines, there could also be opportunities resulting from the need to process new types of parts. We are determined to capture a share of this new market by working with a sense of urgency to gather information and offer added value to customers. We are confident that the global technology, service, and production structures that OSG has built will give us a key advantage in this market.

In recent years, we have worked to enhance our coating technology. We will expand this area of expertise and use it as a stepping-stone to the development of new technologies and products for EV parts. We will differentiate OSG from its competitors by further expanding our global network of coating centers.

### Restructuring Our Global Production Operations

The OSG Group has production facilities in 17 countries.

## Management Targets for the Year Ending November 2021

01

Consolidated net sales **¥115,000 million**  
Operating income **¥11,500 million**

03

Capital expenditure budget **¥6,000 million**

02

Operating income margin **10% or higher**

04

Consolidated free cash flow  
**¥11,000 million**

We need to develop structures that will raise operating rates at these facilities and maximize their output. Imbalances in product mixes at each factory are currently reflected in variations in operating rates. Going forward, we will develop production structures based on global perspectives with the aim of raising operating rates and maximizing productivity. Specifically, we will take steps to achieve overall optimization of our operations, including the adjustment of product mixes to reflect the size of individual facilities, the installation of more labor-saving and automated equipment, and the use of IT to aggregate data and support centralized process control.

### **Contribution to the Creation of a Sustainable Society**

The OSG Group has a corporate philosophy called 'Earth Family' which includes the meaning of contributing to the global manufacturing industries. Based on this corporate philosophy, we have adopted the Sustainable Development Goals (SDGs) and are focusing on ESG management with the aim of contributing to the sustainable development of society through our business activities.

Protection of the global environment is recognized as a shared priority for the entire human race. Our environmental activities are guided by our commitment to eco-friendly manufacturing, including the development of long-life products that help to reduce resource consumption, and the efficient use of resources. The entire OSG Group is also contributing to the development of a recycling-based society through the recycling of carbide products and through its after-sales services, including regrinding and recoating services.

We are also determined to build and maintain sound relationships with all of our stakeholders, and to work in closer harmony with society. We respect diversity in our work force and implement our own approach to work-style reform with the dual aims of enhancing employee happiness and motivation and improving productivity. In addition, we have started to modify our work methods to create healthy workplaces in which everyone can work with confidence despite the COVID-19 situation.

We have enhanced the transparency and independence of our governance structure and strengthened management oversight functions by developing a Board of Directors in which five of the eight

seats are occupied by outside directors. Our new management structure was designed to foster stronger management teamwork through a clear division of roles between the Chairman and CEO, who is responsible for group management and ESG, and the President and COO, who handles management planning and provides leadership for executive functions.

### **Financial and Capital Strategy**

The core goal of our financial strategy for the year ending November 2021 is to strengthen our financial structure and business base from a medium- to long-term perspective. Our targets include capital expenditure of ¥6 billion and consolidated free cash flow of ¥11 billion. We aim to reduce capital expenditure and other outflows during the COVID-19 crisis, in order to restore our cash position in readiness for increased investment in the year ending November 2022 and beyond.

To secure reliable access to funds in the year ending November 2021, we procured long-term loans totaling ¥10 billion from financial institutions. We also established commitment lines totaling ¥10 billion with our main banks to cover unexpected funding needs that may emerge due to various contingencies, such as if the effects of the COVID-19 pandemic continue longer than anticipated.

With an equity ratio of 64.6%, we believe that OSG is maintaining its financial soundness. While aiming to achieve a return on equity (ROE) ratio of over 10%, we are also working to maintain a balance between the provision of funds for strategic growth investment and financial soundness, and shareholder returns.

We recognize the distribution of profits to shareholders as a management priority. Our basic policy on shareholder returns is to maintain a consolidated dividend payout ratio of 30% or higher, while also considering other factors, such as cash flows and our financial position. We have set the dividend for the year ended November 2020 at ¥22, consisting of interim and final dividends of ¥11 each.

It is not easy for a company to maintain consistent growth in this time of increasing uncertainty. We are determined to use this time to build the future of OSG with our own hands by further enhancing our corporate value and contributing to sustainable social development. We look forward to the continuing support and understanding of our stakeholders.

## Our Value Creation Story

# HISTORY × CULTURE

Since its establishment in Tokyo in 1938, OSG has grown in the global cutting tool market by developing a variety of original technologies, such as for tap grinding with grindstones, and by building its own overseas sales channels. The driving force that has enabled us to create advanced technology and build a global network spanning 33 countries is the unique OSG spirit of meeting and overcoming every difficulty and challenge. We will continue to take up new challenges on our path to even greater success and growth on a global scale.

› 1938-

› 1960

› 1970

› 1980

› 1990

### OVERSEAS

**1968**



OSG Tap and Die (USA) (now OSG USA, Inc.) was established.



**1974**



OSG Ferramentas de Precisão Ltda. (Brazil) (now OSG Sulamericana de Ferramentas Ltda.) was established.



**1969**



Taiho Tool Mfg. Co., Ltd. (Taiwan) was established.

**1993**



OSG Asia Pte Ltd. was established in Singapore as the holding company for Asia.



### PRODUCTS

**1938**

Began to manufacture taps and dies.



**1942**

Began to manufacture gauges.

**1956**

Began to manufacture rolling dies.



**1970**

Began to manufacture HSS end mills.



**1980**

Began to manufacture carbide end mills.



**1984**

Began to manufacture drills.



**1987**

Began to manufacture cutter bodies.



### JAPAN



**1938**

Hideo Osawa established OSG Grinding Co., Ltd. in Tokyo.

**1943**

Established Aichi Factory (now OSG Academy).

**1961**

Toyokawa Factory began operation.

**1963**

Changed the company name to OSG MFG. Company.

**1967**

Oike Factory began operation.

**1971**

Toyohashi Factory began operation.

**1981**

OSG was listed on the First Section of the Tokyo and Nagoya stock exchanges.

**1982**

Shinshiro Factory began operation.

**1990**

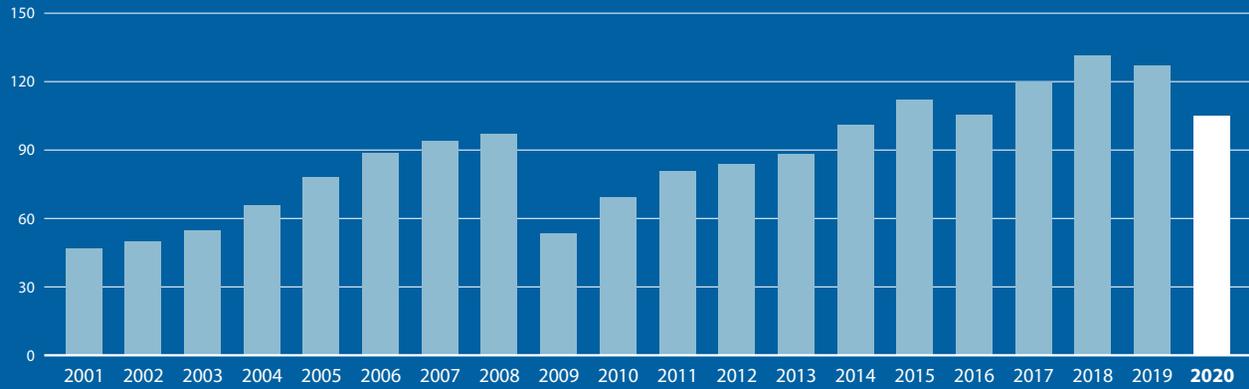
Yana Factory began operation.

**1993**

Relocated corporate headquarters to Toyokawa, Aichi.

## Net sales

(Billions of yen)



›2000

›2010

›2020

**1997**



OSG Europe S.A. was established in Belgium as the holding company for Europe.



**2001**



OSG (Shanghai) Co., Ltd. (China) was established.



**2003**



OSG Italia S.R.L. was established.

**2003**



OSG GmbH (Germany) was established.

**2005**



OSG (India) Pvt. Ltd. was established.

**2012**



OSG Turkey Kesici Takımlar Sanayi ve Ticaret A.Ş. was established.

### Global Network

Sales offices **33** countries

Manufacturing facilities **17** countries

R&D locations **7** countries



**2014**

Introduced 'The A Brand' product brand.

**A**

## OSG CULTURE

- › Expansion of business operations on a global scale
- › Close communication through tools
- › Provision of optimal processing solutions
- › Development of high-added-value products
- › Comprehensive quality management

**1998**

Established CS Center.



**2000**

Nine business sites in Japan were certified under ISO 14001.

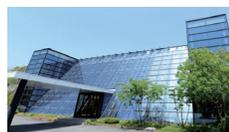
**2004**

Established Design Center.



**2006**

Established Global Technology Center.



**2007**

All OSG products were certified under ISO 9001.

**2014**

Achieved consolidated net sales of ¥100 billion in FY2014.

**2018**

Celebrated 80th anniversary.



**2020**

Established NEO Shinshiro Factory.

## Our Value Creation Story

# PRODUCTS × INDUSTRIES

OSG technology supports manufacturing industries worldwide through products that set a new standard in machining precision and efficiency. We help our customers to solve their problems by supplying products that combine competitive prices with world-class quality.



### TAPS

Taps are used to cut 'female' screw threads on the inside surfaces of holes. They are vital for the processing of precision screws, such as those used in automobile engines, and have been flagship products for OSG ever since its establishment.



### DRILLS

Drills are hole-cutting tools used in the production of automotive parts and other products that require advanced processing techniques. OSG is focusing on the expansion of sales of carbide drills for high-efficiency processing and the drilling of difficult-to-cut materials.



### END MILLS

End mills are used to create shapes by cutting away metal. They are able to cut and contour molds for plastic parts, primarily for home appliances, die-casting dies for automotive parts, stamping molds, and the processing of aircraft parts.



### ROLLING DIES

Rolling dies are used to form threads on round bars and are also applied to the production of automotive parts. OSG is working to expand its sales of counter-flow rolling dies.



### INDEXABLE TOOLS

Indexable tools, which are cutting tools with exchangeable blades, are used to cut metal to produce dies and mechanical parts. While end mills are used for finishing, indexable tools are intended for roughing.

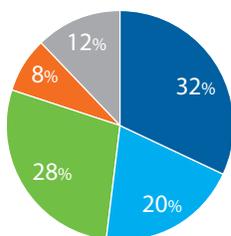


### GAUGES

Gauges are used to measure the accuracy of threads, holes, and other parts. Accuracy inspection has become an extremely important process because of the trend toward increasing product precision and compliance with international standards.

