

# Integrated Report 2025



Fiscal Year Ended 31 March 2025

Nippon Sheet Glass Company, Limited

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# **Editing Policy**

NSG Group started to publish "Integrated Report" since 2018. "Integrated Report 2025" aims to describe to our stakeholders how we respond to the various needs of customers and society with our value and services focusing on "glass and its related technologies" which are our strength and contribute to the sustainable development of society based on a management principle "Our Vision".

Also, for editing the Integrated Report 2025, we placed emphasis particularly on how we address and contribute to sustainability (ESG) and our unique products and technologies that form the foundation for the sustainable growth of the Group including Technical Glass business (Creative Technology business).

Detailed data such as financial and non-financial information can be found in our Annual consolidated financial statements and on our website.

# **Information Disclosure Structure**



# Scope of Report

Period Covered: April 1 2024 to March 31 2025

\*Some content may include activities after April 1 2025

Organizations Covered: Nippon Sheet Glass Company, Limited and its

consolidated subsidiaries

Financial Standards: Financial statements and financial data included in this data after 2011/03 were prepared in accordance with International Financial Reporting Standards. NSG Group has reported this integrated report in accordance with the GRI standards. For more information, please refer to our website.

# Forward-looking Statements

The projections contained in this document are based on information currently available to us and certain assumptions that we consider to be reasonable. Hence the actual results may differ. The major factors that may affect the results are the economic and competitive environment in major markets, product supply and demand shifts, currency exchange and interest rate fluctuations, changes in supply of raw materials and fuel and changes and laws and regulations, but not limited.

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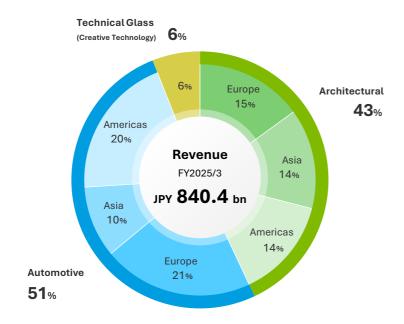
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Three Global Businesses: Architectural, Automotive, and Technical Glass (Creative Technology).

The NSG Group is one of the world's largest manufacturer of glass and have principal operations around the world and sales in over 100 countries.

The NSG Group is striving to realize a sustainable society by offering new values and services with glass swiftly and appropriately to meet the growing needs of our customers and society.



# Leading supplier for architectural glazing and thin film solar panels

# **Products**

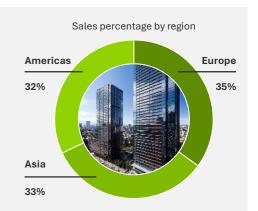
- 1. Building glass & glazing
- 2. Glass for solar panels

### **Features**

**Architectural Glass** 

**Automotive Glass** 

- · 26 float lines operated globally
- Top market share in online-coating glass



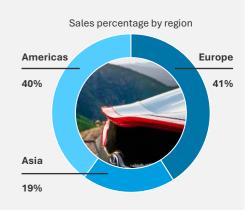
# Key supplier globally in new vehicle (OE) and automotive aftermarket (AGR)

# **Products**

- 1.VA glass (Heated, HUD, integrated-antenna, ADAS)
- 2. Enhance comfortability glass (IR/UV cut, heat/noise insulate)

### **Features**

- · Key operations in 13 countries
- · Supplying glass to world's leading vehicle manufactures
- · The largest global service provider for aftermarket



# enterprises Products 1. Optical productations etc.

1. Optical products such as lenses for printers and high- performance

Create new value for markets through developing and

supplying unique materials which support customers'

- 2. Glass fibers for synchronous drive belts and composites.
- 3. Glass flakes for cosmetics, paints and composite materials
- 4. Ultra-thin glass for displays and HDD substrates etc

### Features

- Key operations in Japan, China, Europe and America
- · Holding multiple market-leading products
- Rollout across diverse industries and markets



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# **NSG Group in numbers**



**Operating Profit** JPY 16.5 bn (FY2025/3)

Net Asset JPY 1,032.9 bn

**Employees** 25,400 (March 2025)

Float lines 26 (March 2025)

Foundation

1918

Sales in over

100 countries

Female managers ratio 18.0% **16.8**% (December 2023)

Research grants 1,526 PJs (Cum above JPY 1.9bn: May 2025 Cumulative) Online-coating glass share No.1 (10 float lines)

Lenses for multi function share No.1

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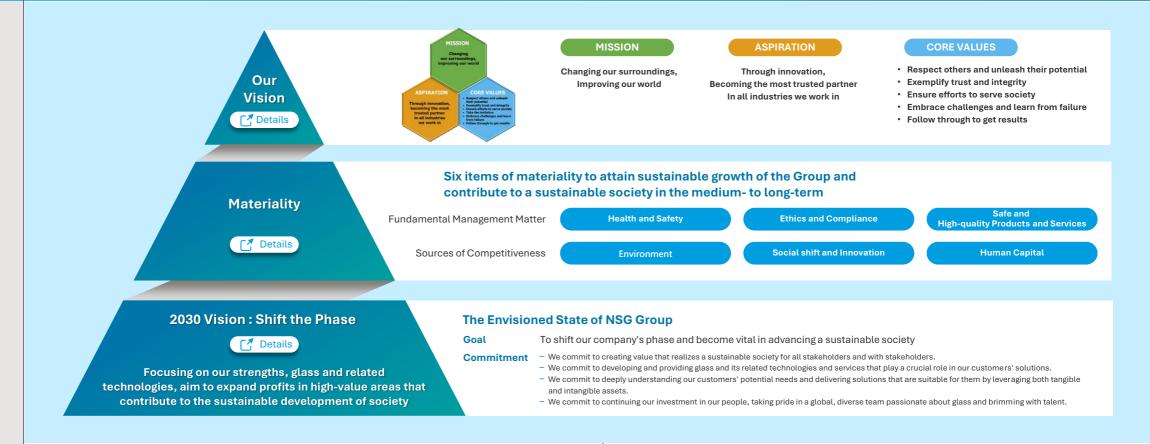
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# Environment

Minimize our GHG emissions

Expansion of eco-friendly products









# Social

Ensure sustainable growth of the Group and contribute to employees' welfare







# Governance

Achieve significant trust from stakeholders by constant address on Ethics and Compliance







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Unwavering the 4 "D"s as pillars of our strategy, we will advance initiatives to enhance the value of the entire group and aim to achieve the goals of the medium-term plan.

Director

Representative Executive Officer
President and Chief Executive Officer

Munehiro Hosonuma



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# FY2025/3 (First Year of the Medium-Term Plan "2030 Vision: Shift the Phase")

Performance in FY2025/3, the first year of the medium-term plan, was significantly impacted by the slowing European economy from the previous year. Conditions were considerably worse than in the past, including continued negative GDP growth in Germany, the Group's key market. This recognition is shared not only internally, including our European members, but also by our competitors. Operating profit was notably weak in both the European Architectural glass and Automotive glass businesses. The European Architectural glass business, in particular, faced conditions more severe than anticipated, comparable to those during the European debt crisis (from FY2010/3 to FY2013/3) and the COVID-19 pandemic (from FY2020/3 to FY2021/3). Initially, we anticipated the European market would improve in the second half of FY2025/3. However, the situation actually worsened with each passing quarter, and in addition, rising energy and material costs

delivered a body blow. While we attempted to improve sales prices from the first quarter, this proved difficult in a business environment where demand struggled to recover. Consequently, we were forced to announce downward revisions to our earnings forecasts for three consecutive quarters.

Sales prices for European architectural glass finally began improving in the fourth quarter, which resulted from supply constraints implemented by European companies, starting with our Group, including production cessations. Considering the difficulty of improving sales prices through simple price increases, we proactively decided and executed the production cessations of two float furnaces in Germany ahead of other companies. We recognize this action helped create momentum for improving market conditions.

In the Automotive glass business, while vehicle production

volumes are expected to recover gradually, we will pursue performance improvement through self-reliance efforts, specifically by optimizing our footprint, rather than relying solely on market recovery. We are consolidating production lines primarily in Germany and Italy, aiming to enhance value-added products and reduce costs. Progress is on track. The effects of these measures should appear going forward, leading to improved operating profit. We will continue to respond flexibly to maintain an appropriate footprint based on the situation. Even within the European economic slowdown, our After Glass Replacement business achieved solid earnings. Its target market is the stable number of vehicles already owned, not the fluctuating number of vehicles produced. Additionally, the spread of ADAS has driven increased value in windshields, significantly improving profitability over the past few years.

# Progress of the Medium-Term Plan "2030 Vision: Shift the Phase"

	<ul><li>Progress of Financial Targets</li></ul>		FY2027/3 Targets	FY2030/3 Targets	FY2025/3 Full-year Actual	
Profi	Profitability	Operating profit	JPY 64.0 bn		JPY 16.5 bn	mainly impacted by economic slowdown in Europe. On track except European Arch and Auto
	(P/L)	ROS	7%	10% or more	2.0%	increased by 0.3pt from Q3
	Cash Generation (C/F)	Free cash flow	JPY 27.0 bn		JPY 10.0 bn	positive free cash flow due to working capital improvement while OP decrease
	Stabilization of	Interest-bearing debt	JPY 442.0 bn		JPY 528.4 bn	increased by JPY 18.4 bn from the previous year end
Financial Status (B/S)	Shareholders' equity ratio	15%		10.5%	decreased by 1.9pt from the previous year end	

If we were to score our progress toward the financial targets for FY2027/3, it would be 25 out of 100 points. We deeply regret this disappointing start, which falls short of our stakeholders' expectations. While we sincerely accept this results, it is also true that besides our European Architectural glass and Automotive glass businesses, which were significantly impacted by the economic downturn, progress in other regions and businesses has been proceeding smoothly as planned. From this fact, we believe the direction and measures outlined in our medium-term plan – "Focusing on our strength, glass and related technologies, we aim to expand profits in high-value areas that contribute to the sustainable development of society" – are correct. Moving forward, we will catch up by advancing cost reduction initiatives, including workforce optimization, in the European businesses which are our key challenges. At the same time, we will confidently advance initiatives in other regions and businesses.

Therefore, there is no need at this point to withdraw or revise downward our financial targets. However, since the targets for stabilizing our financial status (B/S) such as reducing interest-bearing debt and improving the shareholder's equity ratio are inherently linked to the targets for profitability (P/L) such as improving operating profit, return on sales (ROS), and for cash generation (C/F) such as improvement in free cash flow, it is not guaranteed that these targets could be achieved by FY2027/3 as a result of the initial slow start in operating profit, ROS, and free cash flow in FY2025/3 as the first fiscal year. As we advance our initiatives and see improvements in operating profit, ROS, and free cash flow, these positive effects should eventually manifest correctly in reducing interest-bearing debt and improving shareholder's equity ratio, albeit perhaps with some delay. Then, as stated in our medium-term plan, we will aim to resume dividend payments in the latter half of the period.

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# Progress of the 4 "D"s

# **Business Development**

### **Architectural Glass Business**

- Starting production of solar energy glass was completed in Ohio, USA
- Disposed all of our equity interest in Vietnam Float Glass Co., Ltd.
- Established the steering committee across the Group to cultivate future perovskite market
- Introducing state-of-the-art sputtering coating equipment in Japan and Europe

### **Automotive Glass Business**

- Introducing high-precision press equipment in USA

### **Technical Glass Business**

- Applying SELFOC® to the AOI market; successful business development of MAGNAVI® and Super-Low-Reflection coating liquid
- Technological development of glass fillers and TGV for digital areas, such as Photonics-Electronics Convergence and AI semiconductors

# Decarbonization

- Contribution to  $CO_2$  emission reduction and financial improvement through expansion of solar energy glass production
- Shared use of the furnace for both float glass and rolled glass in the UK
- Installing a solar power generation system at our Ottawa facility in USA

# **Digital Transformation**

- ERP system harmonization pilot delivered in a region

# **Diverse Talent**

- The female manager ratio improved to 18.0% in FY2025/3 from 16.8% in FY2024/3\*
- HR system business case, readiness and system requirements prepared
- \*As of at the end of December

# **Business Development**

As measures to improve operating profit, ROS, and free cash flow, we are focusing investment to accelerate high value-added products under Business Development, one of the 4 "D"s in our medium-term plan.

For example, in the Architectural glass business, conversion of existing production facilities for solar energy glass was completed in Ohio, USA, whose production commenced during FY2025/3, as announced on June 9, 2025.

In Southeast Asia where market competition is intensifying, we disposed of all our equity interest in Vietnam Float Glass Co., Ltd., which was a subsidiary manufacturing architectural glass in Vietnam, to our joint venture partner. Consequently, we now manufacture only solar energy glass in Vietnam, further advancing our high-value-added strategy. Furthermore, regarding perovskite solar cells, considered next-generation solar panels, we are advancing research and development with various partners. We also established a committee across the group to capture future market needs beyond business unit boundaries, thereby strengthening internal and external frameworks. As announced on June 16, 2025, we are also advancing the introduction of state-ofthe-art sputtering coating equipment at our Chiba plant in Japan to expand production of Low-E insulated glass, for which demand is expected to grow. We have also decided to invest in similar coating equipment in Poland, Europe, where environmental consciousness is high and demand for renovations to improve energy efficiency by controlling room temperature through window glass and reducing greenhouse gas emissions is expected to grow, as announced on September 2, 2025.

In the Automotive glass business, we plan to introduce highprecision press equipment in USA. As demand grows for Head-Up Displays (HUD) that project information onto windshields, high surface accuracy is required. This investment will address such requirement. This equipment will also handle large-sized rooflight, which is in high demand there.

In the Technical glass business, we are expanding from existing markets where we hold a global niche and top position into adjacent markets. One example is the expansion of SELFOC®

technology, originally used in printers, into the AOI (Automated Optical Inspection) market. Another example is that the development of MAGNAVI® was achieved by applying highstrength and high-modulus glass composition technologies cultivated through glass cord, in order to enter markets such as aerospace materials, wind power, and hydrogen fuel tanks. We are also advancing into new markets with new technologies. We have successfully developed a new super-low reflection coating liquid, which has already begun adoption in smartphone camera lenses and is expected with further expansion in this area. We are also focusing on technological development in digital areas, such as photonics-electronics integration and Al semiconductors, which could become major future trends. We look forward to creating unique materials characteristic of NSG group through technological developments like new glass fillers with low dielectric properties and dimensional stability, and TGV, which is attracting attention as a next-generation semiconductor packaging material, thereby providing new value to society.

Investments to support high value-added initiatives will undoubtedly contribute to profits and improve cash generation in FY2027/3 and beyond. These are not a kind of investments that would be postponed or cancelled due to current performance. That said, we fully recognize the reality of limited investment capacity amid sluggish performance, so we will proceed decisively with capital expenditures for projects deemed effective, while maintaining rigorous post-investment profit management and keeping priorities.

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### Decarbonization

Our strategy for decarbonization involves balancing costs and investments with the societal contributions achieved through decarbonization, ensuring both the company and society remain sustainable. As mentioned earlier, our expanding production capacity for solar energy glass is a prime example of this approach, contributing to both our improved performance and reduced  $\mathrm{CO}_2$  emissions.

Additionally, in FY2025/3, we relocated our rolled glass production line in the UK to enable shared use of the furnace for both float glass and rolled glass. Consolidating the rolled glass production furnace into the existing float furnace will improve production efficiency and enable an annual reduction of 15,000 tonnes of CO<sub>2</sub> emissions. This relocation project received funding through the UK government's Industrial Energy Transformation Fund (IEFT), which supports industrial energy efficiency and decarbonization projects. Furthermore, one of the decarbonization KPIs outlined in our materiality is the renewable energy electricity ratio. Progress in transitioning to renewable energy is proceeding smoothly, including the installation of a solar power generation system at our Ottawa facility in USA. The Ottawa facility will now be supplied with renewable electricity generated by this system for the next 15 years. The installed solar power system utilizes NSG Group's glass with transparent conductive oxide.

Under "2030 Vision: Shift the Phase," we are advancing the development of products that contribute to solving our customers' environmental challenges. However, we have also experienced the difficulty of finding the sweet spot where both our company's and our customers' interests align in these products. Our low-carbon glass, Pilkington Mirai™, launched in 2023, is a groundbreaking product that reduces the carbon footprint during manufacturing by 50% compared to our conventional products. However, while the CO₂ reduction is significant, the higher sales price meant we did not reach our anticipated sales volume. Since our business exists because of our customers, we intend to move forward while exploring the sweet spot for both our company and our customers from the viewpoint of what kind of low-carbon

products would be acceptable, and ultimately for society. Development of next-generation products is actually progressing, and we plan to begin sales soon.

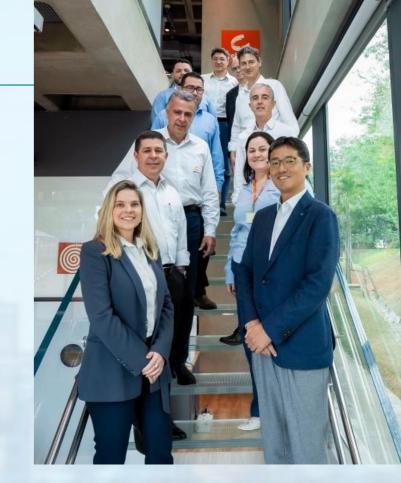
# **Digital Transformation**

To survive intense competition, we must make our organization and costs lean, including indirect departments. We are currently advancing a group-wide project to rebuild our operating model. We position Digital Transformation as a key strategy for this purpose. Despite budget constraints, we deployed a pilot for ERP system integration in some regions during FY2025/3. Additionally, under the newly appointed CDIO (Chief Digital & Information Officer) last fiscal year, we are building a new governance framework for digital investments that involves active participation from the digital team and provides visibility into group-wide digital investments. We also conducted an assessment of the current state of shared services, confirming opportunities for efficiency improvements and cost reductions compared to best practices. We will clarify specific actions within the new operating model review.

