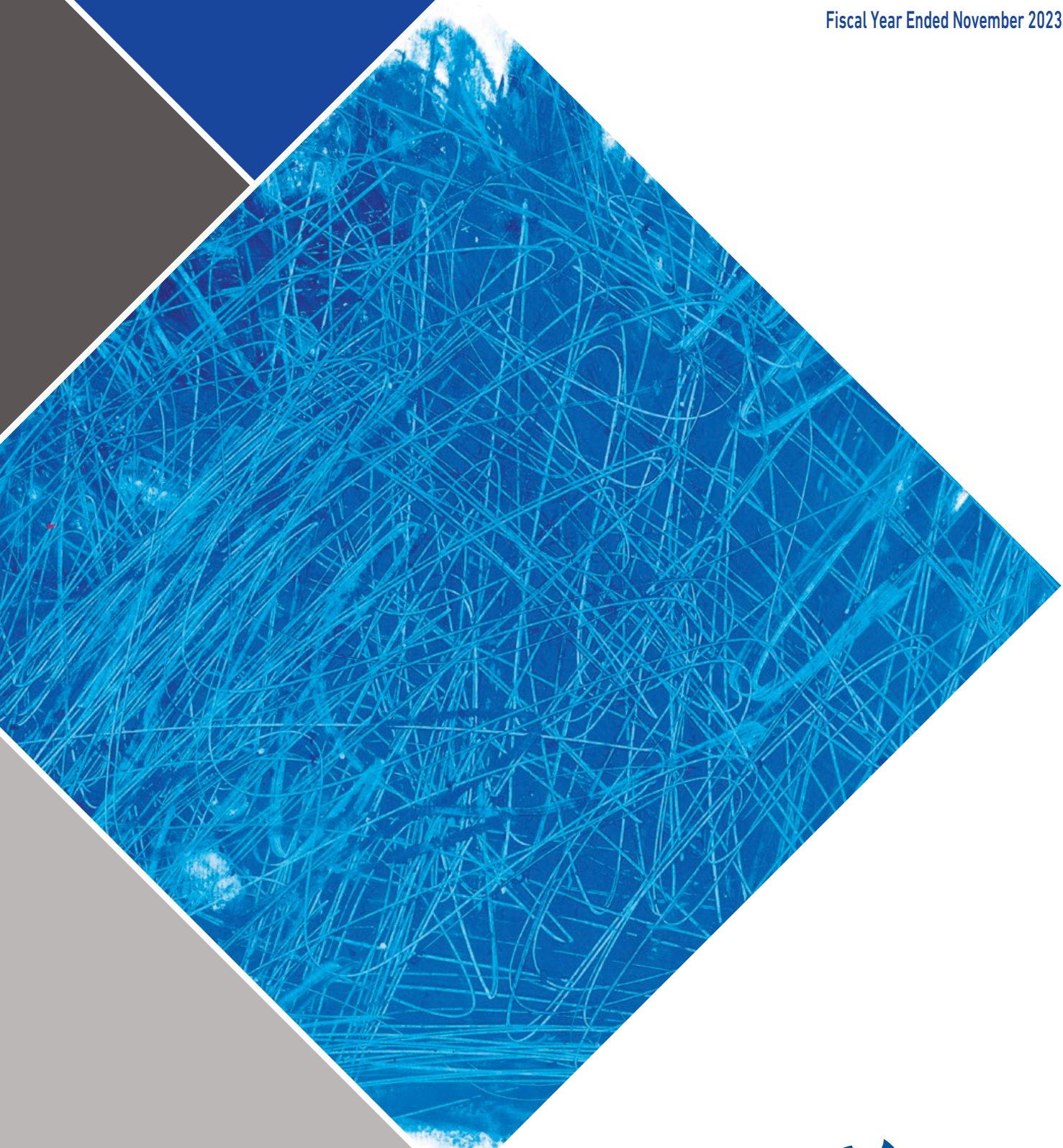


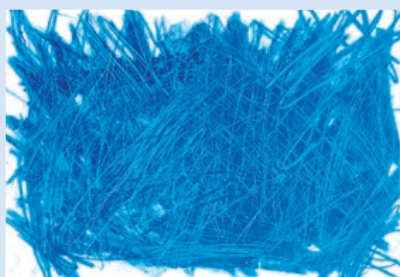
# OSG REPORT 2023

Fiscal Year Ended November 2023



*shaping your dreams*

### Art Work by Satoshi Inoue



Satoshi Inoue attends Rainbow House, a social welfare center in Shinshiro City where he devotes his time to producing works of art. Satoshi is nonverbal, so he communicates with those around him through expressions and gestures. When he picks up a crayon, he gives his undivided attention to filling in and covering the white spaces. Finishing his “scratch pattern,” he beams with a big smile, signaling the work of art is complete. Satoshi produces one-of-a-kind works of art that are rich expressions of the excitement and dissatisfaction he feels at the time on a certain day.

▶ P.40 Initiatives for Employing People with Disabilities

### Editorial Policy

The OSG Report is published for the benefit of our shareholders, investors, and all stakeholders. The OSG Report 2023 once again takes a look at what makes OSG unique, including our corporate philosophy, and focuses on putting into words the unique strengths that we have developed throughout our history. Along with an update of the growth strategy laid out in our Medium-Term Management Plan, we have also presented some new specific initiatives. Following on from last year, we have held roundtable discussions with employees and outside directors in order to produce an integrated report that depicts the real OSG. The International Integrated Reporting Framework published by the International Financial Reporting Standards Foundation (IFRS) was referenced when compiling this report. 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 OSG's future performance are forward-looking statements and as such represent assumptions and judgments based on currently available information. Actual results may differ from forecasts included in this report due to a variety of factors, including trends in the economic environment in which OSG operates, fluctuations in product demand and prices, development of new products, sales, raw material costs, and exchange rate fluctuations.

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# Corporate Philosophy & Purpose

## Corporate Philosophy

### 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 32 countries. Our corporate aim is to continue to further expand our operations globally and contribute to the global manufacturing industry in accordance with our "Global Presence" corporate philosophy.



OSG founder  
Hideo Osawa

### Fundamental Business Policy

- We are always aware that our corporation is an institution serving society and providing products our customers appreciate.
- We place our employees in assignments appropriate for their skills and abilities, and strive to improve their daily lives.
- We endeavor to distribute appropriate and stable dividends to our stockholders.
- We are committed to sound business practices that earn even greater trust from society and extend these to our company throughout the world.

### Source of OSG's Strength

#### Tool Communication

### Tag Line

#### Shaping Your Dreams

### Action Philosophy

#### Think while running and run while thinking

### Long-Term Vision

#### To be an essential player contributing the global manufacturing industry as we move toward era of carbon neutrality

OSG Group aims to be an essential player contributing to the global manufacturing industry as we head toward the age of carbon neutrality. This vision expresses our hope of being an integral part of our customers' business. Stage 1 of our Medium-Term Management Plan "Beyond the Limit" runs from FY2022 to FY2024 when we will create a robust corporate culture. The targets established for this period are a 15% ROA and ¥30 billion in operating income by the fiscal year ending November 2024. Grounded in our "Global Presence" corporate philosophy, we are intent on contributing to the realization of a sustainable society so that we may grow further.



Norio Ishikawa  
Chairman & CEO

Nobuaki Osawa  
President & COO

## *shaping your dreams*

Taking up the challenge to build a more prosperous future  
and coexist harmoniously with our earth and society



First, we wish to express our sincerest condolences to everyone affected by the 2024 Noto Peninsula Earthquake. Our thoughts and prayers are with the victims and the communities impacted by this disaster, and we hope for a swift and complete recovery.

During the fiscal year ended November 2023, the economy continued its moderate slowdown due to persistently high inflation rates globally, softening demand as high rates tightened credit, China's stagnant economic situation, and other factors. While remaining wary of geopolitical risks such as those involving the situation in Ukraine and the US-China confrontation, businesses are concerned about how such events may negatively affect the economy. Despite the steady recovery of demand in the aerospace industry in the Americas and Europe, prolonged stagnation continues to plague Chinese and Japanese markets, placing OSG in a difficult situation. While Japan's automotive industry has shown signs of recovery, we have had to adjust product inventories for general engineering. Even sales of taps, our core product, declined compared to the previous period. So, although the OSG Group's overall sales reached record highs partly due to the effect of currency exchange conversions, the decline in tap revenue resulted in increased sales but decreased profits. This is a time when our ability to adapt to change is being put to the test. With that in mind, we will seek to acquire new demand as we leverage our global network comprising manufacturing, sales, and technical support, which we have built up based on OSG Group's "Global Presence" corporate philosophy.

During the fiscal year ended November 2023 which is also the second year of our medium-term management plan "Beyond the Limit 2024," we continued our efforts to strengthen our corporate culture, improve operating income, and enhance capital efficiency. This work paid off in bolstered shareholder returns and increased capital efficiency. Although it will be difficult to achieve our key performance indicators (KPI) for the fiscal year ending November 2024, we estimate the highest operating income level ever and anticipate that our next generation leaders will produce outstanding results during their assignments on the many working groups, which were launched recently and transcend our traditional organizational divisions.

So that we may realize our long-term vision of being an essential player contributing to the global manufacturing industry, we have revised our materiality from eight key issues to four. In addition to setting priority themes for each of these issues and strengthening initiatives for realizing each, all OSG Group employees are working together to enhance corporate value.

This report was prepared with the hope that it will provide the reader with a better understanding of OSG's operations and activities.

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

# History

1938—

## Developed the first grinding taps in Japan

OSG founder Hideo Osawa conceived of the idea of developing the Osawa-style thread grinder based on his own lathe and successfully produced the first grinding tap in Japan. He also worked to produce a threading die for machining male screws.

### ■ Society

The demand for tools increased with the arrival of black & white televisions, washers, and refrigerators as well as postwar recovery due to the demand for aircraft and ships.

### OSG's development

- 1938** OSG Grinding Co., Ltd. established ❶  
Began manufacturing taps and dies
- 1942** Began manufacturing screw gauges
- 1943** Aichi Factory (now OSG Academy) constructed
- 1956** Began manufacturing rolling dies

1960—

## Aiming to be Worldwide OSG

OSG started selling end mills in 1970. It was also at about this time that OSG set about pioneering overseas markets. The move into this new area was the driving force that enabled OSG to make a giant leap forward from OSG operating only in Japan to OSG operating globally.

Tokyo Olympics spurs increase in color television sales, which together with the greater popularity of air conditioners and automobiles and the high-economic growth drive tool demand. In developed countries, die machining is in demand for mass production.

- 1961** Toyokawa Factory began operation
- 1963** Began manufacturing rolling flat dies  
Company name changed to OSG Mfg. Company
- 1967** Oike Factory began operation
- 1968** OSG Tap and Die, Inc. Illinois (now OSG USA, Inc.) (USA) established ❷
- 1970** Taiho Tool Mfg. Co., Ltd. (Taiwan) established ❸  
Began manufacturing HSS end mills
- 1971** Toyohashi Factory began operation
- 1974** OSG Ferramentas de Precisão Ltda. (now OSG Sulamericana de Ferramentas Ltda.) (Brazil) established

1938



Hideo Osawa, OSG founder ❶

1968



OSG Tap and Die, Inc., first sales hub overseas ❷

1970



Taiho Tool Mfg. Co., Ltd., first production plant overseas ❸

1993



OSG Asia Pte Ltd., holding company for Asia ❹

1997



OSG Europe S.A., holding company for Europe ❺

2020



NEO Shinshiro Factory ❻

### ■ OSG's sales over our history

## 1980—

## Toward establishment of an ultra-high-mix low-volume production system

To meet the needs of the market, OSG worked vigorously to develop an array of diverse product lines that included drills and carbide end mills. The company sold many new products in the age of mechatronics when demand emerged for a variety of tools for automated production lines.

Oil crisis triggers energy savings, causing a shift from heavy and unwieldy products to light and compact products. Decrease in production in the automotive, mechanical components and die industries affects the tool industry. Pursuit of low-volume diversified production lots as well as high-quality and quick delivery to maintain international competitiveness.

- 1980** Began manufacturing carbide end mills
- 1981** OSG listed on the First Section of the Tokyo and Nagoya stock exchanges
- 1982** Shinshiro Factory began operation
- 1984** Began manufacturing drills
- 1985** OSG Korea Corporation established
- 1987** Began manufacturing cutter bodies
- 1988** OSG Canada Ltd. (Canada) established
- 1990** Yana Factory began operation
- 1992** Merged with OSG Sales, Inc.
- 1993** OSG Asia Pte Ltd. (Singapore) established ④
- 1995** OSG Limited (now OSG Europe Limited) (UK) established
- 1997** Dabao (Dongguan) Molding & Cutting Tool Co., Ltd. (China) established  
OSG Belgium S.A. (now OSG Europe S.A.) (Belgium) established ⑤

## Consolidated group companies

- 1986** Aoyama Seisakusho Co., Ltd.
- 1994** Herramientas Metalicas de Corte, S.A. de C.V. (now OSG Royco, S.A. de C.V.) (Mexico)
- 1996** Nihon Hard Metal Co., Ltd.

## 2000—

## One agent in each country and M&amp;A expansion

OSG engaged in mergers and acquisitions to extend operations on a global scale, selling OSG brand products. Currently, the ratio of overseas sales to total sales exceeds 60% and OSG has built a global network meeting the needs of customers in regions everywhere.

Digitalization advances and people look to lead more convenient and fulfilling lives. In contrast to before, a flexible way of thinking and approaching the world is necessary. Semiconductor manufacturing equipment and industrial robotics become more widespread, and electronic devices more and more precise. The range of demand for tools expands.

- 2001** OSG (Shanghai) Co., Ltd. (China) established  
OSG Coating Service Co., Ltd. established
- 2002** OSG Tooling Iberica, S.L. (now OSG Iberica Tooling S.L.) (Spain) established
- 2003** OSG GmbH (Germany) established
- 2004** OSG (Shanghai) Precision Tools Co., Ltd. (China) established
- 2005** OSG System Products Co., Ltd. established
- 2011** TAIHO Coating Service Co., Ltd. (Taiwan) established
- 2019** OSG EX-CELL-O GmbH (Germany) established
- 2020** NEO Shinshiro Factory completed ⑥

## Consolidated group companies

- 2000** Kamiya Seiko Co., Ltd. (now ORS Corporation)
- 2001** Sanwa Seiki Co., Ltd.
- 2003** VUMAT S.R.L. (now OSG ITALIA S.R.L.) (Italy)
- 2004** Sterling Die, Inc. (now OSG USA, Inc.) (USA)
- 2005** NODA Seiko, Inc. (now NODA Precision, Inc.)
- 2006** Nissin Diamond Seisakusho Co., Ltd. (now Nissin Diamond Co., Ltd.)
- 2008** Mac World Trade B.V. (now OSG Nederland B.V.) (Netherlands)
- 2015** DESGRANGES HOLDING S.A.S. (now NEXAM S.A.S.) (France)
- 2016** Amamco Tool & Supply Co., Inc. (USA)  
Somta Tools (Pty) Ltd. (South Africa)
- 2019** OSG BASS Holding GmbH (now BASS GmbH) (Germany)

## Message from the President



OSG Cor

President & COO

**Nobuaki Osawa**

The automotive industry's recent shift towards Battery Electric Vehicles (BEVs) has led to a decline in the demand for internal combustion engines, subsequently impacting the demand for our tools. Conversely, our A-Brand strategy, focused on delivering high-value-added products, is exceeding expectations, particularly in overseas markets. Considering these market dynamics, we engaged in a comprehensive discussion with President Osawa regarding OSG's mid-term management plan, the unique value proposition of our company, and our core strengths.

### ◆ What are the strengths underlying OSG's corporate philosophy and culture? Also, what is it that makes OSG unique?

OSG's approach is found in our "Global Presence" corporate philosophy, our brand tag line "Shaping Your Dreams," "Tool Communication" which is one of our strengths, and other fundamental aspects of our company. As the times change, so also do the significance and manner in which these terms are perceived. In what way do you feel OSG's uniqueness is reflected in its corporate culture and how the company's corporate philosophy is instilled?

This year, 2024, the OSG Group celebrates 86 years in business. Looking back to the year when we launched our "Global Presence" corporate philosophy, less than 30% of our entire group's sales came from overseas. Total sales at that time amounted to one-fifth of what they are currently. In the 1990s after Japan's economic bubble collapsed, we touted the slogan "Economic Global Presence." What heightened the sense of urgency among management at the time was, I felt, a sense of crisis: we believed the OSG Group would not grow unless we found a means of surviving overseas, in the same way that people in years past had gone out into the world to find work elsewhere. Then, in 1996, in parallel with our "Global Presence" philosophy, our former chairman, the late Teruhide Osawa, issued a three-pronged declaration for the OSG Group: global presence, health consciousness, and eco-friendliness. A culture, one developed based on the three-pronged declaration that has served as our global standard bolstering the foundation for managing the OSG Group at a time when the concept of

ESG management was scarcely if at all applied, has been passed down and maintained to the present day. Our "Tool Communication" approach is also essential for realizing our "Global Presence" corporate philosophy and the driving force propelling our globalization. Communicating with our customers and promoting global sales via the medium of cutting tools is another source of OSG's strength.

In 2014, OSG's current Chairman Ishikawa was a key player in coming up with the tag line "Shaping Your Dreams" for enhancing our brand. This catchword embodies the idea that we must meet our customers face-to-face and live up to their expectations so that we may shape their dreams.

Each of these approaches is connected to OSG Group's values and vision. The instillation of these approaches in our many employees is what creates OSG's uniqueness.

### What does it mean to continue to preserve these approaches unchanged while also effecting other changes that need to be made with the times?

It is also true that as the years pass after a company is founded, inflexible set notions and ways of thinking become more prevalent within that company. My concern is, if these notions begin to correspond to what makes OSG unique, then they will grow into something that might halt our growth. When we look at what's ahead and consider the changes demanded, it's important to recognize there are some things that do not change, these are OSG's strengths, and some things that we need to reflect on in areas where we should improve.





# poration

**Never let stereotypes cause your company to lose its identity. Game-changing requires a change in the mindset of each and every employee.**

For instance, we have heard many concerns voiced by investors in recent years about how our business is highly structured toward the automobile industry. In our Medium-Term Management Plan “Beyond the Limit 2024” which we announced two years ago, we laid out a plan which we devised to extricate ourselves from that predicament. For me, “Beyond the Limit” encompasses the idea that we will think outside the box, refuse to limit ourselves, and take up the challenge to go beyond what has ever done before. Unless our company and our employees take another look at those things we feel to be “normal” and “ordinary” so that we may emerge from that rut, we will not generate the driving force that produces new ideas and products. To achieve this, we launched medium-term management plan working groups, set out a range of themes for these groups to consider, and gave the groups the mandate to deliberate these ideas.

To put this in terms of our corporate culture, I feel that we have always had a strongly-rooted organizational culture, one in which we are able to talk and tell each other how we feel. Since the time of our former chairman the late Teruhide Osawa, we have always said that a vertically-structured internal organization is not good and have instilled an atmosphere where employees do not refer to the president and executives by their official titles, but rather as colleagues, addressing them with the general honorific “san” attached to their last names. Currently, I believe the most important thing is to create a culture where people are able to say what they want to say, which is the kind of organization that we should have. Being able to say what you want to say is a sign of a workplace environment where all employees are able to freely voice their opinions. For example, with organizations where personnel are unable to immediately tell their supervisor when a problem arises in the organization, no matter how small the sparks are initially, over time as the problem is hidden from view, it has the potential to develop into a destructive fire. The ideal is to have an organization with good communication among everyone so that reports are presented first even if something bad might happen.

Considering even the distinguishing features of our human resources, it is evident values vary greatly from generation to generation. As OSG heads toward its 100th anniversary, it is our current

employees, the ones who joined our company about five years ago, that will form the core of our company in a few years. Moving forward as OSG continues to operate, it is necessary that we create an environment where these employees find it comfortable to work and their standards are properly acknowledged. I feel that, if we treat the ambitions of our younger employees as something akin to a “spice” rather than the substantial ingredient that they are and do not initiate change but let matters take their own course, then we run the risk of a new culture forming, one that it will lead to greater employee turnover.

### ◆ Background behind reassessment of materiality and linking those results to our vision

Not long ago, OSG conducted a reassessment of the materiality issues that we as a company face. Could you please explain the background behind that reassessment and the key points regarding each item?

OSG Group revised the number of materiality issues identified from eight to four. The previous materiality included green bond issues to provide sustainable financing for our new Oike Factory, support for healthcare institutions and facilities that contribute to local communities, as well as sports promotion initiatives. These had little relation to changes taking place in the business environment or our

#### Materiality (Key Issues) ▶ P.25

Materiality	Priority Themes
Contributing to the manufacturing industry through our business	Expand the global market share for our core product taps
	Optimize our business portfolio
	Expand new business and after-sales services
Developing an environment where employees are respected and able to flourish	Increase employee engagement
	Enhance the capabilities of our human resources and strategically assign personnel to assignments
	Respect diversity
Contributing to a sustainable global environment	Realize carbon neutrality
	Reduce users’ environmental footprint
Maintaining and strengthening our governance structure so that we may achieve sustainable growth	Maintain our corporate governance structure
	Construct a group governance structure
	Thoroughly manage risk and ensure compliance

## Message from the President

Medium-Term Management Plan. In addition, such items also included matters that had already been realized. That is why we went ahead with this reassessment. With ESG management taking on increasing importance, we have set out four material challenges, consciously recognizing how these are linked to our Medium-Term Management Plan KPIs. They are: (1) contributing to the manufacturing industry through our business, (2) developing an environment where employees are respected and able to flourish, (3) contributing to a sustainable global environment, and (4) maintaining and strengthening our governance structure to achieve sustainable growth. We will set priority themes to address each of these separately as well as bolster our efforts with KPIs to measure the progress of each specific initiative.

**Which of these four material issues are particularly important when considering future corporate value? Also, could you please share more of the specific measures for realizing these key challenges?**

All of these four material challenges are necessary and fundamental premises for us to realize our long-term vision of being “an essential player contributing to the global manufacturing industry.” If pressed to say which of these we are focusing on the most, I believe that both “contributing to the manufacturing industry through our business” and “developing an environment where employees are respected and able to flourish” are key to realizing our long-term vision.

In addressing the material challenge of “contributing to the manufacturing industry through our business,” the priority themes, which we have set, are to expand the global market share for our taps, a core product ever since our founding, as well as to optimize our

business portfolio and expand new business and after-sales services. Of these, expanding market share is very important. One of the targets laid out in our Medium-Term Management Plan is to secure 40% of the global tap market share by the fiscal year ending November 2027. During the fiscal year ended November FY2023, however, we waged an uphill battle in moving toward this goal with sales targeted mainly toward distributors in Japan and Greater China. Despite our efforts, threading tool sales fell a net 7% after exclusion of currency conversion. Japan sales were the only region not to rebound to their peak prior to the pandemic (FY2019:

¥60.1 billion). OSG already controls a large share of the market, but we still initiated initiatives in December 2023 to reform our domestic sales structure for the first time in roughly 60 years so that we may better adapt to our external environment and rally back to recover our pre-pandemic sales level and even boost them even higher yet.

At the same time, it is essential, I believe, for us to “develop an environment where employees are respected and able to flourish” so that we are able to “contribute to the manufacturing industry through our business.” We will definitely take action to elevate our vitality through investment in personnel and lay the groundwork for these employees to thrive. If we take a look at the entire OSG Group, we see that overseas sales account for two-thirds of all sales. This reveals how evident it is that our Japan employees alone will not be able to expand our global tap share or optimize our business portfolio. So, from the standpoint of respecting diversity as well, we must not appoint and promote personnel just because they are employees assigned to our headquarters in Japan. I want OSG to adopt a global outlook and strive to properly place our outstanding personnel in appropriate assignments.

On the other hand, I feel we face a challenge in some cases where the level of an employee’s enthusiasm for their own career advancement does not match our company’s expectations. There have

been cases where employees of both genders have declined to become managers or leaders when asked. I think one factor in their refusal to take on the responsibilities of a higher position is the very severe way in which harassment is dealt with. In addition, as times have changed, higher and higher hurdles have been erected for “managing people.” Therefore, I feel an important issue is whether or not we will be a company that sustains subordinates with a sense of security so they know help is definitely on the way when they are in trouble. It is vital we create such an environment so that subordinates are not placed in situations alone where they have to do everything themselves, but one where they know to send out a signal early that they are in distress and where their supervisors are keeping an eye out to quickly pick up those signals. If we are able to imbue that sort of environment as part of our corporate culture, then more career options will be available for our employees.

As I mentioned earlier, I believe realization of the goal of being “an essential player contributing to the global manufacturing industry” is dependent upon the extent to which we are able to implement a human resources strategy that respects diversity.

**What sort of management resources are lacking for realizing these material challenges and what sort of specific efforts are being made to address those deficiencies?**

I believe it is more important how we hone the management resources that we currently have rather than consider what resources we lack for realizing our material challenges. So that we effectively utilize these management resources, we reorganized three managerial business units the Human Resources & General Affairs Department, Accounting Division, and Procurement Department into the Resource Management Center in December 2023.

Also related to my expectations of the Resource Management Center is the utilization of our human resources, which I feel is the greatest challenge that we face. The reason is that the age distribution of our current personnel is out of balance. We anticipate the number of employees in Japan to drastically decline by 2038, the year of our 100th anniversary. Currently, we find ourselves in a time where recruitment is already difficult. If this situation continues, then we will inevitably be required to achieve even greater growth with fewer employees. Although we have made progress at our plants on labor-saving initiatives, which have also included preparations for the future and sustainability initiatives, it is very important we initiate work on building an organization that is more likely to produce results by “visualizing human resources” to be accomplished through such efforts as the construction of a human resources data platform (by FY2025). For instance, once we are able to digitalize the characteristics, skills, experience, and other attributes of our professionals reaching the age of mandatory retirement for their positions, we will be able to use that information to appropriately place specific individuals in business units where they are needed. This platform will also offer the option of reskilling employees found to be lacking in certain skills. As we will be able to predict to a certain degree in advance changes that will take place in our personnel structure, we should not take the haphazard approach of thinking about which personnel to assign to which position only when the time is upon us.

In this way, I see the management challenge which OSG faces to be whether or not we will be able to change the way in which operate so that we are looking ahead and changing how we use our current management resources in a way that produces significant results. It is my expectation the Resource Management Center will adopt such a new perspective and take the initiative in changing not only the way we think, but also the way we work.

### ◆ Medium-Term Management Plan Achievements & Challenges

**Under the current Medium-Term Management Plan “Beyond the Limit 2024,” KPIs have been set for achieving ¥30 billion in**





operating income and a 15% ROA for the fiscal year ending November 2024. The business environment has changed and it might be difficult to achieve these KPIs. Could you please share with us the achievements made so far and the challenges that lie ahead?

OSG Group's long-term vision through FY2030 is divided into three stages with each stage rolled out in a distinct medium-term management plan. Stage I will end with the current "Beyond the Limit 2024." Although performance for the fiscal year ended November 2022 got off to a promising start after outbreak of the novel coronavirus, demand in Greater China hit the brakes once 2023 arrived, and operating income dropped off in the fiscal year ended November 2023. Ever since we announced the current medium-term management plan, I have felt the goals of achieving ¥30 billion in operating income and a 15% ROA have been challenging ones. Underlying our setting of these goals was the aim of motivating our employees to look toward attaining higher levels of achievement and instilling in them a sense of crisis so that they realize we are living in a time of high uncertainty. If the momentum emerges to reach these high goals, that will propel us to achieve a major breakthrough. In the process of implementing this Medium-Term Management Plan, the launching of a steering committee and multiple working groups have already been accomplished.

The challenge we face in the automotive industry, which is where our key customers are for our core tap products, is the increase in the ratio of battery electric vehicle (BEV) sales in China. Using China's largest BEV manufacturer as an example, there is a tendency, when expanding local production overseas, for Chinese companies to transplant the entire package of their production system to the overseas site. So, to succeed, the OSG Group needs to make inroads into China's supply chains. The number of vehicles to be produced is forecast to increase in the future and include an increase in PHVs and HVs as well as BEVs. Therefore, we will focus our energy on penetrating into new customer demand for micro-precision machining and other needs. The business environment has changed significantly since our current medium-term management plan was drafted. It appears we will need to redraft concepts in Stage 2 (2025-2027) so that we can change the game with "Beyond the Limit 2027." I also believe it is important for us to be conscious of changes taking place and identify them. As a company, we need to make quick decisions using the information that we gather.

It seems OSG's strategy vis-à-vis China's BEV manufacturers will be a key point in the next medium-term management plan. Could you please tell us about specific initiatives the working groups are addressing, what sort of employees participate in these working groups, and what role you, as president, will play in these groups?

The working groups are tackling initiatives such as securing a 40% share of the global tap market, increasing the percentage of micro-precision machining sales to 30%, raising the ratio of A-Brand products among our standard tools to 40%, doubling sales of rolling dies, and expanding our coating and reconditioning business. Each working group has five to ten employees aged from mid-30s to 50, engaging in a wide spectrum of deliberations. The employees participating in these working groups are selected from across a range of departments. Due to the global nature of doubling sales of rolling dies and achieving a 40% share of the global tap market, employees from overseas are also involved in these working groups. I have the opportunity to hear the progress these working groups are making at monthly working group report sessions. Nevertheless, it is quite rare for me to make an appearance at any of the actual working group meetings. The reason is that, first of all, I want these working groups to be a place where employees are able to freely express their ideas and abilities as they wish. So, I do not want to interfere with the activities taking place in these groups. They should be a place that encourages employees to think creatively and express their ideas. We hope this environment will develop our personnel and foster future potential leaders. So far, we have been able to set up a platform

where employees are able to take up challenges as they wish. In the future, I would like our employees to use this platform to work toward achieving specific numerical targets that will lead to results in Stage 2 (2025-2027).

## ◆ Stakeholder Engagement and Corporate Value Enhancement

Over the medium- and long-term, both dialogue and engagement with stakeholders are important for improving corporate value and sustainability. Could you please share with us OSG's policies in this regard and anything particular that you are committed to achieving? It has become even more imperative for us to accurately convey through dialogue and engagement with our stakeholders how the OSG Group will transition from the present to the future. OSG's policy here is to be fundamentally fair in making decisions. With this in mind, we will continue to engage in a dialogue with our stakeholders.

In dialoguing and engaging with employees, we are endeavoring to create an environment where our employees are able to ask questions about things they want to know. OSG has a labor union. Both sides communicate openly and demonstrate fairness. When communicating to our employees about initiatives such as the Medium-Term Management Plan and the direction we aim to take, we convey this information to executives at management meetings and E&M seminars where each executive officer provides policy explanations. For other employees, there is the opportunity of the president's speech at the beginning of the fiscal year. In the future, the working groups will need to expand their work into small group activities at the working level.