Net sales by Product Category

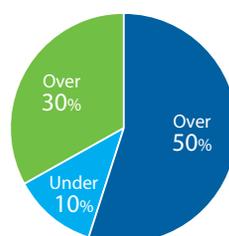
■ Taps  
■ End mills  
■ Drills  
■ Rolling dies  
■ Others  
[Fiscal year ended November 2020]



Net sales by Industry

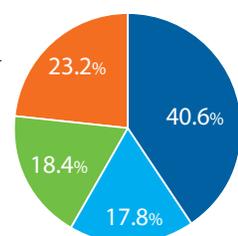
■ Automotive industry  
■ Aerospace industry  
■ General industry (Precision parts, Molds, etc.)  
[Fiscal year ended November 2020]

\*Estimate



Net sales by Region

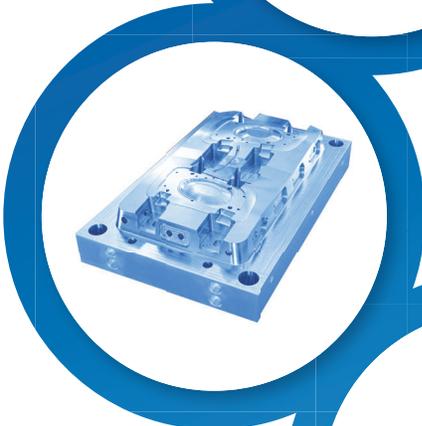
■ Japan  
■ The Americas  
■ Europe and Africa  
■ Asia  
[Fiscal year ended November 2020]



# AEROSPACE



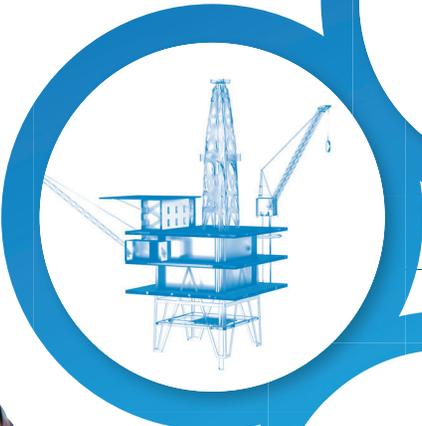
# MOBILITY



# MOLD & DIE



# MEDICAL



# ENERGY

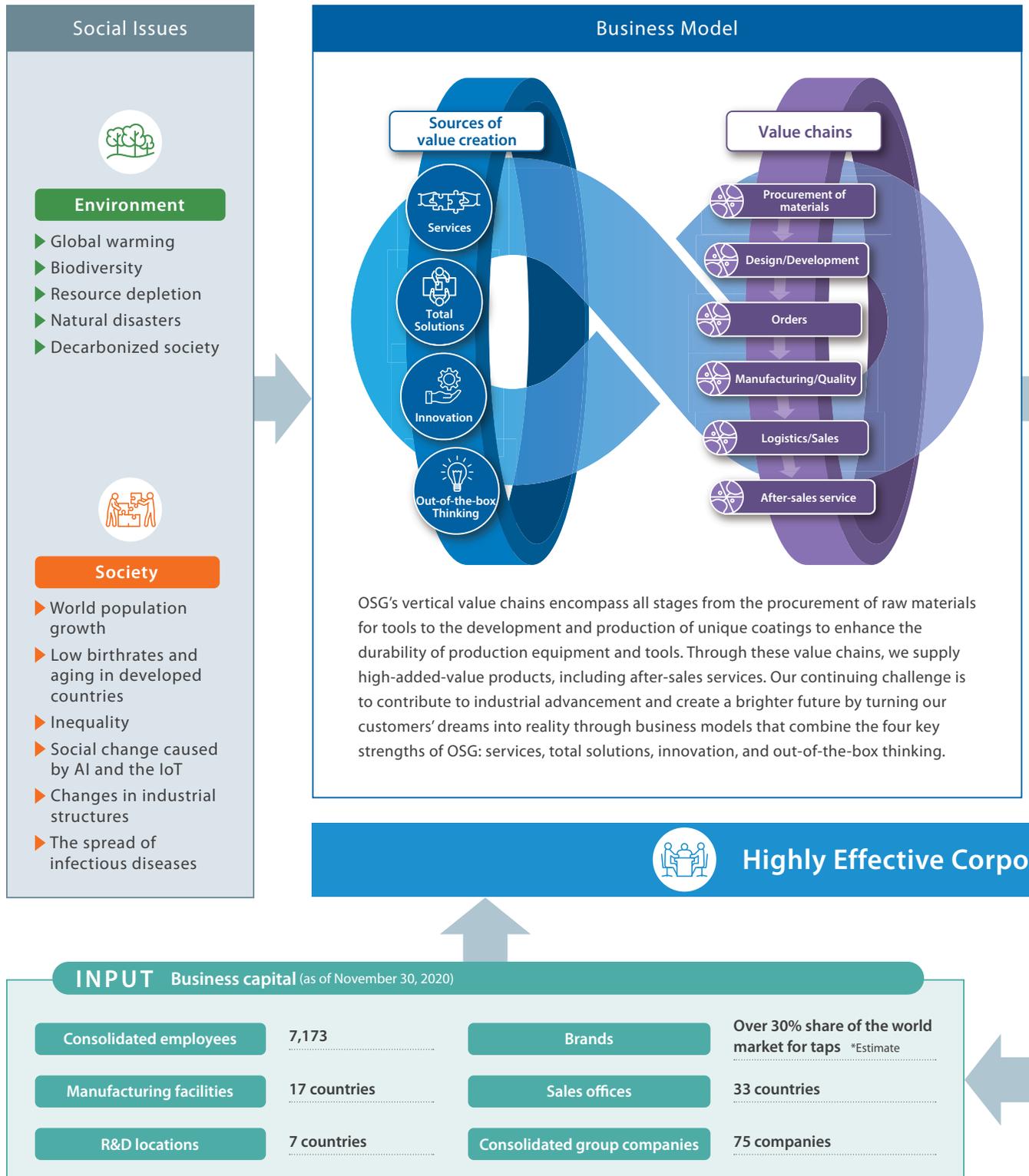


# HEAVY INDUSTRY

## Our Value Creation Story

# BUSINESS MODEL × STRENGTHS

OSG has consistently exceeded the expectations of all stakeholders by supplying unique products and services that provide high added value to manufacturing operations throughout the world.





The OSG Group supports the philosophy behind the Sustainable Development Goals (SDGs) and is determined to contribute to the sustainable development of society through its business activities.

## Accumulated Strengths

### Platform sharing

OSG has tangible and intangible assets that can be used throughout the entire Group. OSG Group companies around the world can share our unique platforms, including our coating technologies, our test cutting experience, and our accumulated know-how for improving our customers' productivity.

### Excellent corporate culture

OSG's outstanding management perspective has enabled us to cultivate an excellent corporate culture. By maintaining and improving this corporate culture, we can facilitate post-merger integration (PMI) and create a lot of synergy with new Group companies.

### Global network

Since establishing its first overseas subsidiary in the United States in 1968, OSG has built a network of sales offices in 33 countries. This network allows us to identify trends in the global cutting tool market while also monitoring customer needs through our local marketing activities.

OSG will continue to supply optimal cutting tools to frontline production operations worldwide.

## Contributing to Stakeholders



### Local communities

Sustainable improvement of living standards, industries, and culture



### Customers

Improvement of satisfaction level through products and services that surpass expectations



### Shareholders/ investors

Improvement of share value through sustainable profit growth and shareholder returns



### Suppliers

Development of co-creation relationships that lead to two-way value improvement



### Employees

Creation of a corporate culture in which both the company and the individual can achieve growth

Governance Structure >> P.20

## OUTPUT Financial capital (as of November 30, 2020)

Net sales

¥104.3 billion

Operating income

¥8.3 billion

Overseas sales ratio

59.4%

Interest-bearing debt

¥41.7 billion

EBITDA

¥18.9 billion

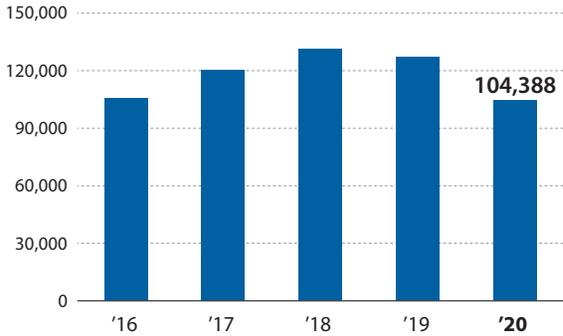
ROE

4.4%

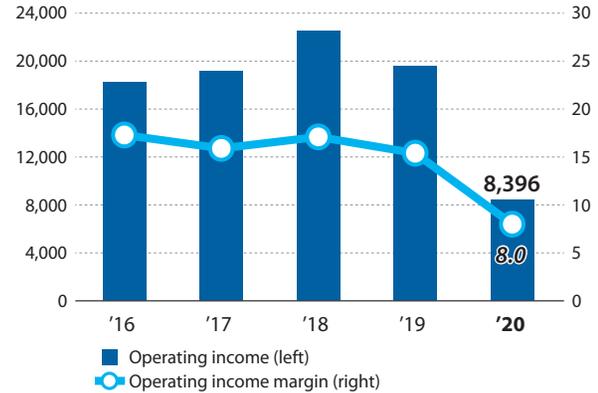
# Financial and Non-Financial Highlights

## Financial Highlights

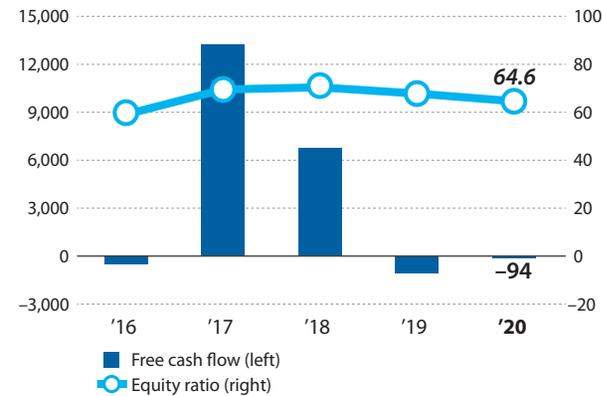
Net sales (millions of yen)



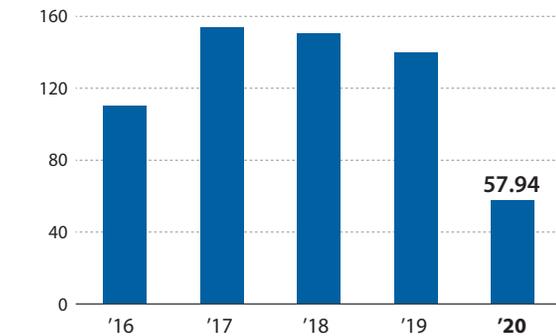
Operating income (millions of yen)  
Operating income margin (%)



Free cash flow (millions of yen)  
Equity ratio (%)