### **Diverse Talent**

We position Diverse Talent as a strategic pillar for enhancing corporate value. New initiatives and challenges are essential for Business Development, Decarbonization, and Digital Transformation in the 4 "D"s. This requires new ideas based on diverse experiences and knowledges, whose source are Diverse Talent. The KPI for Human Capital in Materiality, the ratio of female managers, improved by 1.2 percentage points from FY2024/3, rising to 18.0%. We aim for a 24% of female managers by FY2027/3, and its progress is evaluated by the Global DEI Steering Committee, which also facilitates the sharing of best practices across countries. A positive aspect is that as we advance business development, colleagues with diverse career paths and backgrounds are joining us through mid-career recruitment.

Regarding "HR Digital," one of our key initiatives, we plan to advance it in line with the ERP deployment of our Digital



Transformation. We are rebuilding our operating model to achieve overall optimization rather than individual one, and have completed the current state analysis and system requirements.

The 4 "D"s represent the strategic pillars we established in our medium-term plan. We will never waver from this. Even in the last fiscal year with challenging performance, we believe it was correct to make decisions, and advance initiatives including capital investments, with a medium-to-long-term perspective, mainly focusing on Business Development. Naturally, it was also a year where we rigorously implemented cost reduction measures with clear priorities.

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# The 4 "F"s (Flat, Frank, Fast, Fun)

As part of Diverse Talent, we aim to embed the 4 "F"s as our communication culture within the organization. While they have permeated among senior management, we recognize that thorough implementation at the operational level remains challenging. Unfortunately, harassment reports persist. Smoother communication could further reduce workplace accidents. At town hall meetings held at our global offices, we sometimes hear comments like, "CEO seems to embody 4 'F's, but they aren't seen in my surroundings yet." On the other hand, I feel that the very fact that such voices can be raised in front of large groups is an indication that the 4 "F"s are becoming more established as part of our communication culture compared to before. Infusing these values into all approximately 26,000 employees will not happen overnight. We will persistently work on this, and I ensure every CEO message shared internally mentions the 4 "F"s.





Townhall session in Tokyo Japan



Townhall session in Gelsenkirchen Germany



Townhall session in Brazil Cebrace

# **Promoting the Medium-Term Plan**

# What vision does the Medium-Term Plan "2030" Vision: Shift the Phase" aim to achieve?

The vision stated in the medium-term plan "To shift our company's phase and become vital in advancing a sustainable society" remains unchanged. To achieve this, we believe the company itself must first be sustainable. Although we are behind schedule on our financial targets, we aim to constantly generate operating profit exceeding JPY 60.0 bn and create free cash flow of JPY 20.0 to 30.0 bn, achieving a robust financial position by FY2030/3. To accomplish this, we must fully execute investments in Business Development which is necessary to win in competition and in Digital Transformation including review of internal processes and organizations. We aim to strengthen the entire group by making not only business units but also indirect departments leaner and more high-value-added.

# How will we promote going forward?

As a global manufacturer of glass products using heavy, largescale equipment, it is realistically difficult for us to be completely unaffected by the economy of any given region. The problem is that when affected, the impact can be significantly negative. We need to minimize the impact of economic downturns, and some businesses and regions already have systems in place to do so. For example, in our Automotive glass business in Japan, we achieved high ROS while challenging sales volumes, through high production efficiency and passing on rising energy and material costs through to sales prices. Similarly, ROS is improving in USA. In Europe, while Original Equipment (OE) business faced difficulties, After Glass Replacement (AGR) business was less affected by the economy. This resulted from proactive measures implemented earlier, including supply chain improvements for both OE and AGR businesses.

In the Architectural glass business, as mentioned regarding progress under "Business Development", one of the 4 "D"s in the

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medium-term plan, we are shifting toward solar energy glass in North America and Southeast Asia by leveraging our advanced online coating technology. In Japan and Poland, we have decided to introduce sputtering coating equipment. Combined with increased production of high-value-added insulating glass, this advances the creation of a structure less susceptible to market environment impacts. In Europe, where we were significantly impacted by the economic downturn last year, we are also promoting measures to enhance product value, albeit with modest investment, in addition to halting and consolidating furnaces in Germany and the UK.

Companies that continue to grow consistently balance short-term and medium-to-long-term investments at all times. For NSG Group, while we have become more capable of making investments anticipating medium-term demand compared to the past, the reality is that many investments remain short-term focused, and our risk tolerance is low due to financial constraints. Over the medium-term plan period, our goal is to break free from this situation, take calculated risks, and seize significant business opportunities with a medium-to-long-term perspective. This is the essence of our "Shift the Phase".

# **Communication with Stakeholders**

Since the appointment as the new CEO, I have been aware of the expectations from our stakeholders regarding the new mediumterm plan under the new CEO. However, during FY2025/3, the first fiscal year of this plan, we repeatedly revised our earnings forecasts downward with each results disclosure and were unable to meet those expectations. We sincerely apologize once again to our stakeholders. Given that our stock price continued to decline during the period, it is understandable that some may wonder if nothing has changed.

On the other hand, despite the very disappointing results for FY2025/3, our stock price has been trending upward since the results disclosure. Furthermore, in meetings with analysts and institutional investors, we are receiving expectations for a recovery in performance. We understand this as an expression of confidence that the measures we have implemented to date, including restructuring in Europe, will lead to a recovery in performance.

Internally, we are steadily transforming for the future, including investments in high value-added initiatives. While some of these efforts may not yet be visible externally, we will continue to deliver tangible results that demonstrate these achievements.

# For FY2026/3

While our stock price has been trending upward recently, it remains undeniably low. We recognize this reflects a lack of confidence in our future earnings recovery form the market. We view FY2026/3 as the year to demonstrate to our stakeholders that achieving the financial targets outlined in our medium-term plan, or results close to them, is indeed possible. Furthermore, we aim to build their confidence that NSG Group can shift into a distinctly different phase beyond this. To achieve this, meeting the performance forecast for FY2026/3 is non-negotiable. This point has been repeatedly emphasized internally, and the management team shares this understanding. We will work diligently as One Team, united across the whole group.



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# **Architectural glass business**

Leading supplier for architectural glazing and thin film solar panels





While we see weak demand in short-term, the perspective for the medium to long term demand is set to witness a surge in renovation activities aimed at boosting energy efficiency. This trend is expected to catalyze growth in the building glass market.

The demand for carbon neutrality is on the rise, particularly in developed countries. Anticipation grows for South America to join this expansion by around FY2030/3. This underscores the importance of developing capabilities to offer decarbonization solutions and securing a leadership role in the market.



# **Business Direction**

We will aim to be a leading supplier of architectural glass that contributes to sustainability, with a focus on decarbonization. With leveraging our proprietary advanced coating technologies, we aim to become the development and supply partner for key components crucial for achieving the performance of customer products in renewable energy and similar sectors. Our key strategic measures are as follows.

Capability Enhancements for the Development of Sustainability Solutions

We will invest intensively in glass coating technology development and equipment. As a part of that, we accelerate business development with business partners and convert existing furnaces for architectural into solar applications in North America and Southeast Asia. At the same time, we also focus on a development that includes not only decarbonization but also wildlife protection.

Decarbonization of Our Products

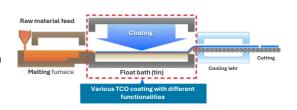
To achieve carbon neutrality by 2050, the Group puts emphasis on establishing glass manufacturing technology using low or no carbon fuels with investing equipment. We will also actively launch low-carbon products such as Pilkington Mirai™ which was launched in 2023. By applying advanced coating technology, we will develop new technologies contributing to expansion of renewable energy such as perovskite solar cell and dye-sensitized solar cell which has a long-term growth potential.

Continuous Reviews on Regional Strategies

We will withdraw and invest strategically in Europe while recessing resource allocation in Southeast Asia to pivot towards the solar energy glass. At the same time, we will expand into regions where creation of addedvalue is expected in the medium to long term.

# NSG Strength~ Online coating (CVD) technology

By coating glass, we can realize more effective thermal management than that of traditional glass while maintaining high visibility and transparency. Whether Low Emissivity coatings to reduce heat loss from buildings in cold climates or Solar



control coatings which reduce need for air conditioning – these films play a key role in enhancing comfort inside, as well as the overall energy efficiency of the building.

One of our unique technologies for coating glass surfaces is on-line CVD (chemical vapour deposition). This is a technology that incorporates on-line coating into the float glass manufacturing process and uses a chemical reaction that utilizes the thermal energy of the glass to deposit a strong film on the glass surface and the Group have total 10 floats (5 in the US, 1 in UK, 1 in Germany, 2 in Vietnam and 1 in Malaysia) with on-line CVD coater around the world. It is energy-saving and massproducible as it is produced during the glass manufacturing process, and the film is also highly durable and can be subjected to secondary processing. These technologies are used to produce a range of products such as glass with transparent conductive coatings (NSG TEC™), and highly reflective glass (MirroView). NSG TEC™ are supplied to thin-film solar cell manufacturers, contributing to the expansion of renewable energy.



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# **Business Development**

Products that contribute to the decarbonization of buildings



Institute of Science Tokyo (Science Tokyo, formerly Tokyo Institute of Technology) has been replacing existing windows with vacuum glass Pilkington Spacia™ across multiple campuses and facilities from 2021 to 2024. As a comprehensive national university of science and engineering with over 140 years of history, Science Tokyo conducts extensive experimental research and, as a non-production facility, has significant CO₂ emissions. As a result, it has set numerical targets and is actively pursuing energy-saving measures. Generally, a significant portion of heat enters and exits buildings through openings such as windows. As part of a planned insulation renovation project for the facilities, it opted to replace existing window glass with vacuum glass

Pilkington Spacia™, resulting in the installation of over 1,400 square meters of our glass. The adoption of vacuum glass Pilkington Spacia™ was based on its superior insulation performance, approximately four times that of single pane glass, as well as the fact that it allows for replacement of the glass alone with the original window frames remaining. This made it a more advantageous option compared to other opening renovation methods in terms of both performance and initial investment costs.

# Architectural Glass business NBP Tokyo branch, Glass Building Materials Sales Group, Non-Residential Project Promotion Division Tadayuki Kurosawa

Achieving carbon neutrality requires energy efficiency improvements in existing buildings. In recent years, not only large-scale renovation projects but also insulation renovation projects to aim at achieving energy efficiency have become increasingly common. Pilkington Spacia<sup>™</sup> is highly regarded for both its insulation performance and ease of installation, making it popular for renovation projects in residential buildings and

also in a wide range of commercial and public facilities. Therefore, the Group is actively promoting the use of the products by leveraging our existing distribution network, as well as collaborating with developers, universities, hospitals, nursing care facilities, apartment management associations, architectural firms, and other stakeholders in a wide range of facilities and buildings. We are utilizing hand-carry demonstration units to allow stakeholders to experience the performance of the product firsthand, thereby actively advancing its adoption.

# **Business Development**

A development focus that includes not only decarbonization but also biodiversity conservation



With the inauguration of the new Porsche Centre in Friedrichshafen, a visionary flagship project has taken shape on the shores of Lake Constance—setting a new benchmark for the premium automotive retail sector. Added value is delivered by our high-performance bird protection glazing Pilkington AviSafe™, used here in combination with Pilkington Suncool™ 70/40 solar control glass. This marks the first time these two innovative products have been deployed on such a large scale within a Porsche retail environment.

Developed specifically to minimize bird collisions on transparent building façades, Pilkington **AviSafe™** can be discreetly and elegantly integrated into the architectural design—meeting the most demanding

requirements for design, functionality, and sustainability.

Executed in close coordination with a certified client, this project underscores the strength of our partner network and the NSG Group's capability to bring technically sophisticated, future-oriented solutions to market—working hand in hand with leading industry stakeholders.



Architectural Glass business, Senior Technologist

# Dr. Christian Eibl

The new Porsche Centre Friedrichshafen is idyllically located on the shores of Lake Constance – surrounded by nature, mature trees, and vibrant wildlife. In such a sensitive environment, Porsche was particularly committed to translating sustainability into architectural practice. The use of our Pilkington AviSafe™ demonstrates how responsible building and modern design can go hand in hand.

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# **Automotive glass business**

Key supplier globally in new vehicle (OE) and automotive aftermarket (AGR)

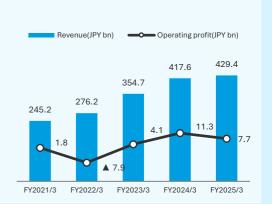




# Market Condition

The new vehicle market is showing signs of recovery, yet vehicle production in our key markets is not anticipated to reach levels seen before the Covid 19 pandemic. On the other hand, the added value per vehicle is increasing with the penetration of ADAS\*1/EVs into the markets with the spread of CASE\*2. As glass bending and laminate technology requirements grow more complex and demand increase for advanced coatings to comply with ADAS/EV standards, elevating development and technological standards and boosting manufacturing capabilities become crucial for enhancing profitability and competitiveness.

In the aftermarket, the growing number of new, ADAS equipped vehicles increases the demand for sophisticated ADAS compatible windshields, which in turn poses challenges to us in terms of timely supply. It is becoming crucial not only to develop and manufacture these advanced products but also to ensure quality service through an ecosystem incorporating skilled fitters for repair and replacement.



\*1 CASE: Connected, Autonomous, Shared, Electric \*2 ADAS: Advanced Driver Assistance System

# **Business Direction**

We will accelerate manufacturing technologies to enable our global customers to shift to safer, connected, greener vehicles while shifting to a sustainably profitable business as a key strategic global supplier. Key strategic measures are as follows.

Capability Enhancements to Cater to ADAS and EV

We will develop advanced glass bending technology and manufacturing technologies for the diversifying applications of laminated glass, among others.

Strengthening the Aftermarket Business

The Group will improve inventory management to supply market timely and enhance efficiency by integrated management of new vehicles and aftermarket businesses.

Thorough Improvement of Profitability

We plan to review the pricing strategy continuously, optimize the footprint further, and improve operations.

# NSG Strength

Since 1995, the Group began installing APBL\*3 equipment and were among the first to establish a global production system. Laminated glazing is used for windshields to prevent from shattering for the safety of the drivers and passengers. There is a growing need for high-precision windshields for ADAS and HUD\*4, and APBL manufactures them for ADAS function and accurate HUD image projection.

# Installation of APBL



# Windshields with ADAS and HUD

High-precision windshields processing technology is required to ensure that ADAS functions accurately, preventing accidents and projecting speed and navigation.







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# **Business Development**

Products that contribute to the advancement of automobiles



Advanced displays are a key technology growth area with NSG's global automotive customers. The European OE team were first to market with Augmented Reality Heads Up Display (AR-HUD) technology with the Mercedes S-Class and Volkswagen ID3. The projection technology behind AR-HUD continues to develop at a rapid pace, led by a new cohort of disruptor start-up companies. The windscreen is the projection surface for these next generation projection systems to display a wide variety of information to the occupants of the vehicle, from critical safety information to the driver to entertainment content to the passenger. For this reason, it is crucial that we at NSG work closely with

the developers of this new technology to understand the technical details of their system architecture and ensure compatibility with our other technology offerings and manufacturing processes. For this reason, NSG is actively fostering collaborative relationships with multiple next generation AR-HUD projection systems suppliers with a view to ensuring compatibility with the right technologies to enable alignment with customer requirements on high tech future business.



Automotive Glass business, Global Product Manager (Windscreen & Sustainability)

# **Phil Baxter**

The Audi Q6 e-tron is one of the latest premium vehicles to launch with an NSG windscreen utilizing Audi's second-generation AR-HUD technology. Through careful design, compatibility has been ensured with a cutting edge ADAS camera system. (see photo above.) The AR-HUD Technology projects an image with a focal plane upwards of 10m in front of the vehicle, to highlight navigation information and hazards in the road.

Another related and compatible upcoming display technology are the in-plane holography concepts of which there are multiple competing systems emerging. The NSG team are collaborating tightly with key technology partners in this area whilst also keeping a close watch on the rapidly developing and technologically ambitions Chinese OEMs for indications of future global trends.

# **Business Development**

Products that contribute to the advancement of automobiles



Variable transmission glass

- New laminated roof lights for EVs

"Trusted advisor" supplier status is essential to our activity as tier-1 supplier. Whether that be with new products, collaborations on alternative technologies or major new model awards.

We are already cooperating with our customers to provide them highly efficient solar sunroofs with variable transmission for models to be launched next year! Those opportunities and projects match with the expansion of NSG's global capabilities. NSG can propose rooflights embedding low-emissivity coatings that reduces the cabin temperature to our customers in US, Japan and Europe.

As some developments are near completion, R&D activities will focus on the extension of our product

offerings in this area. Feedback from the NSG exhibition at the JAPAN MOBILITY SHOW 2023 confirmed what final end-users want. That's why more efficient energy-saving glazings and variable-transmission laminates with additional features are being developed with R&D, which is generating plenty of interest from our customers. We have great hopes that they will be adopted on their future model generations and NSG as "trusted advisor" will their partner.