Our customers are the same both in Japan and overseas. I personally attend a variety of A-Club regular meetings in Japan and several times a year make arrangements to talk directly with our vendors and agents. This tradition has continued unbroken since the time of our previous chairman Teruhide Osawa. A-Club owners have highly appreciated this close relationship with OSG. The relationships formed with these owners are an asset generated out of our efforts to continue dialogue, and we will continue these efforts in the future. In addition, A-Club activities are being extended overseas to China, the United States, Europe, and other regions where we are holding dialogues and events with customers in each of these markets.

As president, what sort of efforts are you making to enhance corporate value, including market capitalization, over the medium- to long-term while being mindful of the company's stock price? In closing, could you also please share with us how this aligns with your own mission?

In OSG's dialogue and engagement with shareholders and investors, I personally make it a point to conduct our financial results briefings and talk with shareholders and investors as much as possible. I believe management that is mindful of its share price and seeks to enhance capital efficiency will produce greater corporate value, including market capitalization, over the medium- and long-term. The Medium-Term Management Plan launched in FY2022 set out policies emphasizing operating income and capital efficiency rather than sales so that we may strengthen our corporate structure. We have strived not only to improve our return on assets (ROA), but also have also been conscious about enhancing shareholder equity efficiency, which has also raised the return on equity (ROE). In December 2023, we made the management decision to acquire ¥22 billion in treasury stock utilizing the Recap CB scheme by issuing convertible bonds for recapitalization. We will continue to bolster shareholder returns and enhance capital efficiency as we move forward.

The OSG Group will continue to endeavor to establish a brand that all stakeholders trust as we aim to further increase our corporate value and contribute to society through our business activities. We sincerely ask our stakeholders to continue to extend your support and understanding as you always have done.

# Value Creation Process

Medium-Term Management Plan Stage 1  
Beyond the Limit 2022-2024 [P.27](#)

Medium-Term Management Plan Stage 2  
Beyond the Limit 2025-2027

ESG Management Environmental & Social Initiatives [P.31](#)

## ⚙️ Manufacturing capital [P.13](#)

- ◆ Production sites **33** \*Consolidated only
- ◆ Capital expenditures **10,580** million yen

## 📖 Intellectual capital [P.14](#)

- ◆ R&D expenditures **1,415** million yen
- ◆ Development engineers **56**
- ◆ Design engineers **108**

## 🏦 Financial capital [P.15](#)

- ◆ Total assets **250,124** million yen
- ◆ Equity ratio **72.6%**
- ◆ Interest-bearing debt **28,676** million yen

## INPUTS

## 👤 Human capital [P.18](#)

- ◆ Employees Consolidated **7,563**
- ◆ Training expenditures **15.01** million yen

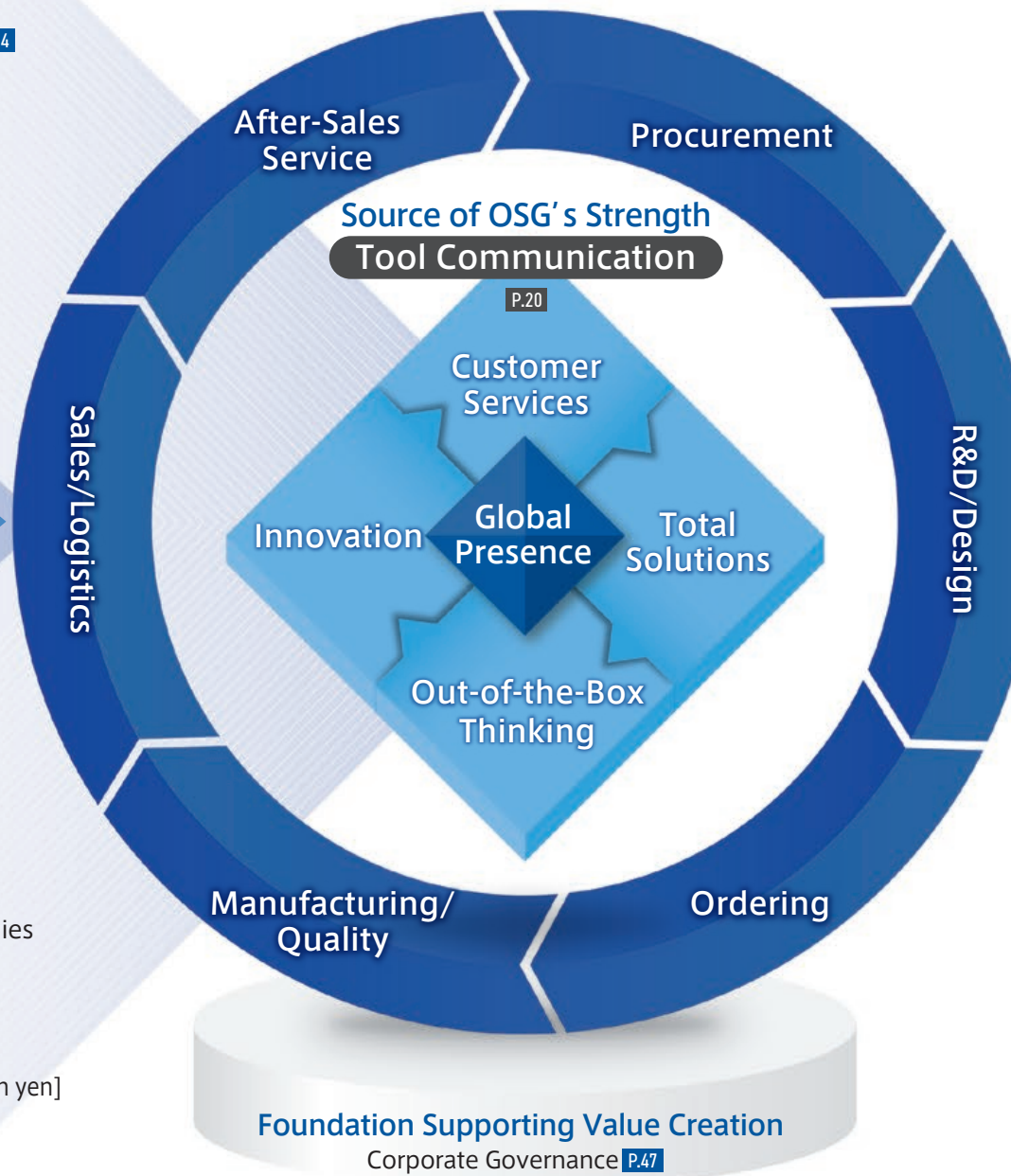
## 🏢 Social capital [P.19](#)

- ◆ Overseas sites **75**  
\*Only consolidated subsidiaries
- ◆ A-Club members **259** companies in **12** countries

## 🌿 Natural capital [P.19](#)

- ◆ Energy usage **933,430** [GJ]/million yen]
- ◆ Water intake **118,187**m<sup>3</sup>

## Value Chains [P.23](#)



Materiality  
(Key Issues)

[P.25](#)



Contributing to the manufacturing industry through our business



Developing an environment where employees are respected and able to flourish



Contributing to a sustainable global environment

## Medium-Term Management Plan Stage 3 Beyond the Limit 2028-2030

### ⚙️ Manufacturing capital

- ◆ Number of products approx. **39,000**  
\*Only standard tools listed in catalogs
- ◆ Number of taps manufactured  
Japan **11,608,000**  
Global **25,631,000**  
\*Full fiscal year ended November 2023

### 📖 Intellectual capital

- ◆ FY2023 new products released **313**
- ◆ A-Brand sales ratio **29%**  
\*The sales ratio of A-Brand products in the total sales of standard products (taps, drills, and end mills)

### 📊 Financial capital

- ◆ Net sales **147,703** million yen
- ◆ Overseas sales ratio **67.0%**
- ◆ Operating income **13.4%**
- ◆ ROE **8.3%**
- ◆ ROA **8.3%**(Operating income basis)

## OUTPUTS

### 👤 Human capital

- ◆ Distance education users **188**
- ◆ No. receiving qualifications **232**  
\*Only those qualifications eligible for incentives

### 🏢 Social capital

- ◆ Global tap market share **No.1** (est. to exceed 30%)
- ◆ Japan tap market share **52.0%**  
\*Source: Japan Cutting & Wear-Resistant Tool Association

### 🌿 Natural capital

- ◆ Carbide product recycle rate approx. **30%**  
\*Recycle rate of Japan group companies
- ◆ CO<sub>2</sub> emissions **42,294t**

## OUTCOME



Customers



Suppliers



Employees



Shareholders/  
investors



Local  
communities

- ◆ Strength current products  
Global tap market share **40%** (2027)
- ◆ Shift customer-specific portfolios  
Ratio of micro-precision machining sales **30% or higher** (2030)
- ◆ Expand premium tool brands  
Ratio of A-Brand to standard product sales **40%** (2027)
- ◆ Raise coating & reconditioning ratio **15%** (2027)
- ◆ Empower women  
Ratio of female assistant managers **7%** (2025)
- ◆ Reduce CO<sub>2</sub> Emissions **▲30%** (2030)  
Achieve carbon neutrality (2050)
- ◆ Dividend payout ratio **35.3%** (2024)

To be an essential player contributing the global manufacturing industry



Maintaining and strengthening our governance structure to achieve sustainable growth

# Accumulated Management Capital

## Manufacturing Capital

### Digitalization to Empower Frontline Capabilities

The NEO Shinshiro Factory is our core plant promoting digital transformation. In 2021, we set up the DX Promotion Team. The essential requirement for digital tools used to establish sales and production systems is that they must be simple and smart. This requirement is achieved by thoroughly incorporating the comments and views of those on the front lines of production. This is why the DX Promotion Team is located close to the production site (inside the NEO Shinshiro Factory), enabling it to support frontline capabilities through digitalization. The team has focused on the use of digital production management tools suited to production system innovation as well as BI tools to visualize production status. The team has also promoted adoption and retention of these tools at the NEO Shinshiro Factory, while working to standardize specifications with a view to the lateral deployment of these tools to other factories in Japan. Moving forward, we will further promote application of tools promoting digital transformation at production sites overseas as well as group companies in Japan with manufacturing plants. This will help us realize our ONE Factory Concept.



Machinery availability rate monitor

### 2023 Initiatives & Future Digital Transformation

There are three generally accepted steps to digital transformation. OSG is currently at the second stage, which involves "streamlining digitalization processes." We are making preparations for the third step "true digital transformation" at which we will enhance productivity throughout our organization and create customer-oriented value. As of the end of 2022, we completed most of the digitalization setup and verification related to production system innovation. Then, in 2023, we promoted lateral application of these systems to our factories in Japan and group companies both in Japan and overseas. The process of digitalization does not end with the adoption of digital tools. It's important that these tools are increasingly used by personnel and integrated into systems and processes.



Visualization of process-specific delivery progress

For instance, such tools do not just allow for visualization of the progress of production within a manufacturing process, but they can also determine where delays occur in a process and whether the bottleneck has been resolved, thereby accelerating the identification of factors leading to delivery delays and the speed with which countermeasures are implemented. In addition, as part of a new initiative, we are converting work procedures, measurement procedures, nonconformance countermeasure examples, and other important information which used to be managed in paper form to a video platform. This has enhanced the efficiency with which new employees and staff from other factories dispatched to provide support are able to learn the work. We are also looking into making use of this data in multilingual manuals at times when production procedures are transferred to group companies overseas.

### Revamping Oike Factory through Compounding and Transition from Old Equipment

Up until recently, production of a single product, such as a carbide end mill, required different equipment for each manufacturing process, such as grooves, outer circumference, and bottom cutting edge. The old equipment required that not only production processes and quality assurance systems be separate, but also presented difficulties in terms of reducing and eliminating labor in production because the know-how needed for linking processes, such as those that required particular skills of a group specialist when machining grooves, was held by craftsmen. Moreover, multiple machines led to longer production processes, longer lead times, and greater waiting time for processes and setup, as well as many other disadvantages. When developing new products also, a process bound to multiple processes hindered the development of attractive products. That is why OSG began to focus on compounding, a method that uses a single computer numerical control (CNC) tool grinder to perform and complete multiple processes. Compounding resolves multiple issues, which used to be faced with the old equipment, and enables OSG to provide a stable supply of high-quality attractive products with short delivery times. Transition from the current old equipment to compound processing machinery is progressing smoothly



Compound machine at Oike Factory



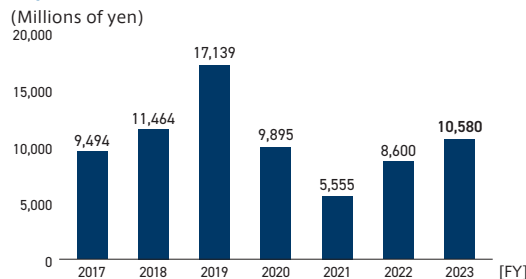
Illustration of the new Oike Factory

toward the goal of operating the new carbide end mill factories (Oike Factory and SD Manufacturing Company). As of 2023, approximately 30% of the old equipment has been disposed of and replaced with compound processing machinery. We are steadily shifting to labor-saving and unmanned production systems as we reassign personnel (increase multi-process personnel) and boost production thanks to greater machinery availability. Our policy is to transfer small-lot products and other production from Oike Factory to group companies in Japan and abroad and have entirely unmanned production at Oike Factory. Furthermore, we are also promoting compounding that will use machines manufactured in-house, allowing us to forgo relying on machinery manufactured externally. Consolidating the know-how that we have developed so far makes it possible for us to respond in a timelier manner than ever before to market demand. We hope to make further advances in this direction together with our customers.

### Capital Investment

In recent years, the OSG Group has not only updated machinery and rebuilt factories to address seismic resistance issues, but has also strengthened our production capacity for small-diameter tools aimed at micro-precision machining, a focus of our basic strategy under our Medium-Term Management Plan. While balancing future capital investment with growth investments and shareholder returns, we aim to actively promote investments towards unmanned production in anticipation of a future decline in the working population. We will also make environmentally-friendly investments to contribute to realizing a sustainable society.

Capital investment levels

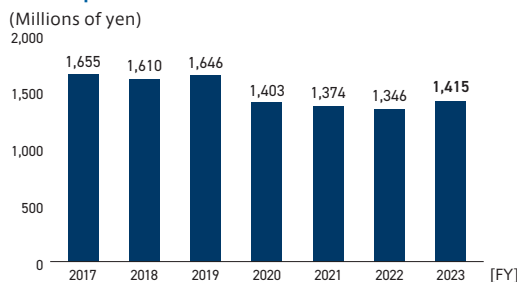


## Intellectual capital

### OSG's R&D System

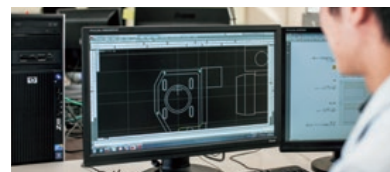
OSG's research and development activities are principally conducted at the R&D Center and Design Center at OSG Academy. Long-term basic research is carried out jointly with university, national and public research institutes. The Design Center develops and improves products. It is equipped with the latest machine tools and evaluation instruments of all types specifically for fabricating prototypes so as to develop machining technologies that maximize tool performance in addition to providing expedient feedback for development of products based on cutting tests conducted under a variety of conditions. The R&D Center works on research and development of coatings, nitriding, and other surface-modifying technologies, technologies for developing and improving high-speed steel and die steel material, as well as heat treatment technologies.

R&D expenditures



### OSG Machinery & Equipment Knowhow

At OSG, we develop and manufacture some of our manufacturing facilities internally. Based on the know-how which we have accumulated over many years for grinding and other technologies that are the lifeblood of precision cutting tool manufacturing, we have created proprietary facilities designed to deliver optimal precision, production efficiency, as well as production cost. These manufacturing facilities, which we have developed in-house and directly reflect the insights of our frontline personnel of production, have significantly contributed to maintaining and enhancing the competitiveness of OSG products. Proprietary manufacturing facilities have been established not only at our mother factories in Japan, but also at production sites of our group companies throughout the world. These efforts are the driving force that makes it possible for us to produce OSG brand precision cutting tools of the same quality anywhere in the world.



## Financial Capital

### Basic Policy on Financial Capital

As an essential player contributing to the global manufacturing industry, OSG Group regards it as essential that we both enhance corporate value and achieve sustainable growth so that we may contribute to society's sustainable development. Our basic financial policy is to establish a sound and solid financial base upon which we may invest in growth areas while consistently providing an appropriate return to our shareholders over the long-term. We regard securing and maintaining a stable high rating as an important managerial target for ensuring financing flexibility and reducing financing costs. Each year, we obtain a long-term issuer rating from an external rating agency. Our long-term issuer rating as of the end of March 2024 is A.

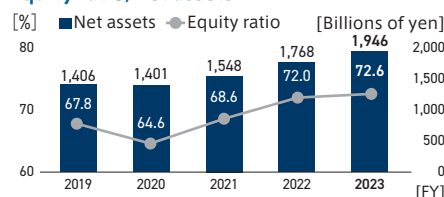
### Shareholder Return Policy

OSG Group recognizes shareholder distributions as a key management matter. In the fiscal year ended November 2022, we raised the dividend payout ratio pledged on a consolidated basis from 30% to 35%. In the future, our aim is to increase this to 40% while also monitoring business performance and other trends. In addition, as described below, we are currently acquiring treasury stock. As we move forward, we will take into consideration our capital situation, performance trends, OSG Group's share price level, growth investment opportunities, capital efficiency enhancements, and other factors as we flexibly make share repurchase decisions.

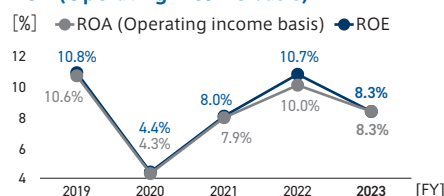
### Toward Achieving the Medium-Term Management Plan "Beyond the Limit 2024" [▶ P.27](#)

In January 2022, the OSG Group announced its Medium-Term Management Plan "Beyond the Limit 2024" and launched initiatives aimed at reaching new targets. In Stage 1, we are focusing on reinforcing our business efficiency, improving profitability, and bolstering our corporate culture to stably generate profits over the three years from the fiscal year ended November 2022 to the fiscal year ending November 2024. In the fiscal year ended November 2023, our profit margin deteriorated due to a decline in sales of our core products in Japan and Asia (particularly in Greater China), which resulted in ROA (on an operating income basis) of 8.3% (down 1.7% from the previous fiscal year). The fiscal year ending November 2024 is the final year of Stage 1. While steadily increasing ROA (on an operating income basis) through improved profit margins, we have also been acquiring treasury stock and providing other shareholder returns as we endeavor to improve ROE. We are planning to formulate and present a capital policy that includes a medium- and long-term financial strategy for the three-year Medium-Term Management Plan Stage 2, starting from the fiscal year ending November 2025.

#### Equity ratio/net assets

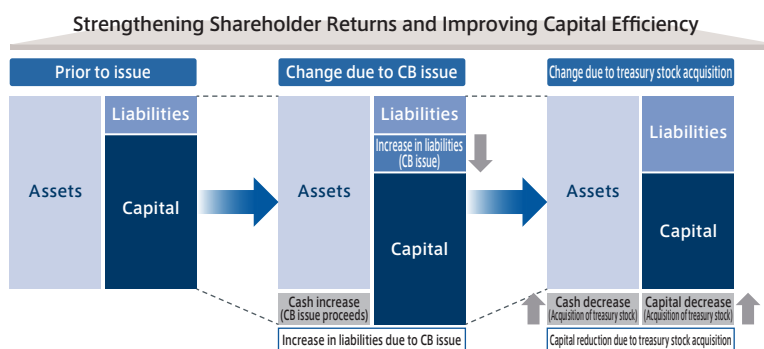


#### ROA (Operating income basis)



### Financing through Bond Issues and Acquisition of Treasury Stock

In December 2023, we procured financing by issuing Euro-Yen denominated convertible bonds with stock acquisition rights due 2030 ("CB"). The approximately ¥22 billion in proceeds from the CB issue are set to be allocated to treasury stock acquisition through November 29, 2024. This CB has the following features. We believe that, as we use this CB to acquire treasury stock, we will enhance shareholder returns and improve capital efficiency, thereby contributing to the maximization of corporate value and shareholder value.



Cost of capital reduced through increased debt and decreased capital, ROE improved through decreased capital, and EPS improved through acquisition of treasury stock. A ¥22 billion treasury stock acquisition is estimated to have the effect of improving ROE by approximately 1.14 times.

1. The financing is aimed at minimizing interest and financing costs as bonds are issued with zero coupon as well as at or above face value.
2. Setting the conversion price above the market price provides the expectation that dilution of earnings per share will be curbed after issuance.
3. Attachment of a conversion restriction clause limits the possibility of conversion to common stock.
4. Attachment of a face value cash settlement clause that allows cash delivery up to the face value of the bonds is a high-debt design that considers existing shareholders by significantly minimizing dilution per share after issuance.



## Green Bond Issue

On August 10th 2023, the OSG Group became the world's first cutting tool manufacturer to issue green bonds. The funds procured are slated to be allocated to green buildings, R&D funds for eco-friendly products, and other such uses. We will strive to maximize corporate value generated by linking our growth strategy and ESG initiatives toward realization of OSG Group's Medium-Term Management Plan "Beyond the Limit 2024."

### Overview

Item	Overview	Notes
Name	OSG Corporation Series 3 Unsecured Straight Bonds (with an inter-bond pari passu clause)(Green Bond)	Also known as the OSG Beyond the Limit Bond
Maturity	5-year bond	
Issue amount	¥5 billion	
Coupon	0.514%	
Issue date	Thursday, August 10, 2023	
Third-party organization evaluating framework	Japan Credit Rating Agency Ltd. (JCR)	Green 1(F) *Framework evaluation
Rating	R&I: A	

### Framework

	Category	GBP Category	Eligible Criteria and Projects
Use of procured funds (Eligible project categories)	Save Energy	Green Building	Building of which environment building certification was acquired or renewed prior to 24 months of issuance of the Green Bonds. Or, such building of which certification will be acquired or renewed in the future <ul style="list-style-type: none"> <li>•CASBEE Construction (New, Existing, Renovated), CASBEE Real Estate Certification: Rank B+, A and S</li> <li>•ZEB, Nearly ZEB, ZEB Ready, ZEB Oriented under ZEB Certification</li> <li>•BELS: 3 stars, 4 stars and 5 stars</li> <li>•DBJ Green Building Certification: 3 stars, 4 stars and 5 stars</li> </ul> <Project example> <ul style="list-style-type: none"> <li>•Costs for Oike Factory renovation (CASBEE Certification: Rank B+ (Expected))</li> </ul>
		Energy Efficiency in product development process	Costs for introduction and maintenance of systems which realize improvement of energy efficiency by more than 30% current efficiency by reducing prototypes.           <Project example> <ul style="list-style-type: none"> <li>•Cutting simulating using CAE analysis</li> </ul>
	Eco-efficient Products	Eco-efficient Products, Production Technologies, and Processes	Costs for research and development and introduction of related production equipment to realize improvement of energy efficiency by more than 30% current efficiency           <Project example> <ul style="list-style-type: none"> <li>•Environmentally-friendly product which helps saving energy (Drills)</li> <li>•Products which helps saving energy and reduce waste by streamlining manufacturing process (PDZ)</li> </ul>
	Energy consumption	Renewable energy	<ul style="list-style-type: none"> <li>•Costs to introduce equipment of renewable energy plants</li> <li>•Costs to purchase electric power from renewable sources</li> </ul>
Process for Project Evaluation and Selection	<ul style="list-style-type: none"> <li>•For eligible projects, to which proceeds from the Green Bond will be allocated, Finance Department will select candidate projects according to their alignment with the project eligibility criteria. The Finance and Quality Assurance Department will discuss the matter before Sustainability Committee which the President chairs will make the final decision.</li> <li>•In order to reduce environmental and social risks, all the eligible candidate projects are confirmed to have met conditions as follows:               <ul style="list-style-type: none"> <li>— Complying with environmental-related laws, regulations and rules required in the areas where projects are conducted as well as carrying out environmental impact assessments if necessary</li> <li>— Providing sufficient explanation to local residents before projects are conducted</li> <li>— Material procurement, prevention of pollution and consideration of working environment and human rights in line with OSG Group's sustainable procurement guidelines</li> </ul> </li> </ul>		
Management of Proceeds	<ul style="list-style-type: none"> <li>•The proceeds will be allocated to eligible projects and managed by the Accounting Department. The Accounting Department will track and manage the proceeds using Excel so that the same amount of bonds issued based on the framework will be allocated to any of eligible projects.</li> <li>•The Company will manage the unallocated proceeds in cash or cash equivalent until the full amount of the proceeds will be allocated, and the proceeds will be fully allocated within five years from issuing.</li> </ul>		
Reporting	OSG will report the status of allocation of green bond proceeds to eligible projects and effects on the environment annually on OSG's annual report and website.		

## Accumulated Management Capital

### Allocation Report (August 2023~November 2023)

Funds have been allocated as follows.

(Millions of yen)

Funding (amount of bond issue subtracting issue costs)	Allocated funds	Unallocated balance
4,968	New : 23 (100%) Refinancing : 0 (0%) Total : 23	4,945

(Millions of yen)

Category	GBP Category	Project	Allocated amount	Unallocated amount	Allocation date
Save Energy	Green Building	Renovation of Oike Factory	0	4,945	March 2028
	Energy Efficiency in product development process	Cutting simulation using CAE analysis	10	0	
Eco-efficient Products	Eco-efficient Products, Production Technologies, and Processes	Environmentally-friendly product which helps save energy Products which help save energy and reduce waste by streamlining manufacturing process	13	0	
Total			23	4,945	

Unallocated funds are managed as cash or cash equivalent.

## Impact Report

### 1. Save Energy

#### Renovation of Oike Factory (GBP category: Green building)

- Capital investment progress  
Construction to start in May 2024 with completion scheduled for April 2028
- Certifications acquired (type and rank of certifications acquired or time of planned acquisition)  
CASBEE certification: B+ rank scheduled to be acquired in summer of 2025

#### Cutting simulation using CAE analysis (GBP category: Energy efficiency in product development process)

- Decline in number of prototypes since system introduced  
600
- CO<sub>2</sub> emissions reduction effect due to decrease in number of prototypes  
Reduction of 768.43kg-CO<sub>2</sub> during the period  
¥10 million was allocated for expenses during the period to improve processing speed and maintain cutting simulation software that uses CAE analysis. With the use of cutting simulations, it is now possible to reduce the number of prototypes by two-thirds for a single developed product, realizing a reduction in energy usage and raw materials required for prototyping. Average amount of power required to produce one prototype is 2.5 kWh, which amounts to a reduction in power consumption of 1,500 kWh during the period.

### 2. Eco-efficient products

#### Development of GREEN TAP forming taps (GBP Category: Eco-efficient Products, Production Technologies, and Processes)

¥13 million was allocated for development costs during the period for GREEN TAP forming taps which halve CO<sub>2</sub> emissions during tool manufacturing compared to the manufacture of conventional products. The GREEN TAP, which adopts a unique new manufacturing method, emits 0.55 kg-CO<sub>2</sub> per tool during manufacture, half the CO<sub>2</sub> emissions of conventional products, so as to realize a reduction in thread processing CO<sub>2</sub> emissions. Moreover, as the GREEN TAP is a forming tap, no chips are generated during threading, eliminating machine stoppage to dispose of chips and contributing to a reduction in power consumed during tool use. The GREEN TAP is scheduled to be released in 2024.

**GREEN TAP**

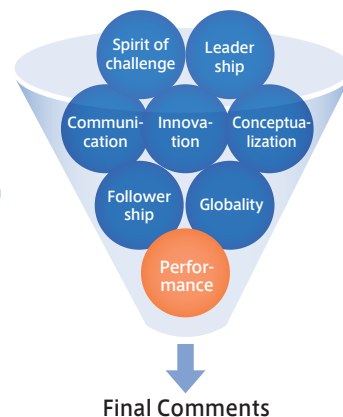
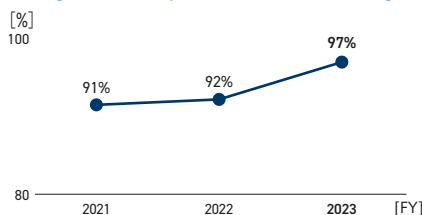


## Human Capital

### OSG's Desired Employee Profile: Seven Human Resource Criteria [▶ P.39](#)

We believe our employees possess unlimited potential and are an indispensable part of our company. Building as such on our human resource development philosophy, we strive to expand and improve our employees' capabilities based on the seven human resource criteria. These are reflected in our performance evaluation items, and supervisors provide feedback during biannual evaluations. Recognizing that these feedback sessions are crucial opportunities for employees to share their strengths, future challenges, and goals, which are key to boosting motivation, we strive to ensure 100% implementation of these feedback sessions as part of our awareness-raising efforts.

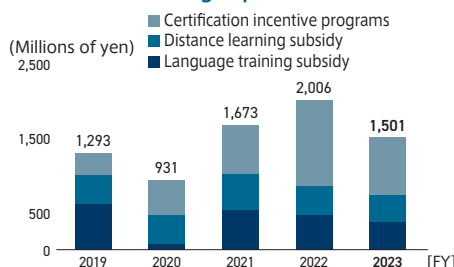
Change in rate of performance feedback given



### Appropriate Placement of Personnel and Development of Human Resources [▶ P.39](#)

OSG employs a career plan declaration system where employees can submit their own career aspirations. This system allows for the appropriate placement of personnel. We also encourage reskilling, enabling employees to learn the knowledge and skills required for their work. In an era of rapid change, it is crucial for companies to create result-oriented organizations by placing personnel in roles that match their experience, abilities, and characteristics. This not only facilitates company growth but also promotes individual employee development. Moving forward, we are developing a human resource data platform to establish a system that allows our experienced professional personnel to fully utilize their skills. We are also focusing on nurturing the leaders and executive leaders who will carry us into the next generation.

Education & training expenditures



### Diversity & Inclusion [▶ P.40](#)

OSG strives to maintain a pleasant work environment based on the proposition of promoting diversity and inclusion so as to empower our diverse workforce to leverage their individual personalities and character as well as demonstrate their abilities to the fullest regardless of nationality, gender, ethnicity, disability, or other traits. This approach also recognizes that empowering women in the workplace is an important issue. Our aim is to provide the means for each and every woman to demonstrate her abilities to the utmost in her career as she continues to work passionately and assuredly. In recent years, OSG's recruitment efforts have focused on practical measures such as offering internships so candidates gain experience, hiring information system professionals, and recruiting from overseas with the aim of strengthening our efforts to secure and train digital human resources. In addition, so that women may become more familiar with technical positions where the ratio of men is still high, we are also holding roundtable discussions which present the working environment and benefits, and discussions so anyone interested may talk with women employees actually working in engineering positions.

### Promotion of Safety and Health Management [▶ P.42](#)

In 2023, OSG was certified as a Safety and Health Superior Enterprise by the Ministry of Health, Labour and Welfare and an Excellent Health Management Company 2023 - White 500 by the Ministry of Economy, Trade and Industry. OSG is also dedicated to training our employees and supporting their safety and health through efforts such as providing safety and health training and setting up a health consultation service staffed by occupational health physicians, counselors, and healthcare staff. In pursuit of the well-being of our employees, we are promoting the creation of an environment where each and every employee is able to bring energy to their work.