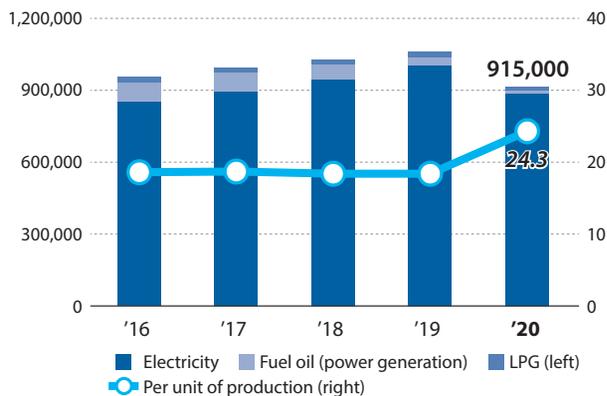


Earnings per share (EPS) (yen)

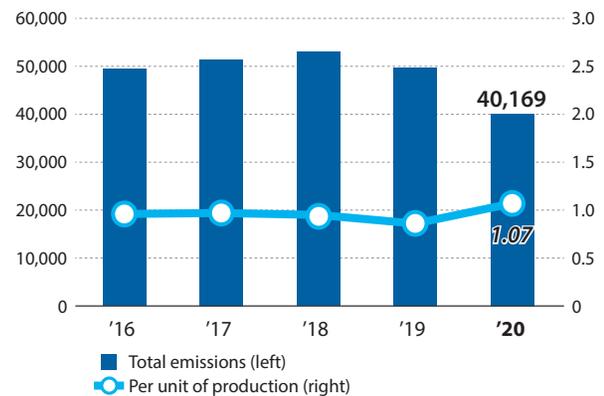


## Non-Financial Highlights

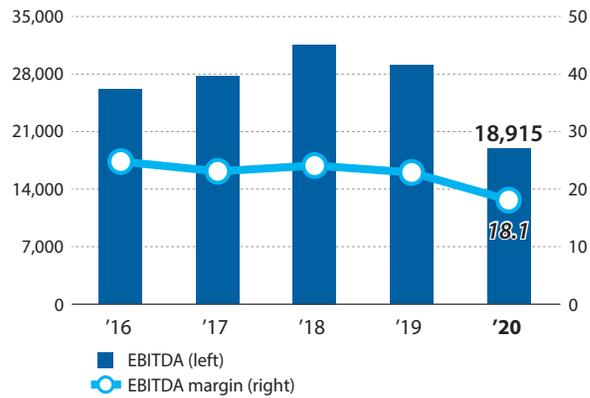
Energy consumption (GJ)  
Energy consumption per unit of production (GJ/million yen)



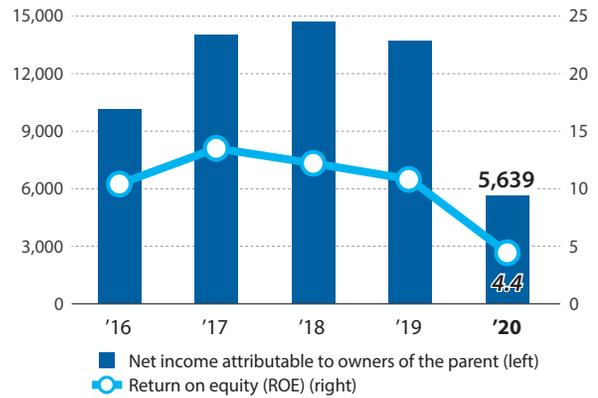
CO<sub>2</sub> emissions (t)  
CO<sub>2</sub> emissions per unit of production (t/million yen)



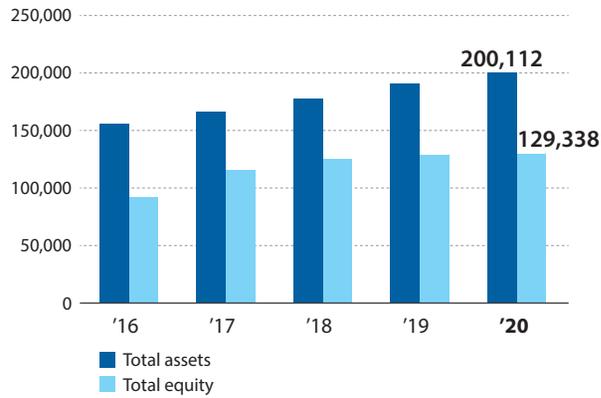
EBITDA (millions of yen)  
EBITDA margin (%)



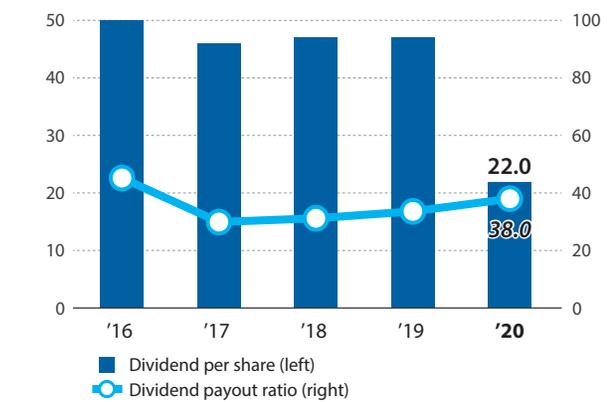
Net income attributable to owners of the parent (millions of yen)  
Return on equity (ROE) (%)



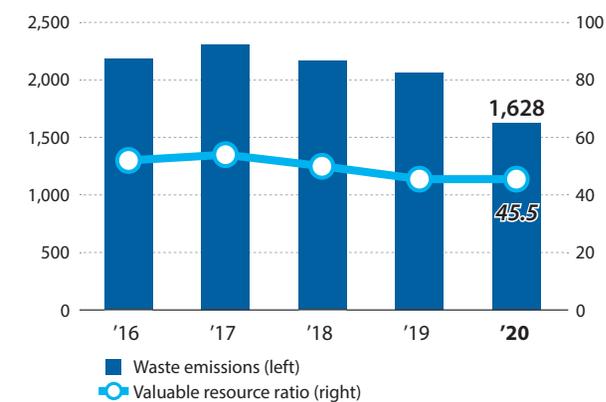
Total assets (millions of yen)  
Total equity (millions of yen)



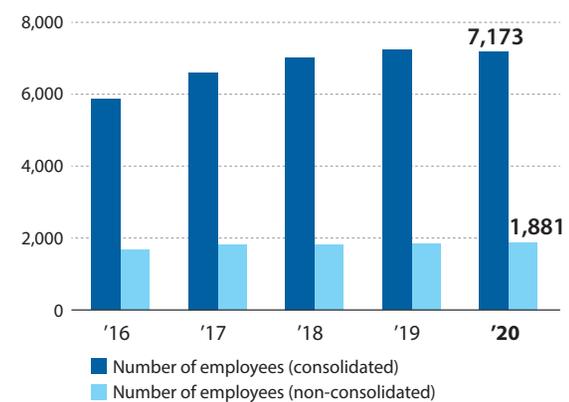
Dividend per share (yen)  
Dividend payout ratio (%)



Waste emissions (t)  
Valuable resource ratio (%)



Number of employees (consolidated) (persons)  
Number of employees (non-consolidated) (persons)



## NEO Shinshiro Factory is Up and Running!

After three decades as one of our mother plants in Japan, the Shinshiro Factory has undergone a major refurbishment program, resulting in the creation of the NEO Shinshiro Factory. Operations have now commenced at the new facility, which is expected to enhance OSG's corporate value as a next-generation mother factory.

# 'Zero-One Factory'

## Ultra-high-variety low-volume production through digital technology

### Production Capacity



Monthly production quantity

**700,000**  
units



Types of products produced per month

**6,000** types



Production lots per month

**8,000** lots

### OSG's Unique Approach to Digital Transformation

Digital Transformation (DX) is transforming business and society on a global scale. When we announced the NEO Shinshiro Factory concept in January 2019, we also announced the OSG 4.0 Project. This initiative brings together various projects that we have previously pursued as separate parts of the puzzle, such as the construction of new factories as receptacles, the use of automation to reduce labor requirements, the introduction of automated equipment, the digitalization of production data in factories, and the digitalization of production operations. We are also implementing digitalization on a company-wide scale through the creation of the OSG Product Data Management (OPDM) system, which will provide integrated information management at all stages from tool orders to design, manufacture, and delivery. The aim of this unique OSG approach to DX is to achieve dramatic improvements in productivity at the NEO Shinshiro Factory.

### Creating Value Unique to OSG through Ultra-High-Variety Low-Volume Production

With approximately 600 employees, the NEO Shinshiro Factory produces around 8,000 lots per month of 6,000 different types of tools, including carbide drills, carbide taps, HSS drills, and HSS end mills. A key trend in the cutting tool industry in recent years has been an increase in high-variety low-volume orders. The majority of carbide drills and carbide taps produced at the NEO Shinshiro Factory are manufactured in small lots of 20 or fewer items. Few companies in the world are capable of high-variety low-volume production on this scale in a factory of this size. OSG creates value by meeting customers' expectations in terms of quality, cost, and delivery lead times (QCD) for high-variety low-volume orders. We will continue to enhance our competitiveness by using process visualization to raise capacity utilization rates, by introducing new systems, and by further improving QCD performance, including the development of next-generation grinders.

### Key to Zero-One is People—Combining Advanced Skills with a Smart Factory

The NEO Shinshiro Factory was built on the 'Zero-One Factory' concept. The words 'zero-one' symbolize our



Ownership of production equipment is key to ultra-high-variety low-volume production



Digitization of product information in the factory



Centralized management to visualize the manufacturing process





commitment to setting aside our traditional approach and starting again from zero. The key to creating one from zero is not information technology, but people. The new factory is the result of a convergence between advanced skills and cutting technologies developed over decades, and the latest digital technology. The result is a next-generation mother factory capable of maximizing productivity and output. Thanks to process visualization we are able to collect, share and analyze a variety of information, including the operating rates of individual machines, production schedules, production conditions, and flow quantities. The

aim of this approach is to optimize production shifts according to prevailing conditions, and to reduce lead times for both catalogue and order-made items.

#### Creative Facility Designs to Support a Great Work Environment

At the NEO Shinshiro Factory, we are building a great work environment for the free exchange of ideas by incorporating a variety of workspace ideas, including office areas based on the 'free address' system, an employee cafeteria that doubles as a meeting space, and naming meeting rooms after countries with OSG production facilities.

#### Three Key Points of Digitization

##### ✓ Production data

By collecting, sharing, and analyzing a variety of data, including the operating rates of individual machines, production schedules, production conditions, and flow quantities, we are able to optimize the combination of resources needed to reduce lead times for both catalogue and order-made items.