Automotive Glass business, Global Product Manager

### **Xavier Arnaud**

The trends we have observed now some years have not changed: more light into the cabin (to enhance the feeling of space) and energy efficiency are the new requirements for automotive designers. Consequently, there is an increasing demand from all regions for panoramic rooflights with solar-protective solutions. A coating like our low-emissivity online coating now becomes a common feature on such piece of glass. NSG is embracing this challenge today to have a wider range of products, meeting the performance expectations of our customers, and to make sure we can offer them to any car manufacturer, wherever in the world.

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# Technical glass business (Creative technology)

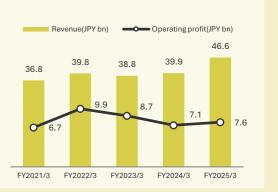
Create new value for markets through developing and supplying unique materials which support customers' enterprises



# Market Condition

We don't expect a sharp decline in these markets in the near future, but existing products face growing competition from alternative materials, and we don't anticipate significant growth. (e.g., printers and automotive engines)

In contrast, adjacent market areas are experiencing growth, with opportunities emerging from expanded applications. e.g., automated optical inspection systems are projected to grow at a CAGR of approximately 10%, and markets for factory automation and e-bikes are also expanding. In addition, materials for high-performance components supporting increase in data storage globally with the evolution of AI, downsizing, thinning and lightweighting of IT-related products, and high-speed communications are also expected to see strong growth.



# **Business Direction**

Technical Glass will establish a new revenue pillar by developing proprietary materials that play a pivotal role in advancing our customers' product offerings. Followings are key strategic measures.

Expansion of Business in Adjacent Markets

We will Develop new applications and uses for glass flake and fiber technology, along with advancing our SELFOC® optical materials technology and its new applications.

Commercialization of New Technologies

We will expand sites and staff in customer markets and regions to commercialize product pipelines steadily in the process of co-creation with customers.

Selection of Technological or Business Seeds

We continuously identifying needs and seeds both in technology and business, while assessing their commercial viability of seeds.

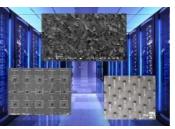
# **NSG Strength**

Glass properties including "transmit light", "light and strong", and "non-conductive" are leading to innovative designs by engineers. Some products maintain a high market share such as lenses for printers and reinforcement materials for automotive engine timing belts. NSG will continue to build its future with its clients as the pioneer of high-performance glass materials.



# **Environment Solution**

Amid growing interest in sustainability, we are tackling environmental challenges from multiple perspectives. Commercialization of "BASHFIBER®"\*, an eco-friendly, high-performance recycled fiber utilizing coal ash from power generation and other sources, is advanced through a collaboration with Electric Power Development Co., Ltd. (J-POWER) and Nippon Fiber Corporation. The Group is also focusing on glass material development toward the practical application of solid-state batteries. We aim to reduce environmental impact from multiple aspects—from the environmental performance of materials to their contributions in end-use applications.



### Digital Solution

As technological challenges becoming more complex with advances in generative AI and other fields, we leverage our advanced molten glass and sol-gel glass technologies to solve the challenges through low-dielectric glass flakes and microoptical elements. Furthermore, we actively propose solutions to enhance the performance and reliability of glass substrates using unique glass compositions and processing technologies. By supporting the high performance and miniaturization of next-generation semiconductor packages, we broadly contribute to shaping the foundation for an ever-evolving digital society.



### Optical Solution

Leveraging our long-cultivated expertise in glass, we offer diverse optical coating technologies including Super-Low Reflective coatings. We support customers in smartphones to realize their optical solutions. Furthermore, the Group is actively expanding into growth areas such as automotive cameras and VR/AR. We will proactively drive new value creation and market expansion by integrating our proprietary GRIN lenses and micro-optical elements.

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# **Business Development**

**HIENCYFLAKE™** 

Products that enable the development of high-performance components



In recent years, the advancement of next-generation communication technologies (e.g. 5G and the advancement of optical communication) has driven unprecedented transformation in the information and communication field. Looking ahead to the 2030s, there is a growing need for next-generation communication infrastructure "Beyond 5G" and highspeed signal processing technologies to achieve further high-speed, high-capacity, ultra-low latency, and ultra-high-density simultaneous connections. In line with this, semiconductor packaging is required to achieve further miniaturization along with advanced performance such as low dielectric loss, dimensional stability, and high mechanical strength.

NSG Group is developing "low dielectric glass flakes (HIENCYFLAKE™)" by leveraging its unique

composition design technology and flake-shaped glass flake manufacturing technology. Glass flakes are widely used as reinforcing materials for engineering plastics due to their ability to balance dimensional stability and mechanical strength. In this new product, we have optimized the glass composition to add the new property of low dielectric

Furthermore, compared to conventional products, it has been thinned and micronized, enabling its application in next-generation small semiconductor packages. Low-dielectric glass flakes (HIENCYFLAKE™) are expected to play an important role as semiconductor materials in the "Beyond 5G" era by enhancing its dimensional stability of insulating resins while reducing dielectric loss.



Creative Technology Glass Business **Business Development Division** 

# Masahiro Okano

HIENCYFLAKE™ developed by the Group attracted significant attention from many customers both domestic and international at the NEPCON JAPAN held in January 2025. The product has garnered high interest not only from the semiconductor industry but also from companies in other fields, with its unique shape and properties differing from conventional spherical fillers being highly evaluated. While this new material is

anticipated as an innovative material to meet the needs of the "Beyond 5G" era, there is still room for technical improvements. We regard customer feedback as valuable learning opportunities, address them sincerely, and incorporate them into our development efforts. The challenge of entering the semiconductor field is a big step forward for NSG Group. We will continue to provide solutions to our customers' challenges and strive to realize materials that truly contribute to the future society.

# **Business Development**

Products contributing to environmental conservation such as reduction of microplastics





# Glass flakes for cosmetic materials

These days, the cosmetic industry has been subject to various regulations, and there is a growing trend to avoid the use of raw materials that may have adverse effects on human health or the environment. For example, microplastic beads are used in cosmetics to improve texture, but there are concerns that these beads may leak into rivers and oceans, potentially disrupting ecosystems. As a result, their use have possibility to be banned by law in the future. Additionally, talc, which is used as a base material in base makeup products, has raised concerns about its potential carcinogenicity, leading to a surge in demand for alternative raw materials. As the option of raw materials available for use in cosmetics decreases, there is a growing trend toward inorganic materials and a heightened focus on safety, with

stricter standards being applied to raw materials.

NSG Group offers two product lines utilizing its proprietary glass technology: METASHINE®, inorganic glittering pigment provide high quality luster, and MAR'VINA®, a glass powder for base makeup. It has high natural origin, and the glass used in our cosmetic products is boron-free, low in heavy metals, and environmentally and human-friendly, with a unique composition developed by the Group. Our products are gaining attention in the cosmetic industry as its environmentally and skin friendly features.



Creative Technology Glass Business Functional Products Department (Asia)

### Yoko Yamada

I joined NSG in 2020 and have been responsible for sales of glass flakes, METASHINE®, and MAR'VINA®-related products since December 2022. I primarily work with cosmetic manufacturers, and in the recent two years, I have conducted interviews regarding regulations in the cosmetic industry, gained an understanding of the current situation where the number of available raw materials is decreasing year by year, and continued to propose our products as solutions to these challenges. Going forward, I will keep a close eye on trends in the cosmetic industry and strive to provide proposals tailored to customer needs, ensuring that NSG Group's glass products serve as effective solutions.

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Consolidated Income Statement
million yen

me	

Revenue

Operating Profit before Exceptional Items	13,067	19,980	34,812	35,860	16,491
Profit before Taxation	-17,171	11,859	-21,933	17,597	-8,525
Profit Attributable to Owners of the Parent	-16,930	4,134	-33,761	10,633	-13,831
Operating Profit Ratio to Revenue	2.6%	3.3%	4.6%	4.3%	2.0%
Profit Attributable to Owners of the Parent Ratio to Revenue	-3.4%	0.7%	-4.4%	1.3%	-1.6%
ROE	-26.9%	2.8%	-34.8%	8.6%	-12.8%
ROA	1.8%	2.4%	4.2%	4.6%	1.9%

FY2022/3

600,568

FY2021/3

499,224

FY2024/3

832,537

FY2025/3

840,401

FY2023/3

763,521

By Business Segment

	Architectural	215,501	281,816	365,947	371,777	363,025
Revenue	Automotive	245,184	276,246	354,693	417,558	429,444
Revenue	Technical Glass	36,818	39,770	38,754	39,945	46,584
	Others	1,721	2,736	4,127	3,257	1,348
Arc	Architectural	15,670	28,130	33,557	29,087	13,574
Operating	Automotive	1,802	-7,908	4,052	11,343	7,667
Profit	Technical Glass	6,707	9,907	8,733	7,146	7,568
	Others	-11,112	-10,149	-11,530	-11,716	-12,318
D (1) D (1)	Architectural	7.3%	10.0%	9.2%	7.8%	3.7%
Profit Ratio to Revenue	Automotive	0.7%	-2.9%	1.1%	2.7%	1.8%
HOVOHOO	Technical Glass	18.2%	24.9%	22.5%	17.9%	16.2%

**Balance Sheet** 

**Cash Flows** 

Per Share

Total Assets	824,963	939,281	951,387	1,007,585	1,032,931
Interest-bearing Debt	471,710	467,885	495,120	506,460	524,830
Net Debt	411,771	365,173	407,923	447,497	454,259
Shareholders' Equity	62,937	145,291	97,040	124,275	108,065
Shareholders' Equity Ratio	7.6%	15.5%	10.2%	12.3%	10.5%

21,053 45,061 48,506 Cash Flows from Operating Activities 58,769 52,419 Cash Flows from Investing Activities -25,589 -22,787 -34,649 -43,512 -42,444 -4,536 22,274 13,857 15,257 Free Cash Flow 9,975 46,837 75,006 **EBITDA** 56,651 81,783 65,775 Net Debt/EBITDA 8.8 6.5 5.4 5.5 6.9 -43,347 -28,629 -40,917 -58,175 -62,758 Capital Expenditure 35,768 36,675 40,212 45,922 Depreciation & Amortization 49,438

-208.3 -393.1 Earnings per Share 24.1 95.4 -173.2 349.6 1256.0 723.8 Book Value per Share 1021.3 843.0 -49.9 244.8 152.0 167.6 Cash Flow per Share 109.5

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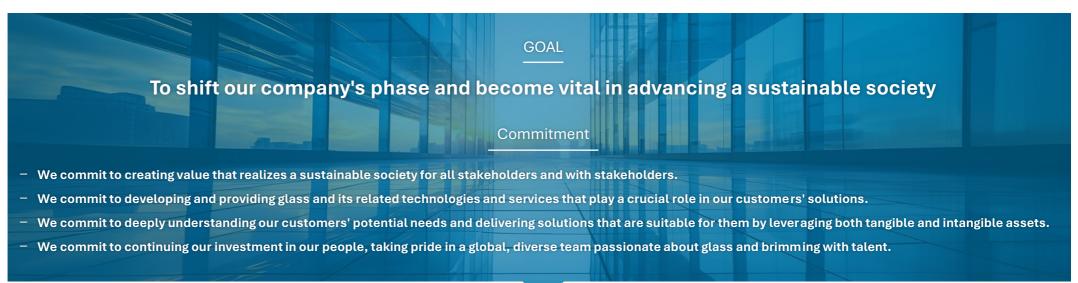
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# 2030 Vision: Shift the Phase

Focusing on our strengths, glass and related technologies, we aim to expand profits in high-value areas that contribute to the sustainable development of society.





# **Update of "2030 Vision: Shift the Phase"**

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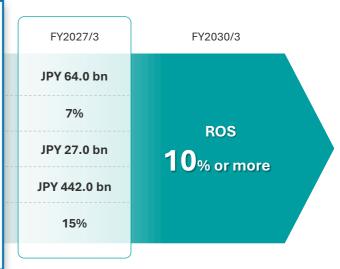
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# **Update of Financial Targets**

Significantly affected by economic slowdown in Europe and operating profit was JPY 16.5 bn and ROS 2.0%. However, profitability is on track except for European Architectural and Automotive glass businesses. Continue to improve profitability and cash generation to stabilize financial status

	FY2024/3
Operating Profit	JPY 35.9 bn
ROS	4.3%
Free cash flow	JPY 15.3 bn
Interest-Bearing Debt	JPY 506.5 bn
Shareholders' equity ratio	12.3%

FY2025/3 Full-year
JPY 16.5 bn
 2.0%
<b>JPY 10.0</b> bn
 <b>JPY 528.4</b> bn
10.5%



# Update of 4 "D"s

Commitments to MTP and its 4 "D"s being unchanged despite the market downturn. Strategy being promoted with flexibly securing resources



# **Business Development**

- Started solar energy glass production at Rossford, Ohio which is converted from existing float line
- Development of less commoditized products (downstream) in European Architectural in progress
- Established the steering committee across the Group to cultivate future perovskite market

# Decarbonization

 Contribution to GHG emission reduction and financial improvement through expansion of solar energy glass production

# Digital Transformation

 ERP system harmonization pilot delivered in a region

# Diverse Talent

- The female manager ratio improved to 18.0% in FY2025/3 from 16.8% in FY2024/3
- HR system business case, readiness and system requirements prepared

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# **CFO Message**

As One Team, we will support the improvement of our Group's profitability and financial health across the entire organization, striving to achieve the financial targets of our Medium-Term Plan and enhance corporate value.

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# Since appointment as CFO

After joining the company in 2014, I spent eight years in the Treasury Department and two and a half years in the Finance Department before appointment as CFO. Particularly in treasury, I was involved in global fundraising and the associated performance planning, so I acknowledge myself having a broad perspective and understanding of our global business and operations as a whole. However, since appointment as CFO, I have truly come to appreciate the breadth and depth of our business. Operating globally across so many diverse businesses and regions, with so many people working together, is not so simple. I have come to appreciate the high capabilities and qualities of our employees. Being able to work in such an environment is both rewarding and deeply humbling.

I recognize that our "broad scope" is one of our group's strengths. This "breadth" exists in our businesses, regions, and people. As a world-leading major glass manufacturer, we operate in glass and related businesses. With bases in Asia including Japan, Europe, and the Americas, we are a group with significant regional breadth. We also have products and technologies unique to us, and I feel our technological and development capabilities are exceptionally high.

Under the Medium-Term Plan "2030 Vision: Shift the Phase," in our Business Development which is one of the 4 "D"s, we plan to expand in business areas where we hold strengths. This includes coating technologies for perovskite solar panels within our Architectural glass business, and technologies for high-precision shaping, anti-fogging coating, and weight reduction in Automotive glass. Within the Technical glass business, development and commercialization of low-dielectric glass materials which is gaining attention in the semiconductor sector area and the development of high-elasticity, high-strength glass fibers are progressing. I was recently explained from the business that within the glass flake business, products used as cosmetic glitter materials, relying solely on the cosmetic glitter market was easily affected by its narrow scope and trends, so by participating in industry exhibitions, they are expanding into base materials used in larger markets like foundation. Furthermore, in this field,

women are actively serving as leaders in roles suited to their talents, which I found very encouraging.

The expansion of technology extends beyond solar energy glass to initiatives such as low-carbon glass manufacturing for environment (Decarbonization) and regional expansion also strengthens our diversity (Diverse Talent) initiatives. We will continue leveraging diverse talent globally to build strong human capital and organizations.

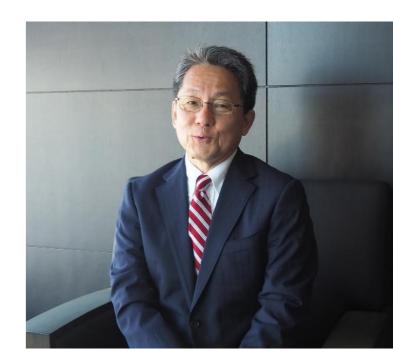
On the other hand, there are areas we have been working on but still feel require significant change which could be called legacies from the past. While it is true that there are various constraints such as organizational structures, systems, ways of working, reports, and the underlying systems supporting these, we strongly recognize that these must be changed for the better from the current situation.

We must integrate disparate ERP systems across business units and regions while digitizing related operations under Digital Transformation. This necessitates standardizing and streamlining business processes as a prerequisite. While this review may be painful, we must drive reform without being constrained by past practices or mindsets. The finance team has been tackling this as the Future Finance Project, and going forward, we will further advance these efforts as part of a group-wide operating model reform.

We recognize that our largest challenge is improving our financial health. To achieve this, we must first enhance the profitability of our businesses to improve performance, generate cash flow to reduce debt, and strengthen our shareholders' equity. As mentioned earlier, I believe our group has strengths in the breadth of our businesses, technologies, regions, and people. As CFO, I intend to support our businesses and human capital through the finance team and drive initiatives to realize improved performance and financial status.

While I have assumed the role of CFO, what I can accomplish alone is limited. Naturally, I will personally tackle various initiatives, but I also intend to actively collaborate with the entire

finance organization, business units, and other functions to address challenges. Each member has areas of deep experience and knowledge such as finance, management accounting, statutory accounting, internal controls, systems, and even organizational structure, as well as areas where we may be less familiar, beyond our assigned duties and regions. I want us to address challenges by leveraging each other's roles, experience, and knowledge. To that end, as we have been implementing this already, we will further enhance communication and strengthen collaboration across the entire global finance team, as outlined in 4 "F"s of the medium-term plan. We will work enthusiastically as "One Team."