### Future Human Capital Management

OSG's aim is to effectively utilize our personnel's capabilities and improve their well-being through the development of an environment where our employees can confidently take up challenges. The future will be a difficult time for securing personnel in a manner proportionate to Japan's population pyramid. So that our company may grow, it is important that we enhance each and every employee's productivity. We also need personnel who are able to continue to take up challenges and grow. Accordingly, we are advancing automation and digital transformation in our manufacturing process as well with the aim of creating an environment and culture that encourages our employees to challenge the status quo without fear. We aspire to create a workplace where employees are motivated to continually develop and transform themselves.

## Social capital

### Engagement with Stakeholders

At OSG, we are committed to timely and appropriate disclosure of information, and through our communication with shareholders and investors, we strive to provide the necessary corporate information for investment decisions. Through constructive dialogues with shareholders and investors, we fulfill our accountability to shareholders as well as maintain and enhance trust earned from the market. We are also working to provide a correct understanding of our company so that a proper stock price is formed and corporate value enhanced. Our investor relations department, management, human resources, and other divisions actively participate in the approximately 150 dialogues that we hold annually with investors and analysts. The valuable feedback gained during these conversations is shared internally as part of our efforts to further enhance corporate value.

[No.]

Activity	2019	2020	2021	2022	2023
Financial briefings	2	2	2	2	2
Talks with institutional investors and securities analysts	157	154	143	155	154
Those pertaining to ESG	0	0	2	1	1
Overseas investor relations talks	21	25	16	18	19

### Connecting to Customers

#### To Gain Customers' Trust in Europe

##### VOICE

I often tell my colleagues: "sales is a reflection of how much you are contributing to the local manufacturing industry." I feel the local team is starting to own this value. It is my belief that sales is the contribution of our products and services, and this relationship completes manufacturing. This relationship plays a crucial role in a society. With this shared value, we can offer better solutions to our distributors and end users by asking: "How may we help your business?"



In order to gain our customers' trust, we aim to support the manufacturing industry, not just sell tools. This mind set is called "Tool Communication," one of OSG's core beliefs. Consistent quality is crucial for trust. Whether it's the first tap or the hundredth, "productivity" is warranted with exactly the same tool life. It's not easy to convince end users of this value. It must be earned. In order to earn end users' trust in our products, "experience" plays a key role. We meet with our end users on their factory shop floor as often as we can, but seeing is believing. In Germany, like in Japan, we conduct cutting tests at our technical center that emulates end users' job.

**Hideaki (Bobby) Osawa** Managing Officer in charge of Europe and Africa

## Natural Capital

### OSG Group's Carbide Recycling

Among the raw materials in carbide tools are tungsten, cobalt, and other rare metals. So that we may always provide carbide tools to our customers indefinitely, we are working to recycle carbide products throughout the entire OSG Group with the aim of securing resources and reducing raw material costs. Nihon Hardmetal Co., Ltd. (NHM) collects scraps and sludge from several of our domestic group companies and OSG's mother factories in Japan. Together with those generated by NHM, these recycled raw materials account for more than 30% of the raw materials used in the production process. Compared to carbide tool recycling rates of 50% (NHM estimate) in Europe and the United States, only between 30% and 35% (NHM estimate) of these tools are recycled in Japan. The production of ore, which is the raw material source, is significantly dependent upon two countries: China (for tungsten) and Democratic Republic of the Congo (for cobalt). On the other hand, the production of recycled materials is possible both domestically and overseas. One of the goals of improving the recycling rate is to minimize the impact of the situation and export policies of specific producing countries. In addition, compared to virgin raw materials, recycled raw materials have the advantage of reducing the environmental impact of ore mining. If we commission the production of recycled raw materials to domestic refining manufacturers, we can expect a stable supply within the country. As a future initiative, coordination with affiliated companies in each area is a challenge, but we will gradually promote the expansion of carbide recycling to users both domestically and overseas, aiming for a recycling rate of 40% as the OSG Group. We will continue to contribute to environmental considerations and cost reductions for our customers through resource recycling.



Scraps



Carbide sludge

# Key Strengths Maximizing Value Creation

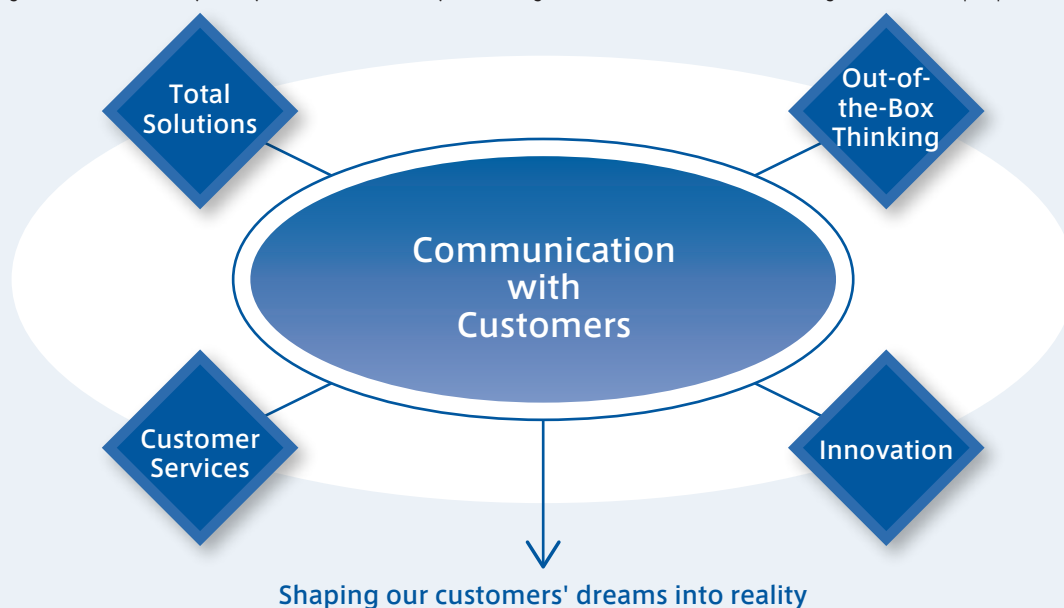
## Tool Communication

To OSG, there is a close link between tools and communication. Not only is active two-way communication with customers an essential part of our product development, it is also vital when we assist them in the selection and application of tools, and provide after-sales service. Thus, communication is key to the success of our operations and to our commitment to develop ever-better products. Moreover, the excellent results brought by the use of high-quality tools help to enhance business relationships.

OSG has a unique business model that seamlessly integrates sales, engineering and manufacturing to effectively communicate customer needs and know-how to develop products with complete satisfaction.

### The power to exceed customer expectation

Our advantage lies in the combination of four strengths grounded in our communication with customers: our innovative technological know-how for producing high-quality and high-performance products, sincere and devoted service for finding solutions to our customers' needs, as well as our ability to offer out-of-the-box thinking and total solutions that enable us to anticipate our customers' future requirements. We are committed to assisting our customers in turning their dreams into reality and, by extension, continuously contributing to the advancement of manufacturing industries and a prosperous future.



## ◆ Total Solutions

### Collaborative Proposals for Tools and Processing with Machine Tool Manufacturers

#### VOICE

The Application Sales Division is a newly created interdepartmental business unit comprised of two groups: the **Application Sales Group** that primarily collaborates with machine tool manufacturers and the **GIGS\* Sales Group** which pioneers new markets. The **Application Sales Group** has made progress in collaborating with machine tool manufacturers by presenting them with new tools and processes as well as proposals for bringing out the maximum potential of machine tools. Ever since these initiatives were initially launched, we have received proposals from machine tool manufacturers for equipping machines with some function or other, and the number of such suggestions has increased each year. In addition, the Application Sales Group also has many employees with experience working overseas, so it is also able to handle consultations from sales outlets overseas.



Highly-experienced sales and technical staff in the **GIGS Sales Group** have been assigned to areas throughout Japan. This allows the staff to quickly and appropriately respond to consultations about processing from customers in untapped industries. New processing fields have many specialized processes, and more and more micro-precision machining proposals have been put forward to handle these. We will continue to comprehensively produce optimal tools and processes for both existing and new processing fields.

**Kazunori Kazaoka** General Manager Application Sales Division



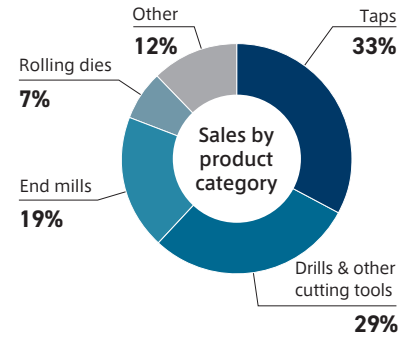
\*GIGS: OSG's abbreviation for "Growth Industry for Global Share up"

# Key Strengths Maximizing Value Creation

## Innovation

### Developing unique products by leveraging OSG's strengths as a comprehensive cutting-tool manufacturer

OSG's high value-added products are the tools many industries use for their high-precision machining. High durability is required to achieve even higher machining precision and stability. We have leveraged the know-how and strengths that only a comprehensive cutting tool manufacturer possesses to transcend the boundaries between products, applying features and innovation of one product to others. In this way, we are developing and designing new products by employing unique concepts generated through out-of-the-box thinking.

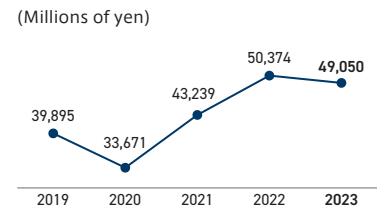


#### Taps

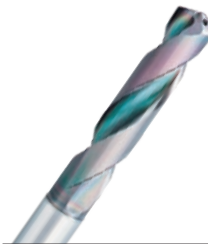


Taps, our core product ever since OSG was founded, are tools for machining 'female' screw threads (grooves on the hole interior). These fulfill an important role in high-precision machining of internal threads for automobiles, aircraft, and other applications. OSG offers a wide range of world-class quality products from small to large diameters. Taps for specialty components to meet customers' machining needs require short delivery times yet optimal combinations of materials, shapes, coatings, and other specifications customized for how the tap will be used. OSG's strengths are found in the innovation and customer service we have honed with specialty components, which have significantly contributed to OSG securing the highest share of the global market for such products (based on OSG research).

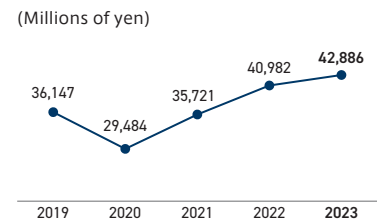
Product sales



#### Drills



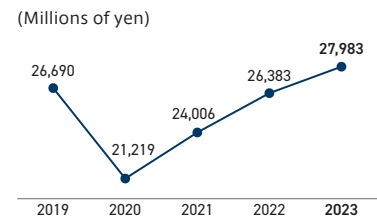
Drills are tools used for cutting holes. Just as with our taps, we have earned high praise from customers by developing and marketing high-value added products tailored for the automobile and aerospace industries, both of which require not only high precision, but also high durability. When a tap is used to cut a female thread, a pilot hole needs to be drilled beforehand in the workpiece. In recent years, there has been a greater need for high-precision and high-efficiency machining not only of ordinary workpieces, but also difficult-to-cut ones as well. We have marketed a succession of distinctively-shaped new products to meet our customers' needs, such as drills with oil holes that feed machining oil at high pressure from the drill tip as well as drills shaped to smoothly discharge chips.



#### End mills



End mills cut away metal to create shapes and are used, for example, in the fabrication of press dies. There is a greater need for carbide end mills with superior machining precision and durability to meet the requirements of today such as the reduced cost, weight as well as size of machined products. Moreover, as more and more difficult-to-cut workpieces are produced, end mill materials and shapes as well as coatings applied to tool surfaces need to be highly durable in addition to heat and wear resistant to a level appropriate for such workpieces to be machined. To meet these needs, our group companies have developed a wide variety of coatings suited to various workpieces and built up a customer service system that gives us the capability to respond to customers' requests.

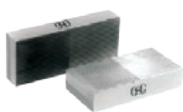


#### Indexable tools

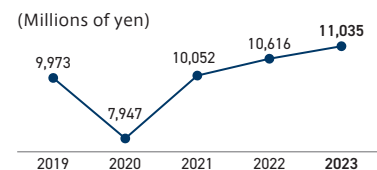


Indexable tools, which are cutting tools with exchangeable blades, are used to cut metal in the machining of dies and mechanical components. While end mills are used for finishing, indexable tools are mainly used for roughing. Solid tools can be reground when the cutting-edge is worn, but indexable tools offer the flexibility of replacing only the worn cutting-edge. Because only the blade insert needs to be replaced even on large-diameter tools, indexable tools can also reduce the total amount of material required for tools.

#### Rolling dies



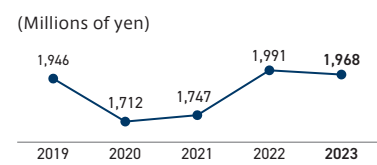
Rolling dies are used to cut the 'male' thread on a bolt (bolt threads). A mirror image of the thread is formed on a round bar by pressing the rolling die against the bar. Our high-precision and long-life dies, which are produced by applying the grinding technology and surface treatment technology developed in tap manufacturing, have been deployed worldwide in specialty products tailored to our customers' needs. Rolling dies are heavy and costly to transport, so we are working to create a production structure where rolling die manufacturing, reconditioning, and recoating are carried out at OSG Group's overseas sites to the extent feasible.



#### Gauges



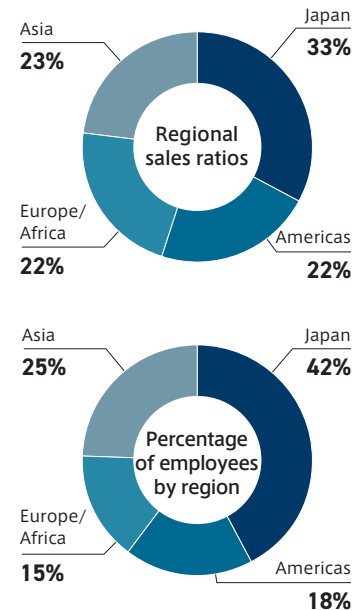
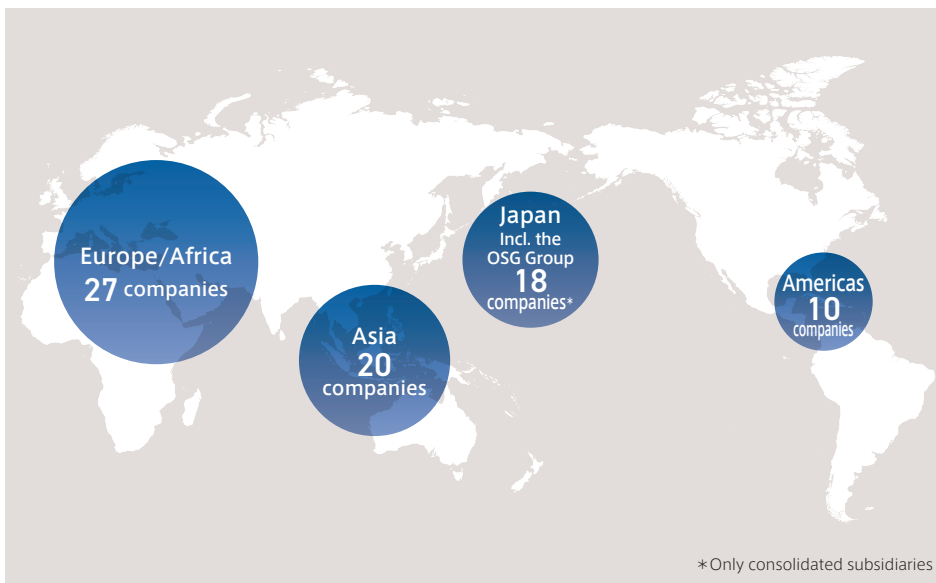
Gauges are used to verify the precision of threads, holes, and other work. Taps and dies precision needs to be accurate to a few microns, but gauges must keep any error to within one micron. OSG makes use of our proprietary grinding technology developed over many years to design and manufacture high-precision and high-quality gauges that only a manufacturer with comprehensive knowledge about threads can produce. High-precision gauges are costly to manufacture, so we have recently been taking up the challenge of implementing new initiatives that improve the production process and make other upgrades.



## ◆ Customer Services

### Group Network

Since we established our first overseas subsidiary in Chicago, USA in 1968, the OSG Group has expanded our manufacturing and sales bases to 33 countries around the world, building a global network that meets the needs of our customers in various regions. We have set up bases in a broad range of regions around the world, assigned design and sales personnel possessing a wealth of knowledge about each specific region, and trained local employees. This makes it possible for us to deliver products and services with consistent quality on a global scale. Since the 1990s in particular, OSG has actively engaged in mergers and acquisitions overseas as we have sought to expand our sales channels globally and increase market shares in the automobile industry and our next key industry, the aerospace industry. Thanks to a policy of cross-selling with companies newly joining our group, our mutually complementary sales, manufacturing, and technology across regions have produced a beneficial synergy. OSG's high value-added products have also garnered high regard in the global market. The ratio of overseas sales to total sales rose to 67.0% during the fiscal year ended November 2023. The global network that we have constructed will enable us to continue to contribute to the manufacturing industry in partnership with our customers.



## ◆ Out-of-the-Box Thinking

### Flexible Customization of Specialty Products and Know-How Accumulation

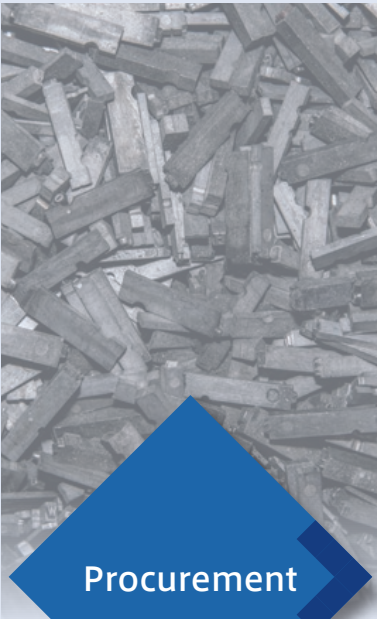
OSG has brought together our engineers who develop and design tools, develop coatings, and conduct other research and development at one location, the OSG Academy. We have also set up a cutting laboratory at the Academy. This is where our engineers design more than 1,000 new specialty products (custom-made for specific customers) each month. Design engineers visit customers to check on tool performance after these customized tools have been put to use, and they also evaluate these specialty products together with our customers at the cutting laboratory. This flexibility and person-to-person interaction has helped us gain our customers' trust. OSG's specialty product service has also helped us uncover potential needs and driven the release of our new A-Brand products as well as other standard products (catalog products).

Product development	25 engineers
Cutting testing	23 engineers
Prototype fabrication	8 engineers
Design engineers	108 engineers
Cutting testing machines	32 units





# Value Chain Enhancement

OSG carries out our proprietary business operations on a global scale, comprising everything from the production and procurement of base materials to the development of production facilities as well as coating, reconditioning, and other after-sales services. We have an overwhelming advantage as a comprehensive cutting-tool manufacturer across all six elements of the value chain.



## Procurement

Relevant capital

-  Manufacturing capital
-  Social capital



### Specific initiatives

OSG has built good relationships with our suppliers and promoted purchasing from multiple companies to make stable procurement a reality as a hedge against risk. Furthermore, we are opening up lines with new suppliers, evaluating alternatives, all as part of our efforts to increase supply flexibility. In our procurement activities the goal of which is to achieve carbon neutrality, we endeavor to use and increase the amount of recycled materials as well as promote substitution with eco-friendly materials. In addition, we are striving to maintain and manage appropriate inventory levels of materials and other items along with utilizing our distribution inventory so as to build an operation capable of flexibly responding to any changes in the business environment. Amid calls for construction of sustainable supply chains, we endeavor to ascertain and support CSR activities across our entire chain and strive to engage in responsible mineral sourcing.



## R&D Design

Relevant capital

-  Manufacturing capital
-  Intellectual capital



### Specific initiatives

So that we may promptly handle comprehensive consultations regarding machining in addition to those involving a single tool type, we have centralized the development and design of all tools that we carry in one location, the OSG Academy. The Academy houses departments that research and develop not only tool shapes, but also materials and coatings. This makes it possible to integrate the three elements of materials, tool shapes, and coatings in our design and development. In addition, we actively utilize CAE analysis to expedite product development. This shortens the time required for development, provides us with theoretical evidence, and reduces loss from scrapped prototypes. We have assigned engineers from OSG Academy to posts all around the world and established technology centers in seven countries so that we may maintain a high level of technical service wherever our customers need it.



## Ordering

Relevant capital

-  Manufacturing capital
-  Social capital

### Specific initiatives



As a comprehensive cutting-tool manufacturer, OSG has diversified our product series, offering standard products which include our flagship A-Brand and specialty products customized to customers' needs. We also have in place a supply structure that strengthens our capability to receive orders. We maintain high market shares in industries producing a broad range of components globally. As we move forward, we will need to further enhance our order receiving system in a manner that accommodates industry trends as well as establish a sales system that makes full use of digital technologies. Toward our aim of securing over 40% of the global tap market as set out in our Medium-Term Management Plan "Beyond the Limit," we will roll out a distribution strategy to further expand the market share of our A-Brand products and secure more new customers in the micro-precision machining sector.





## Manufacturing quality

### Relevant capital

-  Manufacturing capital
-  Natural capital


### Specific initiatives

At our mother factories in Japan, we are enhancing our delivery responsiveness and maximizing output by leveraging BI tools and other resources for production management and planning. We are planning to expand this digital transformation from our factories in Japan to our group companies within the country and to our factories overseas. In addition, we have advanced a global quality certification system to maintain the quality of products produced overseas so that we have the capability to assure consistent quality based on the same standards worldwide. We are also optimizing production at our facilities overseas so that stable quality is maintained in our production on a global scale. Furthermore, in anticipation of future labor shortages, we are progressively updating our production facilities to the latest automated systems as part of our labor-saving initiatives.



## Sales Logistics

### Relevant capital

-  Manufacturing capital
-  Social capital




### Specific initiatives

We conduct in-person sales follow-up calls, proposing optimal machining conditions and specifications to our customers, providing consistent global support that only a comprehensive cutting tool manufacturer has the capability to offer. In recent years, we have been promoting sales and marketing activities that fully leverage digital technologies, and taken an active approach by researching future and new growth sectors so as to properly adapt to recent changes in the environment around us. Our global online ordering system at OSG enables us to handle orders, provide estimates, and ship products more efficiently. The system centrally manages data for our worldwide inventory of approximately 100,000 standard products. This allows us to streamline inventory at hubs inside and outside Japan and diversify risk. Data-based inventory management provides us with the capability to control production and swiftly ship customers' orders.



## After-Sales Service

### Relevant capital

-  Manufacturing capital
-  Intellectual capital
-  Social capital

### Specific initiatives

Through OSG's global logistics and sales network, we offer reconditioning and coating services to customers worldwide. These high-grade value-added services contribute to optimizing customers' machining processes and enhancing their productivity. While reconditioning presents challenges with small-diameter tools, deep-hole drilling tools, sintered tools, and other difficult-to-grind tools, we continually strive to expand the range of tools we can recondition by utilizing the latest grinding and surface treatment technologies. In addition, we are also rolling out services for a diverse range of industries, such as dies, gears, medical, dental, machine, and other components so as to establish coating technologies for items other than cutting tools. As we move forward also, we will develop the reconditioning and coating markets on a global scale.

# Materiality (Key Issues)



## Basic Sustainability Policy

OSG Group aims to be instrumental in the sustainable development of society. We will be an essential player contributing to sustainable manufacturing industries worldwide by delivering proprietary high value-added products and services.

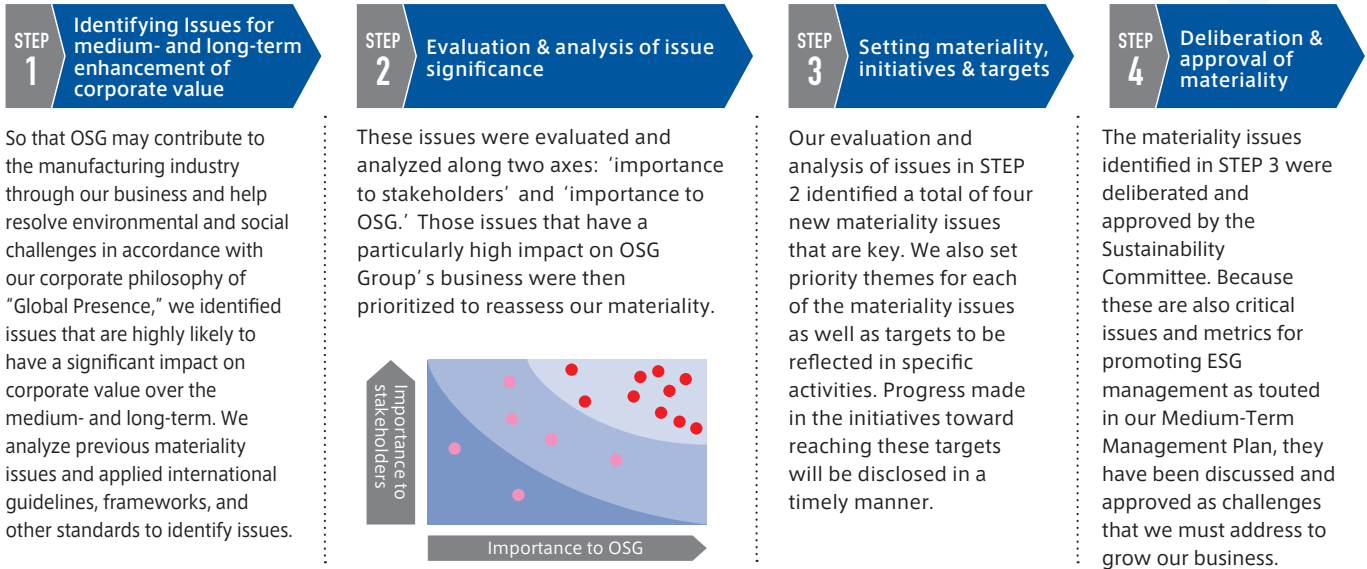
The Sustainability Committee deliberates ESG-related issues, policy and vision consistency, priority measures, and other matters, and regularly reports on its activities to the Board of Directors. Measures for promoting sustainability are implemented by department heads (ESG officers) and facilitators in each organization based on decisions made by the President, who chairs the Sustainability Committee. So that department facilitators maintain consistency in their understanding of what sustainability entails, they regularly provide progress reports on their activities, exchange views with colleagues, and promote initiatives for achieving solutions to key issues.



## OSG Group's Materiality (Key Issues)

Materiality	Priority Themes	Initiative
 <p>Contributing to the manufacturing industry through our business</p>	Expand the global market share for our core product taps	• Global expansion of high-quality & high-value added product ser
	Optimize our business portfolio	• Exploration of markets for micro-precision machining
	Expand new business and after-sales services	• Global expansion of reconditioning & coating business
 <p>Developing an environment where employees are respected and able to flourish</p>	Increase employee engagement	• Advancement of comfortable working environment and systems • Promotion of Safety and Health Management
	Enhance the capabilities of our human resources and strategically assign personnel to assignments	• Cultivation of next-generation and management leaders • Encouragement of professional human resources
	Respect diversity	• Promotion of active roles for women and people with disabilities • Respect human rights
 <p>Contributing to a sustainable global environment</p>	Realize carbon neutrality	• Introduction of operation-improvement & energy-saving equipm • Implementation of on-site & off-site PPA/purchase of carbon-free
	Reduce users' environmental footprint	• Development of new eco-friendly products
 <p>Maintaining and strengthening our governance structure so that we may achieve sustainable growth</p>	Maintain our corporate governance structure	• Strengthening of executive oversight functions • Establishment of an effective execution system
	Construct a group governance structure	• Strengthening of OSG Group governance based on relevant business management regulations
	Thoroughly manage risk and ensure compliance	• Strengthening of information security measures • Formulation of a business continuity plan & regularly conduct disaster preven

## Process for Identifying Materiality (Key Issues)



	Target	Relevant page(s)
ies	● Global tap market share of 40% by 2027	P.28
	● Micro-precision machining sales ratio of 30% by 2030	P.29
	● Reconditioning & coating sales ratio of 15% by 2027	P.30
s	● Maintain an annual paid leave usage rate of at least 70%	P.18、41-42
	● Achieve a male childcare leave usage rate of 50% by 2024, 75% by 2027, and 100% by 2030	
	● Maintain a female childcare leave usage rate of 100%	
s	● Continue to acquire Excellent Company of Safety and Health certification by Ministry of Health, Labour Standards	P.18、39
	● Continue to acquire Excellent Health Management Company certification by Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi(Japan Health Council)	
	● Establish program for developing next generation managers	
s	● Use human resources data platform to effectively utilize personnel	P.18、40、42
	● Ratio of female managers (assistant manager class): 7% by 2025	
	● Ratio of employees with disabilities: Maintain statutory quota	
	● Provide human rights training in line with the OSG Human Rights Policy and OSG Corporate Code of Ethics, and manage these such risks	
ment e electricity	● Achieve 10% carbon neutral by 2024 and 30% by 2030	P.31-34 P.37-38
	● Eco-products (OSG standard) target: 40 or more annually	P.36
	● Maintain diversity of Board of Directors	P.49-51
	● Continue to assess Board of Directors' effectiveness and provide feedback of assessment results to raise awareness of challenges and resolve them	
	● Improve reporting and monitoring systems	P.49-50
	● Conduct assessments for improving governance	
	● Eliminate major information security incidents	P.53-54
tion training	● Instill the business continuity plan to minimize damage & pursue countermeasures	

# Medium-Term Management Plan

In FY2022, the OSG Group launched our Medium-Term Management Plan “Beyond the Limit 2024.” Although FY2023 posed challenges as the Greater Chinese market remained stagnate, we continued to work to expand sales of A-Brand products and tools for micro-precision machining, efforts which have started to yield results. We will continue to enhance profitability, build a robust corporate culture, and contribute to the global manufacturing industry as we advance toward the era of carbon neutrality.

## Basic Policy

- To transform OSG into an essential player contributing the global manufacturing industry, our long-term vision is divided into three stages. The first three-year period is Beyond the Limit 2024, during which we will strengthen our corporate culture.
- Over the course of these three stages up to the year 2030, OSG will change the composition of our customer-specific portfolio so that we may better accommodate social and environmental changes.
- As we advance toward the era of carbon neutrality, the entire OSG Group will strive together to enhance corporate value with the aim of achieving overall optimization.