##### ✓ Quality data

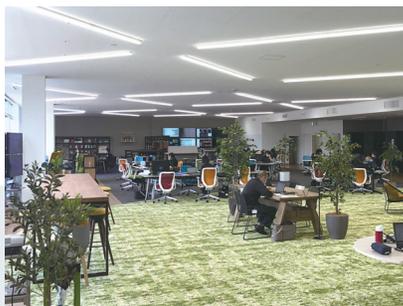
We ensure traceability by using servers to provide centralized management of quality information for each product processed, including the materials allocated, processing history, and measurements.

##### ✓ Equipment maintenance data

Equipment maintenance is an essential part of our efforts to ensure high standards of quality and efficiency in our production operations. Maintenance information is stored as digital data for use in our preventive maintenance system.



Zero-One Cafeteria



Zero-One Office

## NEO Shinshiro Factory is Up and Running!



Norihiro Masuda  
Director, General Manager, NEO Shinshiro Factory



Toru Imaizumi  
Manager, Manufacturing Division 2



Atsushi Takahashi  
Manager, Engineering Division

The key to creating one from zero is not information technology, but people. In this section, the key people who provide the driving force for production operations at the NEO Shinshiro Factory describe the challenges that have been overcome in their own words.

### Impetus for New Designs at the NEO Shinshiro Factory

**Masuda:** The NEO Shinshiro Factory encompasses the old building as well as the new. Our aim in this new plant is to optimize frontline capabilities by combining the best of the manufacturing expertise handed down from previous generations with digital data. We also want this factory to have a positive influence on people, to generate a sense of excitement, and to bring in global perspectives. In short, we want it to be the embodiment of our aspirations.

To achieve that, we based our approach to the development of the new factory on three goals expressed in the 'zero-one factory' concept. First, in addition to digitalization, as symbolized by the 'zero' and 'one', we also sought to foster flexible ideas based on reverse thinking. Second, we aimed to enhance our capacity for actions that would produce one from zero. And third, we used our sense of achievement as a driving force for taking the initiative on new challenges.

### Combining High-Variety Low-Volume Production with Improved Capacity Utilization

**Imaizumi (Toru):** Thanks to the various digitalization measures implemented by the IT team, we are now capable of real-time monitoring of items for which monitoring was previously either impossible or time-consuming. This system also informs us about flow quantities for each process, the operating status of all equipment, and the order in which products will be processed.

As a production unit, we need to maximize output using our existing capacity by integrating all of this information. That is why we are working to improve capacity utilization, which we see as the most important step toward the achievement of this goal.

**Takahashi:** Because of the diverse needs and requirements of our customers, our production operations must be able to support high-variety low-volume production. To achieve

that, we have upgraded our infrastructure to provide visualization of the operating status of our manufacturing equipment. New initiatives have targeted the reduction of stoppage losses during holiday periods, and the improvement of capacity utilization. We are also working in partnership with a machinery manufacturer to develop systems capable of processing different types of products at the same time. Going forward, we aim to take on the challenge of using digital technologies to create equipment and systems with enhanced reproducibility and setup performance.

**Kondo:** While working at a different factory, I was involved in the introduction of a new management system that became OSG's first scheduler. I'm currently working on the implementation of another new management system, the Zero-One Synchronized Manufacturing Management System (SYM2S), at the NEO Shinshiro Factory. I find it very rewarding to be involved in a new type of manufacturing at a factory where I can achieve further evolution beyond my previous role. My current challenge is the visualization of production progress management for carbide drill production using a new scheduler and status monitor. Much work remains to be done, but we are accelerating our efforts to standardize systems to support high-variety low-volume production and implement the technology in our other factories.

### New Initiatives Toward the Achievement of Our Goals

**Imaizumi (Toru):** Another key factor for the improvement of capacity utilization is the reduction of production line setup times. Since production lines are not operational during the setup process, any reduction in setup times will improve the utilization rate. Because some setup operations can be performed while machinery is in operation, by carrying out these steps in advance as off-line setup processes, the setup time required after the equipment is shut down can be

reduced without awaiting the completion of products that were previously being processed. In addition, we decided to divide setup steps into off-line setup, and on-line setup involving actual machinery, and to provide new specialized training for workers. We are currently working on a limited number of processes, but eventually we will improve capacity utilization by training people on all processes.

In addition, our new monitoring system allows us to monitor capacity utilization accurately by providing information about the status of equipment, such as whether a machine is stopped, warming up, or working in semi-automatic or fully-automatic modes. When operating conditions are suboptimal, we can now identify the cause of problems and implement countermeasures. The aim of all of these initiatives is to improve capacity utilization.

**Takahashi:** The NEO Shinshiro Factory previously produced mainly HSS drills, and HSS end mills. With the addition of carbide drills and taps to its production lineup, it has been transformed into a 'salad bowl' factory. We are now reanalyzing and reviewing the various manufacturing methods used in this context. As we learn about the strengths and weaknesses of the various manufacturing systems and processing methods used for each type of product, I anticipate that we will find pathways to new initiatives based on the convergence of those systems and methods. We will continue to create new value by emphasizing cross-organizational thinking, and by applying the combined wisdom of all personnel at the NEO Shinshiro Factory to our activities.

### Equipping Employees with the Capacity to Take on New Challenges

**Imaizumi (Tomoko):** One day, I was asked by my then supervisor to join the Production Management Team and take charge of a new control system. I had no previous experience with production management and had to start from scratch, but many people provided

assistance, and eventually we were able to make real progress toward the development of a new production management system for the NEO Shinshiro Factory. This challenge was a valuable experience for me. I was able to benefit from this experience thanks to the Career Plan Declaration System, a human resource development program introduced by OSG to help employees achieve their ambitions. I am constantly looking for new challenges and striving to learn new things and achieve personal growth, rather than simply maintaining the status quo, and I actively work to gain and declare new qualifications, both at work and outside. I believe that this attitude led to my recognition as someone who could play an essential role in the transformation of the NEO Shinshiro Factory.

### The Preferred Tool Manufacturer for Our Customers

**Masuda:** The focus of my work has been to create a legacy of differentiated products and services by always thinking about the factors that will induce users to choose OSG. Going forward, I want to apply this experience to the development of the NEO Shinshiro Factory as the mother facility for our global production structure and a center for innovative world-class manufacturing. Because of advances in IT and logistics, people today expect the goods that they want to be delivered when they need them. To survive in this environment, which has dramatically changed customer attitudes to delivery lead times, OSG needs to ensure that it continues to be its customers' preferred tool manufacturer. Our mission is to create a flexible high-variety low-volume production structure capable of producing around 8,000 lots per month, including both catalogue items and customized tools developed to meet a wide range of user needs.

Production operations at the NEO Shinshiro Factory have only just begun. Digitalization is not the answer to every challenge, but just one of the tools that we can use. We need to ensure that OSG's production systems are always

state-of-the-art by harnessing the synergy benefits of innovative manufacturing technologies, new production systems, and market-focused production management, so that we can drive manufacturing innovations that will maintain our position as the preferred tool manufacturer for our customers, not only on the basis of our quality, cost and delivery (QCD) performance, but also as a provider of new value in the form of digital service.



Akifumi Kondo  
Manager, Production Control Division



Tomoko Imaizumi  
Team Leader, Material Team,  
Production Control Division



# Corporate Governance

We will continue to develop a highly practical corporate governance structure and enhance our systems.

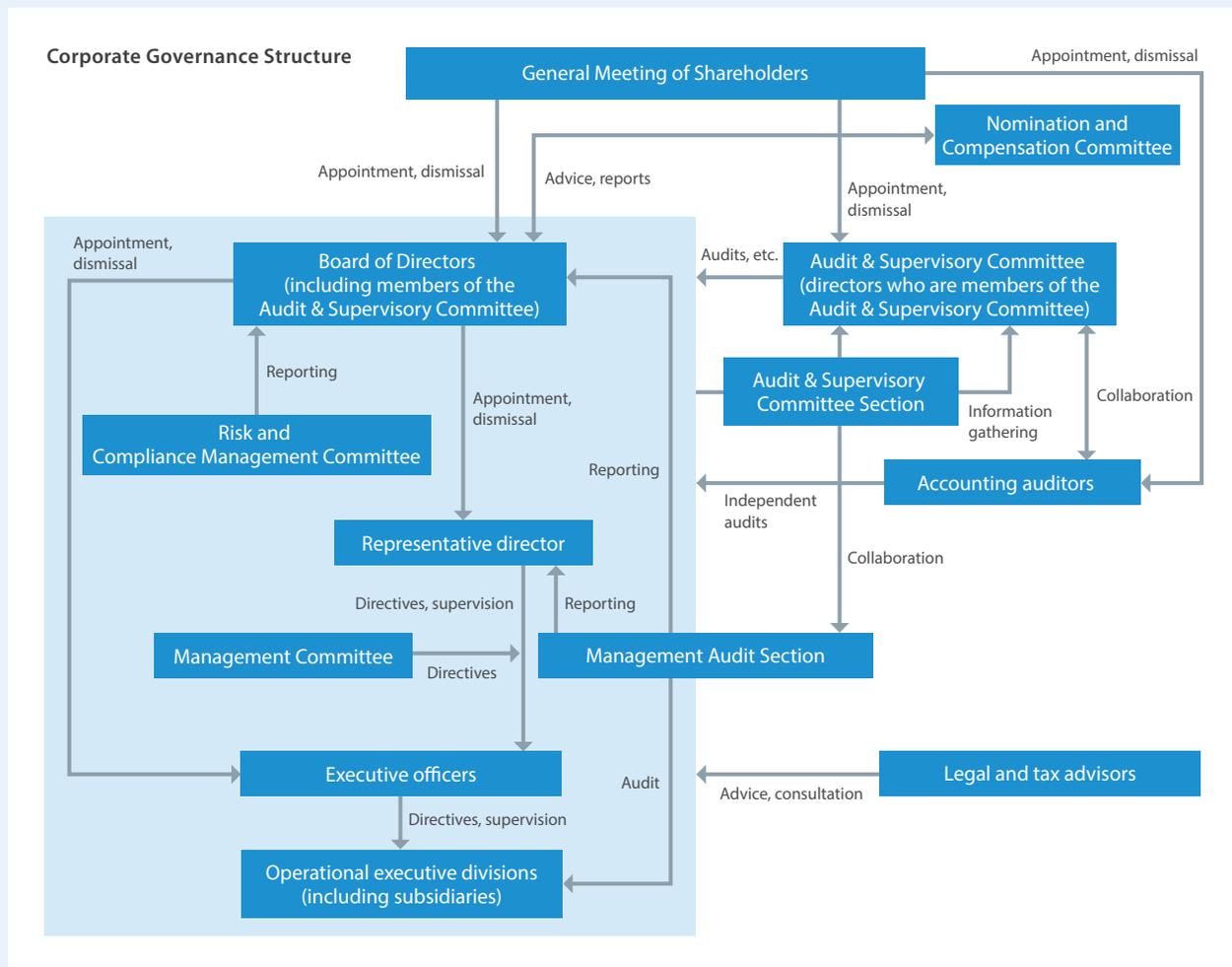


## Basic Philosophy

Under our corporate philosophy of achieving a global presence, we regard compliance with laws, regulations, and social norms as a fundamental part of our management policies, together with fairness and transparency in our business activities. We also believe that these qualities contribute to sustainable corporate development and the improvement of corporate value. Measures to enhance corporate governance, including the establishment of efficient and transparent management organizations, and the creation of systems to ensure timely and fair disclosure of accurate

information, are among our most important management priorities.