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# Review of FY2025/3 from CFO perspective

FY2025/3 was an extremely challenging year. At the start of the period, while anticipating a continued slowdown in the European economy for the time being, we forecasted a slight increase in operating profit to JPY 37.0 bn from the previous year's actual result of JPY 35.9 bn. This was based on expectations of continued cost reductions, expansion of value-added products, and improved performance in other businesses including solar energy glass, and regions. However, as it started, performance declined significantly from the outset in the first quarter due to the substantial impact of the European economic slowdown, leading us to revise our forecast downward. Furthermore, the decline in performance continued unabated, forcing us to revise our forecast downward three times in total with the second and third quarters. Although the fourth quarter saw a slight recovery, full-year operating profit remained at JPY 16.5 bn, resulting in a net loss (loss attributable to owners of the parent company). It was a deeply regrettable outcome.

This was primarily due to unprecedented challenges, particularly in our Architectural glass business which is heavily influenced by the European economy. Compared to the European crises of 2012 and 2013, we felt the speed and magnitude of the economic slowdown this time were greater. The situation was particularly difficult due to the significant downturn in the German economy where we mainly operate our business. Amidst this, we were forced to make extremely difficult decisions. These included deciding to cease the production of one additional float furnace in Germany, on top of the early closure of one furnace decided the previous year, and implementing restructuring in the Automotive glass business, including the suspension of some production lines. We are sometimes asked if we could have acted sooner. However, these were decisions that placed a burden on some employees, requiring careful judgment. While considering the impact on various stakeholders, I believe our teams at the sites made decisive judgments to secure and improve profitability in response to the changing environment.

The measures implemented and initiated FY2025/3 are progressing as planned, which will steadily contribute to improved performance in FY2026/3 with their effects such as cost reductions.

Conversely, some businesses and regions have maintained solid performance even within these challenging conditions. For example, while the Automotive glass business faced extremely difficult circumstances with sharply rising costs for energy, raw materials and labor, the Japanese Automotive glass business achieved high profitability by pursuing manufacturing efficiency and cost reductions while also successfully passing on appropriate sales price increases. Within the Architectural glass business, the solar energy glass business continues to expand its performance by investing in equipment conversion to meet demand. The Technical glass business maintains stable, high profitability. These businesses are delivering results in line with the medium-term plan.

# First Year of the Medium-Term Plan "2030 Vision: Shift the Phase"

# Progress of Financial Targets

	FY2027/3 target	FY2025/3 Full-year
Operating Profit	JPY 64.0 bn	JPY 16.5 bn
ROS	7%	2.0%
Free cash flow	JPY 27.0 bn	JPY 10.0 bn
Interest-Bearing Debt	JPY 442.0 bn	JPY 528.4 bn
Shareholders' equity ratio	15%	10.5%

# **Operating Profit**

Operating profit for the first year, FY2025/3, was JPY 16.5 bn. This result shows a significant gap compared to the financial target of JPY 64.0 bn for FY2027/3 set in the medium-term plan. However, looking at each business, while the European Architectural glass business and the Automotive glass business fell short of the plan, other businesses achieved figures in line with or close to it. Unfortunately, it is a fact that overall, we are significantly behind plan. Going forward, we will diligently advance the profit improvement measures already initiated in businesses facing challenges and further expand businesses that are steadily generating profits to move closer to the targets.

# Operating Profit Margin (ROS)

While both operating profit and ROS showed improvement in the fourth quarter, ROS remained at a low level of 2.0%. We will work to improve both operating profit and ROS.

Furthermore, to improve ROS, we continue to prioritize financial discipline. The budget for FY2026/3 also includes strict cost management measures, such as travel restrictions and reducing unnecessary expenses. Even though the situation has improved slightly, we will not relax these measures immediately but will continue to proceed diligently. We will continue to work efficiently with utilizing various tools. Although ROS for the first quarter of FY2026/3 improved compared to the same period in FY2025/3, it remains significantly behind the 7% target set for FY2027/3 in our medium-term plan. We will continue to prioritize financial discipline and closely monitor costs, including those in indirect departments.

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# Free Cash Flow

Free cash flow was positive at JPY 10.0 bn, but decreased year-onyear reflecting the decline in operating profit. Free cash flow is a critical metric directly impacting the reduction of interest-bearing debt, one of our group's major challenges and a financial target in the medium-term plan. Improving it requires not only enhancing operating profit but also controlling working capital and capital expenditures. Regarding working capital, from FY2025/3, we have visualized indicators based on days of cash conversion cycle at the business unit level, breaking them down by inventory. accounts receivable, and accounts payable. We set targets and have been working to improve these metrics. We were also able to improve working capital through persistent efforts to modify payment terms for accounts payable and collection terms for accounts receivable, mitigating the impact of the decrease in operating profit on free cash flow. We will continue these improvement efforts going forward. Capital expenditures have remained at a high level in recent years. However, it will return to normal thereafter since large-scale investments related to solar energy glass were concluded in FY2025/3.

# **Interest-Bearing Debt**

The balance at the end of FY2025/3 was JPY 524.8 bn, an increase of JPY 18.4 bn from JPY 506.5 bn at the end of the previous fiscal year. This increase was partly due to a rise in short-term borrowings corresponding to cash. We must continue reducing interest-bearing debt even on a gross basis since it not only lowers financial expenses but also contributes to expanding net profit and improving shareholders' equity. We plan to continue reducing interest-bearing debt primarily by expanding free cash flow through improved operating profit, but as mentioned earlier. appropriately controlling capital expenditures is also crucial. Capital expenditures include investments essential for business continuity, such as maintenance including periodic furnace repairs, as well as investments necessary for future growth. As CFO. I intend to prioritize investments based on factors like urgency and growth potential. We will control investments with discipline to advance the reduction of interest-bearing debt.

### Shareholders' Equity Ratio

Due to the net loss recorded, the shareholders' equity ratio at the end of FY2025/3 decreased to 10.5% by 1.9 percentage points from the previous year-end. We will ensure a return to profitability in FY2026/3. Furthermore, we will achieve significant improvement and steadily accumulate profits to enhance the shareholders' equity ratio from FY2027/3.

# **Financial Policy**

The 4 "D"s will boost earnings in core operations.



Cash inflow will rise.

Cash generation is the key to creating a virtuous cycle.



Our financial policy is to enhance the profitability of our operations and restore a virtuous cycle, as outlined below. that does not rely on borrowings.



The balance sheet will be improved, and investment in growth will be increased.



The rise in cash inflow will be utilized to lower interestbearing debt and reduce nterest expenses.

# Resource Allocation

During the first half of the medium-term plan (FY2025/3 to FY2027/3), as resource allocation which aim to normalize cash flow, we plan to generate JPY 330.0 bn in cash inflows through EBITDA plus asset sales to cover JPY 200.0 bn in capital expenditures and JPY 130.0 bn in financial expenses and repaying borrowings, and Class A share dividends. To achieve this, it is crucial to strengthen operating profit first as earnings power for the fundamental source of EBITDA. Simultaneously, maximizing cash inflows through working capital improvements is essential to cover capital expenditures. While financing capital expenditures through borrowings is an option, we must reduce interest-bearing debt as stated in the financial targets of the medium-term plan. Capital expenditures are essential for our sustainable growth, so when EBITDA improves, we naturally want to allocate funds toward them. However, we must also reduce interest-bearing debt, so we will proceed by balancing these priorities. While we plan to

allocate JPY 100.0 bn of the JPY 200.0 bn capital expenditure toward strategic investments, we will prioritize these based on their time sensitivity and potential contribution to earnings.

### **Resource Allocation for Normalizing Capital Flow**

Cash Inflow

In the first half of this medium-term period, NSG Group will prioritize normalizing cash flow. directing our resource allocation towards strengthening the business and repaying borrowings.

Cash Allocation for the First Half of this MT (FY25-27) Strategic Capital Expenditures Investments 200 billion yen 100 billion yen EBITDA + Asset Sales 330 billion yen Financial Expenses, Debt

Repayment, Class A

Share Dividends, etc.

130 billion yen

Cash Outflow

Breakdown of Capital Expenditures

Development of value-added technologies and products

Investments for advancing the 4"D" strategy

- Improvement of production efficiency
- · Investment in decarbonization measures
- · DX. etc.

# Investments for business continuity

- · Periodic repairs of furnaces (Implementing investments postponed in response to COVID-19)
- · Equipment maintenance
- · R&D maintenance

The redemption of Class A shares and shareholder returns will be determined based on the sustainability of the financial conditions in the latter half of this medium-term period

Periodic Repairs etc.

100 billion ven

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# **Communication with Stakeholders**

Through dialogues with analysts and institutional investors, we found that many of them have deep understanding of our business and hold very high expectations for us. We received positive evaluations of our industry positioning and initiatives. For example, it was surprising to learn that we are expected to be positioned as an industry leader, particularly regarding actions like the pioneering production cessations of float furnace in Europe in FY2025/3. We have also received appreciations for our efforts in solar energy glass.

The Board of Directors has expressed a certain level of appreciation for our technology and initiatives. They have also commented that our response to the losses could have been implemented sooner and that more effective measures might have been possible. While these were difficult decisions, we take this feedback seriously.

It may sound harsh, but even when doing everything we can with making the best possible judgment, external stakeholders only see the results. We must fully consider that it may appear as if better methods existed. Rather than concluding "this was our absolute limit," we must constantly ask ourselves, "Could we have done better, or faster?" While I believe I've always held this mindset as a finance and accounting professional, as CFO, I recognize the need to constantly keep in mind how external stakeholders perceive us and whether more could have been done.

# **Looking Ahead to FY2026**

While FY2025/3 was a challenging year, FY2026/3, the second year of our Medium-Term Plan "2030 Vision: Shift the Phase", is positioned as a period to recover from the first year's running behind to the starting line. During the year, we will prepare for sowing seeds and stepping up from FY2027/3.

We recognize that the economic situation in Europe will remain challenging in FY2026/3. On the other hand, the shutdown of float furnaces implemented by the previous year has led to visible improvements in supply and demand, causing European architectural glass prices to begin rising. Furthermore, in the Automotive glass business, cost reductions are progressing as the effects of restructuring, and new orders are starting production, indicating expected recovery in demand. In the North American Automotive business, which experienced some production issues, we are working to improve manufacturing processes and aim for early stabilization. Through these efforts, we will fundamentally improve the businesses that were challenges last fiscal year.

Although various impacts are a concern due to US tariff policies, the glass business is fundamentally a local production for local consumption business, so the direct impact on our group itself is limited. While our Automotive glass and solar energy glass businesses face production impacts since the products of our customers are exported to USA, we will respond by maintaining close communication with them. At our US manufacturing sites, we will address increased costs of imported raw materials by passing on the cost increases. Conversely, increased demand there and the price advantage gained from tariffs on after glass replacement business provide benefits, mitigating the overall impact.

Our Technical glass business and operations in other regions will continue to maintain solid performance and pursue expansion. We will also explore improvement measures such as selling idle land and securing various energy-related subsidies, while implementing disciplined and rigorous cost management to reduce indirect expenses. Through these efforts, we will achieve our forecast for FY2026/3.

The targets for FY2026/3 are an operating profit of JPY 31.0 bn

and, as an internal target, free cash flow of JPY10.0 bn. I have to say that there is still a considerable distance to the financial targets set for FY2027/3 in the medium-term plan. Reducing interest-bearing debt and improving shareholders' equity are more challenging since they are also the accumulation of these operating profit and free cash flow. However, I believe we should not give up on the profit and cash flow targets, at the very least. Many businesses and regions are already achieving performance in line with the medium-term plan. I believe it is crucial to steadily improve the businesses and regions facing challenges to move closer to achieving our goals. This is also vital for regaining the trust of external stakeholders that we have lost. In this sense. while steadily achieving the targets for FY2026/3, it is vital that we thoroughly prepare now for what needs to be done to achieve growth toward FY2027/3 and beyond. We will all think about and work on this together.

Fundamentally, I believe the core lies in improving and expanding the businesses themselves, but as the finance organization, I want to build a structure that robustly supports this. Specifically, in addition to continuing our ongoing support for working capital management, particularly inventory, and indirect cost reduction, we aim to enhance our role as FP&A which support and lead the businesses to make autonomous, accurate decisions regarding performance planning, results management, and business strategy formulation with strengthening precise cost management through cost visibility, improving management data, and providing feedback. We will also explore cost efficiencies through operational streamlining, including automation via accounting process digital transformation and expanded use of shared services. This will require reforms to our organization, systems, and business processes. While achieving significant changes within a single fiscal year may be challenging, we are committed to establishing a clear roadmap and action plan for the future.

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# Regarding Share Price and Enhancing Corporate Value

# Share Price

Unfortunately, we feel our share price level is significantly undervalued relative to our underlying potential. We recognize this stems from the volatility in our business performance and our substantial interest-bearing debt coupled with a notably low shareholders' equity ratio.

To achieve the PBR of 1x requested by the Tokyo Stock Exchange, we must first improve our performance and financial structure. We will steadily pursue the financial targets outlined in our medium-term plan.

Once we secure a PBR of around 1x and stabilize earnings and our financial position, we will then consider resuming dividend payments. Regarding capital allocation, as mentioned earlier, our current situation necessitates prioritizing the repayment of interest-bearing debt. As stated in our dividend policy, resuming dividends will be possible once we achieve a certain level of financial balance. Therefore, our primary focus remains on improving our business performance.

# - Enhancing Corporate Value

Considering that market capitalization is often viewed as a measure of corporate value, and that analyst target prices for our shares are frequently calculated using the EV/EBITDA ratio based on enterprise value, improving EBITDA remains crucial. Since EV essentially represents the present value of cash flow, the level of EBITDA becomes critical and therefore, we must elevate our EBITDA level to demonstrate fundamental business value. Furthermore, it is vital not only to enhance current EV but also to increase future EV. Future EV derives its value from the company's growth potential, which is the extent and certainty of future profitability by businesses. From this perspective, our group has solid technology through Business Development. By communicating its existence and growth potential to society and the market, alongside establishing an efficient, lean organization through Digital Transformation and Diverse Talent, we can elevate EV as an expectation. Of course, we also want to effectively

communicate our ESG initiatives, particularly environmental ones by Decarbonization, which are highly advanced to impact corporate value positively.

Corporate value will increase as we work towards realizing our aspiration for 2030: "To shift our company's phase and become vital in advancing a sustainable society." If there is a gap between current EV and expected EV, corporate value will increase by working towards realizing how that gap will be closed and how we will close it. We must consciously recognize that we can become this kind of company, and it is crucial to communicate what the future will be despite the current situation.

Rather than focusing solely on boosting EV in the immediate term, we believe it's vital to raise future expectations from a medium-to-long-term perspective. By enhancing our corporate value as an EV, we hope investors will recognize the gap between this value and our current market capitalization based on stock price, leading more investors to want to hold our shares.

To achieve this, we must first steadily improve business profitability and achieve our forecast for FY2026/3. Within this framework, we must take steps to sow the seeds for growth and advance toward achieving the financial targets for FY2027/3 outlined in our Medium-Term Plan, "2030 Vision: Shift the Phase," and ultimately toward realizing the Vision. Even in challenging environments, we will continue to take on challenges, solve problems one by one, and pursue continuous improvement. As CFO, I myself will actively engage in tackling these challenges. Given the vast scope of our business, our high-level technology, and our capable, highly motivated employees across global regions, I firmly believe we can achieve this as One Team, united as one force.



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Creative Technology business (CT) is one of NSG Group's Strategic Business Unit (SBU), alongside Architectural Glass business (AG) and Automotive Glass business (Auto). Due to the historical background, the term "Technical Glass business" is used for disclosures. Revenue of CT is approximately 6% of the Group's total (FY2025/3 revenue for the business was JPY 46.6 bn, and the Group total was JPY 840.4 bn), whose scale is relatively small compared to other SBUs. However, its operating profit is stable while the business is affected by the external environment, including the regional economy. This is because CT supplies unique products and technologies to a wide range of industries such as printers, automobiles, data centers, and cosmetics. These products and technologies are supplied globally via various products that incorporate them. By providing numerous products to various markets, we disperse and level out the impact of economic fluctuations in specific industries or regions, supporting the overall stability of the whole business. The profit of the business is stable with an operating profit of JPY 7.6 bn in

FY2025/3 and consistent return on sales (ROS) above 16% in recent years, although the Group's results were impacted significantly by the European economic slowdown.

We recognize that CT is achieving stable operations by thoroughly focusing on "creating what our customers seek" and "applying our technology to meet what customers need". We also believe that by collaborating with customers from the early stages of their development and growing alongside the market and our customers over the long term, we are able to fully leverage our technological strengths. In the early stages of development, we are conscious that we should start with lab-based or small-scale production, watching the direction of technological deployment in the market, and we do not necessarily scale up production from the outset.

Furthermore, our manufacturing processes have unique characteristics, enabling us to achieve competitiveness in quality and cost. We believe that by actively promoting these technologies and products and securing customer adoption, we

have successfully captured the top share in niche markets.

CT comprises three businesses organized by product group. We believe its stable and progressive operations stem from developing and providing unique materials that contribute to the evolution of customer products, thereby creating new value for the markets. First, we would like to provide an overview of the three businesses.