◆ Stage1  
Beyond the Limit 2022-2024

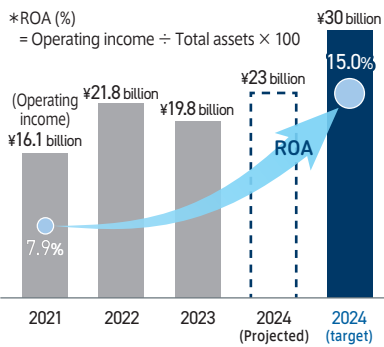
◆ Stage2  
Beyond the Limit 2025-2027

◆ Stage3  
Beyond the Limit 2028-2030

As we move toward era of carbon neutrality

To be an essential player contributing the global manufacturing industry

Based on our corporate philosophy of Global Presence, OSG promotes ESG management with the aim of sustainably enhancing corporate value.



Medium-term management targets (FY2024)  
ROA (Operating income basis)  
**15%**  
Operating income  
**¥30 billion**

Share of global tap market  
**40%**

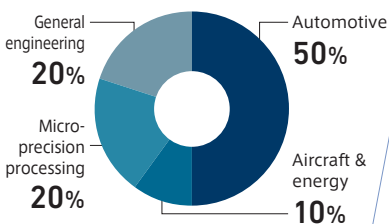
Customer portfolio  
Micro-precision machining  
**30% or more**  
Be a company contributing to carbon neutrality

## Basic Strategy

Further enhance business efficiency and strengthen OSG's corporate culture so that we stably generate profits.

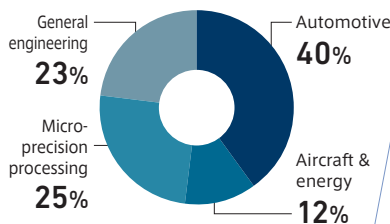
### Stage1 (2022-2024)

- Improve profitability and business efficiency, and create a robust corporate culture
- Ratio of A-Brand to standard product sales: 30%
- Coating & reconditioning ratio: 10%
- Expand sales in the micro precision machining and energy industries
- Establish sales and production systems fully utilizing digital technology



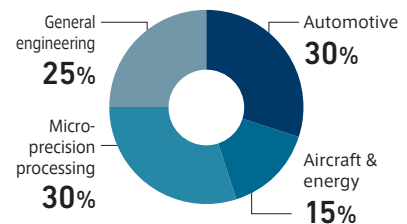
### Stage2 (2025-2027)

- Share of global tap market: 40%
- Ratio of A-Brand to standard product sales: 40%
- Coating & reconditioning ratio: 15%
- Globally expand digital manufacturing and optimize production
- Expand sales for the micro-precision machining, energy and aircraft industries



### Stage3 (2028-2030)

- Increase micro-precision machining customers to 30% or more of OSG's customer portfolio
- Become a company that contributes to customers' carbon neutrality efforts

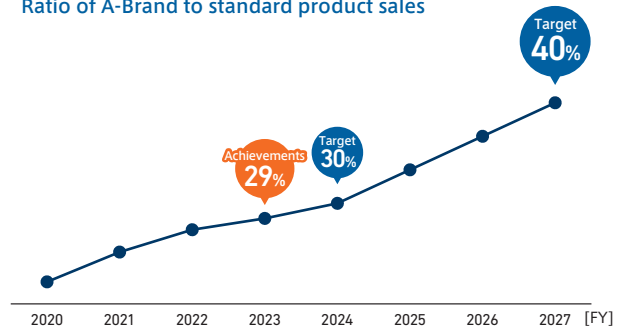


## A-Brand Strategy

The OSG Group regards A-Brand, which is an all-around cutting tool demonstrating superior performance in a diverse range of machining conditions as well as with a multitude of workpieces, as a comprehensive premium brand developed by leveraging OSG Group's cutting-edge technologies. A-Brand products are a key part of our Medium-Term Management Plan strategy. We have promoted expansion of the A-Brand series, which are available along with our standard cutting tools (catalog items). Ever since A-Brand was announced in 2014, we have advanced development not only of taps, but also A-drills and A-end mills and expanded our product lineup. The A-tap, which spurred creation of the A-Brand, has contributed tremendously to boosting our reputation over many years and expanding tap sales. In addition, A-Brand products are used in a broad range of industries and have also contributed to increasing sales to the micro-precision machining sector, an area we are focusing on. We will continue to steadily expand the A-Brand and earn high regard for these series not only in Japan, but globally. In addition, we will also maintain our efforts to market A-Brand products, which satisfy our customers' calls for high-quality and high-performance tools.



Ratio of A-Brand to standard product sales



### Progress

The OSG Group set a target for Stage 1 (2022~2024) of our Medium-Term Management Plan of increasing to 30% the ratio that A-Brand products account for of total standard tap, drill, and end mill sales. During FY2023, despite a slight drop in sales in the Greater China region, sales rose steadily in Japan, Europe, and United States, resulting in the same sales level as the previous period or 29%. During the fiscal year ending November 2024 which is the last year of Stage 1, we are working toward the goal of pushing sales to surpass the initial 30% target.

## TOPICS

### Expansion of A-Brand Product Sales Through A-Clubs

As part of the efforts made to expand A-Brand sales, OSG Group has been working to set up A-Clubs in countries around the world. Currently, 259 distributors in 12 countries are members of A-Clubs, the primary role of which is to promote global sales of A-Brand products. We have also arranged A-Club Japan tours as part of our initiatives to build even better understanding about the A-Brand and OSG which produces these products. The main purpose of these tours is to have participants learn more about A-Brand products and their appeal as they tour factories and attend seminars and workshops. We hope these sessions generate a virtuous cycle with distributors from the various countries participating, encouraging them to be even bigger A-Brand fans, and then driving sales of A-Brand products once they return home. This program has been well received by participants and contributed significantly to the global recognition and expanded sales of A-Brand products. As we move forward, we will also be focused on building an international network through these A-Clubs and further expanding the market for A-Brand products.



A-Club Japan tour session

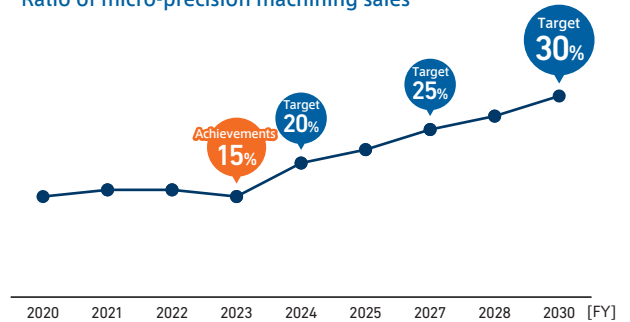
# Medium-Term Management Plan

## Micro-precision machining

A key strategy of our Medium-Term Management Plan has been to increase the share of taps, drills, and carbide end mills for micro-precision machining. In the 5G, semiconductor, robotics, automation, mechanical components, mobility, medical, and other industries where growth is forecast, there is considerable component machining which requires precision machining, and demand has risen in these industries for small-diameter tools. We launched a new sales organization to promote business development in these sectors, and our sales force has been actively working and successfully securing new users for our products. These marketing campaigns have not just been rolled out in Japan, but are also actively running globally. The market for micro-precision machining is anticipated to grow in the future. Our aim is for these sales to reach 30% of total sales by the fiscal year ending November 2030, the final year of Stage 3 (2028~2030) of our Medium-Term Management Plan. Through our global network which is one of the OSG Group's strengths, we will leverage our ability to turn sales calls into orders, offer outstanding service for manufacturing that meets our customers' deadlines, and provide on-site technical support, all of which will lead to securing a greater market share.



Ratio of micro-precision machining sales



### Progress

The target set for Stage 1 (2022~2024) of our Medium-Term Management Plan is to raise the ratio of micro-precision machining sales in our customer portfolio to 20%. While the global recovery from the pandemic during FY2023 increased sales of large-diameter tools mainly in the aerospace industry, the market for semiconductors remained sluggish. This resulted in the ratio of tool sales for micro-precision machining to total sales declining to 15%. We will continue to actively work to secure new business not only in Japan, but globally with the aim of further pushing up sales during FY2024 to reach 20%.

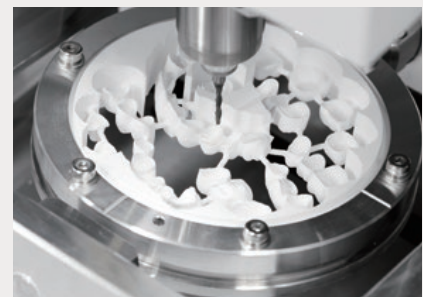
## TOPICS

### Initiatives Targeting the Dental Industry

In 2014, OSG launched full-fledged dental-related tool sales. It used to be standard for dental technicians to handcraft tooth coverings called prostheses. However, in recent years, CAD, CAM, and other digital technologies have been utilized as well as tabletop cutters and machine tools to machine prostheses. In Japan, aesthetic dentistry, which encompasses CAD/CAM crowns that use dental CAD/CAM systems to make prostheses, started to incrementally be covered under insurance in 2014. Ever since then, demand has quickly expanded. Today, most dental CAD/CAM milling tools in Japan are manufactured by OSG. Because these are classified as medical devices, they are shipped to market not under the OSG brand, but as an original equipment manufacturer (OEM). Similar dental treatments are performed around the world, so we have also launched sales in Europe and the United States as part of our global expansion. This effort has roughly quadrupled sales of our dental-related tools compared to the level in 2014. Biting and chewing are behaviors essential for us to maintain our health. OSG will actively strive to be the world's leading dental milling tool manufacturer so that we may support everyone's health with dental tools.



Aesthetic dentistry (CAD/CAM crowns) covered under health insurance



Dental prosthesis being milled



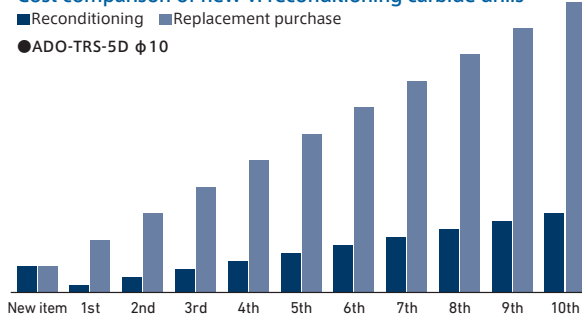
**Yusuke Kubota**  
Manager Technical Application Support Group Design Center

## Coating & Reconditioning

The OSG Group has expanded our business with the aim of furthering a recycling-oriented society through our reconditioning and recoating of cutting tools. We regard expanding sales of our reconditioning and coating business as one of the key strategies of our Medium-Term Management Plan. Reconditioning and coating technologies contribute to reducing expenditures and improving the productivity of our customers as well as extending tool life, thereby reducing the burden on the environment. When providing reconditioning and coating services, OSG Group companies use OSG's proprietary production drawings. These companies also comply with quality assurance manuals and utilize the same inspection equipment as used in OSG's own inspection processes. This makes it possible to recondition items so cutting-edge specifications are the same as those specified for new items. Currently, we have reconditioning and recoating facilities in 14 countries, providing added value to our customers around the world and contributing to the manufacturing industry. In our job coating business, which we are working on as part of our efforts to pioneer new markets, we are aiming to expand the products that we service as well as grow in new sectors as we fully launch our coating consignment business for products other than our own. We are offering cutting-edge coating services globally as we actively expand our services to customers in a variety of different industries handling dies, gears, medical, dental, decoration, machine parts, and other components.



Cost comparison of new v. reconditioning carbide drills



### Progress

The target set out in our Medium-Term Management Plan Stage 1 (2022~2024) is to increase the ratio for which reconditioning and coating account of total sales to 10%. Last year we set up our third factory in India, which has earned a good reputation for both quality and delivery. During FY2023, we focused on expanding this share and increased it to 6.9%. In the future as well, we plan to further increase this share with initiatives that will expand our coating business in India, North America, South America, Asia, Greater China, and other regions.

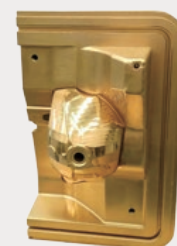
## TOPICS

### The Expanding Coating Market

OSG has strived to develop coatings that improve the performance, durability, and operating efficiency of our tools. Currently, OSG's coating technologies are not limited to tools, but are offered in a wide range of fields. For example, application of a coating that enhances the water resistance of medical devices and components for electronic devices provides added value so that such devices will be able to function normally even in environments with high humidity. The application of coatings that are highly durable, heat resistant, wear resistant, and shock resistant to molds and dies significantly extends the life of these devices. Ever since OSG Coating Services was established in 2001, the company has proceeded to set up coating hubs globally. We currently have coating equipment in 16 countries. In the future as well, we plan to further increase the number of hubs so that we maintain a system providing advanced technological coatings to even more customers.



Coating hub in India



Coated mold

# Environment

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 earth’s environment as a key challenge that all mankind faces. Under our Basic Environmental Philosophy, we are actively committed to efficient resource use and environmentally-responsible manufacturing. We strive to supply customers with environment-friendly products and services in our aim to reduce the environmental footprint and contribute to development of a recycling-oriented society.

### Environmental slogan

**Eco-friendly company and environment-respecting culture**

## Mid-Term Environmental Plan Targets

OSG drafts mid-term environmental plans every three years. FY2023 is the second year of our 9th Mid-Term Environmental Plan, in which we set four management metrics as targets for our activities. Our entire company is working together to improve the environment and achieve our targets for eco-factories

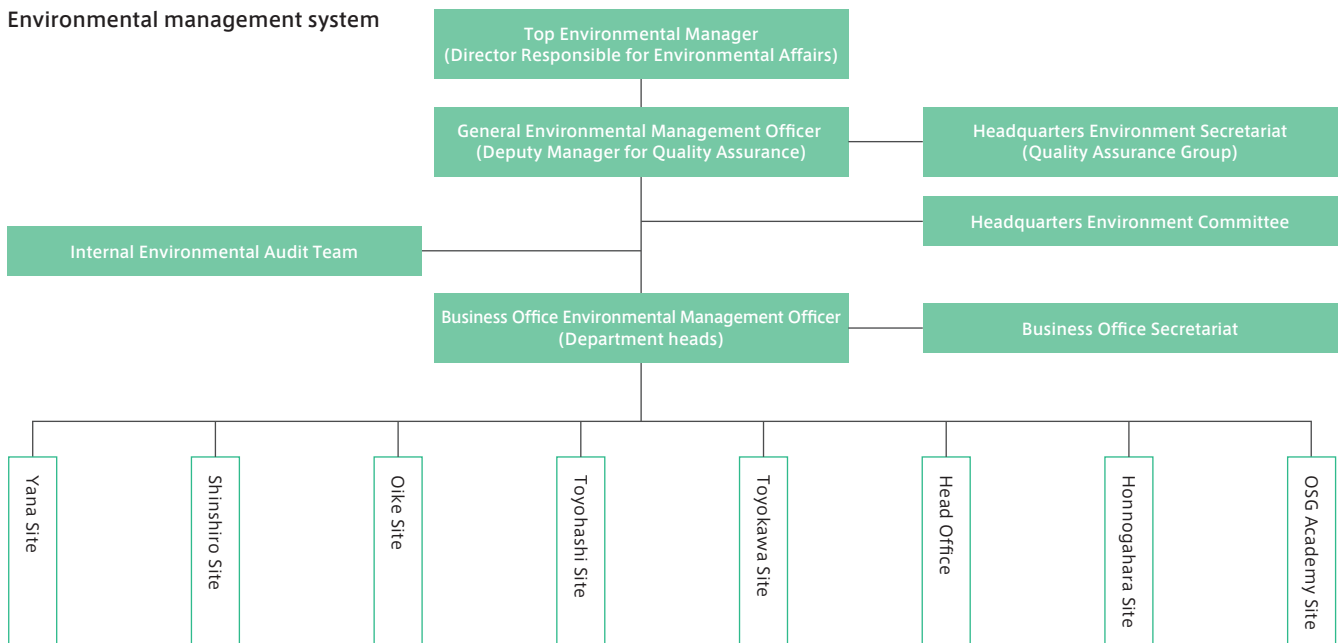
(environmentally-friendly manufacturing), eco-products (environmentally-friendly product development), energy improvement and reduced usage, and CO<sub>2</sub> emission reductions. CO<sub>2</sub> emission reduction is a new metric that we set in FY2022 to address to recent carbon neutrality efforts.

### Mid-Term Environmental Plan Targets & Performance

No	Environmental Objectives		FY2022	FY2023	FY2024
	Item	Description	Achievements	Achievements	Target
1	Eco-Factory	Eco-friendly manufacturing	74 points	74 points	39 points
2	Eco-Products	Develop eco-friendly products	45 points	52 points	36 points
3	Energy improvement and reduced usage	Energy-saving activities for energy sources (electricity, LP gas)	1.2% reduction	Cumulative 2.5% reduction	Cumulative 3% reduction
4	CO <sub>2</sub> emissions reduction	Energy-saving activities & renewable energy use	4.0% reduction	Cumulative 16% reduction	Cumulative 10% reduction

\*Standards set by the Japan Cutting & Wear-Resistant Tool Association have been adopted for assessing eco-factories (highest score: 100 pts.) and eco-products (highest score: 60 pts.).

### Environmental management system



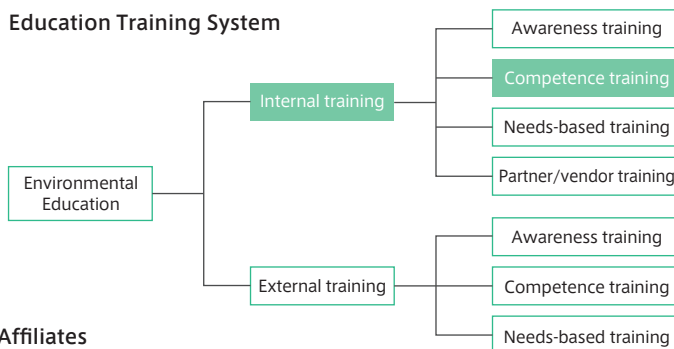


## Environmental education / education training system / ISO 14001 certification status

### ◆ Environmental Education

Environmental education is broadly divided into training for managers and supervisors, and training for all employees. The training for managers and supervisors helps participants better understand the ISO14001 management system and develop the skills to serve as an internal auditor for environmental activities. In addition, so that more people will be involved as internal auditors, we are striving to increase the number of internal auditors and raise environmental awareness throughout OSG.

### Education Training System

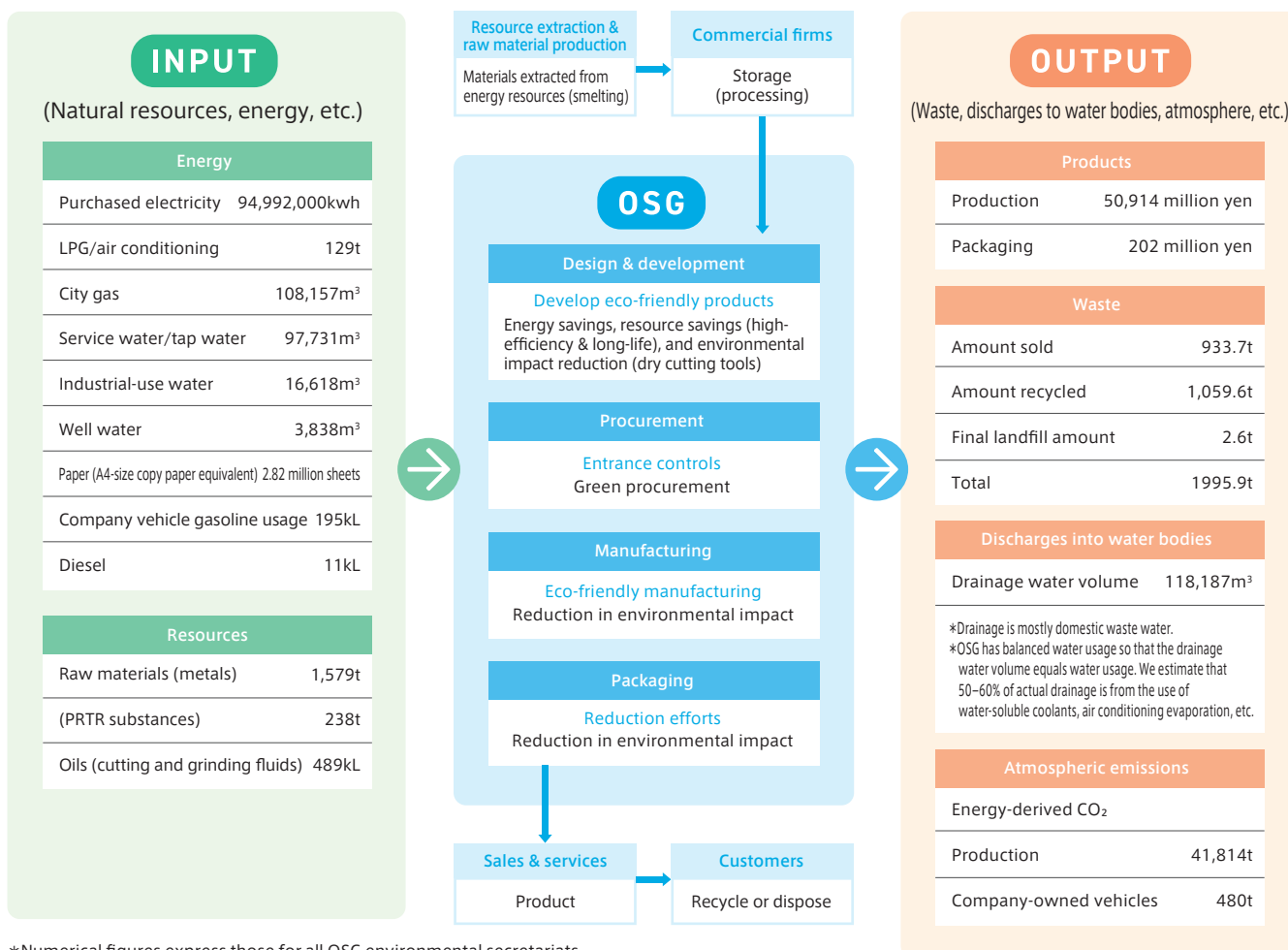


### Construction of Environmental Management Systems at Group Affiliates Status of ISO14001 Certification

Nov. 2000	OSG Nine offices	Oct. 2007	Aoyama Seisakusho Co., Ltd.
Oct. 2004	NODA Seiko, Inc. (now NODA Precision, Inc.)	Oct. 2008	Ohtaka Precision Co., Ltd.
Dec. 2005	Sanwa Seiki Co., Ltd. Shiga Works	Oct. 2008	Taiho Sangyo Corporation
Oct. 2007	Nihon Hard Metal Co., Ltd. Kyushu Plant	Jun. 2014	Nihon Hard Metal Co., Ltd. Head Office and Headquarters Plant

## Material Balance in Operations

To contribute to realization of a low-carbon society and creation of a resource-recycling society, OSG ascertains and manages the various environmental impacts of our business activities. We continually strive to manage these effects with initiatives, such as reducing energy usage and putting waste from our manufacturing processes to use as recycled material.



\*Numerical figures express those for all OSG environmental secretariats

## Environmental Accounting

OSG's environmental accounting system references the Environmental Accounting Guidelines established by the Ministry of the Environment. This concerns the SDGs, which are global goals aiming to ensure a sustainable and better world by 2030, and ESG, which stands for the environmental, social and governance framework. Our aim is to present an environmental accounting to help stakeholders understand the stance and approach of the OSG Group as we undertake our environmental conservation efforts so as to further improve our relationship with society.

### Costs and Effects over the Past Three Years

[1,000 yen]

	FY2021	FY2022	FY2023
1. Positive costs	51,026	68,827	8,009
2. Maintenance costs	63,824	74,989	76,406
3. Environmental damage compensation	0	0	0
4. Environmental conservation loss	12,103	33,431	32,501

### Detailed Accounting of Costs and Effects in FY2023

#### Costs

[1,000 yen]

Category	Item	Specific initiatives	Investments in equipment, etc.
1. Positive costs for achieving environmental targets	① Pollution prevention costs		0
	② Global environmental conservation costs	Updating heat source devices, transformers and air conditioning units, converting to LED lighting, etc.	8,009
	③ Resource environmental costs		0
	<b>Subtotal</b>		
2. Environmental management system maintenance costs	① Labor costs associated with environmental conservation activities	Environmental secretariat expenses, management operating expenses	13,500
	② Environmental education and training material preparation costs	Seminar participation	7,368
	③ Environmental audit expenses	External review expenses, registration maintenance expenses	1,369
	④ Environmental regulation compliance costs	Designated chemical substance measurement, etc.	1,063
	⑤ Waste disposal and recycling expenses	Waste disposal expenses	47,773
	⑥ Circulation measurement expenses	Various environmental measurement and analysis expenses	4,221
	⑦ Environmental conservation costs associated with social activities	Japan Cutting & Wear-Resistant Tool Association Environment Committee activity expenses	1,112
<b>Subtotal</b>			<b>76,406</b>
3. Compensation costs for environmental loss	Costs for soil remediation, restoration after destruction of nature, etc.		0
	<b>Subtotal</b>		
<b>Total</b>			<b>84,415</b>

#### Effects

[1,000 yen]

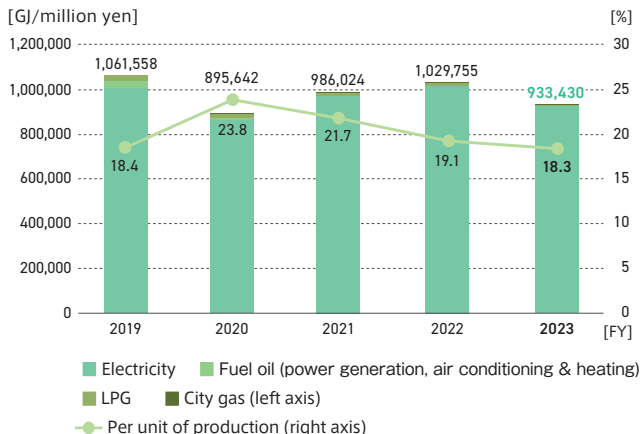
Category	Item	Specific initiatives	Investments in equipment, etc.
4. Environmental conservation effect	Total environmental improvement effect	Energy savings achieved by updating heat source devices, transformers, and air conditioning units, as well as converting to LED lighting	32,501

## Reduction in CO<sub>2</sub> Emissions

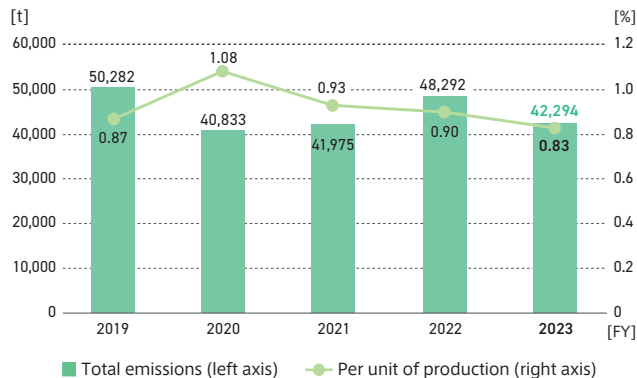
At all OSG business offices and sites, we have prioritized activities that use energy more efficiently and switched to energy-saving equipment so that we may continue to mitigate our environmental footprint. More specifically, we have updated heat-source devices, transformers, and air conditioners, optimized coolant and room temperature parameters, and converted to LED lighting. All of these efforts have made it possible to improve our energy usage per unit of production by 0.8 points more than during the preceding fiscal year. The decrease in our emissions factor year-on-year has also had an impact on CO<sub>2</sub> emissions per

unit of production, which fell by 8% from the level in the preceding year. Total CO<sub>2</sub> emissions decreased by 5,997 tons due to the lower emissions factor and decreased production volume. Progress made in our digital transition has enabled advances in visualization, which has made it possible for us to achieve energy savings commensurate with production status. The effect has been considerable and led to a decrease in CO<sub>2</sub> emissions. In the future, we will reinforce these activities and strive in a systematic manner to conserve energy in accordance with our Medium-Term Environmental Plan.

### Energy usage

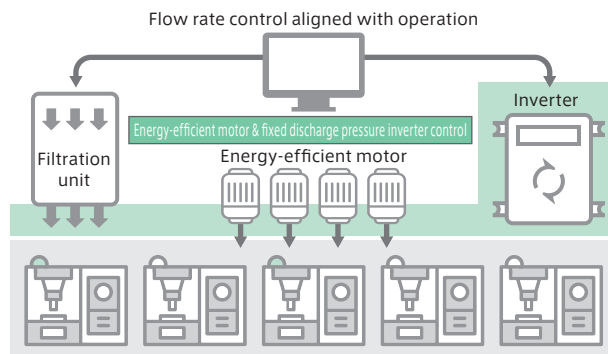


### CO<sub>2</sub> Emissions



## Operational Optimization of Central Tank System

OSG used to have a separate tank for each grinder, which led to coolant pumps operating even when the equipment was shut down. We did two things to optimize this situation. The first was to change out the oil pump motor to an energy-efficient one and install a fixed discharge pressure inverter control. The second change was to align the flow rate control with equipment operation as the filtration system is linked to an operation monitor. These changes reduced CO<sub>2</sub> emissions by 202.6t-CO<sub>2</sub>/year. Our efforts were honored with an Environmental Activity Award presented by the Japan Cutting & Wear-resistant Tool Association in 2023.



## Environmentally-Conscious Product Transport

Our logistics departments replaced the cushioning material, which is used when products are transported to our customers, with an environmentally-friendly material. We found a cushioning material that would ensure safe transport and eventually opted for paper packaging for heavy items. After use, the paper packaging can be recycled. Air cushions made by thin film are also used, which do not produce toxic substances when incinerated. Our customers previously commented that cushioning material was bulky and difficult to dispose of. The new air-cushioning material makes it possible to reduce the amount of waste just by letting the air out. Also, we used to wrap pallet cargo with multiple layers of film to prevent the cargo from dislodging during daily shipments from our Shinshiro Factory to Logis Tokyo. However, we have eliminated this method and adopted a new one, which involves covering the entire pallet with a box assembled from five panels. These panels can be used repeatedly, so they reduce waste. As they can also be stacked, additional transport trucks no longer need to be dispatched depending on the volume of cargo. This makes our transport more efficient.



Packaging with paper cushioning material



Packaging with air packing



Cargo loaded on pallet & protected with panels



Use of panels allows for stacking

# Environment

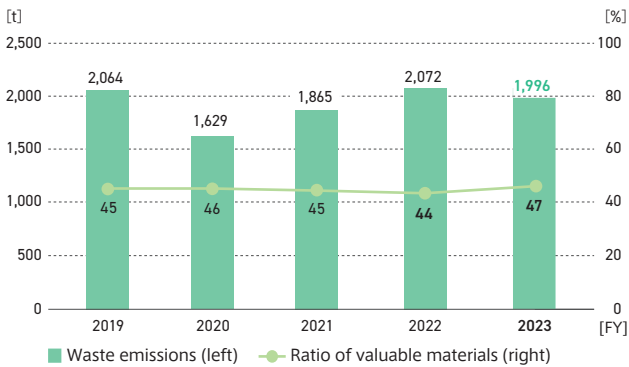
## Resource Recycling Initiatives

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. These efforts have enabled us to maintain a recycling rate of over 99% since 2005.