One of the ways in which we enhance our corporate governance is by raising compliance awareness among directors, executive officers and employees of OSG and its Group companies through the dissemination of the OSG Philosophy and the OSG Corporate Code of Ethics, which provide specific guidelines designed to raise ethical standards within the company.





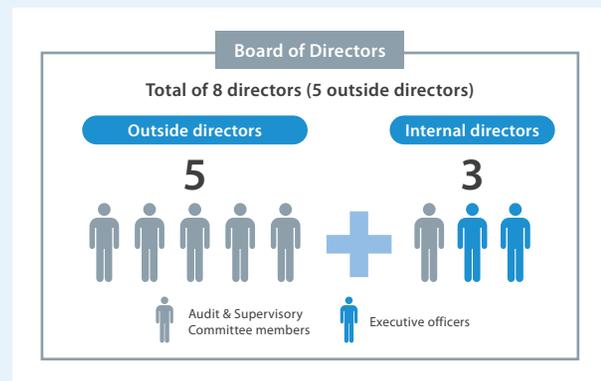
## Overview of Corporate Governance Structure

As a company with an audit and supervisory committee, OSG's corporate governance structure consists of the Board of Directors, the Audit & Supervisory Committee, and the accounting auditors. The role of the Board of Directors is clearly defined under this structure. Operational executive functions are performed by executive officers, while the Board of Directors is responsible for decision-making and the supervision of operational executive actions.

To strengthen decision-making functions, the eight-member Board of Directors includes two members who are also involved in business operations as executive officers. The remaining six directors, of whom five are outside directors, are also members of the Audit & Supervisory Committee. The outside directors also make up the majority of the Board of Directors. By creating this structure, we have enhanced the transparency and independence of the Board of Directors and the effectiveness of its management supervisory role, while bringing in outside perspectives.

In addition, OSG has introduced an executive officer system to ensure effective responses to changes in the business

environment, as well as to clarify the roles and responsibilities of the executive organization. The executive officers are solely responsible for the performance of business operations in a timely manner and in accordance with policies decided by the Board of Directors, while continually improving flexibility and efficiency.



## Reasons for Adopting this Corporate Governance Structure

By adopting our present corporate governance structure, we have enhanced the ability of the Board of Directors to oversee and supervise management decision-making and the performance of business operations, thereby improving management efficiency and ensuring that management decisions can be made appropriately and strategically. The activities of the Audit & Supervisory Committee, of which five of the six members are outside directors, include the auditing of the company's financial position and operations, and the

performance of duties by the representative director and executive officers. OSG's five outside directors are independent officers as stipulated in the listing rules. With the six members of the Audit & Supervisory Committee, including these highly independent outside directors, as members of the Board of Directors, we believe that we have created a corporate governance structure by providing an environment for effective management supervisory functions and by ensuring that the company is managed transparently and appropriately.



## Risk and Compliance Management Committee

In addition to these measures to improve management transparency and fairness and ensure timely information disclosure, we have also established Risk Management Rules as a framework for the creation of risk management structures to maintain management soundness and corporate ethics in the OSG Group. We have also established the Risk and Compliance

Management Committee to ensure the effective and efficient implementation of the Risk Management Rules. Its role is to formulate basic risk management policies and consider and implement timely countermeasures after assessing the significance and urgency of risks.



## Nomination and Compensation Committee

OSG has established a Nomination and Compensation Committee as an advisory body for the Board of Directors. Its purpose is to strengthen the independence, objectivity, and accountability of board functions through the appropriate involvement of independent outside directors and the provision of advice in relation to the appointment of directors and executive officers, etc., and compensation. The Nomination and Compensation Committee consists of directors who are also members of the Audit & Supervisor Committee, and five of the six members are independent outside directors. Persons

who are deemed suitable to be directors of OSG, on the basis of their extensive experience, advanced knowledge, and high-level specialist capabilities, are selected and nominated as candidates for membership of the Board of Directors. The Board of Directors then makes decisions on appointments after seeking advice and receiving a response from the Nomination and Compensation Committee. Please refer to the section headed “Compensation for Company Officers” on the following page for details of OSG’s process for determining compensation.

Name of committee	Total members	Internal directors	Outside directors	Outside experts	Chairperson
Nomination and Compensation Committee	6	1	5	0	Internal directors



## Reasons for Appointment of Outside Directors, Positions Held Concurrently

Outside director	Audit & Supervisory Committee member	Reasons for appointment	Positions held concurrently
Takeo Nakagawa	○	In addition to an academic career spanning many years, Dr. Nakagawa has extensive experience in and knowledge of corporate management. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. Since Dr. Nakagawa is not associated with any OSG affiliated company or major supplier or customer, he was deemed to present no risk of conflicts of interest with general shareholders, and it was therefore decided to appoint him as an outside director.	Representative Director and Chairman, Fine Tech Corporation
Kyoshiro Ono	○	Mr. Ono has extensive experience and wide-ranging knowledge gained through his work as an executive officer in another company. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. OSG has a business relationship with ONOCOM Co., LTD., of which Mr. Ono was a director until January 2016, pertaining to the purchase of equipment. This is a normal business relationship between the two corporations. Since Mr. Ono has no direct personal interest in the transactions, there is no risk of a conflict of interest between him and general shareholders. The company judges that there are no issues whatsoever concerning Mr. Ono’s independence.	
Yoshiyuki Sakaki	○	Professor Sakaki has wide-ranging knowledge and experience gained through his long academic career. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. Since Professor Sakaki is not associated with any OSG affiliated company or major supplier or customer, he was deemed to present no risk of conflicts of interest with general shareholders, and it was therefore decided to appoint him as an outside director.	President, Shizuoka Futaba Gakuen
Akito Takahashi	○	Mr. Takahashi has extensive experience and advanced knowledge and specialist skills gained through his career as an attorney. As a legal expert, he was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. Since Mr. Takahashi is not associated with any OSG affiliated company or major supplier or customer, he was deemed to present no risk of conflicts of interest with general shareholders, and it was therefore decided to appoint him as an outside director.	Outside Director, Nippon Carbon Co., Ltd. Outside Director, Oriental Consultants Holdings Co., Ltd.
Kunihiko Hara	○	In addition to an academic career spanning many years, Mr. Hara has extensive experience in and knowledge of corporate management. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. Since Mr. Hara is not associated with any OSG affiliated company or major supplier or customer, he was deemed to present no risk of conflicts of interest with general shareholders, and it was therefore decided to appoint him as an outside director.	Designated Professor, Nagoya University Graduate School of Informatics (Future Value Creation Research Center)

\*As of February 20, 2021



## Compensation for Company Officers

### ■ Compensation Structure

Compensation for directors (excluding directors who are members of the Audit & Supervisory Committee) consists of fixed basic compensation, variable compensation linked to business performance, and allocations of restricted stock. Since directors who are members of the Audit & Supervisory Committee are independent from the other directors and are not involved in the execution of business operations, their compensation consists solely of fixed compensation.

#### Fixed Compensation

The total amount of fixed compensation is determined within the upper limit defined by a resolution of the 103rd Ordinary Shareholders' Meeting held on February 20, 2016. Compensation is set at ¥396 million per year for directors (excluding directors who are members of the Audit & Supervisory Committee), and ¥84 million per year for directors who are also members of the Audit & Supervisory Committee.

#### Variable Compensation

Starting in the fiscal year ended November 2019, the company provides variable compensation in the form of profit-linked bonuses in line with the definition of profit-linked salaries provided in Article 34, Paragraph 1 Item 3 of the Corporation Tax Act, as well as personal assessment bonuses.

##### Profit-linked Bonuses

- Eligibility: Eligible directors who are serving as executive officers and managing officers
- Calculation method: Profit-linked bonus = Consolidated operating income before provision for the cost of performance-linked bonuses x Rank-based bonus ratio (see table below) The maximum amount for profit-linked bonuses is ¥700 million.

##### Rank-based bonus ratio

Rank	Percentage
Chairman & Representative Director	0.365%
President & Representative Director	0.405%
Managing Officers	0.162%

##### Personal Assessment Bonuses

- Eligibility: Managing officers
- Calculation method: Personal assessment bonuses are paid according to qualitative assessments of each person's contribution to business performance. The maximum amount for personal assessment bonuses is ¥50 million.

### ■ Compensation Based on Allocations of Restricted Stock

- Eligibility: Directors (excluding members of the Audit & Supervisory Committee)
- The amount of compensation is determined within the upper limit defined by a resolution of the 106th Ordinary Shareholders' Meeting held on February 16, 2019. The maximum total value of shares allocated to eligible directors is set at ¥200 million a year, and the maximum total number of the company's ordinary shares that can be issued or disposed of is 100,000 per year. The purpose of this system is to provide an incentive to achieve continual improvement in the company's performance and corporate value and increase the value shared with shareholders.

### ■ Process for Determining Compensation

#### Fixed Compensation, Compensation Based on Allocations of Restricted Stock

In order to determine the amount of compensation for directors (excluding members of the Audit & Supervisory Committee), the Board of Directors delegates the Representative Director to prepare proposed compensation amounts according to standards set by the company. The proposed amounts are then referred to the Nomination and Compensation Committee. Based on the response from the Nomination and Compensation Committee, the amounts are then finalized by a resolution of the Board of Directors. The amount of compensation for directors who are also members of the Audit & Supervisory Committee is determined through consultation among those directors.

#### Variable Compensation

Variable compensation is linked to the company's business performance. The Representative Director is delegated by the Board of Directors to calculate the proposed amounts for profit-linked bonuses and personal assessment bonuses using the methods outlined above. These proposed amounts are then submitted to the Nomination and Compensation Committee. Based on the report from the Nomination and Compensation Committee, the Board of Directors determines the final amounts to be paid, subject to approval of the total amount through a resolution of an ordinary shareholders' meeting.

The company discontinued the payment of retirement bonuses for corporate officers at the conclusion of the 92nd Ordinary Shareholders' Meeting held on February 19, 2005.