# CT Revenue & OP \*\*including Kagami Crystal



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**Head of Information Device Division** 

# Information Device business (ID)

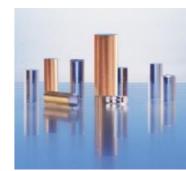
Main product of ID is SELFOC® which is a gradient-index lens line invented and developed by NSG Group. It is a simple shape with its cylindrical, flatend shape. This allows less production process with easy processing and miniaturization of devices with easy aligned and mount with other modules. In addition, it has high durability and heat resistance as glass material, and a major feature is its ability to form an image as a standalone lens.

It is utilized in a wide range of fields, including telecommunication device, facsimile machine in the past, and currently in line reading and writing applications for multifunction printer of home use and office use.

SELFOC® Lens Array (SLA) typically comprises one or two rows of SELFOC® lenses arranged in an array, which is used as a key component in printer and multifunction device markets. You may notice a line-shaped component that moves beneath the glass document table during scanning or copying in a multifunction device. This is SLA whose share is No.1 in the market of lens for multifunction printer with both super simple and compact structure and high image quality.







SELFOC® Micro Lens



# **Alistair Poole**

Creative Technology SBU

Head of Functional Products Division

# Functional Products business (FP)

FP designs, manufactures and sells products such as glass cord made of long glass fiber used for reinforcing rubber and polymers, glass flakes, which are scale-like glass particles, and MAGNAVI®, a material characterized by high modulus, high strength fiber, and is unique in its market by not using rare earth minerals to achieve such performance. We also utilize a wide range of non-glass products, such as carbon fiber and aramid fiber, making it appropriate to describe FP as a material science business.

Glass cord is mainly used as a reinforcing material for synchronous drive belts including engine timing belts, which enable flexible power transmission. Although metal chains are also used for engine camshaft drives, metal chains are heavy, noisy and less efficient. Therefore, our products that utilize high-performance long fibers such as glass fiber, carbon fiber, and aramid fiber allied with bespoke treatments and adhesives are used in a variety of rubber and plastic products. Our cords provide synchronous belts with strength, high modulus, durability, and dimensional stability. FP is the global leader for the supply of synchronous belt

reinforcing cords.

In terms of glass flakes, we have products such as GLASFLAKE®, which improves dimensional accuracy for precision-engineered plastic parts, and METASHINE®, an inorganic glittering pigment for automotive paint and cosmetics.

MAGNAVI® is a high modulus glass fiber designed to meet an eco-friendly concept. It is used as an ideal solution for reinforcement of composites to reduce weight and increase strength, such as for aircraft, automobiles, and other industrial materials.



Glass cord



MAGNAVI®



METASHINE®

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**Head of Fine Glass Division** 

# Fine Glass business (FG)

In FG, the main products are ultra-thin glass used for cover glass, touch panels, and liquid crystal displays for mobile devices such as laptops. We also produce raw glass for glass substrates of hard disk drives (HDDs), which are used in data centers and computers, whose demand is expanding with a rapid increase in data traffic.

Additionally, glanova®, a chemically strengthened glass with a low softening point that facilitates thermal forming, is used not only in laptops and smartphones but also in cover glass for automotive displays—a market expanding with digitalization—and in lightweight automotive windshields designed for weight reduction. In Japan, including other companies, our Maizuru plant, located in Kyoto prefecture, is the only float line that can produce general soda-lime flat glass with a thickness of 1.1mm or less.





UFF®

glanova®



Supply raw glass for HDD

# Backgrounds for the name of "Creative" Technology SBU

Creative Technology does not contain the word "glass", whereas Architectural glass business and Automotive glass business have it in their SBU names. It was formerly called Technical Glass business, which is the same as the current disclosure business segment, reflecting our products that use glass as a material.

We are eager to expand our business, and to achieve this, our mission is to create new value for the stakeholders through our unique products, technologies, and human capital. We are proud of our glass technologies cultivated over many years by all means, and while cherishing these

technologies, not excluding other possibilities at the same time, we have a desire to "create" new products and technologies comparable to "flat glass" since we are handling non-glass products such as coating liquid and carbon fiber. Given this background, we named the SBU "Creative Technology"



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# Future of the CT

# Targets under MTP and its progress

The Group aims to achieve ROS 7% in FY2027/3 as a whole group, and the ROS target of CT is 20% under MTP "2030 Vision: Shift the Phase". The operating profit target is JPY 64.0 bn as a Group, and growth of CT is required to achieve it. I am aiming to increase operating profit approximately two to three times the current level by 2030 by continuing to provide high-profitable products through responding to the development of technological basis and changing market needs.

Business environment in the printers and automotive engine timing belt markets which have supported the profitability in CT so far is drastically changing, affected by the ongoing paperless trend and expansion of EVs. We are exploring alternative uses and markets since the markets are recognized as having limited growth, while not anticipated to shrink suddenly. Therefore, to expand our business over the medium term, we will pursue continuous growth and achieve our business objectives by simultaneously reducing costs and maximizing production efficiency in existing operations, while also horizontally deploying existing products and technologies and creating new business ventures.

In CT, we have set three key strategic measures to establish a new profitable pillar under "Business Development", one of the 4 "D"s in MTP.

# 1. Expansion of Business in Adjacent Markets

Developing new applications and uses for glass flake and fiber technology, along with advancing our SELFOC® optical materials technology and its new applications.

# 2. Commercialization of New Technologies

Expanding sites and staffing in customer markets and regions, as well as steadily commercializing product pipelines in the process of co-creation with customers.

# 3. Selection of Technological or Business Seeds

Continuously identifying needs and seeds both in technology and business, while assessing their commercial viability of seeds.

We are now promoting "Decarbonization" as well with the expansion of products that contribute to a decarbonized society, setting the "Environment" as one of our focus areas. The Group has set a target of a 30% reduction in  $\rm CO_2$  emissions in Scope 1, 2, and 3 by 2030 compared to 2018, and CT is progressing on track. We own one float furnace at Maizuru, Japan, which uses significant fossil fuels during the manufacturing process and emits  $\rm CO_2$ . Discussions are deepened not only to reduce the energy consumption at the furnace, but also to reduce Scope 1.



# Initiatives to create new businesses

CT launched cross-functional initiatives in 2021 to develop new businesses beyond the boundaries of individual departments. We are actively and flexibly identifying and nurturing potential business "seeds." Our efforts are focused on three priority areas: "Environment," "Optical," and "Digital." These fields are expected to become future megatrends and contain numerous growth markets. CT is already contributing to these areas through its existing product portfolio and possesses strengths in leveraging both technological and market assets. As a result, we anticipate strong synergies in technological development and market expansion.

As concrete achievements, we have made progress in commercialization, such as the transfer of MAGNAVI® (related to the "Environment" area) to the FP Division and the transfer of super-low reflective coating solutions (related to the "Optical" area) to the ID Division in 2025. The "seeds" of challenges we have sown so far are steadily growing, and the commercialization of new technologies—one of the pillars of Business Development in our Medium-Term Plan—is progressing smoothly.

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# Environment

In this area, the Group is promoting business mainly in five environmentally conscious sectors: automotive, aircraft, battery, wind power generation, and environmental materials.

# **Expansion of Business in Adjacent Markets**

FP is expanding the applications of glass cord which is its core business, due to the anticipated decline in demand for engine timing belts in accordance with the shift to EVs. We focus on growing markets such as e-bikes, electric power steering, industrial robots, and factory automation. The business is also expanding the use of MAGNAVI® as a composite material for applications such as aircraft components, wind power generators, and hydrogen fuel tanks. Its superior strength, elastic modulus, and impact resistance enable the thinning and weight reduction of various components, contributing to resource and energy conservation and reducing CO<sub>2</sub> emissions. Low carbon content Eco METASHINE® is being offered for auto paints. METASHINE®, which is used in cosmetic applications, and MAR'VINA®, employed as a

body pigment, are gaining attention as alternative materials to microplastic beads. In recent years, microplastic bead pollution in oceans has become a significant concern, leading some countries and regions to ban the sale of cosmetics containing them. Amidst these strengthening regulations for banning or reducing their use, we anticipate expanding opportunities for these materials as viable alternatives.

# Commercialization of New Technologies / Selection of Technological or Business Seeds

For future growth in new businesses, we are advancing the development of materials for all-solid-state batteries, which are attracting attention as next-generation batteries. In June 2025, we also joined a Japanese government

project on all-solid-state batteries, participating in the development of glass-based solid electrolytes.

In addition, in 2024, we began joint studies with partner companies to commercialize BASHFIBER®, an environmentally friendly, high-performance recycled fiber made from coal ash, a byproduct of thermal power generation. With its strength and heat resistance, BASHFIBER® is expected to be used in construction, civil engineering, and industrial materials. By upcycling coal ash, it contributes to reducing CO<sub>2</sub> emissions, and since it is also recyclable, it is drawing attention as a material that can help realize a sustainable society.

Environment Solution		Main Products	Target Markets	Solutions
Expansion of Business	MAGNAVI®		Aircraft components, wind power generators, and hydrogen fuel tanks etc.	Resource & energy conservation, reducing CO <sub>2</sub> emissions etc.
in Adjacent Markets  MAR'VINA®		Cosmetics	Prevention of sea pollution (Alternative for microplastic beads)	
Commercialization of New Technologies / Selection of Technological or Business Seeds	BASHFIBER®		Architecture, Civil Engineering, and Industrial Materials Sector	Reduction of CO <sub>2</sub> emissions through utilizing upcycling raw materials

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# - Optical

In this area, products for multifunction printers are our existing core business. However, considering trends such as paperless, we are expanding into cameras, inspection equipment, and laser sensing.

# **Expansion of Business in Adjacent Markets**

In ID, we are actively exploring other applications of SELFOC® than multifunction printer and scanner, focusing on the AOI (Automated Optical Inspection) market. This market is expected to see increased demand with growing needs from inspection due to the advancement of AI and deep learning technologies, measures to address labor shortages, labor-saving initiatives, and stricter quality requirements. To capture the EV battery inspection market particularly, where demand is expected to increase with the spread of EVs, we are actively developing multilingual websites, conducting PR through advertising placements, and joining major oversea exhibitions. While many major EV batteries manufacturers are foreign companies, we now have access to most of them. Also, in the existing multifunction printer market, we are expanding into LPH (LED

Print-head) used in LED printers. SELFOC® enables simple and compact optical designs, eliminating complex systems or drive mechanisms. This enables significant printer miniaturization and weight reduction which contribute to power savings. By promoting these benefits to a wide range of customers, we will formulate and execute an action plan to substantially increase our market share.

# Commercialization of New Technologies / Selection of Technological or Business Seeds

We plan to accelerate the development of highperformance liquids for optical filters. Among these, our super-low reflection coating liquid has been adopted by customers for smartphones. The number of models incorporating it is increasing, and more companies are currently considering its adoption. In the laser and sensing field, we believe that high-precision optical lenses utilizing imprint technology can be effectively applied. We are progressing with sample provision in areas such as 3D sensing for facial recognition, LiDAR, camera lenses, displays, and optical communications.

Optical Solution	Main Products	Target Markets	Solutions
Expansion of Business in Adjacent Markets	SELFOC® Lens Array	AOI (Automated Optical Inspection), LED Printer	Improvement in resolution, power saving, device miniaturization, etc.
Commercialization of New Technologies /	Super-Low Reflective Coatings	Camera modules, etc.	Improvements in image quality enabled by noise reduction
Selection of Technological or Business Seeds	Micro optical elements (MOE)	3D sensing, LiDAR, Displays, optical communications, etc.	Device miniaturizations, laser light resistance, etc.

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# - Digital

We are mainly focusing on materials for semiconductors, data center use, and optical communication devices in this area.

# **Expansion of Business in Adjacent Markets**

FG has already commercialized carrier glass for semiconductors and flat glass for glass substrates of HDDs which are products related to data centers. With the background of rising data center demand, these products are expected to continue contributing to our business.

FP will expand the deployment of glass pellets used as a base material for printed circuit boards (PCBs) in advanced electronics. We are responding to the demand for high-performance materials with low dielectric properties and low thermal expansion characteristics required for the increasing capacity and speed of information and communications, by supplying glass pellets developed using our core glass composition technology.

ID is applying SELFOC® to connectors compatible with immersion cooling systems for

data centers. Recent advancements in cloud services and AI are expected to drive further increases in internet data traffic. This growth is anticipated to significantly raise the energy load required to cool servers and other equipment within data centers. In this background, immersion cooling technology is now gaining attention as a key solution for reducing data center power consumption.

# Commercialization of New Technologies / Selection of Technological or Business Seeds

Demand for glass filler materials suitable for thinner engineering plastics is increasing, driven by the miniaturization of IT-related components and the need for encapsulants that protect semiconductors from heat, moisture, light, and physical impact. In addition, the expansion of AI, autonomous driving, and data centers is fueling the need for high-capacity, high-speed

communications, which in turn accelerates the miniaturization and higher integration of semiconductors to achieve faster and more energy-efficient CPUs and GPUs.

Glass substrates are attracting growing attention due to their rigidity, flatness, and dielectric properties. Leveraging our proprietary glass compositions and processing technologies, we are aiming to commercialize TGV (Through Glass Via) technology that achieves microcrack-less performance.

In the field of optical communication devices, we are also exploring and developing applications for our micro-optical elements, SELFOC®, and coating solutions for optical filters in the emerging co-packaged optics (CPO) market, which is expected to grow with the fusion of photonics and electronics, building on our long-standing expertise in optical technologies.

Digital Solution		Main Products	Target Markets	Solutions
Expansion of Business in Adjacent Markets	Ultra-thin SELFOC® Micro Lens		Data center, Co-Packaged Optics(CPO) device	Power saving, efficient data transmission, extension of transmission distance, device miniaturization, etc.
Commercialization of New Technologies /	HIENCYFLAKE™ (Low-dielectric glass flakes)		Semiconductor	Improvement of dimensional stability and mechanical strength of resin substrates, reduction of transmission loss, etc.
Selection of Technological or Business Seeds	TGV		Semiconductor	Microcrack-less, low thermal expansion, etc.

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As described above, each business unit within CT is actively working to expand into adjacent markets, commercialize new technologies, and carefully select technological and business seeds in each of the three focus areas. These initiatives are being promoted through close collaboration within CT.

Looking ahead to further business expansion, deepening our dialogue with the market and broadening our understanding are essential. To achieve this, we are focusing on both push and pull marketing strategies. For push marketing, we are strengthening our marketing bases globally. In 2024, we have established a base in Taiwan, followed by the USA in 2025. Additionally, in India—where demand for products such as e-bikes is expected to grow along with the population—we have established a base in response to our customers' expansion. Going forward, we plan to further expand these bases according to the situation in each region. For pull marketing, we are creating more opportunities for people to discover our products and technologies by enhancing our website and actively participating in exhibitions. By providing the information customers seek and nurturing their needs, we aim to lead these opportunities to sales.

As a materials manufacturer, it is difficult for us to lead market trends, but we can remain highly sensitive to them. By monitoring market changes through exhibitions and digital marketing, while simultaneously pursuing push marketing, we aim to achieve our business goals. In fact, at exhibitions where the entire CT participated, we welcomed companies that had not previously adopted our products, resulting in new adoption cases. These efforts are gradually bearing fruit.

# Challenges for future growth

For future growth, it is necessary to strengthen our human capital further. To expand our business, we must create what customers need. As for the glass, we expect that a wider range of properties will be required than ever before. To meet these requirements, the Group must develop new glass compositions. Thus, it is important to secure and develop human capital who can understand customers' requirements more promptly and accurately, and reflect it to the technology development.

As stated above, I would like to significantly increase CT's profit by two or three times its current status. It is difficult to achieve it if we do not start new approaches and only continue the current approach. To break through the current situation, we must simultaneously drive both "defense" (maintaining and expanding existing businesses) and "offense" (creating new businesses). Members working at CT will take on dual roles (defense/defense, defense/offense, offense/offense), and within this framework, we will pursue efficiency and identify the right people for the right roles. Starting new initiatives inevitably strains resources, so we will address any shortfalls that become apparent. I am fully aware that I am asking our members to take on extremely challenging tasks. I place great importance on maintaining a constant sense of gratitude, and actually, I am deeply indebted to everyone's tremendous efforts

When taking on a new challenge, diversity and a healthy organizational culture are essential. We are first focusing on promoting diversity of opinion, while there are many aspects of diversity. I encourage our members to have a strong curiosity and eagerness to take on any challenges, to avoid self-imposed limitations during the ideation phase, and to share their feelings and thoughts frankly. I myself may make mistakes, and there is not always just one right answer in tackling new things. I firmly believe that diverse opinions form the foundation for building a strong organization.

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CT comprises ID, FP, and FG – a collection of business units with entirely distinct markets, technologies and products, and each of them has its own distinct culture. These are strong points, but at the same time, they could easily lead to unfavorable situations where we did not fully understand other businesses or pursue the same market respectively with different products, despite being within the same SBU. Therefore, we have been promoting cultural reform for some time. For example, we have established our own Mission, Vision and Values (MVV) aligned with the "Our Vision", the group-wide management principle, and the MTP, aiming to unify members' values. This unique MVV of CT was conceived and developed through a year-long discussion among members. The annual slogan for CT (FY2025/3: "Share the Vision, Make the Future"; FY2026/3: "Challenge yourself to be 'CREATIVE'") is determined through an open call for submissions within SBU.

In addition, we periodically have meetings to discuss aspirations for the next ten years. During the meetings, we discuss what to do and how to do as CT from a long-term perspective as we tend to focus on short-term perspectives in daily work. We step away from routine work and roles, and express opinions frankly. As a result, we are successfully fostering a flat and frank culture through sharing our long-term targets and policy.