Recycling rate [%]

FY2019	FY2020	FY2021	FY2022	FY2023
99.7	99.7	99.8	99.7	99.8

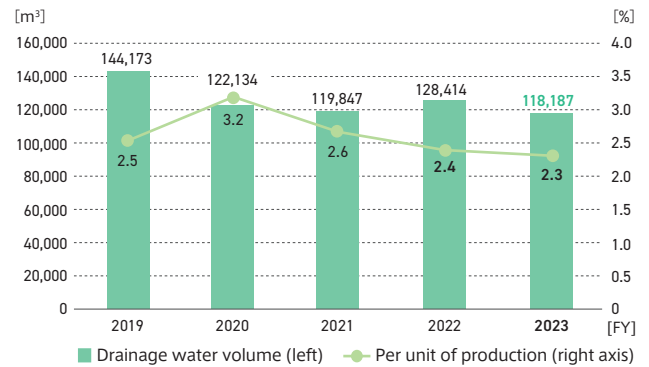
Waste emissions and ratio of valuable materials



Weight of recycled materials [t]

Resource Recycling Promotion	FY2022	FY2023
Metal scrap (sold)	661.1	643.0
Cardboard boxes (sold)	47.2	51.9
Waste oil (sold and recycled)	477.1	498.8
Oil sludge (sold and recycled)	211.5	194.1
Waste diatomaceous soil (sold and recycled)	433.1	379.1
Waste grinding wheels (recycled)	41.5	37.0
Waste plastic (recycled)	54.2	46.1
Wood chips (recycled)	83.5	88.6
Other (recycled)	58.8	54.8
<b>Total resources recycled</b>	<b>2,068.5t</b>	<b>1,993.4t</b>

Drainage water volume



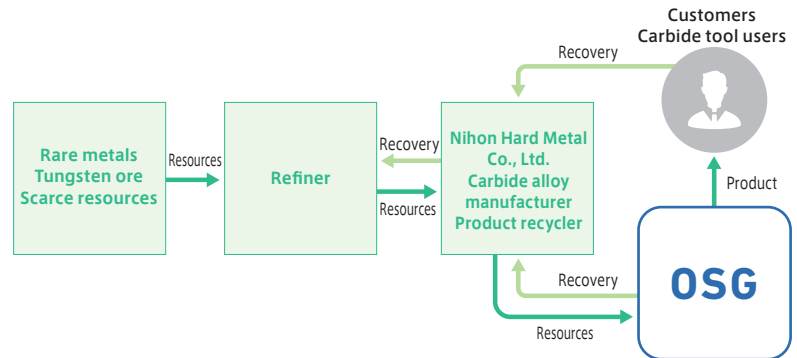
\*The drainage water volume was assumed to be the amount of water usage. (see P.32 "Material Balance in Operations")

## Eco-Friendly Products and Services

OSG Group is striving to create eco-friendly products and provide these to our customers. We are actively working to reduce our environmental footprint by improving reconditioning and recoating operations and developing resource-saving high-speed cutting products that are very durable and highly efficient.

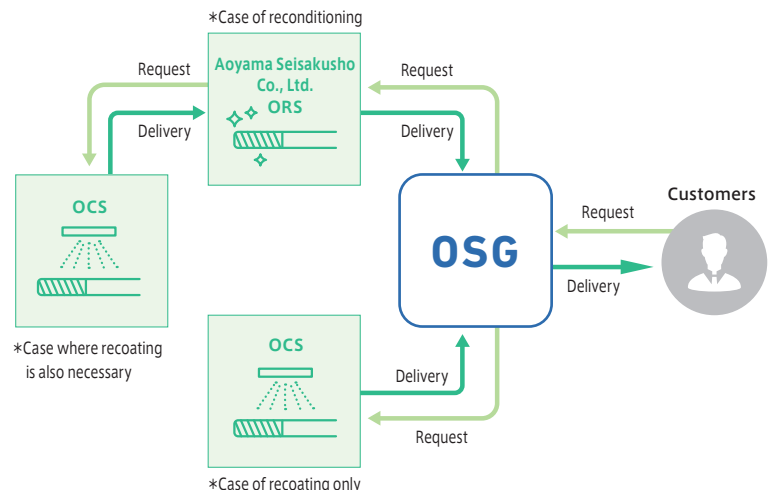
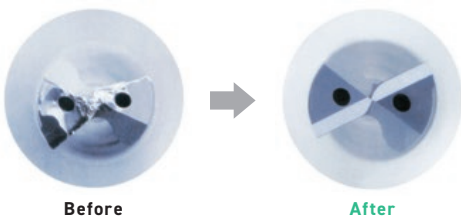
### ◆ Promotion of Carbide Recycling

Tungsten, cobalt, and other rare metals are among the raw materials used in manufacturing carbide tools. The entire OSG Group has been striving to recycle carbide products. We recover used tools from our customers and recycle the rare metals so that these materials may be reused as part of our efforts to effectively utilize resources. This also is beneficial to our customers in facilitating their CSR activities and achieving zero emissions.



### ◆ Reconditioning and Recoating Services

Taps, end mills, drills, and other cutting tools become worn and dull after repeated use. Reconditioning these tools restores their sharpness so they are as good as new. Tools may also be recoated if necessary. OSG Group companies offer reconditioning and recoating services customized to meet our customers' needs.



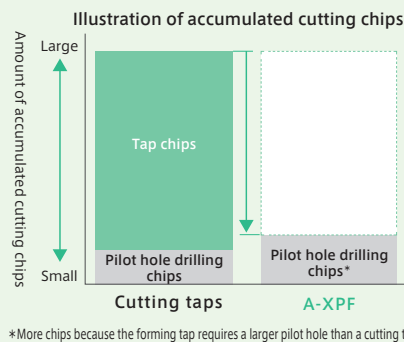
## Environmentally Conscious Product Development

### Product > High-Performance High-Efficiency Forming Tap A-XPF



#### Challenge

Tapping uses a tool that is more prone to problems than other cutting tools because a limited space, referred to as a pilot hole, is machined. With cutting taps in particular, continuous unmanned operation is difficult because of the temporary stops that occur and chips that interfere with the machining process. In more and more cases, rolling taps are being used. Rolling taps do not produce any chips during tapping, so they are able to significantly reduce the amount of chips the tap generates (right diagram). This eliminates problems caused by chips and also significantly reduces the frequency of temporary stops. Although the conventional impression is that rolling taps are exclusively used for aluminum workpieces, OSG has also released products capable of machining S45C carbon steel and SCM alloy steel. We anticipate an expansion in the range of rolling tap applications.



The A-XPF, which eliminates chip issues and achieves high-speed stable machining, offers three key advantages.

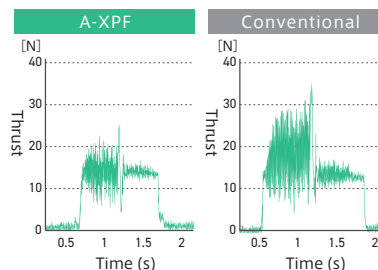
#### 1 Special Chamfer Specifications (PAT.)

Adoption of the special chamfer specifications (PAT. in Japan) made it possible to realize specifications that make the tip threads less likely to chip compared to the conventional shape. These special specifications reduce thrust\*, decrease waveform amplitude decreased, and improve chamfering.

\*Force acting in the same direction as the machining spindle

#### Stable machining with reduced thrust

Tool	A-XPF M3×0.5 2P
Work material	SCM440 (30HRC)
Drill hole size	φ2.8×9mm (blind)
Tapping length	6mm
Cutting speed	15m/min(1,591min <sup>-1</sup> )
Cutting lubricant	Water-soluble chlorine-free (5%)
Machine	Vertical machining center (BT30)

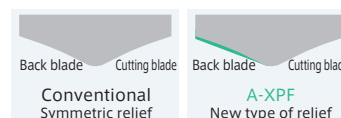


The graph below is desired as it indicates a lower load. Also, the smaller the waveform amplitude, the better.

#### 2 Special Thread Shape

The adoption of an asymmetric thread shape\* increases rigidity and suppresses unexpected thread tip chipping.

\*The green area indicates the new type of asymmetric thread shape which adds thickness to the back blade.



#### 3 New Coating Dedicated for Taps (PAT. in Japan)

VI coating, which was developed exclusively for taps, has been adopted for the A-XPF. The coating structure is a chromium-based composite multilayer film. Compared to conventional coatings, VI coating provides greatly enhanced performance in terms of hardness, oxidation onset temperature, adhesive strength, and wear resistance. This allows it to be used for high-speed machining.

Coating color	Coating structure	Hardness (GPa)	Oxidation onset temperature (°C)	Adhesive strength	Surface roughness	Wear resistance	Welding resistance	Toughness
Black	Cr-based composite multilayer film	45	1,100	◎	☆	◎	☆	◎

(Fair) ○→◎→☆ (Best)

#### OSG Developed Product

#### Developer's comments



All sorts of industries are promoting carbon neutral initiatives. In the manufacturing industry, the use of environmentally-friendly tools is increasingly required with each passing year. A-XPF is a product demonstrating the capability to keep up with such changes in the times. We will continue to strive to develop eco-friendly tools and offer them to our customers, thereby contributing to reducing society's impact on the environment.

**Keita Ono** Hole Machining R&D Team R&D Group Design Center

OSG Group recognizes climate change to be an important issue affecting the sustainable growth of our business. Based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) agreed to in October 2021, we have begun analyzing climate change scenarios and promoting initiatives under the following framework.

## 1. Governance & Risk Management

OSG ranks climate change as an important management matter and the president, serving as chair of the Sustainability Committee, is responsible for monitoring and oversight of climate-related issues. The Sustainability Committee deliberates climate change and consistency in other ESG-related issues, policies and visions, as well as priority measures and other items, and regularly reports on its activities to the Board of Directors. Measures for promoting sustainability are implemented by department heads (ESG officers) and facilitators based on

decisions made by the President, who chairs the Sustainability Committee. Based on the impact to our business, the Risk and Compliance Management Committee evaluates the priority of climate change and other risks affecting our entire company. The Sustainability Committee, Risk and Compliance Management Committee, and Safety and Health Committee operate in conjunction with each other to monitor risks and opportunities associated with climate change.

## 2. Strategy and Scenario Analysis

Scenarios projecting a 1.5°C and a 4.0°C rise in temperature, respectively, were selected and a review conducted, referencing the following scenarios, of the risks, opportunities, and OSG’s responses. [Referenced Scenarios] Scenario 1.5°C: IEA NZE2050, etc.; Scenario 4°C: IPCC RCP8.5, etc.

### Risks and Countermeasures

Type	Subcategory	Risks	Impact	Response	
Transition risks	Policies & legal restrictions	Tighter regulations on GHG emissions	·Increase in manufacturing, development, production and procurement costs due to carbon taxes and other charges	High	·Set targets for reduction of CO <sub>2</sub> emissions ·Introduce CO <sub>2</sub> -free electricity purchases at factories, Implement off-site PPA, and on-site PPA (planned) ·Promote eco-factories (enhance energy-efficiency of OSG-manufactured machine tools and improve equipment operation) ·Reassess manufactured items in light of changes in target markets
		Tighter regulations on fossil fuel power generation	·Decrease in demand and increase in development and manufacturing costs for tools on account of fossil fuel power generation	Moderate	·Reassess manufactured items in light of changes in target markets
	Technology	Dissemination of renewable energy and energy-saving technologies	·Increase in development and manufacturing costs	Moderate	·Scrutinize renewable energy market trends ·Commit resources for developing cutting tools for which increase in demand is anticipated
	Markets	Transition to eco-friendly products	·Decrease in sales of non-ecofriendly products and services	Moderate	·Develop eco-friendly cutting tools
		Expansion of electric & fuel-cell vehicles	·Decrease in demand for tools for gasoline-powered vehicles	High	·Commit resources to developing and designing for markets other than gasoline-powered vehicles
Reputation	Changes in customer base and investors	·Decline in corporate value and loss of opportunities for securing orders due to insufficient disclosure of non-financial information ·Contraction of scale of eco-unfriendly business ·Increase in financing procurement costs	Moderate Moderate Moderate	·Proactively disclose information and reply to CDP questions ·Optimize our business portfolio ·Adopt ESG/SDGs assessment-based financing	
Physical risks	Acute	Increased severity of extreme weather events	·Increase in procurement costs due to reassessment of suppliers	Moderate	·Review BCPs for all suppliers(ascertain risks affecting suppliers in terms of natural disasters, logistics, raw material procurement, etc.) ·Diversify suppliers
			·Difficulty in procuring materials, production shutdowns, and production delays due to disasters affecting suppliers ·Damage to production facilities, production shutdowns/delays, discharge of toxic substances due to damage to OSG plants	High Moderate	
Chronic	Rise in mean temperatures	·Increase in energy for air conditioning ·Deterioration in employee working conditions ·Production shutdowns due to shortage of electricity or water	Moderate Moderate Moderate	·Adopt high-efficiency air conditioners ·Promote labor savings and automation at factories (automated measuring and packaging), promote safety and health management, improve thermal environment inside factories ·Introduce in-house power generation facilities and storage batteries, and reduce electricity and water usage at factories and offices	

\*Timeline ranging from 2030 to 2050 is assumed.

### Opportunities and Responses

Type	Subcategory	Opportunities	Impact	Response	
Transition risks	Policies & legal restrictions	Tighter regulations on GHG emissions	Investment hurdle lowered due to consolidation of internal carbon pricing (ICP) or the number of years for recouping investments incorporating carbon tax	Moderate	Adopt internal carbon pricing
	Technology	Dissemination of renewable energy and energy-saving technologies	Increase in demand for tools for renewable energy and energy-saving technologies	Moderate	Develop and increase sales of tools for energy-saving facilities and renewable energy-related items
			Increase in demand for energy projects such as development of solar panels and offshore wind power	Moderate	Develop and increase sales of tools for storage batteries, renewable energies, and hydrogen-related items
			Expansion of demand for long-lasting products	Moderate	Further enhance quality, develop, and increase sales of long-lasting products Develop tools that enhance efficiency and shorten processing time
			Increase in demand for precision die machining due to promotion of battery development	High	Increase sales in the micro-precision machining sector
Markets	Transition to eco-friendly products Expansion of electric & fuel-cell vehicles	Increase in demand for EV chargers and storage batteries	High	Accelerate development of tools for EV chargers and storage batteries	
		Greater demand for small-diameter tools (micro-tools) due to larger market for semiconductors, connectors, and electronic components	High	Develop, increase investment, and build sales of small-diameter tools	
		Proactive information disclosure to improve evaluation by stakeholders	Moderate	Adopt ESG/SDG assessment-based financing	
Reputation	Changes in customer base and investors	Proactive information disclosure to improve evaluation by stakeholders	Moderate	Adopt ESG/SDG assessment-based financing	
Physical risks	Acute	Increased severity of extreme weather events	Increase in demand for disaster prevention products, services, etc. for times when natural disasters strike	Moderate	Develop tools for disaster preparedness

\*Timeline ranging from 2030 to 2050 is assumed.

### 3. Metrics and Targets

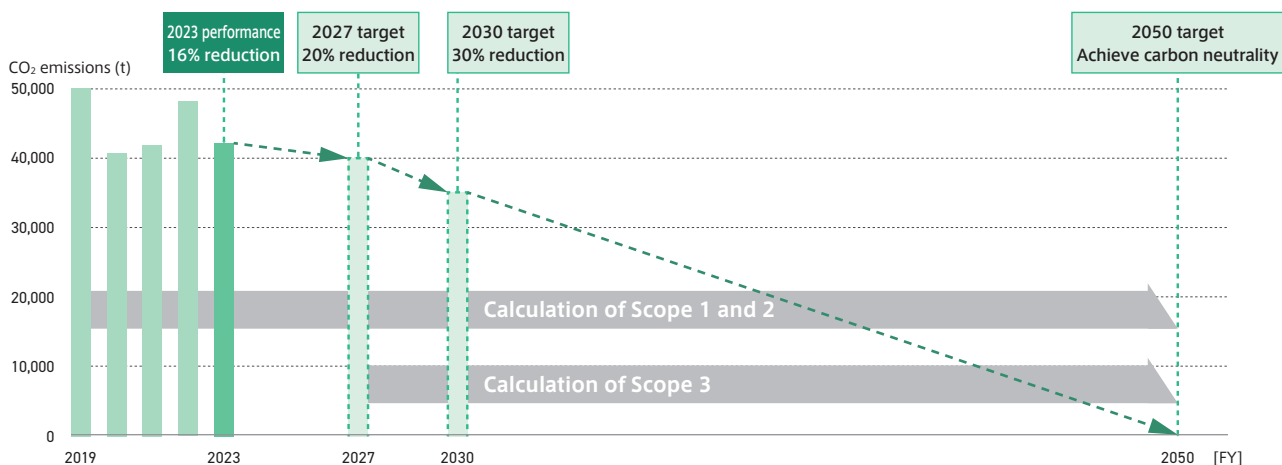
#### ◆ Reduce CO<sub>2</sub> Emissions

OSG set the following targets in our Medium-Term Management Plan Beyond the Limit 2024, which was launched in FY2022.

- FY2030 target: 30% reduction from FY2019 level
- FY2050 target: Achievement of carbon neutrality

We will be advancing initiatives with an eye toward calculating Scope 3 CO<sub>2</sub> emissions and acquiring a score of "A" from the Carbon Disclosure Project (CDP).

Carbon Neutral Declaration (Illustration of CO<sub>2</sub> reductions compared to FY2019 to achieve the targets)



### 4. Carbon Neutral Measures

#### Introduction of Renewable Energy

- Off-site PPA
- On-site PPA (planned)
- Purchase CO<sub>2</sub>-free electricity



#### Promotion of Energy Conservation

- Purchase energy-efficient equipment
- Improve energy use efficiency



#### ◆ Future Initiatives

- Reduce customers' environmental footprint with development of new eco-friendly products
- Scope 3 calculation Collaborate with group companies and suppliers  
Reduce environmental footprint of logistics across the supply chain  
Ascertain the amount of waste disposed of across the supply chain

# Society

OSG Group fulfills our social responsibility to a broad range of stakeholders, including customers, partners, employees, communities, and others.

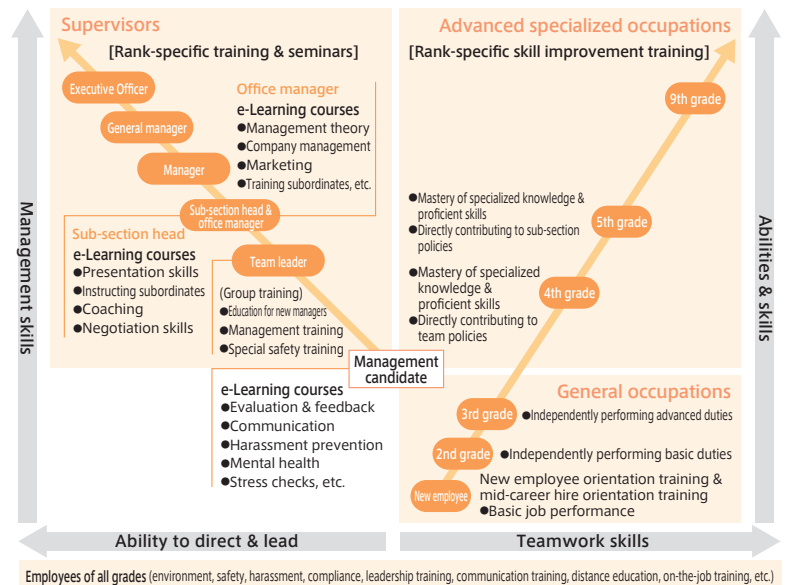
## OSG Group's Ideal Employee and Human Resource Development

With the aim of developing our human resources in a way that maximizes corporate value while also fostering a corporate culture emphasizing personal development and the spirit of challenge, the OSG Group revamped our personnel system in 2013 to reflect our belief that our employees are an asset that possess unlimited potential. Our human resource development philosophy is to strive to develop and improve the capabilities of our personnel, and we are training them to perform advanced manufacturing.

### Seven Human Resource Criteria for OSG employees

- Global outlook
- Spirit of challenge
- Conceptualization
- Communication
- Leadership
- Followership
- Innovation

### Roles, responsibilities, and required abilities



### ◆ New Employee Training Program

Set out on the theme of “creating a starting point for growth in the workplace,” OSG Group’s new employee training program provides introductory as well as specialized job-specific training. We have a curriculum that emphasizes a mindset for new employees, who just graduated from high school, to help them become mentally prepared and behave as working adults, and to provide new employees just out of university with the mental preparedness and knowledge to produce results in business. The specialized training is arranged according to department assignment and focuses on trainees acquiring practical skills.



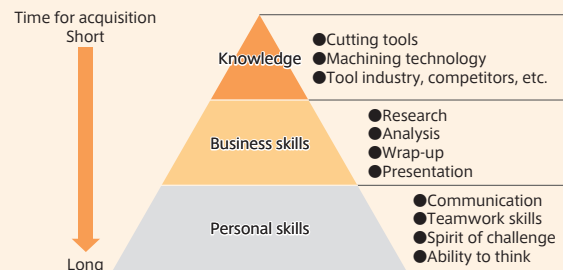
### TOPICS Practical Training for New Employees: The Tool Olympics

The Tool Olympics is an event providing new engineering employees with an opportunity for practical training. Participants are divided into teams each using a different tool: taps, drills, end mills, and indexable tools. Working together, the teams perform cutting tests, measure tools and workpieces, and analyze OSG and other companies’ work. At the end of the training, the teams present their results. The aim of the Tool Olympics is for participants to acquire three skills: personal skills, business skills, and technical knowledge, during the approximately one-month training. Although it is not possible in such a short period of time to fully acquire the personal skills necessary for teamwork and communication



or the business skills one uses as a working member of society, the Tool Olympics does support new employees in their growth as they engage with senior colleagues and cooperate with peers as they engage in the practical exercises. The training also allows participants to

acquire engineering knowledge while operating machining and measuring tools. They are able to get a feel for the actual sound and vibration emitted during cutting, compare the chips generated, and analyze tools close-up. The Tool Olympics is a unique learning experience where new employees are able to polish the skills they need to perform as OSG employees while gaining experience completing tasks by a deadline in cooperation with their teammates and acquiring precious experience that only hands-on training provides.



### ◆ Providing Experience-Based Internships

As part of our aim to strengthen the development and acquisition of digital human resources, OSG has been providing experience-based internships to students interested in working in our departments where employees make use of information skills. Interns gain actual work experience over a two- to four-day assignment to the Production Technology Division and Global Innovation Technology Department. This experience reduces the gap in understanding vis-à-vis actual work to be performed after joining the company and provides an opportunity for students to get a feel for the actual workplace atmosphere and environment. In addition, in conjunction with our efforts to empower women, we hold roundtable discussions between female students and female employees to spur students’ interest in the cutting tool industry. We are actively working to provide opportunities for female students to take an interest in OSG as well as gain a better understanding of our company and how it operates during these kinds of forums where our female employees answer any questions or concerns students have about the working environment and jobs performed.

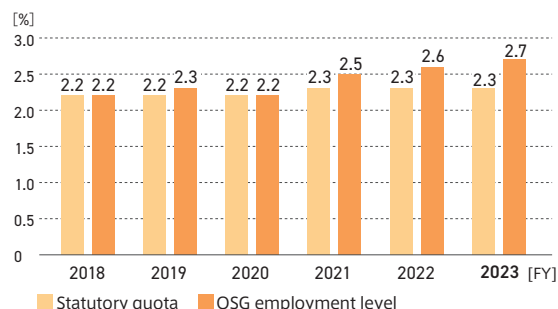




## Initiatives for Employing People with Disabilities

OSG Active, a special subsidiary of parent company OSG, promotes employment of persons with disabilities and engages in activities which contribute to our local community. More specifically, OSG Active holds roughly 10 lectures mostly in eastern Mikawa each year for companies, support organizations, as well as special needs school students and their parents. We are also active in creating opportunities for companies and support organizations to discuss challenges they face as well as observe OSG Active employees on the job at OSG's factories. In FY2023, we were able to arrange 38 opportunities for participants to observe and exchange views. Moreover, as the only company participating in the Toyokawa City-sponsored Liaison Council Supporting Employment of Persons with Disabilities, we have conveyed our approach and ideas from a corporate perspective regarding employment of persons with disabilities, which has contributed to increasing the overall employment rate of persons with disabilities in Toyokawa City. The statutory employment quota is set to be raised incrementally from the current 2.3% to 2.5% in 2024, and then to 2.7% in 2026. The OSG Group will continue to actively contribute to our community and society based on the premise of achieving and maintaining the statutory employment quota, which is one of our responsibilities to society.

Percentage of Employees with Disabilities



### VOICE



Typical jobs performed by OSG Active employees include operating a forklift to dispose of chips, transporting components between processes, and inspecting machined drill holes. Such tasks were previously performed by OSG employees. No new tasks have been created for OSG Active. Special subsidiaries handling jobs to be performed in this way are very rare. OSG Active is an OSG-style special subsidiary. The company understands each and every person's individuality and entrusts each individual with work that matches his or her characteristics. Recently, the abilities of OSG Active employees are being recognized more and more. We have seen an increase in requests from all sorts of workplaces asking us to cooperate with their operations. So that our employees feel the joy of thriving, shining, and working, we place a high importance on actually observing, experiencing, and sensing the characteristics and skills of each and every employee. I believe the most important thing which we do is to provide an environment where employees are able to grow and ultimately establish themselves in the workplace.

**Hidenori Tanaka** President OSG Active Co., Ltd.

## Empowering Women

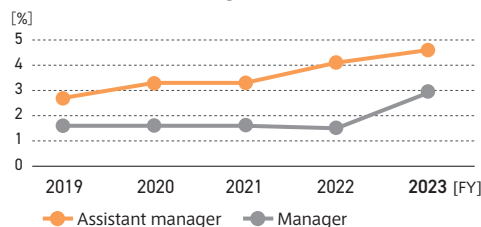
### ◆ Careers Developed by Promoting Sustainability

In line with the theme of promoting diversity and inclusion, OSG aims to provide a workplace environment that enables our employees to achieve even greater success as well as balance their work and family life. Our Medium-Term Management Plan calls on us to continue our efforts to create concrete programs that embody ESG management. More than half of the members of our Sustainability Promotion Team are women. Through activities that focus mainly on responding to CDP and other institutions' sustainability surveys in addition to analyzing such efforts, we aim to make use of these activities to help us not only realize what is required of us as a company as well as our strengths and the challenges that we face, but also advance women's careers from a broad and objective perspective. In addition to actively recruiting women, we will be ascertaining the realities and attitudes towards women's advancement, and then disclosing and disseminating this information within OSG as well as providing training so that each and every woman can continue to work enthusiastically and assuredly as well as envision a career with OSG.

### FY2025 Target

Ratio of female assistant managers 7%

Ratio of female managers



### VOICE



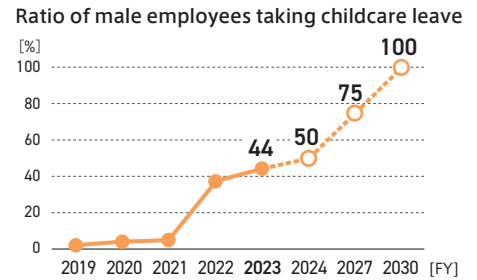
I am in charge of handling surveys concerning sustainability. It is difficult to respond to questionnaires with questions about ESG as such work requires putting together responses while cooperating and communicating with various departments. Even so, I intend to do my best by joining forces with other members of the Questionnaire Team. Last year, I was transferred from the Global Sales Department where I had worked for over 10 years to the Procurement Department's Main Material Team. Such a big change was disorienting, but I have been able to put to use the knowledge and network of people that I built up in my previous position as I devote myself to my current work. Being involved in a new field also shows me skills that I would like to acquire, so I hope to actively study and absorb what I learn in order to improve myself. My senior coworkers are role models showing others how to balance a career with raising children. They have been very supportive and encouraging. Because a parent's environment also changes as children grow, I want to build my own career as I make use of OSG's flex-time work and other programs. It is my hope to continue working hard at my job so that I can also be a role model showing others who wish to achieve a good work-life balance an illustration of how they can find a way to structure their work at OSG.

**Ayako Ban** Main Material Team Procurement Group Procurement Dept. Resource Management Center  
Sustainability Team Strategic Planning Division

Work-Life Balance

◆ Promoting Male Employees' Taking Childcare Leave

After revision of the Child Care and Family Care Leave Act in 2022, the percentage of male employees taking childcare leave reached 44% in FY2023, enabling OSG to achieve our 2025 target ahead of schedule. We are committed to actively informing our employees about this program and posting information about childcare leave on internal bulletins. In addition, we make sure to confirm the intentions of our male employees who have welcomed a new baby about whether they would like to take childcare leave, and offer individual consultations to those who so desire. As part of our materiality challenges, we set a new key metric measuring achievement for our target of increasing the rate of male employees taking childcare leave in FY2024 and beyond (P. 26). Even though the environment is more and more conducive to male employees taking childcare leave as awareness among all employees increases, we feel sufficient information has still not been provided to supervisors and workplaces where there are potential childcare leave candidates. It is also evident that we face a challenge in improving workplace understanding for both male and female employees, including about how workloads might be distributed while an employee is away on childcare leave. In addition, some employees are concerned about a decrease in income and the impact on performance evaluations if they take childcare leave, so we are working to enhance both potential childcare leave participants' and their supervisors' understanding of the program by providing explanations of the performance assessment system as well as salary increase and promotion schedules. We believe these initiatives will help increase the percentage of employees taking childcare leave. We will continue to strive to ascertain the current status and challenges facing those who would like to take childcare leave and bolster our commitment to creating an environment where even more employees who wish to avail themselves of this program are able to gain the understanding of their workplaces without worrying about such hindrances.



INTERVIEW Comments from Men Taking Childcare Leave & Their Supervisors



**Yuta Minami**  
Material R&D Group  
Research & Development  
Center

**Q Please share with us your experience taking childcare leave and the challenges that OSG's childcare program faces.**

There weren't any difficulties really because I had continually been providing my supervisor with daily reports about my work and built up relationships with my supervisor and others in the workplace. However, I have heard stories of other workplaces where an employee wanted to take childcare leave but his workload could not be fully handed over to someone else or the employee was unable to gain the understanding of those around him. It seems to me that your workplace environment and colleagues' understanding are what raises or lowers the hurdles you have to surmount to take childcare leave. I thought spending a lot of time with my child would help me to become aware of my role as a father quicker. Also, I think women should focus on their recovery after they give birth, so I think it's okay to take a year of childcare leave if there are no financial or work-related issues hindering that. I think the challenges to taking childcare leave are understanding in the workplace and workplace headcount management. Even though my boss willingly approved my childcare leave, but honestly, I felt a bit guilty. If OSG is going to aim for 100% of its male employees taking childcare leave in the future, then I think that it will be necessary to manage the number of workplace personnel taking that into account. Also, having actually been in the position of taking childcare leave, I realized there are still people who think childcare leave is just like taking a break from work. I hope that people will better understand what childcare leave is for and how difficult it is to take care of a child.