## Basic Policy on Constructive Dialogue with Shareholders

Under the leadership of the Representative Director and President, the Management Planning Department coordinates the activities of units involved in IR activities and maintains collaboration among these units on a day-to-day basis. The Management Planning Department actively responds to requests for IR information, including telephone inquiries from investors and small meetings. OSG holds quarterly meetings to present its financial results, as well as half-yearly financial presentations by top management. If necessary, any opinions

and concerns gathered through shareholder dialogue are fed back to the Board of Directors and senior management by the unit that carried out the IR activities concerned. When engaging in dialogue with investors, OSG takes care over the management of insider information by ensuring that such dialogue, whether at financial presentations or small meetings, centers on strategies for the achievement of sustainable growth and the improvement of OSG's corporate value from a medium- to long-term perspective.

## Corporate Officers



## Directors

Chairman & Representative Director  
**Norio Ishikawa**

Director  
(Audit & Supervisory Committee Member)  
**Takeo Nakagawa\***

Director  
(Audit & Supervisory Committee Member)  
**Akito Takahashi\***

President & Representative Director  
**Nobuaki Osawa**

Director  
(Audit & Supervisory Committee Member)  
**Kyoshiro Ono\***

Director  
(Audit & Supervisory Committee Member)  
**Kunihiro Hara\***

Director  
(Audit & Supervisory Committee Member)  
**Gohei Osawa**

Director  
(Audit & Supervisory Committee Member)  
**Yoshiyuki Sakaki\***

Substitute Director  
(Audit & Supervisory Committee Member)  
**Kayoko Yamashita\*\***

\*Outside Director

\*\*Substitute Outside Director



## Executive Officers

Chairman & CEO\*\*\*  
Norio Ishikawa

Managing Officer  
Jiro Osawa

Senior Executive Officer  
Mitsuyoshi Hikosaka

Executive Officer  
Jeffrey Tennant

Executive Officer  
Seungjin Chung

President & COO\*\*\*  
Nobuaki Osawa

Managing Officer  
Hideaki Osawa

Senior Executive Officer  
Yasutaka Yoneda

Executive Officer  
Toshihiro Hisadome

Executive Officer  
Osamu Ishida

Managing Officer  
Koji Takeo

Senior Executive Officer  
Yukinori Chikada

Executive Officer  
Yasushi Suzuki

Executive Officer  
Hitoshi Masuoka

\*\*\*Serving concurrently as Director

Executive Officer  
Kenya Sugihara

Executive Officer  
Naohiko Matsuo



# Environmental Initiatives

OSG is committed to the creation of a sustainable environment and society through eco-friendly business activities.



## Basic Philosophy

The OSG Group recognizes protection of the global environment as a vital priority for humanity. Under our Environmental Basic Policy, we are actively committed to efficient resource use and environmentally responsible manufacturing. We strive to supply our customers with environment-friendly products and services as part of efforts to reduce environmental loads and contribute to the development of a society based on resource recycling.



## Environmental Policy

Under the slogans, "An Eco-friendly Company" and "A Culture that Cares for the Environment," we work to protect the global environment and achieve harmonious coexistence between our activities and the natural environment.

### Environmental Performance in Fiscal 2020 and Targets for Fiscal 2021

No.	Environmental target		FY2020		FY2021 Target
	Item	Content	Target	Result	
1	Energy Conservation	Total Energy Use Reduction (Energy sources: Electric power, Fuel oil and LPG) Total use of energy BM: 95,676 GJ/month	1.0% reduction 957 GJ/month reduction	1.7% reduction 1,588 GJ/month reduction	1.0% reduction 874 GJ/month reduction
2	Eco-Products	Eco-Friendly Product Development	33 points	34 points	34 points*
3	Eco-Factory	Eco-Friendly Production	37 points	70 points	37 points*

\*Numerical scores out of 60 under OSG's standards for the improvement of environmental activities



## Promotion of Resource Recycling

OSG has been promoting zero emission activities to reduce waste. We have also developed a system to recycle reusable and recyclable resources and established a structure to ensure the proper disposal of waste from our operations. Therefore, our recycling rate has been over 99% since 2005.



Metal scrap	427.3 tons
Cardboard boxes (sold for reuse)	60.9 tons
Waste oil (sold for reuse, recycled)	442.6 tons
Oil sludge (sold for reuse, recycled)	197.8 tons
Diatomaceous soil (sold for reuse, recycled)	244.2 tons
Waste grinding wheels (recycled)	31.4 tons
Waste plastic (recycled)	50.5 tons
Wood chips (recycled)	110.4 tons
Others (recycled)	60.6 tons
Total	1,625.6 tons

\*Results for fiscal 2020

### Third-Party Evaluation

#### In 2020 OSG received the Special Environmental Award of the Japan Cutting & Wear-resistant Tool Association

At the fall general meeting of the Japan Cutting & Wear-resistant Tool Association (JTA) on October 7, 2020, OSG was presented with the Special Environmental Award in recognition of continuing initiatives that resulted in the reduction of waste in three consecutive years and the achievement of a recycling ratio of close to 100% for five straight years.



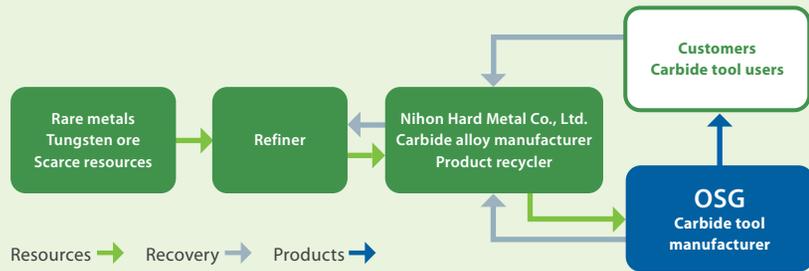


## Initiatives to Reduce Environmental Impacts

We are working actively to reduce the OSG Group's environmental footprint by developing eco-friendly products, recycling used tools, and providing after-sales services, such as regrinding and recoating.

### Carbide Tools Recycling

OSG group is working hard on carbide tools recycling throughout the Group. We ensure effective resource utilization by collecting used tools from customers and recycling the rare metals in them for reuse as raw materials. We also help our customers to improve the effectiveness of their CSR activities and achieve zero emission status.



### Regrinding and Recoating Services

Wear caused by the repeated use of tools eventually results in the degradation of cutting edges. Regrinding and recoating restore tools to the same condition as new products. OSG is responding to the needs of its customers around the world by operating facilities for regrinding in 21 countries and regions, and recoating in 14.

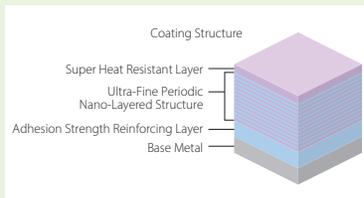


### Environmentally Conscious Product Development

#### Carbide Ball End Mills for High-Hardness Steels, AE-B-H Series

##### Adopting the newly developed DUOREY coating, ideal for high-hardness steels

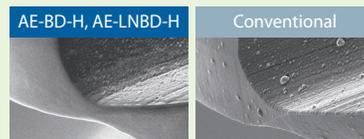
The ultra-fine periodic nano-layered structure provides high chipping resistance, enabling longer tool life.



##### Achieving long tool life and high-quality surface finish

By processing with a smooth surface treatment to remove hard foreign substances called droplets, the surface quality has significantly improved.

##### Smooth surface treatment



(excluding AE-LNBD-H that are R0.25 or under)

##### OSG's latest carbide ball end mill for high-hardness steels

The AE-B-H series contributes to not only faster mold production and higher precision but also the reduction of waste with increased tool life.





# Social Initiatives

The OSG Group is determined to fulfill its social responsibilities to all stakeholders, including customers, suppliers, employees, and local communities.



## Basic Philosophy

The OSG Group is working toward the development of a more sustainable society by maintaining and developing healthy relationships with all stakeholders, including shareholders, customers, business partners, employees, and local communities. As members of society, we will strive to exist in harmony with society through social contribution activities and the promotion of mutual understanding with stakeholders.



## Building Resonance with Stakeholders

### Contributions to Employee Development, Future Technology, and Local Communities

#### National Skills Competition

Known as the “Skill Olympics,” the National Skills Competition is an opportunity for young manufacturing workers to compete to be the best in Japan. Its purpose is to raise awareness about the importance of *monozukuri* (manufacturing techniques) and to discover and train Japan’s best manufacturing workers of the future. Contestants must be aged 23 or younger. OSG employees first participated in 2012, and the 2021 competition will be our ninth. Each year, we have sent two employees to compete in the CNC milling event, where they fully utilize their skills to perform high-precision tasks using OSG-manufactured end mills. This year an employee will also compete in CAD mechanical drawing, an area in which 3D systems have recently become the mainstream technology. All OSG competitors are proud of our role as a cutting tool manufacturer and compete to the best of their ability. OSG has also raised awareness of the competition by sponsoring the 2019 and 2020 national events in Aichi prefecture.

We also participate in the “Spirit of Manufacturing” school visit program in Aichi prefecture. They visit elementary and junior high schools to raise awareness of manufacturing by discussing their careers and provide the children with hands-on experiences. The aim is to create a positive image of manufacturing and foster interest in careers as skilled workers.

#### Supporting the CNC Milling Event at the WorldSkills Competition

The CNC milling event at the WorldSkills Competition, held every two years, aims to promote vocational training in participating countries and provide young skilled workers with opportunities to build goodwill through international exchange. Former WorldSkills competitors also take part as administrative staff for meetings of the selection panel for Japanese competitors. In addition to supervision, time management, troubleshooting, and other support duties on

competition day, former competitors carry out advance checking and correction of technical drawings to be used in the competition tasks, judge and score entries, and assist invited overseas competitors. OSG also provides cutting tools for use by overseas competitors.



Supporting the competition

#### Japanese National Skills Competition— Technical Guidance for the Host Region

In 2018, the Japanese National Skills Competition and Abilympics were held in Okinawa. OSG provided technical guidance to local industrial high school students selected to compete in the event. The students were employed as interns during the summer vacation and given in-house training. In addition, OSG supports the industrial development policy for Toyokawa City, in Aichi prefecture, from a human resource development perspective by sending past WorldSkills competitors to local industrial high schools to provide practical training and help students gain qualifications. We will continue to provide career support and skills training through the WorldSkills Competition in Okinawa and other locations.



Intern program participants



## Sustainable Development of the OSG Brand

### Commitment to Customer Satisfaction

#### Technical Seminars

Face-to-face and Internet-based technical seminars play an important role in OSG's efforts to raise customer satisfaction. Satisfaction level data, suggestions, and other input from surveys of attendees at these seminars are used to make subsequent seminars even better. We have established specific targets for customer satisfaction, and we are constantly challenging ourselves to achieve these goals. Face-to-face seminars are held at OSG facilities. In addition to classroom lectures, attendees have the opportunity to see actual processing in our demonstration rooms. For customers who cannot travel to an OSG facility, our staff travel to customer locations to present on-site technical seminars.