I believe this culture is essential for CT to transform into an organization that attracts and develops outstanding human capital and expands its businesses further. We will certainly continue these discussions going forward. Flat and frank are also the terms that are included in the 4 "F"s mentioned under "Diverse Talent" in the MTP, and we feel it is very positive that the entire company is shifting in this direction.



CT aims to increase absolute profits by not only maintaining and expanding existing businesses but also driving the creation of new businesses related to the Environment, Optical, and Digital. By developing and providing unique products and technologies that contribute to the evolution of customers' products and the solution of their challenges, we will "CREATE" new value in the market and contribute to achieving the targets of the Group's MTP.

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In accordance with the NSG Group Sustainability Policy, our Group has identified material issues that must be recognized in order to achieve both sustainable growth for the company and the realization of a sustainable society over the medium to long term.

In drawing up our medium-term plan, we have recently reexamined our material issues. We have reviewed this to clarify the company's policy that safety is a prerequisite for our business, and have separated "health and safety," which was previously included as part of "human capital," into a separate material issue, and have divided it into two categories: one as a basic element of management and the other as a source of competitiveness.

The three materiality issues of "health and safety", "ethics and compliance," and "safe, high-quality products and services" are the highest priorities for the entire Group, and we will manage them as basic management issues that must be achieved in the course of business operations and will continue to raise awareness and make improvements.

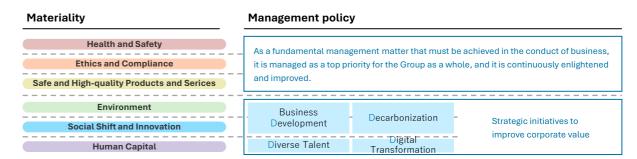
The three materialities of "environment," "social shift innovation" and "human capital," which are the source of competitiveness, correspond to the 4 "D"s (Business Development, Decarbonization, Diverse Talent, Digital Transformation) of this medium-term plan, and we will strategically address them in the medium-term plan to improve corporate value.



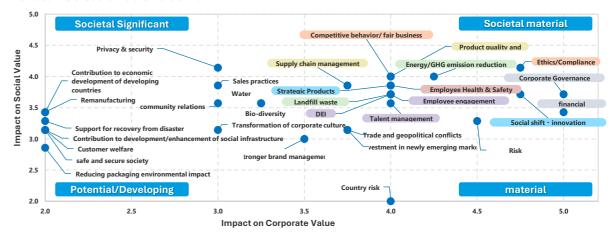
# **Materiality Identification Process**

Each topic was categorized by referring to the classifications in standards such as GRI, SASB and IIRC, and the social impact (Impact on Social Value) on each stakeholder and the financial impact (Impact on Corporate Value) on the company were scored and evaluated on two axes, and items with high scores were selected as "priority areas". In assigning scores, we took into account the perspectives of the various stakeholders surrounding our company, such as investors, employees, customers, business partners in the value chain, and local residents. Of these, corporate governance and ensuring a financial base have a very strong impact on the company and are the foundation of the company, so we are addressing these as issues that the Group will focus on separately from the selection of materiality. This materiality assessment result was discussed at the Sustainability Committee and approved at the Board of Directors Meeting in FY2024/3.

In addition, we are currently preparing a new assessment (double materiality assessment) to comply with the requirements of the European Corporate Sustainability Reporting Directive (CSRD). In February 2025, the European Commission published the Omnibus Regulation, which postponed its application to our company by two years. However, we continue to prepare internally for its implementation.



### **Revised NSG Sustainable Value Matrix**



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## **New Sustainability targets and KPIs**

In line with the new medium-term plan starting from FY2025/3, the Group has set new sustainability targets and KPIs for the six materiality issues. It has identified as key issues to be addressed by the Group.

#### Health and Safety (Items separated in the MTP)

We will continue to aim for zero fatalities. We will significantly raise our target for the significant injury rate (SIR) and work towards achieving it through new approaches such as introducing Al and CCTV cameras at our manufacturing sites. For details, please refer to the "Health and Safety" section of the Social chapter.

#### **Ethics and Compliance**

As we have now become to receive a consistent number of reports through the hotline system (quantity aspect), we have set a new target focusing on the content of the reports (quality aspect). In addition, the feedback on Ethics and Compliance program including Ethics and Compliance Weeks we have received to date shows that there have been still fears among people about possible retaliation for reporting concerns. To enhance the reliability of the Reporting of Concerns system we have set a target of zero incidents of retaliation. Furthermore, we have also set a KPI regarding employees' evaluation on the compliance program for its further improvement. For details, please refer to the "Ethics and Compliance" section of the Social chapter.

#### Safe and High-quality Products and Services

With regard to quality, we have set a new target of "zero major quality spikes (Quality incidents that affect external customers and have a financial impact of over 100 million yen)".

In the supply chain, we have raised the targets in several areas in light of the status of achievement of the targets for FY2024/3. Specifically, we have set a target of increasing the penetration rate of the Sustainable Supply Chain Charter, which is more advanced

than the Supplier Code of Conduct. We have also increased the target for the supplier assessment coverage rate to 74%. We will continue to work towards achieving our targets by promoting the Sustainable Supply Chain Charter to our suppliers. In addition, we have specified reduction targets for Scope 3. We aim to achieve our Scope 3 reduction targets through ongoing engagement with suppliers involved in these hot spots. For details, please refer to the "Safe and High-quality Products and Services" section of the Social chapter.

#### Environment

In addition to raising our CO2 reduction target per unit of production, we have also specified a target for the ratio of renewable electricity. We have been making steady progress toward achieving our goals. Although renewable electricity is easily affected by market price fluctuations, we will aim to further increase the ratio through our efforts to seek more economically viable procurement methods on a global level. For details of our initiatives, please refer to the "TCFD · Climate Change" section and "Energy" section of the Environment chapter.

In addition, due to the effects of climate change, social anxiety about water resources has been increasing in recent years. In order to respond to these social issues, we have set a target to reduce water withdrawal by 50% in water stressed area. Furthermore, there is an accelerating trend towards a circular economy. In response to this trend, we have set a target for the recycling of glass resources. In particular, in the Automotive Glass business, we are actively promoting glass recycling initiatives in collaboration with our customers. This will also contribute to the realization of a decarbonized society. For details, please refer to the "Sustainability and Products" section, "Water", and "Circular Economy (waste)" of the Environment chapter.

#### Social shift and Innovation

The target we have set is to increase the sales composition ratio of strategic products. In particular, we aim to achieve this target by expanding sales of strategic products such as glass for solar panels which is one of our mainstay products, automotive glass such as head-up displays and roof lights for the future expansion of the EV market, and high-function glass products such as LPH (LED print heads) and multi-core optical connectors for data centers that support immersion cooling and address the issue of energy conservation in the future increase in data distribution volume. We aim to achieve this target by expanding sales of strategic products. For details, please refer to the "Business Overview Topics" section of the Digest chapter and "Sustainability and Products" of the Environment chapter.

#### **Human Capital**

With regard to employee engagement, we have set a goal of improving the "Employee Value Proposition". The measurement indicator will be the question "Would you recommend the NSG Group as a good place to work (Net promoting score, NPS)" in the internal employee attitude survey "Your Voice". In the survey in November 2023, it showed a high correlation with the results of the questions about the company's sustainability initiatives, and the results were interesting in that they suggested that the company's initiatives for sustainability have a positive effect on employee awareness, which in turn contributes to improving corporate value. We aim to achieve our KPI targets by implementing internal training on employer branding and making use of social media, etc. With regard to DEI, we have raised our targets even higher in light of the Japanese government's target for the ratio of female managers (30% by 2030). For details of our initiatives, please refer to the "Human Capital" section of the Social chapter.

The details are as follows.

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# **Aspirations for Six Materiality Issues and Sustainability Goals and KPIs**

Materiality Targets (Fundamental Management Matter)

Materiality	FY2030/3 Aspirations	FY2027/3 New Targets		FY2027/3 KPIs	17 Sustainable Develop (169 targets)	oment Goals
	Under the strong leadership, a safety culture has been fostered in which all consider safety as a value and work together to build a safe workplace. All risks are properly	Fatality	Fatality and life-changing disability	0	8 consumer on	8.8
	managed. Particularly for critical risks, a high level of control is in place. The use of digital technology has significantly improved the level of control.	Significant injur	y ratio (SIR)	0.20	8 SECON MINIS AND TO SECON MINIS	8.8
Ethics and Compliance	Partner and gain trust from stakeholders by regularly improving the Ethics and Compliance (E&C) programs to address Group risks.	Ratio of substa	ntiated E&C hotline reports	45%	16 PROC. HEREN	16.5
	address Group risks.	Cases of retalia	tion reported to E&C	0	16 PRODU, MONTON AND STROME SCHOOL SC	16.5
		Fines associated with Competition or Bribery/Corruption violations		0	16 PADE MADE STATES AND STRONG ASSESSMENT AS	16.5
		Ethics and Compliance (E&C) Annual Education		100% completion with achievement or improvement of any above KPIs	16 PROD. MOTORS AND STRONG SAMPHONISM  TO STRONG SAMPHONISM  TO STRONG SAMPHONISM SAMPHO	16.5
		Compliance Program Score and Effectiveness		90% agreement/favorability	16 PADE, METERS AND TRANSPORTERS AND TRA	16.5
quality Products	To implement a Sustainable Supply Chain strategy to minimize negative environmental and societal impact, increase innovation, reduce waste and risk and enhance	Supply Chain	Scope3	2.6 MT	13 CAMPAT	13.3
	NSG's brand	Supplier collaboration	Supplier spend signing up to Supply Chain Charter	63%	8 RECENT MARK AND THE PROPERTY OF THE PROPERTY	8.7 / 12.4 / 17.
			Supplier spend with recognized ESG assessment	74%	8 identification description 12 incomments of the research of	8.7 / 12.4 / 17.
			A weighted average score for all assessed suppliers	Over 60	8 ROSH WALLAND 12 ROSHORUS CHAPTER WITH CONTROL CHA	8.7 / 12.4 / 17.7
			Supplier spend with Diverse Suppliers	2%	10 MODICIO	10.3
	Customer satisfaction remains as a core mission for the Group. The objective to supply of safe and high-quality products and services has been enhanced by incorporating a greater degree of automation and digitalization into our processes.	Quality	Major quality spike (Quality incidents that affect external customers and have a financial impact of over 100 million yen)	0	9 MITTER MONITOR	9.1

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# **Aspirations for Six Materiality Issues and Sustainability Goals and KPIs**

Materiality Targets (Sources of Competitiveness)

Materiality	FY2030/3 Aspirations	FY2027/3 New Targets		FY2027/3 KPIs	17 Sustainable Development Goals (169 targets	
Environment	To exceed stakeholder expectations by implementing sustainable processes to produce environmentally positive products and actively contribute to a		CO <sub>2</sub> intensity	3% YoY reduction	7 american	7.2/7.3/13.2
	decarbonized and a circular based society.	Carbon emission	Renewable energy electricity ratio	65%	7 distribution 13 distribution  13 distribution	7.2/7.3/13.2
			Absolute Scope1+2	Reduction	7 menturation 13 menturation  (Comparison of Comparison of	7.2 / 7.3 / 13.2
		Waste to landfill		20% reduction (vs FY24)	12 monotori menoreni monotori COO	12.5
		Cullet ratio		3% point increase vs FY19	7 distribution  12 discovering the control of the c	7.3 / 12.5 / 13.2
		Water withdraw		50% decrease vs FY19 in water stressed areas	6 supremum	6.4
Social shift and Innovation	With the strength of NSG's unique glass technologies, we aim to be a trusted partner for the stakeholders and contribute to the realization of a sustainable society.	% Sales of the strate	gic products	From 23% to 29%	9 sector sectors	9.4
Human Capital	Employee Value Proposition:  A globally consistent employer brand that is relevant, differentiates NSG from its competitors and allows for local adaptation. The value proposition will be distinctive, aspirational but will maintain authenticity.	Employee Engagement	% agreement for NPS question from "Your Voice" survey	80%	4 man 8 more control.	4.4 / 8.5
	<b>DEI:</b> Inclusive organization where everyone can be their best (#BeYourselfAtWork activity). Recognized as a leader and winner of awards	DEI	Female manager ratio	24% (June 2023: 16%)	5 trues ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	5.5

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# **Status of FY2025/3 Progress Towards Targets**

Although some targets were not met, we were generally able to achieve our goals.

Reductions in absolute Scope 1+2 emissions were also progressing smoothly, and by the fiscal year ending March 2024,

we had achieved a 16% reduction, half of the SBTi well below 2°C target (30% reduction by 2030 compared to 2018). In terms of responsible procurement, certain metrics are progressing well, such as the average Eco Vadis score of suppliers continuing to exceed targets for the second consecutive year.

On the other hand, regarding the improvement of the Serious

Injury Rate (SIR), the target was not met following a fatal accident occurring in a confined space in Chiba site. However, countermeasures are being advanced across the entire Group, including the creation and issuance of group guidance concerning confined spaces. For the overall progress status, please refer to the following.

## FY2027/3 targets and FY2025/3 progress

	FY2027/3 target	ts	FY2027/3 KPIs	FY2025/3 Progress	Related SDGs
Health and Safety	Fatality	Fatality and life-changing disability	0	One fatal accident occurred in a confined space at the Chiba plant. As a countermeasure, group guidance concerning confined spaces has been created and issued. Furthermore, preparations are underway for group standard documents covering all other high-risk operations.	8 International
	Significant injur	y ratio(SIR)	0.20	The target for FY2025/3 was a 15% reduction to 0.27, but it remained at 0.31, representing a 3% reduction. As countermeasures, we are focusing on 1) safety training for employees with less than one year's experience, and 2) the thorough implementation of safety rules, particularly at focus sites (workplaces where the major accident rate exceeds a specified value).	8 RESIDENCE COURTS
Ethics and Compliance		Ratio of substantiated E&C hotline reports	45%	Of the reports received during FY2025/3, 37% were substantiated and 16% were partially substantiated. We continue to advance our efforts towards achieving our target through internal training programs on hotline usage and other measures.	16 PACE ANDRE MOTORISMS MOTORISMS
		Cases of retaliation reported to E&C	0	There was one instance of retaliation among employees concerning a concern report. We are providing ongoing training not only to managers but also to employees regarding what constitutes retaliatory behavior.	16 PAIC LISTO SECTIONS SECTIONS
		Fines associated with Competition or Bribery/Corruption violations	0	There were zero cases of penalty payments relating to violations of competition law or bribery and corruption-related legislation.	16 FILE LISTER SOUTHING SOUTHINGS  ***********************************
		Ethics and Compliance (E&C) Annual Education	100% completion with achievement or improvement of any above KPIs	During the annual training programs conducted for FY2025/3, 100% of the targeted employees completed the training. As a result of our ongoing efforts, we achieved the 100% target for the first time. We will continue to implement initiatives aimed at further increasing the completion rate.	16 AND AND STORE SOUTHERN SOUTH SOUTHERN SOUTHERN SOUTHERN SOUTHERN SOUTHERN SOUTHERN SOUTHER
		Compliance Program Score and Effectiveness	90% agreement/favorability	In March 2025, we conducted a culture survey concerning ethics and compliance. We are currently collating the results.	16 PROCURING ASSESSED STATES
Safe and High-quality Products and Services		• Scope3	3.2 MT	For FY2025/3, Scope 3 emissions amounted to 3.7 Mt. This figure reflects a revision to our calculation methodology to ensure greater data accuracy and coverage. The new calculation method has received SBTi certification. Consequently, the Scope 3 baseline value for the reference year 2018 has been adjusted to 3.92 Mt. Our target value has also been revised accordingly (3.2 Mt). We continue to work towards achieving our targets through collaboration with suppliers, including sharing emissions data and decarbonization plans.	13 :::::
	Supplier collaboration	Supplier spend signing up to Supply Chain Charter	63%	33.4 % of suppliers by value have agreed to the Supply Chain Charter. We continue our individual approach with key suppliers and are working towards achieving our targets.	8 MON FORM AND STREET S
		Supplier spend with recognized ESG assessment	74%	Regarding supplier assessment coverage, 67.4% of suppliers by value have undergone EcoVadis sustainability assessments. Progress is steady.	8 score and an
		A weighted average score for all assessed suppliers	Over 60	The average EcoVadis assessment score for suppliers reached 61, exceeding our target. The reduction in the number of suppliers with particularly low scores has contributed to the overall improvement in the score.	8 store and an
		Supplier spend with Diverse Suppliers	2%	Regarding the monetary-based ratio of "diverse suppliers", we have identified several diverse suppliers and are steadily progressing towards achieving our target.	10 MONOTO ( )
	Quality	<ul> <li>Major quality spike (Quality incidents that affect external customers and have a financial impact of over 100 million yen)</li> </ul>	0	The number of major quality spikes (over JPY 100 million) occurred was zero, achieving the target.	9 Marine American





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## FY2027/3 targets and FY2025/3 progress