**Q Could you please candidly share with us your thoughts about the time when your subordinate consulted you about taking childcare leave and the challenges such requests may pose in the future?**

Yuta Minami consulted me just after I had heard about a male employee in another workplace taking childcare leave, which left me thinking that we may receive a similar request in our workplace. I didn't have any negative feelings about his request. One thing that I was concerned about was the duration of the leave. When he told me personally that he wanted to take one month off, I was relieved, to be honest. With him taking one-month's leave, we were able to manage by preparing in advance and getting other employees to cover for him. However, I don't think we could've done it if the duration had been six months or a year. I think the challenges that workplaces face are the understanding of the workplace and the duration of the childcare leave. It is first of all important to create a conducive atmosphere in the workplace, so employees don't have to hesitate to take leave. I regret that, as a supervisor, I should have better understood and been able to recommend the childcare leave system. If an employee would like to take a six-month childcare leave sometime in the future, then we will need to consider efficiency improvement of multiple tasks as well as securing temporary personnel to substitute for the employee taking leave. To make that happen, I realize we will need to prepare on a daily basis for how to respond to such situations, so we can cover for anyone who is absent.



**Kimiya Ishida**  
Manager  
Material R&D Group  
Research & Development Center



**Noriyuki Suzuki**  
Machine Manufacturing  
Division  
Shinshiro Factory

**Q Please share with us your experience taking childcare leave and the challenges that OSG's childcare program faces.**

I decided to take childcare leave to reduce the burden on my wife and let her rest. Initially, I worried that taking childcare leave would cause problems for my workplace. However, I talked with everyone at work and they gladly understood. That put my concerns at ease, so I could take leave. This was my first child so everything was new and a struggle, but each day was very fulfilling because I was able to enjoy this precious time watching my child grow bigger and bigger every day. Although the childcare leave program had been in place for quite some time, it was not well-known when I took my leave. Recently, with revision of the Child Care and Family Care Leave Act, people are gradually finding out more and more about this program. Also, you are able to decide on the duration of the leave together with your family, so I hope people who can't make up their mind whether to take leave or not for a variety of reasons will ask for an explanation of the program and maintain a positive attitude about taking childcare leave. One of the challenges you face in taking childcare leave is that, if people are doing shift work in a factory, they might find it difficult to take childcare leave because they worry about burdening those around them. That's why I think it's increasingly important for OSG to create an environment where there is better sharing of information and workers are trained so they acquire multiple skills, which will allow workloads to be distributed and operations not dependent upon specific individuals.

**Q Could you please candidly share with us your thoughts about the time when your subordinate consulted you about taking childcare leave and the challenges such requests may pose in the future?**

Honestly, although I knew male employees were also able to take parental leave, no one around me had done so, so when Noriyuki Suzuki talked to me about it, I was initially surprised. At the same time, I thought it was a good chance for us. I hoped that, if an employee in my workplace took childcare leave, then it might create an atmosphere throughout the factory making it easier for other male employees to request to do the same. I talked with other members of the team and asked them to modify the work rotation. There was no significant impact on production as it was at a time when our workload was steady and we had made progress in training our employees to acquire multiple skills. I think it's important to thoroughly disseminate information about men taking childcare leave to all employees across the company as a challenge. Even now, I don't think all employees, including those who work in factory production sites, have an adequate understanding of how to take childcare leave. Also, employees might also feel it is difficult to take leave if the production is under pressure. So, I feel it is necessary that we work out a staff composition which takes into account the fact that men will take childcare leave.



**Noriyuki Shoda**  
Leader  
Machine Manufacturing Division  
Shinshiro Factory

## Safety and Health Management Initiatives

Ever since OSG declared we will be a health-conscious company in 1996, we have adopted many measures and policies to support our employees in getting and staying physically fit, balancing both work and medical treatment, and addressing other issues they face so as to create an environment where each and every one of our employees is able to work in good health. We believe it is important, in terms of both safety and health, to pursue the well-being of our employees, their families, our customers, our communities, society, and the earth. So, with that in mind, we have declared our pursuit of safety and health management and promote this approach.

### Managerial System Promoting Safety & Health Management



### TOPICS OSG Certified as Excellent Health Management Company-White 500 and Safety & Excellent Company of Safety and Health

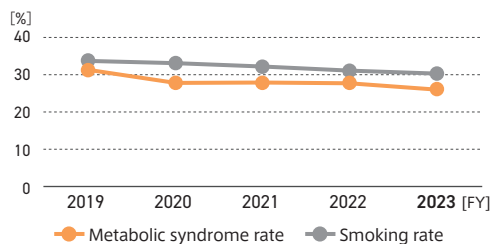
In FY2023, OSG was recognized as a 2023 Health and Productivity Management Organization Recognition Program (Large Enterprise Category)-White 500, by Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi (Japan Health Council). This Certification for a Health and Productivity Management Organization Recognition Program is a system to recognize companies that are actively engaged in health management. Among these, the top 500 companies certified as Excellent Corporations for Health Management (Large Corporations category) that practice excellent health management are recognized as White 500 companies. In addition, OSG also received an award of Excellent Company of Safety and Health by Ministry of Health, Labour Standards. To receive this award, in addition to basic requirements such as no serious violations of occupational health and safety laws in the past three years, a company must be actively engaged in a wide range of areas, including measures to maintain and promote workers' health, mental health, overwork, and safety management. As part of our health management, OSG conducts annual health checkups and provides advice on health conditions through our industrial physicians. In terms of health and safety, OSG also implements various initiatives to ensure the health and safety of our employees, such as training to prevent accidents and maintaining a hygienic work environment. These efforts to place the highest priority on employee safety and health were recognized and led to this evaluation.



### ◆ Health Mission 25 Initiatives

OSG has rolled out health and safety management initiatives through our Health Mission 25 program, which provides regular health checkups to achieve our target of lowering both the metabolic syndrome and smoking rates to 25% or less. Each business office worked out and implemented health improvement measures toward the goal of achieving both of these levels during our FY2023 annual health checkup. Some of the specific measures included using an app to encourage walking, hiking, as well as conducting questionnaires about smoking and secondhand smoke. We will continue to work on initiatives that raise employees' awareness of their health and create an environment conducive to staying healthy.

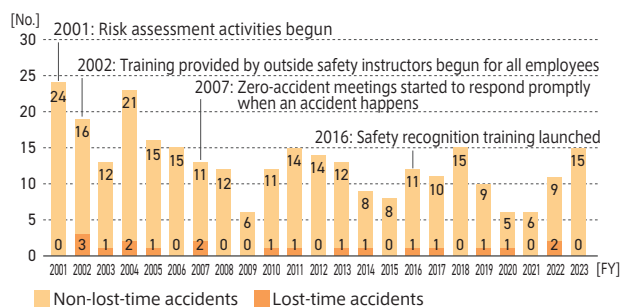
### Smoking & metabolic syndrome rates



### ◆ Safety and Health Initiatives

OSG carries out risk assessment activities, provides health and safety training, and holds zero-accident meetings so that our employees maintain a heightened awareness of safety. The safety and health training that we provide includes management training, external training, and hands-on training in collaboration with outside organizations. In 2016, we launched hands-on safety workshops with the aim of raising participants awareness of safety through actual experiences of hazardous work. This sort of training helps compensate for the lack of experience of our younger employees and the decline in ability to perceive risks that has accompanied automation of production processes. These sorts of proactive initiatives have led to a decrease in job-related accidents.

### No. of occupational accidents



## Initiatives Upholding Respect for Human Rights

### ◆ OSG Group Human Rights Policy

In March 2022, we established the OSG Group Human Rights Policy. The OSG Group and all employees shall respect for human rights both in Japan and abroad and be committed to following the letter as well as the spirit of all relevant laws, regulations and international rules, while taking a proactive approach to the creation of a sustainable society with sound values. We ensure a work environment that will neither offend nor discriminate by race, belief, skin color, sex, religion, nationality, language, physical appearance, wealth, or birthplace. To

promote and improve human rights awareness, we raise human rights issues in our in-house newsletter and make every effort to prevent such problems from arising in our work environment. In addition, all employees undergo harassment prevention training so that such instances may be prevented. A special office has been set up to receive consultations, complaints, and provide other services relating to harassment, and we are striving to further strengthen our consultation system so that we are able to respond quickly to such instances.

## Commitment to Customer Satisfaction

Even as the OSG Group actively strives to achieve digitalization, we place a high value on the connections we have formed with customers. We not only regularly hold in-person seminars, but also online as well so that participants can attend no matter where they are. These online seminars take advantage of the benefits such a platform offers, including on-demand distribution and multiple timeslots so that as many of our customers as possible may attend. In addition, online events and services have spread rapidly since the pandemic, which seems to have diversified the points of contact that we have with customers. We are now able to quickly pick up comments by customers voiced across a variety of platforms and make use of this precious feedback to improve our services and quality as well as develop new and better products. We will continue to make use of the advantages that both face-to-face and online contact offer, and provide our customers with useful information tailored to their situation. In addition, the inquiries that we receive

through our Communication Dial service range from basic questions to quite difficult inquiries relating to actual machining processes. Depending on the nature of the inquiry, it may be necessary to check with our design and development divisions or contact the competent sales team to arrange a visit to the customer's site. Whatever it takes, we are committed to providing the best service to each customer. We also have an FAQ webpage, which we created and update based on analyses of the more than 100 inquiries and feedback received daily from customers. We are striving to create an environment that will enable us to respond to our customers' diverse needs by promoting digitalization in addition to the Communication Dial services which we have always provided. With the pace of change accelerating, we will continue to maintain our customer-first approach in supporting our customers so that they always regard OSG as a company they can consult and rely on to solve whatever issues they face no matter what problem arises.

### VOICE



I am in charge of the seminars with the importance of "being close to each and every customer." Even though the seminar might be the same, the backgrounds and years of experience of the customers participating in the seminar vary. When I am conducting a seminar, I make it a point to always think about what and how I should convey information so that everyone will enjoy the seminar. Our seminar questionnaires and the Communication Dial service provide valuable opportunities for us to learn more about our customers. My aim is to listen to what our customers are saying, respond to their needs, and provide support that gives them even greater satisfaction.

Mahiro Ishiguro Customer Support Team Global Marketing Department

## Supply Chain Management

### ◆ Guideline-Based Sustainable Procurement

The OSG Group has conducted CSR self-assessment surveys based on our OSG Group CSR Procurement Guidelines. The purpose has been to ascertain the status of CSR initiatives across the supply chain as well as have suppliers develop a better understanding of the OSG Group's procurement approach and efforts. We are enhancing communication with our suppliers so that we jointly promote CSR activities which will help us create a sustainable society.

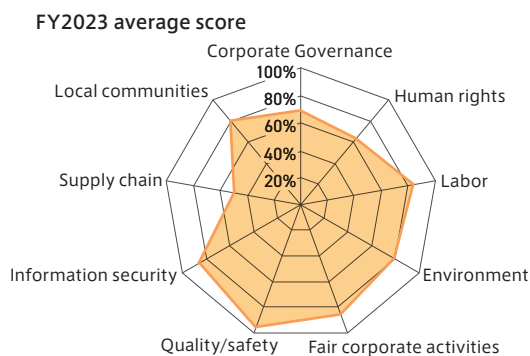
### ◆ CSR Self-Assessment Survey

A survey was conducted of OSG Group's principal suppliers in Japan to better understand the status of such efforts.

- Time frame: September~October 2023
- Target: Key suppliers of raw and other materials

KPI	Target	Results for fiscal 2022	Results for fiscal 2023
Survey return rate	80% or higher	82%	84%
No. of companies surveyed	-	117 companies	139 companies
No. of companies responding	-	96 companies	117 companies

The survey was analyzed and evaluated, and feedback provided. We will continue to improve the survey, giving consideration to expanding the target range as well as revising survey questions.



### TOPICS In January 2024, we issued our Partnership Building Declaration

OSG drafted and announced our Partnership Building Declaration\* aimed at strengthening partnerships through the promotion of collaboration, coexistence, and coprosperity with our supply chain partners and entrepreneurs seeking to create value.

\*The Partnership Building Declaration is a program created by the Council on Promoting Partnership Building for Cultivating the Future, whose members include the Chairman of Keidanren, President of the Japan Chamber of Commerce and Industry, President of Rengo, and competent ministers.



## Quality Management System

OSG received our first ISO 9001 certification, an international quality management standard, in 1998 for our Yana Plant. Since then, we have broadened the scope of applicability and continued to receive certifications even today for all processes,

including for our key plants in Japan. Additionally, since 2018, we have continued to acquire JISQ 9100 certification, a quality management standard to which particular requirements have been added for the aerospace industry.

### ISO9001

Registration no.: JQA-2856  
 Auditor: Japan Quality Assurance Organization  
 Scope: Design, development, manufacture, and ancillary services (provision of technical documentation, technical instruction, and correction) for cutting tools, rolling dies, measuring instruments, and coating tools  
 Acquisition among group companies: 6 group companies in Japan and 12 overseas

### JISQ9100

Registration no.: JQA-AS0209  
 Auditor: Japan Quality Assurance Organization  
 Scope: Manufacture of spacecraft metal components

### ◆ Global Quality Control System

OSG has a proprietary quality assurance system certification program in place to ensure consistent quality worldwide, and we have strived to maintain and improve the level of quality at our group companies both inside and outside Japan. Our audits use a five-tier evaluation system to check and determine whether the quality assurance system passes in categories defining product quality, quality inspection skills, and quality improvement capabilities. Product quality is evaluated by randomly sampling mass-produced products and measuring them to determine whether they are produced according to the dimensions specified in drawings as well as ascertaining base materials and grinding quality.



### ◆ Assessments Based on the Three Realities Principle

Our evaluation method is based on the Three Realities Principle (going on-site, knowing the situation, and being realistic). Evaluations are conducted by certified quality auditors using a method known as the quality system audit that examines both skills and framework based on evidence provided in communication with the individuals having overall responsibility, persons in charge on-site, and workers.

#### VOICE

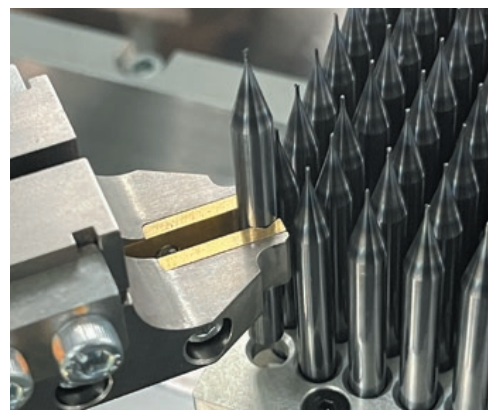


My main job is to audit quality systems of our domestic and overseas group companies. With production sites around the world, it is important that we maintain stable quality no matter whether the site is located in Japan or overseas and that consistent quality is assured no matter who produces the item and no matter where. However, this is by no means an easy task. Behind the stable quality lies the diligent accumulation of each and every task. I am always thinking about how we can maintain reproducibility in that process and providing assistance to construct quality assurance mechanisms through these audits of quality systems.

Naoya Fujishiro Quality Assurance Group Quality Assurance Department

### ◆ Automation of Inspection & Packaging to Eliminate Human Error

Many of the mistakes and defects in the final inspection and packaging process are often due to human error, so we are striving to enhance the efficiency of inspection and packaging work and utilize equipment with the goal of eliminating misjudgments and defects. Streamlining packaging materials simplifies the work and enhances its efficiency as well as reduces plastic waste and costs associated with such materials. In addition, we used to visually check the shipping label affixed to a package and the enclosed delivery statement. Now, thanks to adoption of a character collating system, we have been able to reduce erroneous packaging and shipping. In addition to promoting automation of visual product inspections, we have implemented initiatives to eliminate irregularities in manual inspection accuracy and reduce the risk of blade chipping or other accidents occurring during manual work. Replacement of the previous visual inspections, which were conducted using a microscope, with image inspections has made it possible to inspect tools in more detail. As these images may be stored, this database also offers the benefit of bolstering traceability.



# Realizing Innovation & Challenges in Business Operations

OSG's aim is to be a "company shining brighter than ever before" as we strive to implement our Medium-Term Management Plan "Beyond the Limit 2030" and prepare for the year 2038 when we commemorate the 100-year anniversary of OSG's founding.

In order to achieve that, OSG needs personnel capable of adapting to change and those with the ability to continue to take up challenges and grow.

We gathered four mid-level employees, who will be the standard bearers of OSG's future, to talk about how they refuse to put limits on themselves so they may embrace challenges and innovation going beyond anything that has ever been done before.

## Roundtable Participants' Backgrounds and Jobs

**Moriguchi:** I joined OSG right after graduating from university in 2016. I have been working in investor relations since 2018, and have since moved on to the sustainability team, where I am responsible for promoting sustainability. I will be moderating today's discussion. To start off, I would first like to ask everyone to introduce themselves.

**Mizutani:** I joined OSG as a mid-career hire in 2003. In my previous job, I was in charge of recruiting and other personnel matters. At OSG, I have had the experience of working in technical support, management planning, investor relations, marketing, and other areas. Currently, I am leveraging my language and marketing skills to launch new businesses and brands with our affiliates overseas and doing other work involved with strategic businesses that have a direct bearing on our Medium-Term Management Plan.



**Kanako Mizutani**, Manager  
Global Engineering Group  
Design Center

**Sasahara:** I was a mid-career hire in 1998, joining the company to work in sales and marketing. My previous job was also in sales. Then, when searching around for opportunities to grow, I talked to my supervisor about changing career paths and was reassigned to the Machining Technology Group where I have been for roughly seven years, learning CAD, machine operation, and processing technology. I am currently working as a sales engineer assigned to the Growth Industry for Global Share up (GIGS) Sales Group.

**Suzuki:** In my previous job, I was involved in the design and manufacture of dies and molds and the company I worked for was also a customer of OSG. In 2006, I joined OSG and was initially assigned to a unit developing products. Later, after working in production management at Oike Factory, I was put in charge of operations for launching the NEO Shinshiro Plant. In my current work, I am always conscious of delivering products to customers on the proper deadline.

**Enomoto:** I was hired by OSG mid-career in 1997. This year marks my 26th year with the company. Previously, I was in the service industry, but found the irregular working hours incompatible and left that job after one year. At OSG, I have always been in marketing. Despite my studies in the humanities, I have been involved in launching core systems and promoting IT. Currently I am involved in digital support operations on domestic sales.

## Embodying Challenge & Innovation

**Moriguchi:** Could you please share an example of how you have embraced challenge and innovation in your work?

**Enomoto:** OSG has been promoting digital transformation company-wide. My department has been actively working to develop and introduce our own robotic process automation (RPA). It has allowed us to completely automate data input and other operations, use data to provide strategic sales tools, visualize demand using electronic data interchange (EDI) with customers, and achieve other innovations. This has reduced simple tasks, enhanced operational efficiency, as well as been useful in making use of extracted data to support the digital transformation of sales.

**Suzuki:** In May 2020, I was involved in setting up the NEO Shinshiro Plant where we tackled the challenge of introducing an innovative digital production management system that would free us from the analog production system. We proceeded to create a visualization platform that linked ordering, production, equipment, and all other data aspects. This digitalization, which has boosted frontline capabilities, has helped augment production planning and on-time delivery. In addition, I feel that the improved communication among departments has strengthened coordination. This is anticipated to improve profitability as well as optimize production operations and inventory management. It also appears to have enhanced our connections with the Medium-Term Management Plan numerical targets.



**Hideaki Suzuki**, Manager  
Production Management Division  
Shinshiro Factory

**Sasahara:** We are taking on a challenge of carrying out GIGS activities to pioneer new growth markets. Against the backdrop of changes taking place in the automobile industry, we need to create pillars for new businesses, so we have been actively developing sectors related to semiconductors, healthcare, precision dies, and robotics. In order to identify new customers, it's necessary to develop new strategic products. That is why we have been facilitating activities that transcend our organization as we strive to generate demand. In fact, we are starting to see results in areas where OSG has traditionally not been an active player, such as hard brittle materials and resin processing.

**Mizutani:** It gives me a sense of fulfillment when I think about how I have been entrusted with tasks that start from scratch, and knowing that these tasks are linked to the realization of our medium-term plan. One actual example of a challenge is our polycrystalline diamond (PCD) tool business for machining ceramics, quartz glass, and other hard and brittle materials used in the semiconductor sector. This is part of our strategic operations targeting the micro-precision machining sector as set out in the Medium-Term Management Plan. The culture of OSG, which encourages us to take on any challenge and supports challenges throughout the organization, is propelling this business to get on track.

## Structure & Internal Systems Encouraging Employees to Take up Challenges

**Moriguchi:** Does OSG have an internal system in place that provides support for realizing challenges and innovation? Please talk about the system and organizational management that motivates employees to take on challenges, taking into account the evaluation system and compensation system.



**Tomono Moriguchi**  
Strategic Planning Division  
Sustainability Team

**Suzuki:** I think there is a substantial support system in place. When employees want to take up a new challenge, they are able to make use of the career plan reporting program. Inspiration and new ideas are required to improve operations and build innovative production lines. Opportunities to find those hints are readily provided with the company's support for attending outside seminars and other learning opportunities as well as visiting customers production facilities. Such opportunities also encourage employees to take up new challenges. I think there is a good support system in place, one that is focused on creating an environment where people are able to speak up and hear others' ideas as well. OSG has built an organization that makes it easier for employees to set about trying to do something new.



**Takehiro Sasahara**, Manager  
GIGS Sales Group  
Application Sales Division

**Sasahara:** When we reach the year 2038 which is OSG's 100th anniversary, our younger employees, the ones who currently have been with the company for less than five years, will form the core of the sales departments in Japan. When I take a hard look at what OSG will be like 10 years from now, I believe the even higher engineering level of our sales staff will provide a significant boost enabling the company to grow further. I hope that telling younger employees the story of my own experience of returning to sales after I gained knowledge by learning product technology as an engineer even though I came from a sales background will raise the level of the entire sales department and pique employees desire to take up challenges and not be held back by fixed ideas.

**Mizutani:** At OSG, it might be that we naturally acquire the habit of stepping forward to take up challenges. Looking back on my own experience when I had only been in charge of my work for a short time, I was approached by my supervisor who prompted me to try new things, saying: "What do you think of being the instructor for the next engineering workshop?" and "I'm going to Tokyo for an investor relations briefing and want you to come along." I feel the more opportunities I had to gain a variety of experiences, the more I started to take the initiative to face up to challenges. Personally experiencing what is actually happening on the front lines, I feel, generated in me new ideas and innovations. OSG's philosophy encourages people to take up a challenge.

**Enomoto:** OSG has a total of 222 e-learning courses. As part of the company's self-development program for employees, the entire tuition is covered if you complete a course within the designated time period. In addition, the company also offers a certification incentive payment if you obtain a specific qualification set by the company. So, I talked to my team members about getting qualified in personal computer skills last year, and some of them even acquired those qualifications. It is evident that OSG's active support encourages employees. In the Digital Promotion Group to which I am assigned, digital training is provided not only to those who wish to do so within the same department, but also others within the same office. Everyone has jumped at the chance to take such courses.

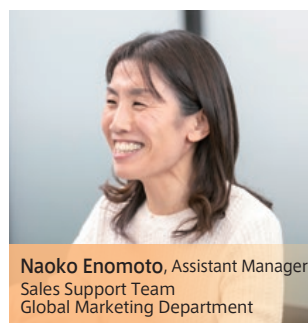
## Personnel & Training Program Challenges

**Moriguchi:** How do you consider the challenges and required measures for human resources and education systems towards the realization of 'Beyond The Limit'?

**Sasahara:** Just as with other companies, OSG has also faced the problem of young employees leaving in recent years. When I was young, we didn't receive any feedback about our performance evaluations, nor did we feel that much anxiety or dissatisfaction about it, either. However, times have changed. Now, I'm in the position of evaluating others. To motivate people, I again feel it's important to have a personnel and performance evaluation system that is fair and transparent. I have heard that some companies in the same industry have already introduced it, but I think it would also be effective for the company to introduce a multifaceted evaluation system, such as a 360-degree evaluation that is not a one-sided evaluation from the boss, and to conduct appropriate evaluations according to the results.

**Mizutani:** Even though OSG's overseas sales account for nearly 70% of all sales, I feel our daily operations and activities still don't have a sufficient global tinge. This may be a consequence of the extent to which the pandemic curbed our activities, but there has also been less exchange with our overseas group companies and fewer of our younger employees going overseas on business trips. Enhancing mutual understanding through communication with people of different nationalities, cultures, and business customs turns out to be an important asset for generating challenges and innovation in the future. I think OSG needs to expand its programs and opportunities, regardless of department, to encourage employees globally to take on challenges.

**Enomoto:** Even before the current medium-term management plan was formulated, there were items to evaluate the challenges of employees, and I believe that there is no excess or deficiency in the personnel evaluation system for the realization of "Beyond The Limit." However, it remains a question whether a proper evaluation is being made in line with the seven human resource criteria OSG requires. It might be a challenge for the personnel evaluation to clarify the evaluation items for each of the seven human resource criteria, not just for challenges, and to promote the creation of indicators that can challenge without fear of failure. For instance, it might be necessary to strengthen how the personnel evaluation system is administered by enhancing training for both evaluators and those being evaluated.



**Naoko Enomoto**, Assistant Manager  
Sales Support Team  
Global Marketing Department

**Suzuki:** I think it is important for each and every one of our employees to orient themselves toward achieving goals that will accomplish the Medium-Term Management Plan. Nevertheless, I feel there is a gap between the company's goals for having all employees understand and imbue this target and the reality that we face. I feel we need to instill in all our employees the concept of asking what they should do and how they should do it, so that we move toward achieving the Medium-Term Management Plan. Along with taking a step toward having each and every one of our employees understand the Medium-Term Management Plan measures, I think we also need to develop a system that facilitates collaboration among working groups and extends that to small group activities closer to the front lines so that we may better share the overall direction of our organization and increase the speed with which we realize our goals.

**Moriguchi:** Thank you everyone for your valuable comments today. You allowed us a glimpse into the challenges and innovations generated in your daily activities. Seeing once again how OSG has established culture that encourages individuals to take on challenges has made me also want to continue to tackle challenges not only to realize "Beyond the Limit" but also for my own growth.

# Realizing an Effective Monitoring Board

OSG believes it is essential that corporate governance functions be enhanced so that value may be created through appropriate efforts to address environmental and social challenges as well as effectively utilize capital.

Four outside directors gathered for a candid discussion about the achievements and challenges of OSG's corporate governance reform.



Member, Audit & Supervisory Committee  
chairperson, Nomination and  
Compensation Committee  
**Akito Takahashi**

Member, Audit & Supervisory Committee  
vice chairperson, Nomination and  
Compensation Committee  
**Kunihiko Hara**

Member, Audit & Supervisory Committee  
Member, Nomination and  
Compensation Committee  
**Kayoko Yamashita**

Member, Audit & Supervisory Committee  
Member, Nomination and  
Compensation Committee  
**Yoshitsugu Hayashi**

## Outside Directors' Expertise and the Diversity of Skills & Composition of the Board of Directors

**Takahashi:** Based on my experience as an attorney and outside director at other companies, I provide advice and supervision so that the Board of Directors may address risks and contribute to sustainably enhancing corporate value. Independent outside directors make up the majority of OSG's directors, and I feel that we work to reflect external perspectives in decision-making. The composition of the seven board members provides a foundation that, I believe, sufficiently ensures a diversity of skills among the members of the Board of Directors.

**Hara:** Having served as a director for companies in the manufacturing industry and a private research institute, I currently teach at a university. Making use of my experience in both academia and corporate practice, I believe I am able to play a role in ensuring OSG's management spearheads a robust boost in corporate performance as well as the fulfillment and happiness of company employees. I also think the skills maintained by each of the seven directors work in harmony without any overlap, enabling fair and impartial decision-making.

**Yamashita:** While practicing at an audit firm and accounting firm where I principally provided consulting services, I discussed corporate internal controls with many managers and saw firsthand their limitations. I believe the backgrounds of the current outside directors are effective from the perspective of complying with laws and regulations as well as maintaining internal controls. However, none of the outside directors is a currently serving manager. From the perspective of the Board of Directors' diversity, I feel we would be able to have more extensive discussions about an offensive stance as well as adopting defensive governance if we had an outside director who has experience akin to an executive officer, focusing on corporate management.

**Hayashi:** At university, my research focused on civil engineering and transportation systems. I also have an experience serving as an outside director at an electrical equipment manufacturer. Currently, I am also taking part in activities of the Club of Rome, a private think tank headquartered in Switzerland. I hope my experience and knowledge contribute to supporting and overseeing OSG's sustainability management.

## Nomination and Compensation Committee's Functions and Roles

**Takahashi:** I feel the trust in OSG's founding family and its unifying force are one of the company's sources of strength. In that context, it is by no means easy to stipulate specific criteria for determining whether there should be a change in management. On the other hand, it is good for the Nomination and Compensation Committee to present to stakeholders the basic approach that we are taking. I hope to discuss this issue in more detail with the other members of the Nomination and Compensation Committee. At the current point in time, I believe the company's leadership succession plans should first strive to augment a system capable of raising the level of managerial personnel, including at overseas businesses, rather than focusing on and developing only a small number of specific candidates.

**Hara:** It is a plus having the founding family heading up management not just at OSG but all companies in terms of maintaining trust with society. In that case, it is important shareholders and investors are able to see that personnel decisions are made in a fair and transparent manner. It is significant that the Nomination and Compensation Committee engages in discussions to set out its vision and qualities desired for senior management worthy of leading OSG, and share these results with the management team. Once this information is widely circulated, then, I think, it will also be positive for prospective executives as it details what sort of qualities they should acquire.



**Takahashi:** Consolidated operating income is set as a short-term incentive for determining officers' compensation. I believe it also aligns with the perspective held by shareholders. Some companies have also started to add an ESG-related metric to indices for performance-linked compensation. However, there are also concerns that such a metric may appear to be an arbitrary indicator used because it is easily attainable for the company. So, I believe we should continue to prudently discuss ways of reflecting non-financial metrics in incentive compensation.

**Hara:** I feel that it is somewhat difficult at present to directly link ESG efforts to management compensation incentives. ESG management does not necessarily produce results that have a direct bearing on operating income in the short-term. Also, at the beginning of the term, numerical targets for each aspect of ESG management need to be set out and a commitment made to achieve these targets so that such performance may be linked to compensation. I believe the Board of Directors needs to discuss how to translate all ESG management initiatives from policy management to target management.

**Yamashita:** Consolidated operating income is a very objective metric that I recognize as reasonable and easy-to-understand. Nevertheless, as capital efficiency is called for, it may be worth considering adding ROE as a metric. I think the question of whether to incorporate an ESG-related metric poses the issue of how objectively and reasonably the metric can be presented. At this stage, it is too early to incorporate such a metric when the issue is also viewed from the perspective of accountability to stakeholders.