Our online technical seminars are also very popular because they can be viewed anywhere. The number of attendees has risen dramatically. They are especially convenient for people working from home or in rural areas without easy access to a training center. We will continue our efforts to improve customer satisfaction through our face-to-face and online seminars.

#### Communication Dial

Our Communication Dial service receives more than 100 telephone inquiries from customers every day. The questions asked cover topics ranging from basic knowledge to highly technical queries related to actual processing. In some cases, staff need to provide answers in collaboration with design or development engineers. In cases where a same-day response is not possible, we may arrange a visit to the customer in coordination with the sales team. To ensure an effective response to customer inquiries, we monitor the call answer rate as one of our KPIs for the improvement of customer satisfaction. We want customers to feel confident that they can find solutions to their problems by calling the Communication Dial service, and we will continue to enhance the services as part of our commitment to putting the customer first.

#### OSG WEB SHOWROOM Opens

In July 2020 we launched the OSG WEB SHOWROOM as our online display site. The WEB SHOWROOM consists mainly of a permanent display of around 10 products, most of which are new items. Customers can also obtain product information or use the chat function to seek technical advice. The website's three-dimensional display booths are designed to create a sense of viewing the physical products. OSG also offers a wide variety of web seminars, including some that can be attended via the OSG WEB SHOWROOM. There are also short seminars that people can watch during their lunch break, as well as technical seminars provided by our engineering staff.



#### Staff Comment

We always try to make our face-to-face and online seminars enjoyable, fun, and useful. While attendance at our online seminars is mainly a listening experience, we are working to make these events more interactive by introducing a quiz format. We also take care to use an appropriate level of technical language according to the attendees' knowledge level.



**Mikayo Kondo**  
Global Marketing Dept.,  
Customer Support Team



OSG WEB SHOWROOM

## Financial Section

### Key Financial Data for the Past 10 Years

		2011/11	2012/11	2013/11
For the year	Net sales	80,959	84,083	88,378
	Cost of sales	48,439	49,381	52,777
	Selling, general and administrative expenses	20,214	20,747	22,774
	Operating income	12,305	13,954	12,827
	Ordinary income	11,374	13,695	13,910
	Net income (loss) attributable to OSG Corporation	5,904	7,138	8,619
	Cash flows from operating activities	11,344	12,286	16,171
	Cash flows from investing activities	(8,195)	(19,746)	(2,972)
	Cash flows from financing activities	(5,855)	8,643	(9,423)
	Depreciation and amortization	5,657	5,688	6,716
	EBITDA	17,962	19,642	19,544
	Capital expenditure	8,225	10,284	5,876
	Number of employees	5,078	5,117	5,118
	End of fiscal year	Total assets	104,373	121,689
Net assets		65,347	71,471	87,621
Interest-bearing debt		23,011	34,284	29,063
Total equity		59,367	64,482	80,024
Per share	Net income (yen)	62.18	75.16	90.76
	Net assets (yen)	625.14	679.01	842.71
	Dividends (yen)	18.00	23.00	30.00
Management indicators	Overseas sales ratio (%)	49.7	48.0	53.5
	Operating income margin (%)	15.2	16.6	14.5
	Return on equity (ROE) (%)	10.1	11.5	11.9
	Return on assets (ROA) (%)	5.6	6.3	6.7
	Equity ratio (%)	56.9	53.0	59.5
	EBITDA margin (%)	22.2	23.4	22.1
	Dividend payout ratio (%)	28.9	30.6	33.1
Data by product category	Taps	28,906	29,379	28,924
	Drills	18,284	19,839	20,724
	End mills	17,837	18,472	20,857
	Rolling dies	7,067	7,280	7,681
	Gauges	1,137	1,176	1,232
	Other	7,725	7,935	8,958
Sales to external customers	Japan	41,266	44,212	41,922
	The Americas	12,699	13,605	16,093
	Europe/Africa	6,548	6,491	7,827
	Asia	20,444	19,774	22,534

2014/11	2015/11	2016/11	2017/11	2018/11	2019/11	(Millions of yen)	(Thousands of U.S. dollars)
						2020/11	2020/11
101,031	111,917	105,561	120,198	131,368	126,964	104,388	1,004,799
58,061	61,865	59,179	69,711	74,833	73,281	65,715	632,546
25,554	28,454	28,135	31,349	34,015	34,128	30,276	291,429
17,415	21,597	18,246	19,137	22,520	19,554	8,396	80,824
17,568	21,510	17,813	19,144	22,567	19,710	8,950	86,150
9,989	12,518	10,134	13,993	14,710	13,686	5,639	54,287
19,688	19,588	16,333	20,820	20,125	19,261	17,038	164,007
(3,119)	(16,976)	(16,843)	(7,566)	(13,351)	(20,314)	(17,133)	(164,917)
(12,813)	(6,216)	(778)	(11,137)	(4,723)	3,465	9,658	92,969
6,830	7,705	7,885	8,612	9,100	9,522	10,518	101,243
24,246	29,302	26,132	27,749	31,621	29,076	18,915	182,068
7,327	12,487	13,394	9,494	11,464	17,139	9,895	95,249
5,233	5,569	5,866	6,611	7,020	7,236	7,173	—
142,302	155,129	156,081	166,712	178,020	190,414	200,112	1,926,197
100,943	113,637	103,059	128,394	138,354	140,658	140,179	1,349,311
20,009	20,195	33,506	16,325	15,612	26,782	42,399	408,115
91,458	102,566	92,216	115,810	125,332	129,078	129,338	1,244,954
105.20	131.78	110.59	153.70	150.47	140.06	57.94	0.56 (US dollars)
963.15	1,079.12	1,024.34	1,191.65	1,279.29	1,328.08	1,327.22	12.78 (US dollars)
34.00	46.00	50.00	46.00	47.00	47.00	22.00	0.21 (US dollars)
54.6	57.8	55.3	57.6	58.4	57.3	59.4	—
17.2	19.3	17.3	15.9	17.1	15.4	8.0	—
11.7	12.9	10.4	13.5	12.2	10.8	4.4	—
7.2	8.4	6.5	8.7	8.5	7.4	2.9	—
64.3	66.1	59.1	69.5	70.4	67.8	64.6	—
24.0	26.2	24.8	23.1	24.1	22.9	18.1	—
32.3	34.9	45.2	29.9	31.2	33.6	38.0	—
34,655	38,239	33,948	38,175	41,729	39,895	33,671	324,103
23,600	25,743	26,709	31,662	36,811	36,147	29,484	283,801
22,886	26,554	24,837	27,090	27,917	26,690	21,219	204,247
9,165	9,921	9,443	10,218	10,645	9,973	7,947	76,495
1,419	1,538	1,478	1,625	1,757	1,946	1,712	16,484
9,304	9,919	9,143	11,424	12,508	12,310	10,354	99,667
46,659	48,150	48,257	51,639	55,287	54,725	42,816	412,133
18,236	21,758	19,478	21,413	22,680	23,152	18,818	181,142
9,879	11,382	12,268	18,177	22,134	20,893	19,396	186,706
26,256	30,626	25,556	28,968	31,266	28,193	23,356	224,816

## Consolidated Summary Balance Sheet

	FY2019 As of Nov. 30, 2019	(Millions of yen) FY2020 As of Nov. 30, 2020
Assets		
Current assets		
Cash and deposits	26,950	37,807
Notes and accounts receivable - trade	22,400	19,733
Securities	11	0
Merchandise and finished goods	29,844	29,239
Work in process	6,376	5,464
Raw materials and supplies	7,658	7,321
Other	3,061	3,279
Allowance for doubtful accounts	(198)	(155)
Total current assets	96,104	102,691
Non-current assets		
Property, plant and equipment		
Buildings and structures, net	18,663	24,685
Machinery, equipment and vehicles, net	35,217	34,500
Tools, furniture and fixtures, net	2,179	2,155
Land	14,864	14,995
Construction in progress	7,199	2,649
Other, net	12	612
Total property, plant and equipment	78,137	79,599
Intangible assets		
Goodwill	3,613	4,273
Other	1,412	1,260
Total intangible assets	5,026	5,533
Investments and other assets		
Investment securities	3,882	6,182
Investments in capital	1,203	760
Long-term loans receivable	1,774	1,021
Deferred tax assets	2,951	2,298
Retirement benefit asset	87	92
Other	1,611	2,297
Allowance for doubtful accounts	(364)	(366)
Total investments and other assets	11,146	12,287
Total non-current assets	94,309	97,420
Total	190,414	200,112

(Millions of yen)

	FY2019 As of Nov. 30, 2019	FY2020 As of Nov. 30, 2020
Liabilities and Net Assets		
Liabilities		
Current liabilities		
Notes and accounts payable - trade	6,039	4,308
Short-term loans payable	2,742	4,473
Current portion of long-term loans payable	546	8,522
Accrued expenses	7,822	6,062
Income taxes payable	2,699	630
Reserve for directors' bonuses	253	146
Other	3,474	3,177
Total current liabilities	23,578	27,323
Non-current liabilities		
Bonds payable	5,000	5,000
Convertible bond-type bonds with share acquisition rights	1,670	1,670
Long-term loans payable	16,822	22,103
Deferred tax liabilities	1,079	1,703
Net defined benefit liability	504	682
Provision for loss on guarantees	—	38
Other	1,099	1,412
Total non-current liabilities	26,177	32,609
Total liabilities	49,755	59,932
Net assets		
Shareholders' equity		
Capital stock	12,194	12,223
Capital surplus	13,731	12,934
Retained earnings	109,428	111,594
Treasury stock	(1,894)	(1,442)
Total shareholders' equity	133,460	135,309
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	1,281	1,105
Deferred gains or losses on hedges	—	0
Foreign currency translation adjustment	(5,663)	(7,076)
Total accumulated other comprehensive income	(4,381)	(5,970)
Share acquisition rights	13	13
Non-controlling interests	11,567	10,828
Total net assets	140,658	140,179
Total liabilities and net assets	190,414	200,112

## Consolidated Summary Statement of Income

	FY2019 (2018/12/1–2019/11/30)	(Millions of yen) FY2020 (2019/12/1–2020/11/30)
Net sales	126,964	104,388
Cost of sales	73,281	65,715
Gross profit	53,682	38,673
Selling, general and administrative expenses	34,128	30,276
Operating income	19,554	8,396
Non-operating income		
Interest income	245	263
Dividend income	97	79
Purchase discounts	52	36
Share of profit of entities accounted for using equity method	10	8
Subsidy income	252	1,127
Reversal of provision for loss on litigation	380	—
Other	869	757
Total non-operating income	1,908	2,272
Non-operating expenses		
Interest expense	205	243
Sales discounts	787	610
Foreign exchange losses	260	416
Other	497	448
Total non-operating expenses	1,752	1,718
Ordinary income	19,710	8,950
Extraordinary income		
Gain on sales of non-current assets	—	208
Gain on sales of investment securities	474	—
Total extraordinary income	474	208
Extraordinary losses		
Loss on valuation of investment securities	339	90
Special retirement expenses	—	171
Total extraordinary losses	339	261
Income before income taxes	19,845	8,896
Income taxes - current	5,963	2,281
Income taxes - deferred	(409)	871
Total income taxes	5,554	3,153
Net income	14,291	5,743
Net income attributable to non-controlling interests	604	103
Net income attributable to OSG Corporation	13,686	5,639