	FY2027/3 targets		FY2027/3 targets	FY2025/3 Progress	Related SDG s
Environment		• CO <sub>2</sub> intensity	Absolute Scope1+2	$CO_2$ emissions per unit of glass production for FY2025/3 were 0.67 kg, achieving the target of a 3% improvement compared to FY2024/3 (0.69 kg). This improvement was mainly achieved through a combination of Scope 1 and Scope 2 decarbonization measures, such as the integration of production lines at the Green Gate plant and the introduction of on-site solar power generation.	7 direction of 13 court
	Carbon emission	Renewable energy electricity ratio	65%	The renewable energy share of electricity for FY2025/3 was 36%. Although affected by the rise in certificate prices, we continued to promote initiatives such as the introduction of on-site solar power generation. Globally, we persist in our efforts to explore economically viable and optimal procurement methods from a range of options. In the short term, we are working towards achieving our targets while aiming to balance financial stability and sustainability, and continuously monitoring market conditions.	7 distributions 13 distributions 13 distributions 14 distributions 15 dist
		Absolute Scope1+2	Reduction	The absolute quantities of Scope 1 and Scope 2 emissions in FY2024/3 have been reduced by approximately 16% vs 2018, progressing steadily towards the target of a 30% reduction vs. 2018 by 2030.	7 distributions 113 distributions 125 distributi
	Waste to landfill		20%reduction (vs FY24)	Landfill waste increased slightly to 22.4 thousand tonnes from 21.6 thousand tonnes in FY2024/3, representing a 3.7% increase. Regarding the landfill disposal of defective raw materials at major North American plants – our most significant challenge – we achieved a 24% year-on-year reduction through collaboration with a new recycling partner. However, increased recycling of rejected batch in North America got overcompensated by more waste to landfill at other locations. We will continue to advance our efforts globally.	12 control control CO
	Cullet ratio		3%point increase vs FY19	The cullet ratio for FY2025/3 increased by 0.6% compared to FY2019/3. We are actively pursuing initiatives, such as collaborating with customers to recycle automotive glass from end-of-life vehicles.	7 (11000000) 12 (11000000) (CO) 13 (1100000) (CO)
	Water withdraw		50% decrease vs FY19 in water stressed areas	Total water withdrawal for FY2025/3 amounted to 14.3 million cubic meters, representing a 19% reduction compared to FY2019/3. The introduction of a water recycling project at the San Salvo plant, located in a water-stressed region, contributed to this reduction in water withdrawal.	6 strategy
Social shift and Innovation	% Sales of the strategic products		From 23% to 29%	The sales contribution ratio of strategic products for FY2025/3 was 22.1%. Whilst slightly below target, this is largely in line with plan. Particularly in the construction sector, sales of strategic products performed well despite the situation in the European market, significantly contributing to the overall increase in the ratio. Conversely, in the automotive sector, the launch of new products was delayed due to economic conditions, impacting sales including new products. The creative technology sector is largely in line with plan.	9
Human Capital	Employee Engagement	% agreement for NPS question from "Your Voice" survey	80%	The next Your Voice Engagement Survey is scheduled for September 2025.	4 more 8 more manual and a mor
	DEI	Female manager ratio	24% (FY24 result: 16%)	The proportion of female managers within the NSG Group for the fiscal year ending March 2025 reached 18.0%. Progress is steady. We will continue to monitor progress every six months, share best practices, and strive for further improvement.	5 mm. ©

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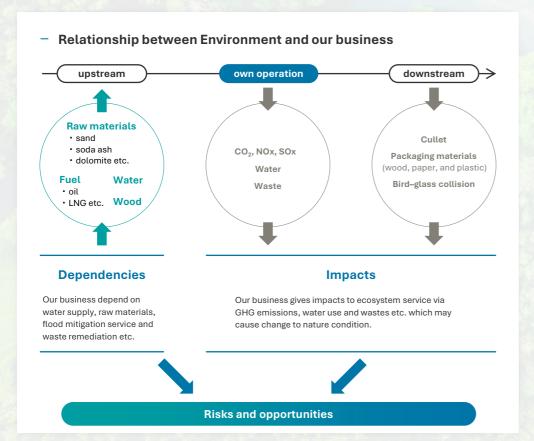
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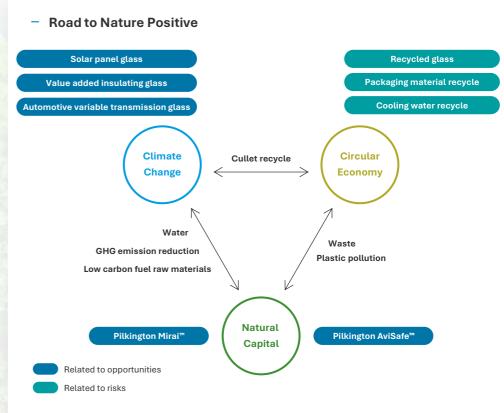
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# **NSG Group's business and Environment**

Our Group's business depends on the environment in every aspect, such as raw materials like silica sand and soda ash, fuel in the glass melting process, water usage in manufacturing, and timber in transportation. Furthermore, our business activities impact the environment through GHG emissions from manufacturing processes and waste generation. These relationships brings both risks and opportunities for our business.

Our group will reduce its environmental impact through initiatives addressing climate change, the circular economy, and natural capital, while also contributing to the reduction of environmental burdens through our products.









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# NSG Group's initiatives to decarbonize and reduce environmental impact

As an energy-intensive and carbon-intensive manufacturing company, tackling climate change is essential for the Group.

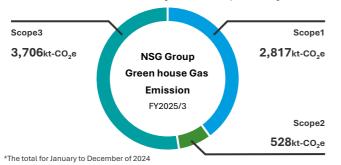
Contributing to a decarbonized society through our products and services will help us fulfil our mission to "changing our surroundings, improving our world". We are actively working across social issues such as climate change, contributing to a sustainable society and increasing our corporate value. The Group continues to endorse the Task force on Climate related Financial Disclosures (TCFD), with actions including increasing the intensity and expanding the scope (to include all three emission scopes) of SBTi verified decarbonization targets in May 2022 (original verification in 2019). It has also committed to achieving carbon neutrality by 2050. The implementation of the roadmap to achieve this will lead to a reduction in  $\mathrm{CO}_2$  emissions and, in turn, to the continued development of sustainable products and the expansion of opportunities related to our business.

\*1 SBTi is a partnership between CDP (former Carbon Disclosure Project), UN Global Compact, WRI (World Resources Institute) and WWF (World Wildlife Fund), which helps companies set the science-based goals for reducing GHG emissions to prevent the impact of climate change.



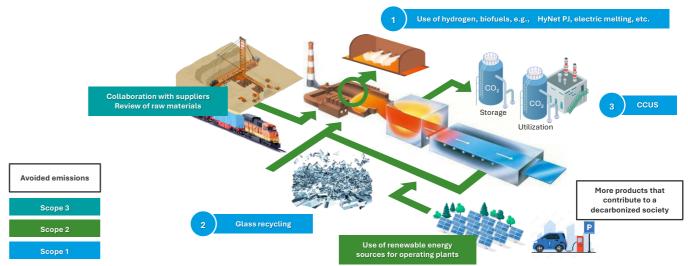
- \*2 Scope1:Direct emissions by business operators (Use of fuel in manufacturing processes, etc.)
- \*3 Scope2:Location: Indirect emissions by consumption of energy sources (Purchased electricity used in manufacturing processes, etc.)
- \*4 Scope3:Value chain emissions including both upstream and downstream of the organization's

Because >99.9% of our GHG emissions are CO2, thereafter we only mention CO2.



#### **Decarbonization Initiatives**

NSG Group aims to reduce  $CO_2$  emissions by 30% by 2030 and achieve carbon neutrality by 2050.



## Initiatives to reduce Scope 1 (own emissions)

Our scope 1 emissions were 2.8 million tonnes of  $\mathrm{CO}_2$  (2.9 million tonnes in 2023). These direct emissions occur from a combination of the combustion of fossil fuels within the manufacturing process and the decomposition of carbonate raw materials in the glass melting process.

We continue to implement a range of technical options to reduce Scope 1 emissions, including:

- **1.Use of alternative fuels**: we are actively engaged in technological development initiatives, such as the world's first successful production of float glass using hydrogen energy in September 2021, as well as the successful production of glass using 100% biofuels in February 2022.
- 2.Electric melting of glass: efforts are being made to increase the amount of renewable electricity used as a substitute for fossil fuel in the glass production process. In 2024 the Group announced the intention to implement a project to achieve a step

change in the utilization of electricity in float glass furnace operation. This project will represent the highest level ever achieved within the Group for electric melting. The project will be implemented with the support of the German Government. Start date of the operation is now expected in 2026. We are planning to gradually introduce this system to other facilities by 2030, according to the decarbonization roadmap at a global level.

**3.Substitution of glassmaking raw materials**: during the glass melting process, large amounts of carbon dioxide are emitted due to decomposition of  ${\rm CO}_2$  containing raw materials in the furnace, accounting for about 20% of our Scope 1 emissions for glass melting. In order to reduce the carbon dioxide emissions from these raw materials, attempts are being made to replace the carbonates in the material with various oxides: first implemented in 2022, glass production using "Dolime" (CaOMgO) was successfully achieved in a float furnace in Chile; Previous

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research has shown that, in addition to the CO2 reduction effect derived from the raw materials, there is also an energy reduction effect from using dry lime. The handling of the powder is an issue for the future. Studies continued in 2024 with further trials being developed.

**4.Carbon capture**: the process for capturing CO<sub>2</sub> emissions from glass melting furnaces is not compatible with typical CO<sub>2</sub> capture processes, so we are working with a process development partner that is likely to be compatible with our needs. In March 2024, we began the first demonstration experiment for carbon capture in the flat glass industry in Europe at our float furnace in the UK.\*1 One of C-Capture's carbon capture solvent compatibility units (CCSCUs) has now been deployed at Pilkington UK's float furnace at the Greengate glass manufacturing site in St Helens, part of NSG Group.

**5.Manufacturing Plant Integration**: Another world first was achieved by NSG Group in 2025. This involved the transfer of the rolled glass manufacturing operations onto the Greengate float glass operations site in St. Helens, UK.\*2 This transfer involved the installation of a new rolled glass manufacturing line connected to the float furnace. This connection was installed while the float furnace production was maintained. The integration of rolled and float glass operations from one furnace is expected to reduce Scope 1 and 2 CO<sub>2</sub> emissions by 15,000 tonnes in absolute terms. Such integration of operations is part of the decarbonization activities for the Group, delivering improvements in the environmental sustainability of products



## **Initiatives to reduce Scope 2 (own emissions)**

Our Scope 2 emissions (market-based approach) were 0.53 million tonnes of CO<sub>2</sub> (0.50 million tonnes in 2023). These indirect emissions occur from the use of purchased electricity & heat.

In response to the medium-term plan announced in 2024, the company set a new sustainability target of increasing the ratio of renewable electricity. This target is to achieve 65% renewable electricity ratio by end of FY2027/3 (MTP phase 1) and 85% renewable electricity ratio by end of FY2030/3 (MTP phase 2). Progress towards this goal continued in 2024, with a YoY improvement in the renewable electricity ratio. Although there were some issues of affordability and availability of viable renewable electricity solutions in several countries where NSG operates, we continued to try to achieve both financial stability and sustainability.

The Group continues to invest in on-site power generation including installing on-site solar power at the Lathom Research Institute in the UK and the Rossford plant in Ohio, USA. Many other solar projects are underway across the Group. The largest individual on-site PV facility at the Ottawa float glass facility was recently commissioned\*3. We are also actively introducing power source certification and Power Purchase Agreements (PPA agreements) on a global basis. In March 2024, our Maizuru Plant became the first of our group's domestic plants to sign a PPA contract for renewable electricity generated by solar panels installed on the plant grounds, and installation work began\*4. Against a backdrop of global CO<sub>2</sub> reduction efforts, there is an increasing demand for green power in the market, and with the risk of rising electricity prices, we are continuing our efforts to find the most economically rational procurement method from among various options on a global level, aiming for stable procurement of renewable energy in the medium to long term.









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## **Initiatives to reduce Scope 3**

Scope 3 emissions were verified at 3.71 million tonnes of  ${\rm CO_2}$  in 2024 (3.68 million tonnes in 2023).

In 2024 the decision was taken to recalculate the Scope 3 emissions across NSG Group from 2018 through to 2023. This decision was taken following feedback from various external sources and internal reviews following the establishment of a more robust calculation procedure for Scope 3 emission. The new methodology was endorsed by SBTi. This recalculation has resulted in an increase in the Scope 3 emissions for each year from 2018 to 2023 (in 2024 we already utilized the new calculation methodology).

The revised Scope 3 emissions can be seen in the table below. This demonstrates a YoY improvement in Scope 3 emissions since 2018, with 2024 performance being at 6 % reduction in absolute terms compared to 2018.

In 2022, the company launched a Sustainable Supply Chain Committee to examine sustainable supply chains with regard to all factors, including environmental and social aspects. In the course of its activities, it is also working on reducing Scope 3 emissions. In 2024, we held a cross-departmental Scope 3 workshop with the participation of various key members of the company. We have drawn up a company-wide roadmap for achieving our Scope 3 reduction targets for 2030, and in order to achieve this, we recognized the importance of improving our internal data collection system and continuing dialogue with key suppliers. We are working with actual suppliers to obtain emissions data and share best practice alongside various other initiatives.

This supply chain interaction initiative has been recognized once again by the CDP disclosure, with NSG Group maintaining the highest leadership level for supplier engagement assessment 'A' list.





#### Breakdown of CO2 emissions (Scope 3)

	category	2018	2019	2020	2021	2022	2023	2024
1	Purchased Goods & Services	2,261	2,033	2,026	2,278	2,101	1,827	1,760
2	Capital goods	42	100	67	75	75	79	72
3	Fuel & Energy related materials	557	550	489	595	541	527	572
4	Upstream transportation & Distribution	62	60	58	62	61	62	61
5	Waste generated in Operations	11	11	17	12	15	2	2
6	Business Travel	9	8	2	0.4	3	6	3
7	Employee Commuting	13	10	2	2	2	16	15
8	Upstream leased assets	0	0	0	0	0	0	0
9	Downstream transportation & distribution	158	145	224	168	175	289	241
10	Processing of sold products	600	600	600	600	600	615	714
11	Use of sold products	0	0	0	0	0	0	0
12	End of life treatment of sold producers	11	11	11	12	12	11	6
13	Downstream leased assets	0	0	0	0	0	0	0
14	Franchises	0	0	0	0	0	0	0
15	Investments	200	200	200	200	170	243	261
	Other	0	0	0	0	0	0	0
	Total all 15 categories (Kt)	3,924	3,728	3,696	4,005	3,755	3,677	3,707

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### Information disclosure in line with TCFD

#### - Governance

Climate-related risks and opportunities are overseen by the Board of Directors, and the Group CEO and Board of Directors set the basic policies and targets for the Group's sustainability activities, including climate change. Climate change-related issues are discussed by the Executive Committee, the Sustainability Committee and the Strategic Risk Committee with the aim of achieving all sustainability targets and linking them to all relevant business. This includes strategies and actions based on risk and opportunity analysis to achieve both corporate growth and a positive social contribution; the Board members, who are experts in the field of ESG, provide input and guidance. Activities and progress in each area, such as the status of energy and CO<sub>2</sub> emissions reductions in each business unit, are managed by a

sub-committee of the Sustainability Committee. In FY2025/3, discussions focused on continuing progress and prioritizing activities in the Decarbonization Action Plan, which is necessary to achieve the new targets approved by the SBTi in May 2022. In addition, we will support the realization of the 4 "D"s, including decarbonization, by aligning the medium-term plan with the sustainability strategy, and we will identify product groups that contribute to positive impact on society, and set out the desired state for each materiality in the medium-term plan for 2030, and management plan, we have set out the targets we should be aiming for in 2030 for each materiality, and by back casting from there, we have formulated KPIs for each of the fiscal years from 2025 to 2027 within MTP phase 1 and 2028 to 2030 within MTP phase 2.

#### Name of the meeting body role Corresponding materiality **Board of Directors** Basic policies/Goal setting **Management Committee** Strategy/MTP & targets Progress management on targets and ◆----- Reporting Progress ------Sustainability Committee key issues Energy & Carbon management Committee Environment Sustainable Supply Chain Committee Safe & High-quality Products and Services **Reporting Risks** Talent Organization Committee **Human Capital** Ethics & Compliance Committee Ethics & Compliance Health & Safety Committee Health and Safety **Business Development Committee** Social shift & Innovation Strategic Risk Committee Corporate Risk Management

#### strategy

## Risks, opportunities and responses related to climate change in the short, medium and long term.

The Group has carried out an analysis of the risks and opportunities associated with climate change in the short (1-2 years), medium (2-4 years) and long term (>5 years, usually up to 15 years) according to the following three main scenarios to identify physical and transition risks in the timescale to 2100.

Low-carbon world scenario (<2°C)	A scenario in which aggressive mitigation measures are taken to curb carbon emissions over the next 30 years, with the aim of transitioning to a low-carbon economy.
RCP 4.5 Medium stabilization scenario (2-3°C temperature rise)	Interim scenario, assuming that current policies, pledges and targets are achieved.
RCP 8.5 High reference scenario (>4°C)	A scenario in which global temperatures continue to rise substantially, with catastrophic consequences, as a result of continued emissions growth with little or no measures to avoid physical risks.