**Hayashi:** A transition is steadily taking place as society transitions from the pursuit of economic efficiency, which is expressed as the ratio of sales to expenses, to the era of personal sufficiency, which emphasizes the ratio of well-being to the burden placed on our earth. Sustainable growth cannot be said to be achieved if large quantities of greenhouse gases are emitted, placing a burden on society and the environment, despite short-term profits being maximized. We probably also need to consider an OSG-specific metric that will measure social value as it leads to the generation of new corporate value. If we can objectively show enhancements in the well-being of stakeholders including employees, then I think such metric will also be effective as a long-term incentive metric for executive compensation.

## Audit & Supervisory Committee's Functions and Roles

**Yamashita:** One non-executive inside director and four outside directors sit on the Audit & Supervisory Committee. In order to evaluate whether appropriate risks are being taken in overseas M&A and other transactions, the committee would be able to make more multi-tiered judgments if the committee included among its members a non-Japanese individual with knowledge about global management or currently serving manager as I mentioned earlier in the discussion. There are also challenges in auditing subsidiaries overseas, so the global audit structure needs to be enhanced through closer coordination with the internal audit department.

**Takahashi:** There might also be aspects that are difficult for outside directors to directly grasp about the degree of overseas group companies' enthusiasm for internal controls. I feel the OSG Group needs to first build trusting relationships with local managers and, at the same time, maintain a system that checks their functions. Along with improving internal audits, there may also be room to consider incorporating financial and legal AI tools that make it possible to detect signs of fraud in addition to

employing external audits.

**Hara:** As an outside director that is also a member of the Audit & Supervisory Committee, I believe I am able to function fully as an advisory board member. However, if I limit my role only to advising the management team, then investors may view that as a sign we have been unable to extricate ourselves from the advisor mindset. I feel we constantly need to be aware of this. With regard to audits of overseas group companies, we need to continually monitor them so as to uncover any inconvenient truths and share these not only with the Board of Directors but also employees. Actively sharing and disclosing potential risk factors will deter wrongdoing and strengthen internal controls.

**Hayashi:** We also need to think about appointing a non-Japanese individual capable of expressing their views from a perspective different from the Japanese way of thinking or a Japanese individual who has been educated outside of Japan to serve as an outside director capable of conducting global audit work. If AI tools or other devices need to be used to conduct audits, then that individual would also be required to have knowledge about IT and AI in addition to auditing expertise.

## Capital Efficiency and Growth Strategy

**Takahashi:** While the necessity is fully understood of further raising awareness about the cost of capital and maximizing corporate value, I believe that what OSG, a cutting tool manufacturer, requires first and foremost to continue to steadily perform its work is to determine daily what customers need and make several minor refinements that will end up improving our products. To take off only in pursuit of short-term profits by, for example, drastically reshuffling the company's business portfolio or making an extreme change is not something, I think, that would instantly fit within OSG's current culture. Under such circumstances, I believe Repurchase of Shares by issuing Convertible Bonds, which were recently issued, and treasury stock acquisition are avenues for OSG to respond in a way that shows we are conscious of the cost of capital.

**Hara:** PBR, a metric for assessing corporate value, is essentially an indicator measuring the tireless efforts of management. ROE may conversely weaken a company's financial standing if it exceeds a certain level, so I am wary about feeling optimistic or pessimistic in response to such figures alone. Basically, I believe it is important to always focus on creating high-value added products and services, which is the right path for a company to take. The development team needs to talk with the sales department to set out a clear R&D policy and, at the same time, make an active effort to develop new products and services.

**Yamashita:** The purpose behind issuing Repurchase of Shares by issuing Convertible Bonds was to improve ROE. But, if that's all it is, then any effect will naturally diminish after a certain period of time passes. I believe that, as a manufacturing company, maintaining overwhelming product appeal and continuously supplying the products society demands will result in sustainably generating value that exceeds the cost of capital. I am in favor of investing more in researching and developing new products and services.

**Hayashi:** ROE is also an important metric that affects PBR. In addition, the ability to offer solutions to environmental and social challenges, which is also required by the TCFD and TNFD disclosure frameworks, significantly affects corporate value. At a time when the true worth of sustainable corporate activities is being called into question, I hope the positive effects that products and services have on the environment and society will be actively presented and communicated to shareholders, investors, and all stakeholders as being added value that OSG Group provides.

# Corporate Governance Structure

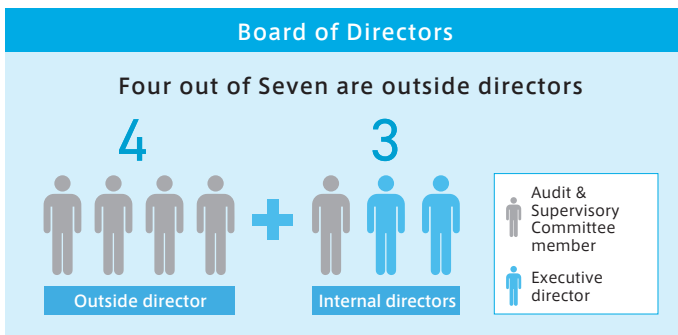
We will continue to develop a highly effective corporate governance structure and strive to enhance this framework.

## Basic Philosophy

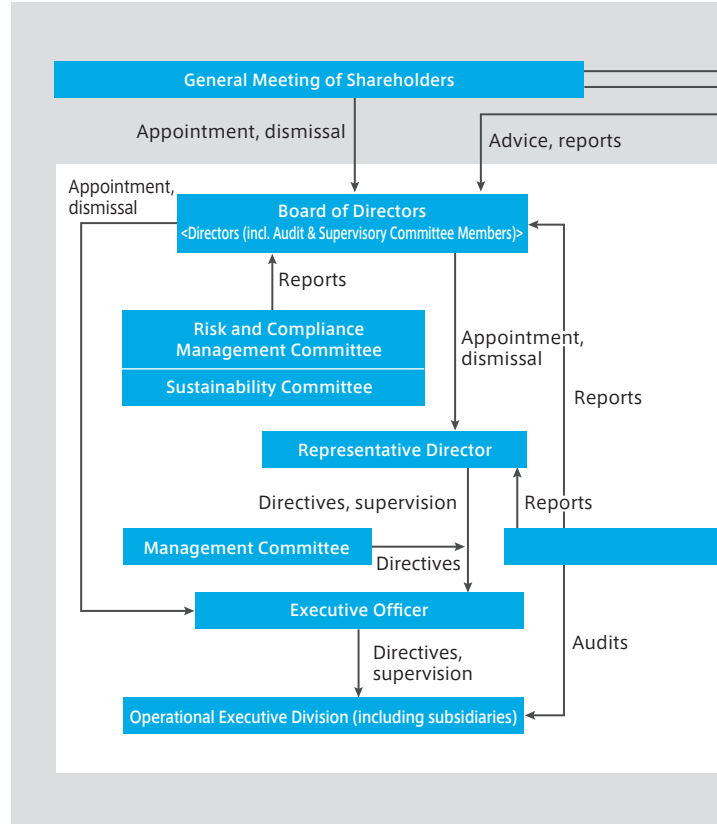
Based on our corporate philosophy of maintaining a global presence, we regard compliance with laws, regulations, and social norms as a fundamental part of our management policies, together with fairness and transparency in our business activities. We also believe these qualities contribute to sustainable corporate development and enhancement of corporate value. Measures to enhance corporate governance, including the establishment of efficient and transparent management organizations, are among our most important management priorities for achieving these objectives. One of the ways in which we enhance corporate governance is by raising compliance awareness among directors, executive officers, and employees of OSG and our group companies through dissemination of the OSG Philosophy and OSG Corporate Code of Ethics, which provide specific guidelines designed to raise ethical standards within the company.

## Overview of Corporate Governance Structure

Having selected to establish an audit and supervisory committee, OSG's corporate governance structure consists of the Board of Directors, Audit & Supervisory Committee, and 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 seven-member Board of Directors includes two members who are also involved in business operations as executive officers. The remaining five directors, of whom four 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 adopted 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 accordance with policies determined by the Board of Directors. They strive to make performance more expeditious and efficient in a timely manner.



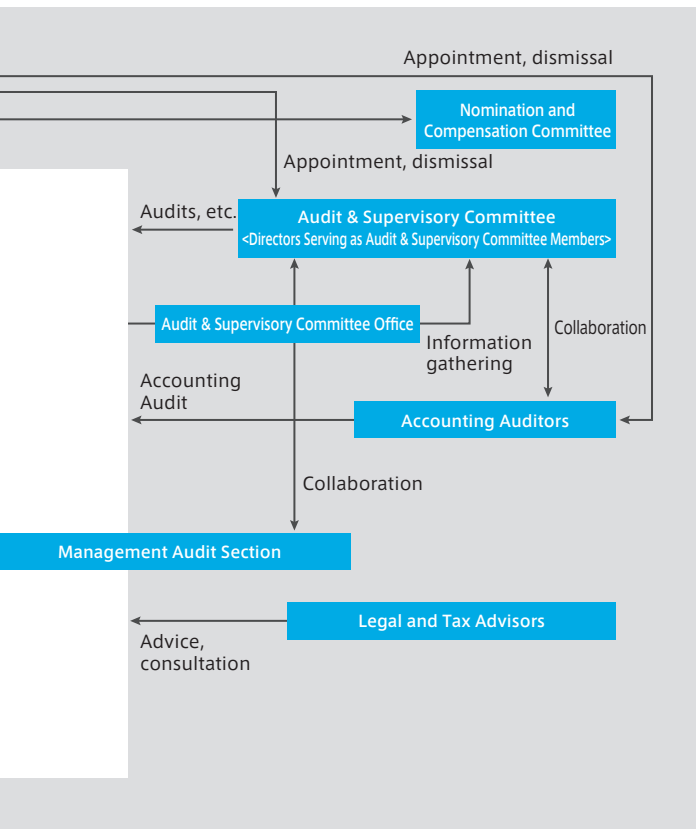
## Corporate Governance Structure



## Directors' Expertise & Areas of Specialization (Skills Matrix)

	Audit & Supervisory Committee member	Nomination and Compensation Committee	General management	Production & technology	Sales / marketing
CEO Norio Ishikawa			○	○	
COO Nobuaki Osawa			○		○
Takehiro Tomiyoshi	○ Full-time	○			
Outside/Independent Akito Takahashi	○	○ chairperson			
Outside/Independent Kunihiko Hara	○	○ vice-chairperson	○	○	○
Outside/Independent Kayoko Yamashita	○	○			
Outside/Independent/Newly Appointed Yoshitsugu Hayashi	○	○			

\*The chart above does not list all the knowledge and experienced of each directors, but presents those skills deemed to be representative.



## Reasons for Adopting Corporate Governance Structure

By adopting our present corporate governance structure, we have enhanced the ability of the Board of Directors to make decisions about management decision-making and oversee 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 four of the five members are outside directors, include auditing the company's financial position and operations as well as the performance of duties by the representative director and executive officers. All of OSG's four outside directors are independent officers as stipulated in the listing rules. With the five members of the Audit & Supervisory Committee, including these highly independent outside directors, also having seats on the Board of Directors, we believe we have put in place a corporate governance structure that verifies and ensures management transparency and appropriateness so as to provide an environment in which management oversight functions effectively.

## Nomination and Compensation Committee

OSG has established a Nomination and Compensation Committee to serve as an advisory body to 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, executive officers, and other corporate offices and their compensation. The Nomination and Compensation Committee consists of directors who are also members of the Audit & Supervisory Committee. Four of the five members are highly-independent outside directors. In addition, an outside director chairs the committee. Persons deemed suitable to be directors of OSG, on the basis of their extensive experience, advanced knowledge, and high-level specialization, are selected and nominated as candidates for membership of the Board of Directors. The Board of Directors makes decisions on appointments after seeking and receiving advice from the Nomination and Compensation Committee. For details about OSG's procedures for determining compensation, please refer to procedures for determining compensation of company officers on pp. 51 and 52.

	Financial affairs /accounting	Finance	International affairs	Legal affairs	Risk management	Governance	Diversity
			○		○	○	○
			○			○	○
	○	○		○		○	
				○	○	○	
					○		
	○	○					○
			○			○	○

\*As of Feb. 16, 2024

<b>Name of committee</b>	Nomination and Compensation Committee
<b>Number of members</b>	5
<b>Internal directors</b>	1
<b>Outside directors</b>	4
<b>Outside experts</b>	0
<b>Chairperson</b>	Outside director

## Reasons for Appointment of Outside Directors & Concurrently-Held Positions

Outside directors	Audit & Supervisory Committee member	Reasons for appointment	Positions held concurrently
Akito Takahashi	○	Mr. Takahashi has an 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. In addition, he is not associated with any OSG-affiliated company, major supplier or customer. It was deemed that he presents no risk of conflicts of interest with general shareholders. Therefore, the decision was made to appoint him as an outside director.	● Outside Director, Oriental Consultants Holdings Co., Ltd.
Kunihiko Hara	○	Mr. Hara has an extensive experience in knowledge of corporate management in addition to an academic career spanning many years. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. In addition, he is not associated with any OSG-affiliated company, major supplier or customer. It was deemed that he presents no risk of conflicts of interest with general shareholders. Therefore, the decision was made to appoint him as an outside director.	● Tokai National Higher Education and Research System Nagoya University Graduate School Future Value Creation Research Center Graduate School of Informatics Designated Professor
Kayoko Yamashita	○	Ms. Yamashita an extensive experience, advanced knowledge, and specialized skills gained through her career as a certified public accountant. As an expert in accounting and tax affairs, she was judged to be a person who would participate in board meetings from an independent perspective and contribute to corporate management auditing and supervision. In addition, she is not associated with any OSG-affiliated company, major supplier or customer. It was deemed that she presents no risk of conflicts of interest with general shareholders. Therefore, the decision was made to appoint her as an outside director.	● Outside Audit & Supervisory Board Member, Sotoh Co., Ltd. ● Outside Audit & Supervisory Board Member, Fuji Corporation
Yoshitsugu Hayashi	○	Mr. Hayashi has an extensive experience and broad knowledge acquired over a long academic career. He was judged to be someone who would participate in board meetings from an independent perspective and contribute to corporate management auditing and supervision. In addition, he is not associated with any OSG-affiliated company, major supplier or customer. It was deemed that he presents no risk of conflicts of interest with general shareholders. Therefore, the decision was made to appoint him as an outside director.	● Distinguished Professor, Chubu University

\*As of Feb. 16, 2024

## Evaluation of Effectiveness of the Board of Directors

To enhance the Board of Directors' functions, OSG began conducting analyses and evaluations of the Board's effectiveness in FY2022. To ensure the FY2023 effectiveness evaluation would be objective and transparent, the support of an external organization

was secured and the evaluation conducted in September 2023. A session of the Board of Directors was held in November 2023 to analyze, discuss, and evaluate the results. An overview of those evaluation results is given below.

### Description

Targets	All members of the Board of Directors 2 Directors who are not members of the Audit & Supervisory Committee 5 Directors are members of the Audit & Supervisory Committee (4 of whom are outside directors) for a total of 7
Evaluation method	Anonymous questionnaire
Time frame	Responses period (Sep. 15~ Oct. 2, 2023)
Overview of questions	<ul style="list-style-type: none"> <li>● Composition of the Board of Directors</li> <li>● Operation of the Board of Directors</li> <li>● Deliberations by the Board of Directors</li> <li>● Monitoring function of the Board of Directors</li> <li>● Performance of Outside Directors (incl. Audit &amp; Supervisory Committee Members)</li> <li>● Support structure for Directors (incl. Audit &amp; Supervisory Committee Members)</li> <li>● Training</li> <li>● Dialogues with shareholders (investors)</li> <li>● Voluntary initiatives</li> <li>● Nomination and Compensation Committee</li> <li>● Summary</li> </ul>
Evaluation method	Survey results were consolidated by an external organization and then analyzed, deliberated, and evaluated by the Board of Directors.

### Evaluation Results

The survey responses gave a favorable evaluation to the manner in which the Board of Directors is expected to operate and its response to those expectations. There is a recognition that the Board of Directors has maintained its effectiveness overall. On the other hand, more in-depth comments were provided about further enhancing support systems, coordination with internal auditing departments, sharing details of dialogues with shareholders and other investors, as well as exchanging views with outside directors. The results shared an awareness that the Board of Directors faces challenges in encouraging discussion and further improving the functions that it exercises.

### Initiatives for Enhancing Effectiveness

Once the OSG Board of Directors has taken into consideration this effectiveness evaluation and conducted a sufficient review of the challenges faced, it intends to respond promptly as well as to continue to further initiatives augmenting its functions. There is a substantial support structure for specific measures addressing challenges that strengthens operational collaboration with executive officers and the secretariat and allows issues to be regularly shared with internal audit divisions. In addition, pertinent details of dialogues with shareholders and investors are shared by personnel handling investor relations.

## 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 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 has provided variable compensation in the form of profit-linked bonuses in line with the definition of profit-linked salaries as provided in Article 34, Paragraph 1 Item 3 of the Corporation Tax Act, as well as personal assessment bonuses.

#### Profit-linked Bonuses

- Eligibility: Managing directors and eligible directors who are serving as executive officers
- Calculation method: Amount of profit-linked bonus = Consolidated operating income X Rank-based bonus standard coefficient (table below) \* Maximum of ¥700 million

#### Rank-based bonus ratio

Rank	Percentage
Chairman & Representative Director	0.3645%
President & Representative Director	0.4050%
Managing Officer	0.1620%

### 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 shall be ¥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 of total compensation determined by resolution of the 106th Ordinary Shareholders' Meeting held on February 16, 2019. The maximum total value of shares allocated to eligible directors (excluding members of the Audit & Supervisory Committee) is set at ¥200 million per 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 as well as increase value shared with shareholders.

## ◆ Policy for Determining Compensation Packages

The policy for determining the specifics of compensation and other remuneration for directors is drafted by the Representative Director entrusted with preparing the company policy by the Board of Directors. The representative director then seeks and receives advice from the Nomination and Compensation Committee, which is comprised of a majority of independent outside directors. The policy is decided on by resolution of the Board of Directors.

## ◆ 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 by a resolution of the ordinary shareholders' meeting.

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

## Reduction in Cross-Shareholdings

The Board of Directors conducts annual reviews to determine whether to continue holding cross-shareholdings. Those for which the Board of Directors deems there to be no rationale for their continued holding are gradually sold off. The criteria for such determinations include the purpose of such holdings, risks, relationship with OSG. The cost of capital is also taken into account. As for the exercise of voting rights, the Board of Directors does not make decisions based solely on the short-term performance and share price of the stock of the company held, but comprehensively considers the relationship with OSG in making such determinations.

	[Amount: Millions of yen]				
	FY2018	FY2019	FY2020	FY2021	FY2022
Number of stocks sold	0	1(1)	0	0	1(1)
Amount sold	0	583	0	0	118
Book value	0	108	0	0	20
Profit/loss on sale	0	475	0	0	98
Market value held/shareholder equity (%)	4.2%	3.5%	4.3%	3.6%	3.6%

Figures in parentheses indicate number of stock sold off.

## Basic Policy on Dialogue with Shareholders & Investors

OSG regards the building of long-term relationships of trust with shareholders and investors as an important management matter. OSG proactively communications strategies relating to enhancement of our corporate value over the medium- and long-term as well as our sustainable growth as we engage in dialogues during financial briefings (held quarterly

with the president speaking on two of these occasions), telephone conferences, small meetings, and other forums. In addition, comments and views voiced in these dialogues with shareholders and investors are reported to the Board of Directors and shared also with relevant business units so they may be reflected in management decisions and investor relations.

# Risk and Compliance

## Basic Approach to Risk and Compliance

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

### ◆ Risk Management Policy

OSG Group strives to ensure the smooth operation of our business by preventing potential risks from arising, responding to risks that do occur, and establishing a system for risk management. Risks are divided into those associated with the external environment, risks associated with business processes, and risks associated with our internal environment. Risks that management recognizes as likely having a major impact on our financial position, business performance, and cash flow are listed in the table to the right.

established the Risk and Compliance Management Committee to ensure effective and efficient implementation of the Risk Management Rules. The committee's role is to formulate basic risk management policies, as well as consider and implement timely countermeasures after assessing the significance and urgency of risks.

### Risk Classification

Risk category	Type of risk
External risks	Economic conditions and market trends
	Trends affecting procurement of raw materials
	Climate change, natural disasters, and pandemics
Business process risks	Stable supply to the market
	Employee working conditions
	Safety and health management for employees
Internal risks	Information security
	Corporate governance and financial risk
	Retaining and training human resources
	Traffic accidents

### ◆ BCP(Business Continuity Plan)

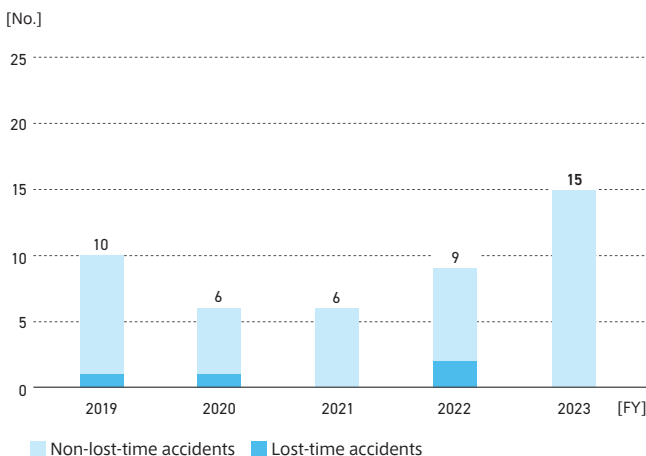
OSG Group has formulated a Business Continuity Plan (BCP) in the event an earthquake strikes along the Nankai trough in the South Sea or Southeast Sea segment. We have also conducted training and exercises for implementing the BCP. Moreover, even if a large-scale disaster occurs, a secure living environment with essentials such as water and food is always assured and ready for employees at each site until a relief system can be established by the municipal or national governments. Additionally, when the Covid-19 outbreak initially erupted in 2020, we launched response teams to track and interpret information which was changing daily. OSG Group was quick to respond in Japan as well as overseas. In our workplaces, we have worked to educate employees on preventing infection as well as preventing discrimination. We have coordinated with municipalities, hospitals, and testing centers to quickly respond if someone is infected. At our production plants, we devised ways to reduce opportunities for contact by changing to a rotating shift system. We have also

implemented measures so that our plant operations will not shut down. Ordinarily, the Safety and Health Committee, which meets monthly, identifies hazardous work, locations, and other such risks, and strives to mitigate the impact of a natural disaster or accident on production.

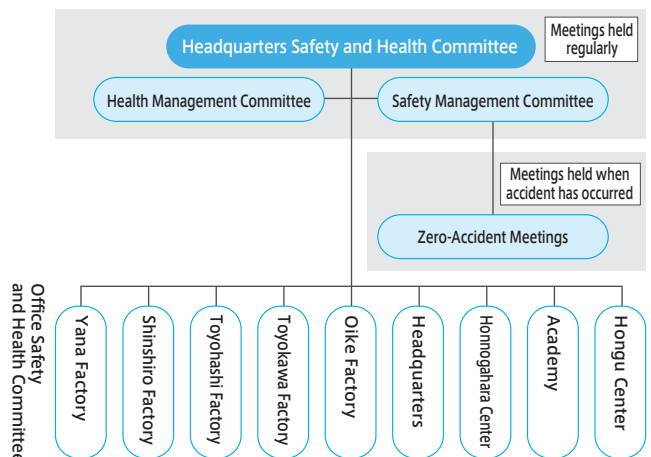


Training based on BCP

### Number of Occupational Accidents



### Company-wide Safety and Health Committee



### ◆ Information security

OSG Group has strived to enhance information security. We established the Basic Information Security Policy to maintain the trust of our customers and society as well as protect information assets from threats such as accidents, natural disasters, and criminal activity in today's highly information-oriented society. This is part of our efforts to continue to provide products and services that satisfy our customers' needs. To minimize the risk of an accident or other internal incident occurring, we thoroughly educate all employees about compliance with legal and contractual requirements commensurate with the level of secrecy of the information assets handled. In preparing for external risks, we continue to assess risks to information systems and develop countermeasures as well

as raise the level of security literacy among our employees. We have conducted information system risk evaluations in response to continually changing cybercrime techniques, and adopted a series of measures to address any elements of risk. The necessary investments have been made with a view to minimizing the scope of impact in the unfortunate event that we do sustain damage as well as to ensure business continuity. As part of our measures to educate employees, OSG has endeavored to educate our personnel so they are more literate about information security. We conduct training with exercises using targeted emails and other schemes so employees are able to recognize recent cybercrime trends and maintain capabilities commensurate with our advanced information society.

## Compliance

### ◆ Basic Philosophy

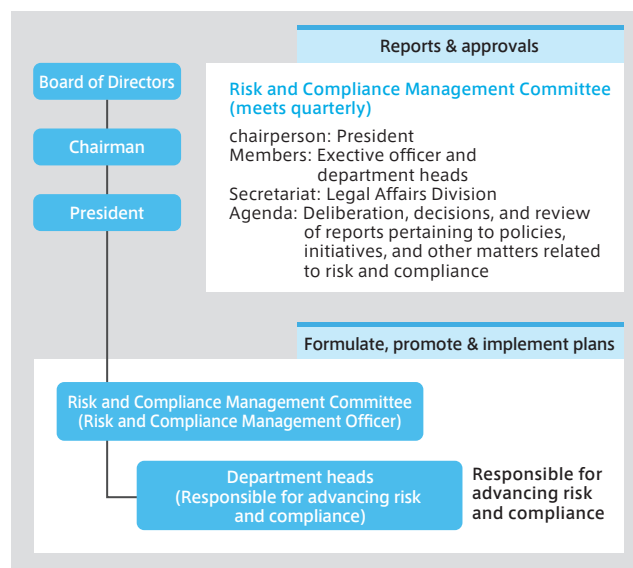
The OSG Corporate Code of Ethics was established as a set of values and ethics that we thoroughly practice to ensure all directors, executives, and employees at OSG Group companies conduct business activities based on social common sense and comply with laws, regulations, and social standards. The Corporate Code of Ethics comprises two sections: business ethics norms and company action

standards. Business ethics norms are guidelines establishing the basis upon which business activities should be carried out and how personnel should conduct themselves in order to ensure the prompt and appropriate implementation of fair and appropriate practices. Company action standards are a detailed code of conduct to ensure the implementation of the business ethics norms.

### ◆ Promotion of Compliance

Even as we comply with laws, regulations, and other rules, OSG has appropriately maintained and reassessed the OSG Corporate Code of Ethics to incorporate training measures when employees are assigned to design, development, or other compliance-related units as part of our training as well as professional education for new employees and others. We have worked to raise our employees' awareness of compliance. Not only do we thoroughly work to uphold conventions such as compliance, adherence, and rule enhancement, but we also strive through training to imbue a sense of pride in our company as well as foster awareness and promote understanding of compliance in each and every one of our employees.

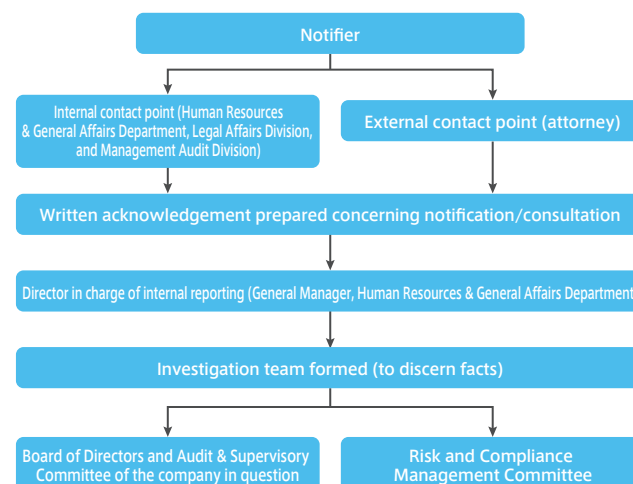
### Compliance Promotion System



### ◆ Internal Reporting System

OSG Group has established internal reporting standards, which provide a mechanism to ensure that reports and consultations are appropriately handled regardless of whether they are received from within the company or without, as concerns organizational or individual violations of laws and regulations in any corporate activity, personal violations of laws and regulations, fraudulent activities, and actions in violation of the OSG Corporate Code of Ethics. Upon receipt of a report or consultation from an individual, an investigation team endeavors to discern the facts. If the results of the investigation so dictate, disciplinary provisions in the employment regulations of the relevant OSG Group company are applied, and measures taken to prevent any recurrence. After recurrence prevention measures have been adopted, the director in charge of internal reporting confirms the adopted measures are functioning sufficiently and contributing to strengthening corrective compliance management as well as early detection, in addition to preventing any legal or regulatory violations and protecting the person who came forward with the notification or consultation.