## Consolidated Statement of Comprehensive Income

	FY2019 (2018/12/1–2019/11/30)	(Millions of yen) FY2020 (2019/12/1–2020/11/30)
Net income	14,291	5,743
Other comprehensive income		
Valuation difference on available-for-sale securities	(332)	(185)
Deferred gains or losses on hedges	—	0
Foreign currency translation adjustment	(4,534)	(1,360)
Share of other comprehensive income of associates accounted for using equity method	1	2
Total other comprehensive income	(4,865)	(1,543)
Comprehensive income	9,425	4,199
(Breakdown)		
Comprehensive income attributable to OSG Corporation	9,755	4,037
Comprehensive income attributable to non-controlling interests	(329)	162

## Consolidated Statement of Changes In Equity

FY2019 (Dec. 1, 2018 to Nov. 30, 2019)

	Shareholders' equity				
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance, December 1, 2018	12,124	13,662	100,260	(161)	125,886
Cumulative effects of changes in accounting policies					
Restated balance	12,124	13,662	100,260	(161)	125,886
Issuance of new shares	70	70			140
Cash dividends			(4,704)		(4,704)
Net income attributable to owners of the parent			13,686		13,686
Purchase of treasury stock				(1,904)	(1,904)
Disposal of treasury stock		4		171	175
Adjustment of retained earnings for newly consolidated subsidiaries			271		271
Purchase of shares of consolidated subsidiaries		(90)			(90)
Transfer to capital surplus from retained earnings		84	(84)		—
Net change in the year					
Total changes of items during period	70	68	9,168	(1,732)	7,574
Balance, November 30, 2019	12,194	13,731	109,428	(1,894)	133,460

FY2020 (Dec. 1, 2019 to Nov. 30, 2020)

	Shareholders' equity				
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance, December 1, 2019	12,194	13,731	109,428	(1,894)	133,460
Cumulative effects of changes in accounting policies			(12)		(12)
Restated balance	12,194	13,731	109,416	(1,894)	133,447
Issuance of new shares	28	28			57
Cash dividends			(3,435)		(3,435)
Net income attributable to owners of the parent			5,639		5,639
Purchase of treasury stock				(4)	(4)
Disposal of treasury stock				455	455
Adjustment of retained earnings for newly consolidated subsidiaries			(7)		(7)
Purchase of shares of consolidated subsidiaries		(844)			(844)
Transfer to capital surplus from retained earnings		18	(18)		—
Net change in the year					
Total changes of items during period	28	(796)	2,177	451	1,861
Balance, November 30, 2020	12,223	12,934	111,594	(1,442)	135,309

(Millions of yen)

Accumulated other comprehensive income				Stock acquisition rights	Noncontrolling interests	Total equity
Unrealized gain on available-for-sale securities	Deferred (loss) gain on derivatives under hedge accounting	Foreign currency translation adjustments	Accumulated other comprehensive income			
1,608	—	(2,161)	(553)	13	13,008	138,354
1,608	—	(2,161)	(553)	13	13,008	138,354
						140
						(4,704)
						13,686
						(1,904)
						175
						271
						(90)
						—
(326)	—	(3,501)	(3,828)	—	(1,441)	(5,269)
(326)	—	(3,501)	(3,828)	—	(1,441)	2,304
1,281	—	(5,663)	(4,381)	13	11,567	140,658

(Millions of yen)

Accumulated other comprehensive income				Stock acquisition rights	Noncontrolling interests	Total equity
Unrealized gain on available-for-sale securities	Deferred (loss) gain on derivatives under hedge accounting	Foreign currency translation adjustments	Accumulated other comprehensive income			
1,281	—	(5,663)	(4,381)	13	11,567	140,658
						(12)
1,281	—	(5,663)	(4,381)	13	11,567	140,646
						57
						(3,435)
						5,639
						(4)
						455
						(7)
						(844)
						—
(176)	0	(1,413)	(1,589)	—	(738)	(2,327)
(176)	0	(1,413)	(1,589)	—	(738)	(466)
1,105	0	(7,076)	(5,970)	13	10,828	140,179

## Consolidated Summary Statement of Cash Flows

	FY2019 (2018/12/1–2019/11/30)	(Millions of yen) FY2020 (2019/12/1–2020/11/30)
<b>Operating activities:</b>		
Income before income taxes	19,845	8,896
Depreciation and amortization	9,522	10,518
Amortization of goodwill	535	655
Increase (decrease) in allowance for doubtful accounts	7	(53)
Increase (decrease) in provision for directors' bonuses	(137)	(163)
Increase (decrease) in net defined benefit liability	51	39
Increase (decrease) in provision for directors' retirement benefits	(24)	—
Increase (decrease) in provision for loss on guarantees	—	38
Interest and dividend income	(343)	(342)
Interest expense	205	243
Equity in loss (earnings) of an associated company	(10)	(8)
Loss (gain) on sales of non-current assets	—	(208)
Loss (gain) on sales of investment securities	(474)	—
Loss (gain) on valuation of investment securities	339	90
Special retirement expenses	—	171
Change in notes and accounts receivable	1,902	2,832
Change in inventories	(6,319)	1,822
Change in notes and accounts payable	453	(1,555)
Change in accrued expenses	115	(1,704)
Other, net	(19)	558
Sub-total	25,651	21,829
Interest and dividend income received	345	350
Interest expense paid	(232)	(226)
Special retirement expenses - paid	—	(171)
Income taxes - paid	(6,503)	(4,743)
Net cash provided by operating activities	19,261	17,038
<b>Investing activities:</b>		
Payments for time deposits	(3,504)	(5,640)
Proceeds from refund of time deposits	2,971	5,056
Proceeds from redemption of investment securities	0	11
Purchases of investment securities	(429)	(826)
Proceeds from sales of investment securities	583	—
Purchase of property, plant and equipment	(17,139)	(9,895)
Proceeds from sales of property, plant and equipment	211	359
Purchase of intangible assets	(418)	(222)
Payment for purchase of subsidiaries' stock	(1,158)	(2,054)
Purchase of shares of subsidiaries resulting in change in scope of consolidation	—	(3,266)
Other, net	(1,432)	(654)
Net cash used in investing activities	(20,314)	(17,133)
<b>Financing activities:</b>		
Change in short-term borrowings, net	482	1,244
Proceeds from long-term borrowings	7,036	14,396
Repayments of long-term borrowings	(1,259)	(948)
Proceeds from issuance of bonds	5,000	—
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	(682)	(1,437)
Purchase of treasury stock	(1,899)	(1)
Proceeds from sales of treasury stock	54	395
Dividends paid	(4,709)	(3,439)
Dividends paid to non-controlling interests	(525)	(298)
Other, net	(30)	(252)
Net cash (used in) provided by financing activities	3,465	9,658
Effect of exchange rate change on cash and cash equivalents	(690)	(88)
Net increase (decrease) in cash and cash equivalents	1,721	9,475
Cash and cash equivalents at beginning of year	21,545	23,704
Cash and cash equivalents from newly consolidated subsidiaries	437	120
Cash and cash equivalents at end of period	23,704	33,299

## Corporate Information

### Company Profile (As of November 30, 2020)

Company name	OSG Corporation	Number of employees	7,173 (consolidated)/ 1,881 (non-consolidated)
Headquarters	3-22, Honnogahara, Toyokawa, Aichi Prefecture 442-8543, Japan	Business activities	Manufacture and sale of cutting tools, rolling dies, gauges, machine tools and machine parts, importation and sale of tools
Date established	March 26, 1938		
Capital	¥12,223 million		

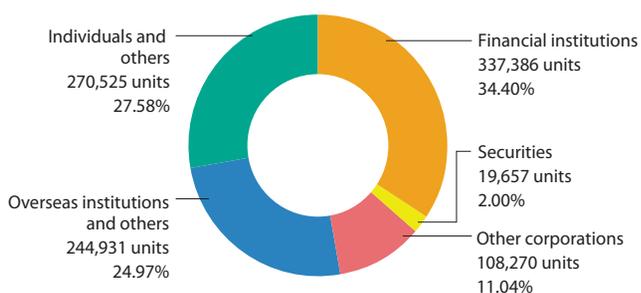
### Status of Shares (As of November 30, 2020)

Number of shares issuable	200,000,000 shares
Number of shares outstanding	98,179,742 shares
Number of shareholders	7,498
Minimum share purchasing unit	100 shares
Stock listings	Tokyo Stock Exchange, Nagoya Stock Exchange
Securities code	6136

#### ▶ Major shareholders

	Number of shares held (Thousands)	Percent ownership (%)
The Master Trust Bank of Japan, Co., Ltd. (Trust Account)	8,705	8.87
Custody Bank of Japan, Ltd. (Trust Account)	5,005	5.10
SSBTC CLIENT OMNIBUS ACCOUNT	4,645	4.73
NORTHERN TRUST CO. (AVFC) RE FIDELITY FUNDS	3,276	3.34
OSG Agent Association	3,173	3.23
OSG Stock Holding Association	2,614	2.66
Osawa Scientific Studies Grants Foundation	2,350	2.39
Nomura Trust and Banking Co., Ltd. (Investment Trust Account)	2,338	2.38
Sumitomo Mitsui Banking Corporation	2,100	2.14
Custody Bank of Japan, Ltd. (Trust Account 5)	2,023	2.06

#### ▶ Breakdown of Holdings by Shareholder (One Unit = 100 Shares)



(Notes)

1. Amounts of less than one unit are not included.
2. Treasury stock is included under 'Individuals and others.'

(Notes)

1. The number of shares held is rounded down to the nearest thousand.
2. The shareholding ratio is calculated after deducting treasury shares.

### To Our Stakeholders



#### ● Introducing the OSG corporate website

OSG's website provides timely access to a variety of information, including corporate data, product information, industry solutions, news releases and IR information.

<https://www.osg.co.jp/en/>



#### ● Introducing the OSG sustainability website

The OSG sustainability website showcases our efforts to achieve sustainable growth in our corporate value, including environmental initiatives, social programs, and corporate governance systems.

<https://www.osg.co.jp/en/sustainability/index.html>





*shaping your dreams*

## **OSG Corporation**

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