### Internal Reporting System



# Corporate Officers (As of February 16, 2024)

## Director



Chairman & Representative Director  
Chief Executive Officer (CEO)

### Norio Ishikawa

May. 1983 Seconded to OSG Tap and Die, Inc. (now OSG USA, Inc.)  
Oct. 1995 Vice President, OSG Tap and Die, Inc.  
Aug. 1999 President, OSG Europe S.A.  
Feb. 2001 Director  
Feb. 2003 Executive Officer  
Feb. 2004 Director  
Feb. 2007 President and Chief Operating Officer (COO)  
Feb. 2017 President & Chief Executive Officer (CEO)  
Feb. 2021 Chairman & Chief Executive Officer (CEO) (current position)



President & Representative Director  
Chief Operating Officer (COO)

### Nobuaki Osawa

Nov. 1997 Seconded to Norman Taps and Dies Limited (now OSG UK Limited)  
Oct. 2003 Representative Director, OSG UK Limited (current position)  
Dec. 2004 Representative Director & President, OSG Europe S.A.  
Feb. 2010 Managing Director  
Jan. 2014 Representative Director & Chairman, OSG Europe S.A. (current position)  
Sep. 2016 Osawa Scientific Studies Grants Foundation (current position)  
Feb. 2018 Managing Officer  
Feb. 2019 Director & Senior Managing Officer  
Feb. 2021 President and Chief Operating Officer (COO) (current position)



Director (Full-time Member,  
Audit & Supervisory Committee)

### Takehiro Tomiyoshi

Apr. 1982 Joined Nomura Securities Co., Ltd.  
Oct. 2016 Joined OSG Corporation  
General Manager, New Business Department  
Feb. 2017 Executive Officer in charge of New Business Development  
Feb. 2018 Executive Officer in charge of Strategic Planning Office  
Feb. 2020 New Business Development Office  
Feb. 2022 Director (full-time Member, Audit & Supervisory Committee) (current position)



Director (Audit & Supervisory Committee Member)

### Kunihiro Hara\*

Jun. 1998 Director, Denso Corporation  
Jun. 2002 Senior Managing Director, Nippon Soken Research Institute (now SOKEN, Inc.)  
Jun. 2005 Managing Director, KONPON Research Institute (now Toyota KONPON Research Institute)  
Jun. 2007 Director & Vice President, KONPON Research Institute (now Toyota KONPON Research Institute)  
Jun. 2010 Advisor, KONPON Research Institute (now Toyota KONPON Research Institute)  
Jul. 2010 Specially-Appointed Professor, "Tailor-Made Baton-Zone" Education Promotion Office, Toyohashi University of Technology  
Apr. 2016 Vice President, Toyohashi University of Technology (responsible for strengthening research capabilities)  
May. 2018 Specially-Appointed Professor, Nagoya University (Innovation Strategy Office)  
Jun. 2018 Professor Emeritus, Toyohashi University of Technology (current position)  
Feb. 2020 Director (Audit & Supervisory Committee Member), OSG Corporation (current position)  
Apr. 2020 Designated Professor, Future Value Creation Research Center, Nagoya University, Tokai National Higher Education and Research System (current position)



Director  
(Audit & Supervisory Committee Member)

### Kayoko Yamashita\*

Apr. 1996 Admitted as a certified public accountant  
Apr. 2006 Established Yamashita Certified Public Accounting Firm, Partner (current position)  
Apr. 2008 Admitted as a certified tax accountant  
Jun. 2015 Outside Audit & Supervisory Board Member, Sotoh Co Ltd. (current position)  
Outside Audit & Supervisory Board Member, FUJI Corporation (current position)  
Feb. 2022 Director (Audit & Supervisory Board Member) OSG Corporation (current position)



Director (Audit & Supervisory Committee Member) newly appointed

### Yoshitsugu Hayashi\*

Apr. 1992 Professor, Nagoya University Graduate School  
Jul. 1992 President, World Conference on Transport Research Society (current position)  
Apr. 2006 Dean, Nagoya University Graduate School of Environmental Studies  
Jul. 2013 Chairman, World Conference on Transport Research Society (current position)  
Jul. 2015 Member, The Club of Rome (current position)  
Apr. 2016 Emeritus Professor, Nagoya University Professor, Research Institute for Science and Technology, Chubu University  
Jun. 2017 Outside Director, FUJI Electric Co., Ltd.  
Mar. 2019 President, Japan Association of The Club of Rome (current position)  
Apr. 2019 Director & Visiting Professor, Joint Institute for Transport Studies, Tongji University (China) (current position)  
Jun. 2019 Distinguished Guest Professor, Tsinghua University (China) (current position)  
Oct. 2020 Executive Committee Member, The Club of Rome (current position)  
Apr. 2021 Distinguished Professor, Center for Sustainable Development and Global Smart City, Chubu University (current position)



\* Outside Directors

## Executive Officer



Director  
(Audit & Supervisory Committee Member)

### Akito Takahashi\*

Apr. 2000 Admitted as attorney-at-law in Japan  
Apr. 2005 Admitted as attorney-at-law in New York State  
Sep. 2009 Established Takahashi & Katayama Law Firm, Partner (current position)  
Mar. 2015 Outside Director, Nippon Carbon Co., Ltd.  
Dec. 2015 Outside Director, ACK Group, Ltd. (now Oriental Consultants Holdings Co., Ltd.) (current position)  
Feb. 2018 Director (Audit & Supervisory Committee Member), OSG Corporation (current position)  
Jun. 2022 Outside Director, Toa Oil Co., Ltd.



Managing Officer  
**Jiro Osawa**



Managing Officer  
**Hideaki Osawa**



Managing Officer  
**Koji Takeo**



Senior Executive Officer  
**Mitsuyoshi Hikosaka**



Senior Executive Officer  
**Yasutaka Yoneda**



Senior Executive Officer  
**Yukinori Chikada**



Executive Officer  
**Jeffrey Tennant**



Executive Officer  
**Toshihiro Hisadome**



Executive Officer  
**Yasushi Suzuki**



Executive Officer  
**Kenya Sugihara**



Executive Officer  
**Seungjin Chung**



Executive Officer  
**Osamu Ishida**



Executive Officer  
**Hitoshi Masuoka**

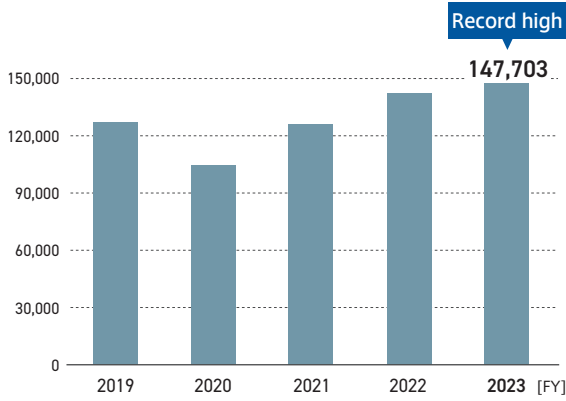


Executive Officer (Newly Appointed)  
**Koji Agata**

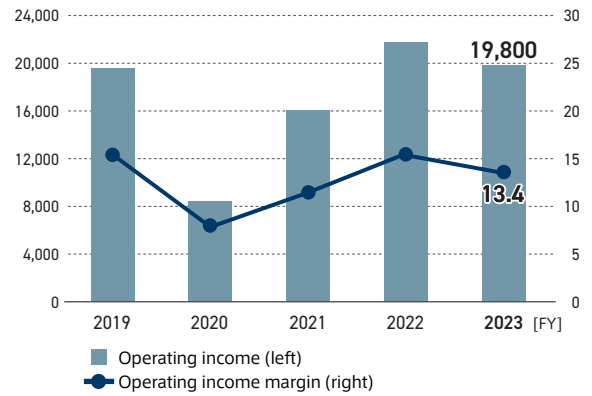
# Financial and Non-Financial Highlights

## Financial Highlights

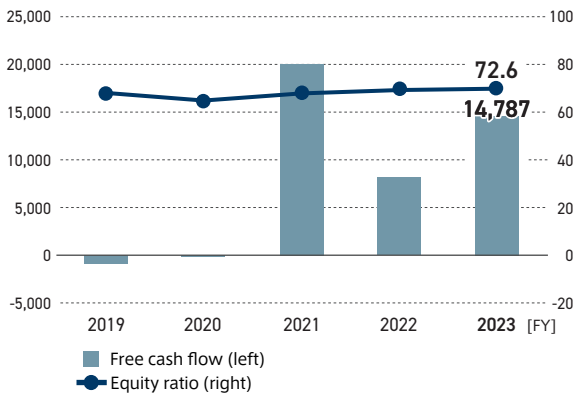
Net sales (millions of yen)



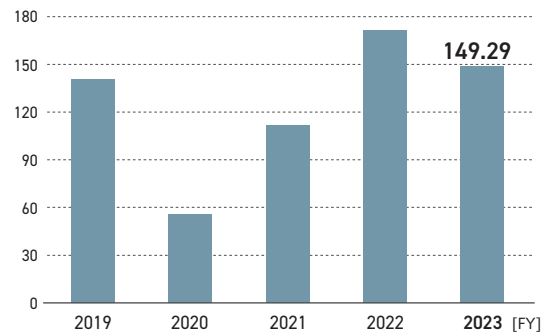
Operating income (millions of yen)  
Operating income margin (%)



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

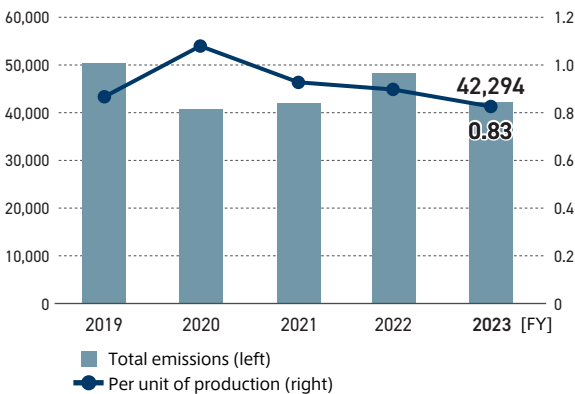


Earnings per share (EPS) (yen)

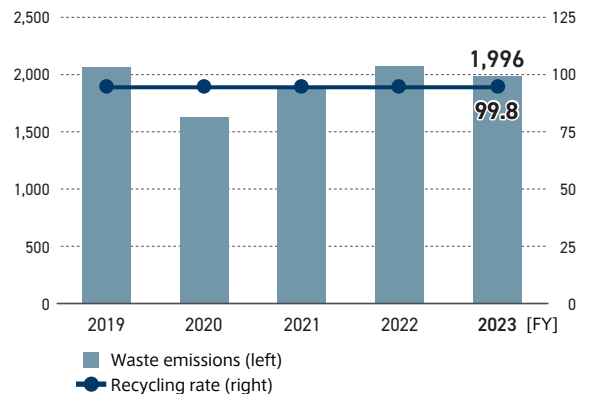


## Non-Financial Highlights

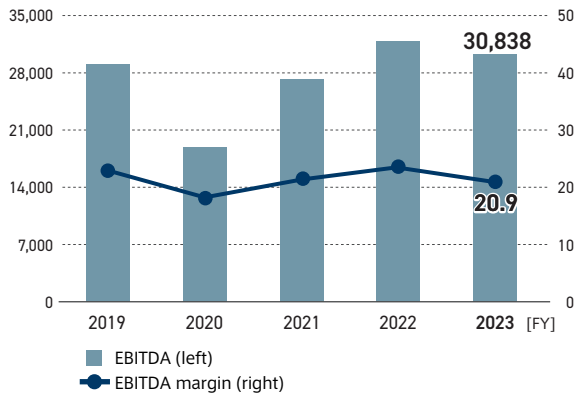
CO<sub>2</sub> emissions (t)  
CO<sub>2</sub> emissions per unit of production (%)



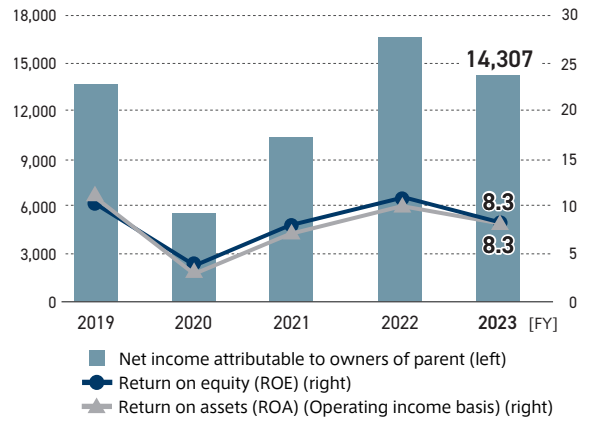
Waste emissions (t)  
Recycling rate (%)



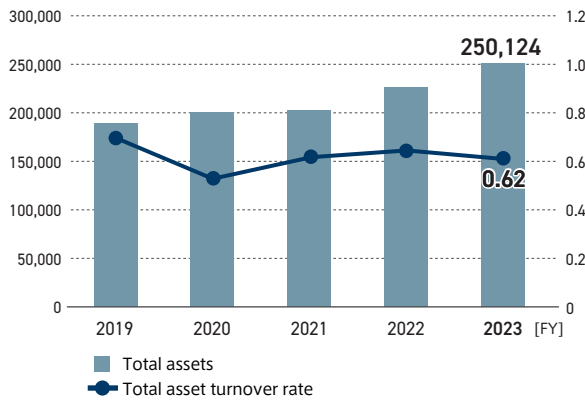
EBITDA (millions of yen)  
EBITDA margin (%)



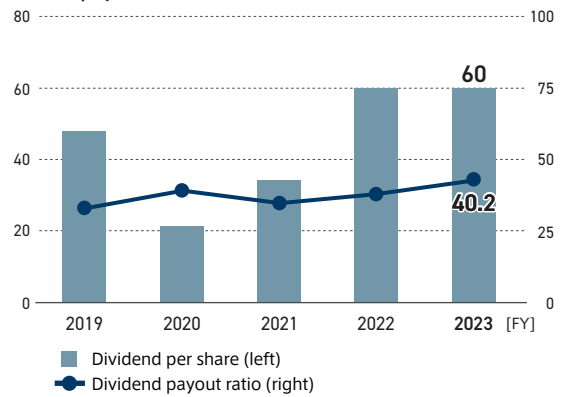
Net income attributable to owners of parent (millions of yen)  
Return on equity (ROE) (%)  
Return on assets (ROA) (%) (Operating income basis)



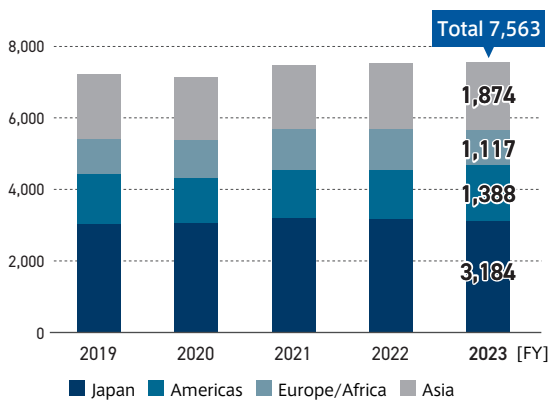
Total assets (millions of yen)  
Total asset turnover rate (multiple)



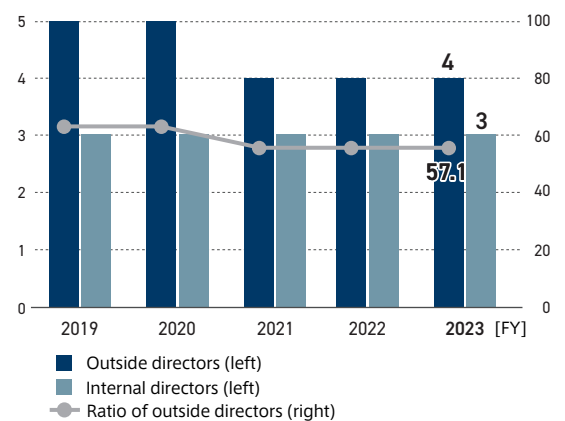
Dividend per share (yen)  
Dividend payout ratio (%)



Number of employees by region



Number of directors  
Composition of outside directors [%]



## Key Financial Data for the Past 10 Years

		2014/11	2015/11	2016/11
For the year	Net sales	101,031	111,917	105,561
	Cost of sales	58,061	61,865	59,179
	Selling, general and administrative expenses	25,554	28,454	28,135
	Operating income	17,415	21,597	18,246
	Ordinary income	17,568	21,510	17,813
	Net income attributable to owners of the parent	9,989	12,518	10,134
	Cash flows from operating activities	19,688	19,588	16,333
	Cash flows from investing activities	△3,119	△16,976	△16,843
	Cash flows from financing activities	△12,813	△6,216	△778
	Depreciation and amortization	6,830	7,705	7,885
	EBITDA	24,246	29,302	26,132
	Capital expenditures	7,327	12,487	13,394
	Number of employees	5,233	5,569	5,866
	End of fiscal year	Total assets	142,302	155,129
Net assets		100,943	113,637	103,059
Interest-bearing debt		20,009	20,195	33,506
Total equity		91,458	102,566	92,216
Per share	Net income (yen)	105.20	131.78	110.59
	Net assets (yen)	963.15	1,079.12	1,024.34
	Dividends (yen)	34.00	46.00	50.00
Management indices	Overseas sales ratio (%)	54.6	57.8	55.3
	Operating income margin (%)	17.2	19.3	17.3
	Return on equity (ROE) (%)	11.7	12.9	10.4
	Return on assets (ROA) (%) (Operating income basis)	12.6	14.5	11.7
	Return on assets (ROA) (%) (Net income basis)	7.2	8.4	6.5
	Asset turnover ratio (times)	0.73	0.75	0.68
	Equity ratio (%)	64.3	66.1	59.1
	EBITDA margin (%)	24.0	26.2	24.8
	Dividend payout ratio (%)	32.3	34.9	45.2
Data by product category	Taps	34,655	38,239	33,948
	Drills	23,600	25,743	26,709
	End mills	22,886	26,554	24,837
	Rolling dies	9,165	9,921	9,443
	Gauges	1,419	1,538	1,478
	Other	9,304	9,919	9,143
Sales to external customers by segment	Japan	46,659	48,150	48,257
	Americas	18,236	21,758	19,478
	Europe/Africa	9,879	11,382	12,268
	Asia	26,256	30,626	25,556

(Millions of yen)

	2017/11	2018/11	2019/11	2020/11	2021/11	2022/11	2023/11
	120,198	131,368	126,964	104,388	126,156	142,525	147,703
	69,711	74,833	73,281	65,715	76,969	83,459	87,254
	31,349	34,015	34,128	30,276	33,081	37,166	40,648
	19,137	22,520	19,554	8,396	16,105	21,898	19,800
	19,144	22,567	19,710	8,950	16,141	23,648	21,350
	13,993	14,710	13,686	5,639	10,989	16,534	14,307
	20,820	20,125	19,261	17,038	26,982	20,175	23,331
	△7,566	△13,351	△20,314	△17,133	△6,961	△12,170	△8,543
	△11,137	△4,723	3,465	9,658	△14,264	△14,740	△3,831
	8,612	9,100	9,522	10,518	10,591	10,498	11,037
	27,749	31,621	29,076	18,915	26,696	32,396	30,838
	9,494	11,464	17,139	9,895	5,555	8,600	10,580
	6,611	7,020	7,236	7,173	7,489	7,543	7,563
	166,712	178,020	190,414	200,112	209,757	228,852	250,124
	128,394	138,354	140,658	140,179	154,800	176,838	194,640
	16,325	15,612	26,782	41,769	30,751	25,570	28,676
	115,810	125,332	129,078	129,338	143,811	164,659	181,561
	153.70	150.47	140.06	57.94	112.63	171.54	149.29
	1,191.65	1,279.29	1,328.08	1,327.22	1,472.45	1,721.14	1,892.35
	46.00	47.00	47.00	22.00	36.00	60.00	60.00
	57.6	58.4	57.3	59.4	61.8	64.9	67.0
	15.9	17.1	15.4	8.0	12.8	15.4	13.4
	13.5	12.2	10.8	4.4	8.0	10.7	8.3
	11.9	13.1	10.6	4.3	7.9	10.0	8.3
	8.7	8.5	7.4	2.9	5.4	7.5	6.0
	0.74	0.76	0.69	0.53	0.62	0.65	0.62
	69.5	70.4	67.8	64.6	68.6	72.0	72.6
	23.1	24.1	22.9	18.1	21.2	22.7	20.9
	29.9	31.2	33.6	38.0	32.0	35.0	40.2
	38,175	41,729	39,895	33,671	43,239	50,374	49,050
	31,662	36,811	36,147	29,484	35,721	40,982	42,886
	27,090	27,917	26,690	21,219	24,006	26,383	27,983
	10,218	10,645	9,973	7,947	10,052	10,616	11,035
	1,625	1,757	1,946	1,712	1,747	1,991	1,968
	11,424	12,508	12,310	10,354	11,387	12,176	14,778
	51,639	55,287	54,725	42,816	48,935	50,858	49,619
	21,413	22,680	23,152	18,818	21,915	27,845	32,126
	18,177	22,134	20,893	19,396	24,573	28,964	33,590
	28,968	31,266	28,193	23,356	30,732	34,856	32,367

# Consolidated Summary Balance Sheet

(Millions of yen)

	FY2022 (November 30, 2022)	FY2023 (November 30, 2023)
<b>Assets</b>		
Current assets		
Cash and deposits	46,697	57,970
Notes and accounts receivable - trade	26,885	28,645
Securities	0	1
Merchandise and finished goods	33,238	38,529
Work in process	8,641	7,544
Raw materials and supplies	10,146	10,420
Other	3,731	4,602
Allowance for doubtful accounts	△374	△197
Total current assets	128,967	147,517
Non-current assets		
Property, plant and equipment		
Buildings and structures	60,635	61,979
Accumulated depreciation	△35,923	△37,814
Buildings and structures, net	24,712	24,165
Machinery, equipment and vehicles	150,853	162,685
Accumulated depreciation	△116,113	△124,904
Machinery, equipment and vehicles, net	34,739	37,780
Tools, furniture and fixtures	10,497	11,439
Accumulated depreciation	△8,386	△9,257
Tools, furniture and fixtures, net	2,110	2,181
Land	16,006	16,343
Construction in progress	2,840	3,468
Other	1,666	1,672
Accumulated depreciation	△1,013	△908
Other, net	653	764
Total property, plant and equipment	81,062	84,705
Intangible assets		
Goodwill	4,402	3,692
Other	1,396	1,760
Total intangible assets	5,799	5,453
Investments and other assets		
Investment securities	4,800	5,812
Investments in capital	1,946	346
Long-term loans receivable	562	400
Deferred tax assets	3,833	4,041
Retirement benefit asset	189	219
Other	2,133	1,976
Allowance for doubtful accounts	△443	△347
Total investments and other assets	13,023	12,449
Total non-current assets	99,885	102,607
Total assets	228,852	250,124

(Millions of yen)

	FY2022 (November 30, 2022)	FY2023 (November 30, 2023)
<b>Liabilities</b>		
Current liabilities		
Notes and accounts payable - trade	5,887	6,019
Short-term loans payable	677	672
Current portion of long-term loans payable	1,019	1,638
Accrued expenses	8,894	9,224
Income taxes payable	3,105	1,733
Provision for directors' bonuses	371	332
Other	3,809	4,932
Total current liabilities	23,765	24,552
Non-current liabilities		
Bonds payable	5,000	10,000
Long-term loans payable	18,873	16,365
Deferred tax liabilities	1,799	2,011
Net defined benefit liability	879	990
Provision for loss on guarantees	185	-
Other	1,511	1,564
Total non-current liabilities	28,248	30,931
Total liabilities	52,014	55,484
Net assets		
Shareholders' equity		
Capital stock	13,044	13,044
Capital surplus	13,792	13,330
Retained earnings	132,320	140,361
Treasury stock	△6,388	△5,845
Total shareholders' equity	152,768	160,891
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	852	1,326
Deferred gains or losses on hedges	0	-
Foreign currency translation adjustments	11,038	19,342
Total accumulated other comprehensive income	11,890	20,669
Non-controlling interests	12,178	13,079
Total net assets	176,838	194,640
Total liabilities and net assets	228,852	250,124

# Consolidated Statement of Income & Consolidated Statement of Comprehensive Income

## Consolidated Summary Statement of Income

(Millions of yen)

	FY2022 (Dec. 1, 2021 to Nov. 30, 2022)	FY2023 (Dec. 1, 2022 to Nov. 30, 2023)
Net sales	142,525	147,703
Cost of sales	83,459	87,254
Gross profit	59,065	60,448
Selling, general and administrative expenses	37,166	40,648
Operating income	21,898	19,800
Non-operating income		
Interest income	397	829
Dividend income	110	178
Purchase discounts	49	45
Share of profit of entities accounted for using equity method	2	-
Foreign exchange gains	718	84
Subsidy income	232	263
Other	936	843
Total non-operating income	2,446	2,244
Non-operating expenses		
Interest expense	285	302
Share of loss of entities accounted for using equity method	-	8
Other	410	384
Total non-operating expenses	696	694
Ordinary income	23,648	21,350
Extraordinary gains		
Gain on sales of investments in capital of subsidiaries and affiliates	-	144
Total extraordinary gains	-	144
Extraordinary losses		
Provision of allowance for doubtful accounts	170	540
Loss from money transfer scam at foreign subsidiary	-	132
Loss on valuation of shares of subsidiaries and affiliates	-	74
Provision for loss on guarantees	100	-
Total extraordinary losses	270	747
Income before income taxes	23,378	20,747
Income taxes – current	7,292	6,102
Income taxes - deferred	△1,091	△166
Total income taxes	6,200	5,936
Net income	17,177	14,811
Net income attributable to non-controlling interests	642	503
Net income attributable to owners of parent	16,534	14,307

## Consolidated Statement of Comprehensive Income

Net income	17,177	14,811
Other comprehensive income		
Valuation difference on available-for-sale securities	6	450
Deferred gains or losses on hedges	△3	△0
Foreign currency translation adjustments	13,364	9,291
Share of other comprehensive income of associates accounted for using equity method	△21	△9
Total other comprehensive income	13,345	9,732
Comprehensive income	30,523	24,543
(Breakdown)		
Comprehensive income attributable to owners of parent	28,972	23,116
Comprehensive income attributable to non-controlling interests	1,550	1,427

# Consolidated Summary Statement of Cash Flows

	(Millions of yen)		(Millions of yen)	
	FY2022 (Dec. 1, 2021 to Nov. 30, 2022)	FY2023 (Dec. 1, 2022 to Nov. 30, 2023)	FY2022 (Dec. 1, 2021 to Nov. 30, 2022)	FY2023 (Dec. 1, 2022 to Nov. 30, 2023)
<b>Operating activities</b>				
Income before income taxes	23,378	<b>20,747</b>		
Depreciation and amortization	10,498	<b>11,037</b>		
Amortization of goodwill	881	<b>903</b>		
Increase (decrease) in allowance for doubtful accounts	151	<b>522</b>		
Increase (decrease) in provision for directors' bonuses	80	<b>△44</b>		
Increase (decrease) in net defined benefit liability	△40	<b>84</b>		
Increase (decrease) in provision for loss on guarantees	147	<b>△85</b>		
Interest and dividend income	△508	<b>△1,007</b>		
Interest expense	285	<b>302</b>		
Equity in loss (earnings) of an associated company	△2	<b>8</b>		
Gain on sales of investments in capital of subsidiaries and affiliates	-	<b>△144</b>		
Loss from money transfer scam at foreign subsidiary	-	<b>132</b>		
Loss on valuation of shares of subsidiaries and affiliates	-	<b>74</b>		
Change in notes and accounts receivable	△1,466	<b>△480</b>		
Change in inventories	△5,269	<b>△2,076</b>		
Change in notes and accounts payable	247	<b>△56</b>		
Change in accrued expenses	853	<b>77</b>		
Other, net	△1,620	<b>692</b>		
Subtotal	27,617	<b>30,688</b>		
Interest and dividend income received	500	<b>977</b>		
Interest expense paid	△296	<b>△292</b>		
Payment for loss from money transfer scam at foreign subsidiary	-	<b>△132</b>		
Income taxes - paid	△7,645	<b>△7,909</b>		
Net cash provided by operating activities	20,175	<b>23,331</b>		
<b>Investing activities</b>				
Payments for time deposits	△7,783	<b>△3,524</b>		
Proceeds from refund of time deposits	5,188	<b>6,036</b>		
Purchases of investment securities	△560	<b>△16</b>		
Proceeds from sale/redemption of investment securities	227	<b>12</b>		
Acquisitions of property, plant and equipment	△8,600	<b>△10,580</b>		
Proceeds from sales of property, plant and equipment	1,161	<b>537</b>		
Purchase of intangible assets	△264	<b>△578</b>		
Purchase of shares of subsidiaries	△981	<b>△1,037</b>		
Proceeds from sales of investments in capital of subsidiaries resulting in change in scope of consolidation	-	<b>552</b>		
Other, net	△558	<b>56</b>		
Net cash used in investing activities	△12,170	<b>△8,543</b>		
<b>Financing activities</b>				
Change in short-term borrowings, net	△2,205	<b>△39</b>		
Proceeds from long-term borrowings	146	<b>39</b>		
Repayments of long-term borrowings	△2,137	<b>△1,955</b>		
Proceeds from issuance of bonds	-	<b>5,000</b>		
Redemption of convertible bond-type bonds with subscription rights to shares	△30	<b>-</b>		
Purchase of shares of subsidiaries not resulting in change in scope of consolidation	-	<b>△381</b>		
Purchase of investments in capital of subsidiaries not resulting in change in scope of consolidation	-	<b>△112</b>		
Purchase of treasury stock	△5,953	<b>△3</b>		
Proceeds from sales of treasury stock	516	<b>460</b>		
Dividends paid	△4,357	<b>△6,220</b>		
Dividends paid to non-controlling interests	△359	<b>△305</b>		
Other, net	△359	<b>△312</b>		
Net cash used in financing activities	△14,740	<b>△3,831</b>		
Effect of exchange rate change on cash and cash equivalents	3,098	<b>1,975</b>		
Net increase (decrease) in cash and cash equivalents	△3,637	<b>12,931</b>		
Cash and cash equivalents at beginning of year	40,354	<b>36,717</b>		
Cash and cash equivalents from newly consolidated subsidiaries	-	<b>73</b>		
Cash and cash equivalents at end of period	36,717	<b>49,722</b>		



# Corporate Information

## Company Profile

(As of Nov. 30, 2023)

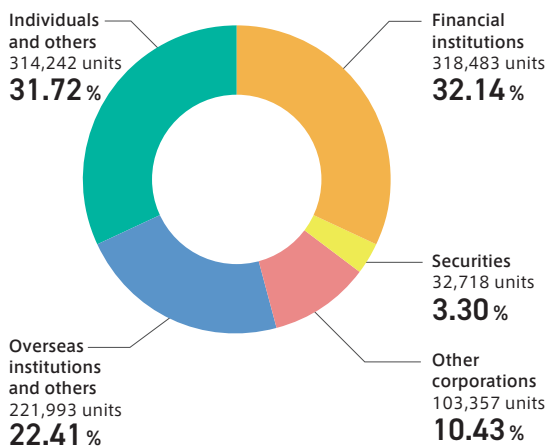
<b>Company name</b>	OSG Corporation	<b>Capital</b>	¥13,044,000,000
<b>Headquarters</b>	3-22, Honnogahara, Toyokawa, Aichi Prefecture 442-8543, Japan	<b>Business activities</b>	Manufacture and sales of cutting tools, rolling dies, gauges, machine tools and machine parts; import and sales of tools
<b>Date established</b>	March 26, 1938	<b>Listed market</b>	TSE Prime & NSE Premier (Securities code 6136)
<b>Employees</b>	7,563 (consolidated) 1,900 (non-consolidated)		

## Status of Shares

(As of Nov. 30, 2023)

<b>Number of shares issuable</b>	200,000,000 shares
<b>Number of shares outstanding</b>	99,182,517 shares
<b>Number of shareholders</b>	10,017

### ► Ownership breakdown (One unit = 100 shares)



(Notes) 1. Amounts of less than one unit are not included.  
2. Treasury stock is included under "Individuals and others."

### ► Major shareholders

Name	Number of shares held (thousands of shares)	Percent ownership (%)
The Master Trust Bank of Japan, Co., Ltd. (Trust Account)	12,954	13.50
Custody Bank of Japan, Ltd. (Trust Account)	6,609	6.89
SSBTC CLIENT OMNIBUS ACCOUNT	5,235	5.46
OSG Agent Association	3,504	3.65
OSG Stock Holding Association	2,621	2.73
NORTHERN TRUST CO. (AVFC) RE FIDELITY FUNDS	2,400	2.50
Osawa Scientific Studies Grants Foundation	2,350	2.45
Sumitomo Mitsui Banking Corporation	2,100	2.19
OSG Employee Stock Ownership Association	1,908	1.99
Nomura Trust and Banking Co., Ltd. (Investment Trust Account)	1,609	1.68

(Notes) 1. The number of shares held is rounded down to the nearest thousand.  
2. Other than above, there are 3,241 thousand treasury shares.  
3. Ownership percentage is calculated after deducting treasury shares.

To Our  
Stakeholders

### Introduction to 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/>



### Introduction to 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

3-22, Honnogahara, Toyokawa, Aichi Prefecture 442-8543, Japan  
URL: <https://www.osg.co.jp/en/>



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