Risks and opportunities identified include the impact of

Current regulation	opportunities to supply high-performance products in relation to the European Energy Directive
New regulations	Risks of increased production costs through new emissions trading schemes (ETS), new European Emissions Trading Scheme (ETS) leading to opportunities for sharing high-performance energy-saving building products.
Technical Development	EV market and the growth of the energy-efficient buildings market.
Legal compliance	Risks and costs of meeting future compliance, opportunities for more stringent product demand, NSG's competitive product development, etc.
Market aspects	e.g. customer specifications for building / vehicle efficiency with associated opportunities for product development
Reputation	customer specifications for building / vehicle efficiency with associated opportunities for product development
Acute Physical risk	e.g. flood, typhoon risk impact to operations & value chain (supply continuity) opportunity for specific product development e.g. storm glazing.
Chronic Physical risk	e.g. sea level rise primarily risk impact to current and future operations and value chain.

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The identified risks and opportunities have been quantified, categorized and prioritized accordingly in accordance with the Group's standard risk management framework. This includes impacts on policy and legal aspects, technical aspects, market aspects and reputational aspects. Last year, the analysis was further reviewed from the perspective of additional legislation, such as the European CSRD, and stakeholders, such as biodiversity, circularity and community impacts. Based on this new analysis, the NSG Group's next new medium-term plan will be developed.

#### Risk:

Scope of assessment of annual impact and transition risk potential residuals in the long-term perspective (2035) under the 2050 net-zero scenario

<ul> <li>Increased costs of raw materials</li> <li>Investment risk</li> <li>Changing consumer preferences</li> </ul>	Pricing of GHG emissions     Costs to transition to lower emission technologies
<ul> <li>Cost of Capital</li> <li>Regulatory requirements e.g. building codes</li> <li>Emissions offsets</li> </ul>	Enhanced emissions reporting     Mandates & regulation of products

Likelihood

#### Examples of identified risks with high impact and urgency

	nate Change on NSG Group	Financial Impact	Urgency	
	Pricing of GHG emissions	Very high (>JPY 40 oku/yr)	Very likely to occur, high	
Transition Risk (Low Carbon	Costs to transition to lower emissions technology	Very high (>JPY 40 oku/yr)	urgency for mitigation	
World Scenario)	Increased cost of raw Materials	Very high (>JPY 40 oku/yr)	Likely to occur,	
	Investment risk – unlisted from TSE prime Market	Very high (>JPY 40 oku/yr)	medium urgency for mitigation	
Physical Risk (RCP 8.5, 4°C	Drought Stress	Medium (JPY 10 - 20 oku/yr)	Likely to occur,	
Scenario)	Chronic Heat	Low (1.2 – 10 JPY oku/yr)	medium urgency for mitigation	

The risks and opportunities identified will be further reinforced and included in the Group's mid-term plan, "2030 Vision: Shift the Phase", , resulting in, for example, the Sustainable Supply Chain project, investment in research and technology development to reduce greenhouse gas emissions, and the development of new products that support the decarbonization of society. In 2023 this activity resulted in the publication of the NSG Group Sustainable Supply Chain Charter. These activities are in line with the Group's mission to "Changing our surroundings, improving our world".

Based on the multiple global warming scenarios described above, a quantitative and qualitative analysis of resilience to climate change and prioritization of actions to be implemented in the future was also carried out. As a result, the Group's decarbonization targets over the medium to long term were developed based on the analysis that the risk with the highest impact and potential for the Group is an increase in the costs associated with the price of GHG emissions. The reduction targets developed by the Group were certified by the SBTi in 2019 and were updated in 2022 to more ambitious targets in line with a warming scenario well below the Paris Agreement's 2°C.

Compliance with this target will improve the Group's resilience to both physical and transition risks related to climate change.

The review continued in 2024.

#### - risk management

Climate-related risks are identified and monitored by the Strategic Risk Committee and assessed against quantitative criteria for four vectors: financial impact, business impact, compliance impact and external assessment impact. The Strategic Risk Committee assesses the controls and mitigations in place to address the risks and directs the implementation of additional measures where necessary. The risk owner is responsible for monitoring and reporting on progress against defined action plans to manage risks within the Group's tolerances. Individual controls, measures are progress managed within each business unit (SBU) and Group function and reported to the Executive Committee and Sustainability Committee. Specific risks and opportunities are reported regularly to the Strategic Risk Committee (at least once every six months) and to the Executive Committee to ensure integration of risk management and business strategy.

#### Metrics and targets

The Group monitors all greenhouse gas (GHG) emissions affecting the entire Group (Scope 1 and 2), supply chain (Scope 3) and customers (Scope 3). The Group's SBTi's CO<sub>2</sub> emissions for the reference year (total for the year from January to December) are as follows:

Scope1	Scope2 (location-based)	Scope3
3,103 thousand tonnes	1,050 thousand tonnes	3,920 thousand tonnes

The  ${\rm CO_2}$  emissions for the three scopes for the latest year (total for the year January-December 2024) were as follows.

Scope1	Scope2 (location-based)	Scope3	
2,817 thousand tonnes	702 thousand tonnes	3,707 thousand tonnes	

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In addition, the trend in  ${\rm CO_2}$  emissions from 2018 to 2024 is as follows:

#### Carbon dioxide (thousand tonnes)

	Scope1	Scop	Scope3	
	Scoper	location-based	market-based	эсорез
2018	3,103	1,050	891	3,924
2019	2,970	885	790	3,728
2020	2,817	728	530	3,696
2021	3,031	731	648	4,005
2022	2,910	719	542	3,755
2023	2,922	715	501	3,677
2024	2,817	702	528	3,707

\*CO2 emissions are the total for the year from January to December of each year

\*NSG Group has reviewed the calculation methodology for Scope 3 GHG emissions to ensure greater accuracy and coverage and align with best practice. The methodology continues to follow the guidelines of the SBTi and GHG protocol. The first year this methodology was applied was for the 2023 (FY2024/3) Scope 3 emissions. During 2024 (FY2025/3) we have recalculated the 2018 baseline emissions using this methodology. Values for 2019 to 2022 continue to be evaluated and will be reported when completed.

In the previous medium-term plan RP24, we have also worked towards our target of reducing greenhouse gas emissions per unit of production in the glass manufacturing process by 8% by FY2024/3 compared to FY2018/3. Result in FY2024/3 was 0.69, 5.5% better than in FY2023/3 and 8 % better than in FY2018/3, demonstrating the Group has achieved the goal.

As part of the MTP plan, this target continues, with an increase in terms of the level of ambition to deliver a minimum 3% YoY improvement. In 2025/3 the KPI achieved was 0.67 (vs 0.69 in 2024/3), achieving the 3% improvement target. This target was achieved through a combination of the various Scope and Scope 2 decarbonization measures described previously.

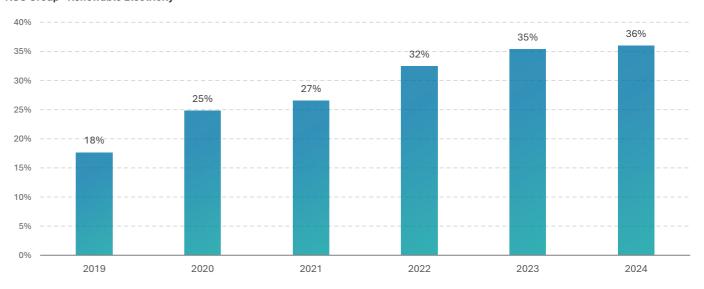
The Group obtained SBTi certification in 2019 for its target to reduce Scope 1 and Scope 2 CO<sub>2</sub> emissions by 21% by 2030, but in 2021 the Group revised this target, raising it to a more ambitious target and setting a Scope 3 target. This revised target is to reduce Scope 1 and Scope 2 and Scope 3 CO<sub>2</sub> emissions by 30% by 2030 compared to 2018. A 1.5°C scenario is the preferred target setting, but this requires a significant reduction (halving) of

our Scope 1 emissions, which account for nearly half of our CO<sub>2</sub> emissions. As our Scope 1 emissions are generated by the combustion of fossil fuels in the glass melting process, we need to switch to fuels from renewable energy sources in order to reduce our Scope 1 emissions. The technology development required for fuel conversion is progressing and does not require significant capital investment, but we do not expect to be able to supply the amount of green fuels we need until 2030 or later. The target is therefore set for a scenario well below 2°C, rather than the 1.5°C scenario. This target was approved by the SBTi in May 2022.

As for reducing Scope 2 emission, a target of 65% renewable electricity proportion by end of FY2027 has been set according to the Group new MTP. The proportion of renewable electricity in CY2024 was 36% (CY2023 was 35%). We are working to achieve our goals while continuously monitoring market conditions.

In FY2025/3, the NSG Group entered into additional Sustainability Linked Loan Agreements, maintaining a link to three Climate Change Impact Indicators (KPIs). The KPIs were selected as indicators that are key to the NSG strategy to support decarbonization, including the reduction of CO<sub>2</sub> emissions (Scope 1 and Scope 2) mentioned above. An additional KPI was introduced specific to the level of Scope 3 CO2 emissions (Scope 3 category #1 - purchased goods and services). The inclusion of this KPI is recognition of the importance the Group places on achieving the Scope 3 reduction targets approved by the SBTi. Furthermore, our group has been participating in the GX League established by Japan's Ministry of Economy, Trade and Industry since 2024. Regarding the mandatory emissions trading scheme commencing in 2026 (GX-ETS), we are currently participating in discussions concerning the scheme's design through industry associations.

#### **NSG Group - Renewable Electricity**



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# **Carbon Neutrality**

We are also committed to achieving carbon neutrality by 2050. This is in line with the Group's mission "Changing our surroundings, improving our world", as well as meeting the demands of our customers and investors and the expectations of our employees.

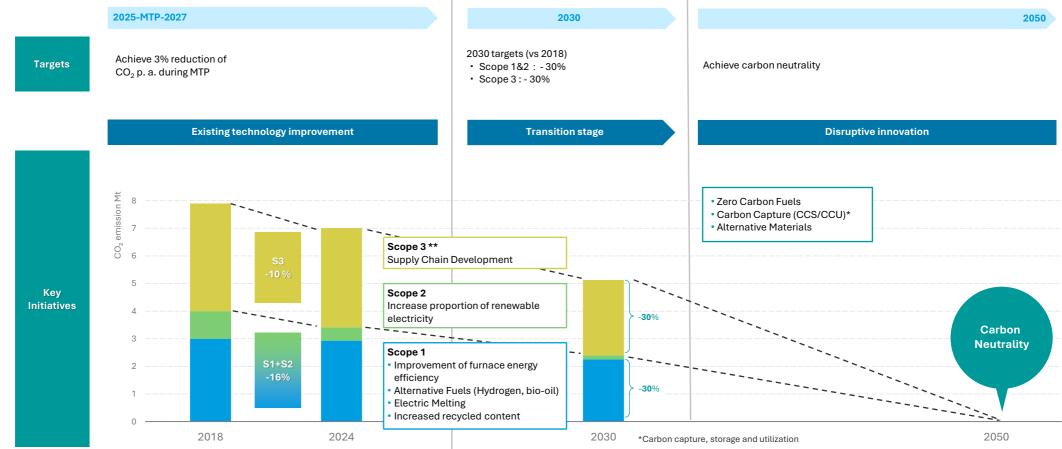
Historically activities to reduce emissions from float operations

focused on conversion of the fuels used from heavy oil to natural gas. This delivered around 50% reduction in CO<sub>2</sub> emissions over the past 40 years. In combination with significant design changes and various operational innovations, we continue to make further progress. This operational efficiency impact remains one of the key aspects of the NSG Group decarbonization roadmap.

The roadmap set out below is embedded as an action plan at

company-wide level and at local level, e.g. at production sites. The implementation of this roadmap will lead to a reduction in CO<sub>2</sub> emissions and, in turn, to the continuous development of Sustainability and products and the expansion of opportunities related to our business.





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# **Sustainability and Products**

# make*change*™

The NSG Group has identified Environment as one of the key material aspects, which is an important issue for both medium and long-term sustainable corporate growth, as well as contributing to the realization of a sustainable society. Through the timely provision of our unique and valuable products and services, we aim to contribute to solving important social issues such as climate change and biodiversity.



## **Business Development and Strategic Products**

The NSG Group has identified Environment as one of the key material aspects, which is an important issue for both medium and long-term sustainable corporate growth, as well as contributing to the realization of a sustainable society.

Through the timely provision of our unique and valuable products and services, we aim to contribute to

solving important social issues such as climate change and biodiversity.

Our group has set increasing the sales ratio of strategic products as a target under one of our materiality, Social Shift and Innovation, and is continuously striving to achieve this goal. Below, we introduce initiatives for the sustainability and products across each SBUs.

For details on strategic products, please also refer to the NSG Group's Business and Strength section.

#### Architectural Glass

Within the Architectural Glass business, product development is advancing to promote the energy efficiency of buildings and the utilization of renewable energy, aiming towards the realization of a decarbonized society. Pilkington Mirai™, an environmentally conscious product developed with a focus on reducing CO<sub>2</sub> emissions during the manufacturing process, has been launched and is being sold in Europe.

- Thin-film solar panel glass and coating glass are strategic products that contribute to a decarbonized society and enhance the energy efficiency of buildings.
- Multi-pane glazing and vacuum insulated glass (<u>Spacia®</u>), utilizing online and offline coating technologies, enhance the thermal insulation and heat-blocking performance of buildings, contributing to improved energy efficiency in urban areas. We will continue to differentiate our products and strengthen our supply system through the introduction of new equipment and technological development.

#### Automotive Glass

In the Automotive sector, the advancement of electric vehicles and autonomous driving is driving demand for enhanced functionality in automotive glass.

- The world's highest quality ultraviolet and infrared-blocking glass for front doors has been favored by users for many years as a product that combines comfort with energy-saving performance. Furthermore, Advanced Driver Assistance System-compatible windshields have become indispensable components for nextgeneration vehicles to improve safety.
- Furthermore, the development and supply of high-performance product lines has commenced, combining comfort and safety with advanced features such as roof glass with dimming functionality and Augmented Reality Head-Up Display (AR-HUD) -compatible windshields front glass with heating functionality.

## **Technical Glass (Creative Technology)**

The Creative Technology business develops unique materials that contribute to the evolution of customers' products, enhancing energy efficiency and sustainability across numerous market segments.

- For future environmental challenges, high-strength, high-heat resistance and high-modulus glass fibers contribute by enabling the lightweighting of various components. In the optical area, where the Group have cultivated expertise over many years, we offer products including printer lenses, glass lenses for AOI that contributes to reducing defects in optical communications and products, and high-strength, ultra-thin glass for displays. In the digital area, which responding to advances in high-speed communications, we provide glass flakes with low dielectric properties and coating liquid for various optical communication devices.
- We will accelerate business development by expanding global marketing capabilities and strengthening collaboration with the R&D department.







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# Contribution to CO<sub>2</sub> emission reduction in society through the use of our products (avoided emission)

Our value-added glass products, manufactured using our advanced thin film formation technology, contribute to reducing CO<sub>2</sub> emissions in society through the creation of renewable energy and the reduction of heating and cooling in buildings.

#### Contribution through the creation of renewable energy

The transparent conductive film (TCO) coated glass we provide is a key component in thin-film solar cells. According to First Solar's "Corporate Responsibility Report 2025" (Page 13), from 2002 through 2024, First Solar has sold more than 75 GW of PV solar modules, and our group has made a significant contribution to the creation of this clean energy. Through the characteristics of our glass products, such as high light transmittance and excellent energy conversion efficiency, we are contributing to the realization of a low-carbon society through the clean energy generated by First Solar's solar panels.

Furthermore, our glass flake products play a vital role as coating materials for offshore wind power generation facilities. They deliver outstanding corrosion resistance in harsh marine environments, suppressing equipment degradation and thereby reducing maintenance frequency. The heavy-duty anti-corrosion properties of glass flake-containing coatings are employed in areas where repair painting is difficult and durability is essential, with offshore wind power generation facilities being one of their primary applications. This enhances service life, enabling stable power generation over the long term.

Offshore wind power generation facilities utilizing our coating products indirectly support the stable supply of renewable energy by enhancing service life and operational efficiency. This facilitates the replacement of fossil fuelderived power generation through increased cumulative electricity generation from wind power, thereby contributing to CO<sub>2</sub> emission reductions.

Through the provision of such products, we shall continue to contribute to the expansion of renewable energy and the realization of a low-carbon society.

#### Reduction of CO<sub>2</sub> emission from heating and cooling of buildings through the use of high-performance Low-E Insulating Glass Unit (IGU)

Our Low-E Insulating Glass Unit (IGU) has high thermal insulation performance, which helps reduce  $\mathrm{CO}_2$  emissions caused by heating and cooling in buildings. When calculating the effects for certain buildings\* in Japan where activity levels could be measured, the total  $\mathrm{CO}_2$  reduction achieved over the building's lifespan from April 2024 to March 2025 through the use of our Low-E Insulating Glass Unit (IGU) approximately 150,000 tonnes. The  $\mathrm{CO}_2$  emissions during the manufacturing process of a typical window glass over one year were approximately 84,000 tonnes. This demonstrates that our Low-E Insulating Glass Unit (IGU) achieves  $\mathrm{CO}_2$  reduction effects that sufficiently exceed emissions during manufacturing.

#### \*Consideration conditions

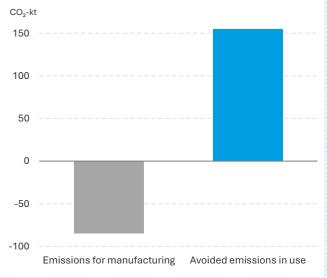
For residential buildings (detached houses, apartment buildings) and non-residential buildings (offices), calculations were made using the Eco Glass Simulation provided by the Flat Glass Manufacturers Association of Japan (Eco Glass Operational Carbon Simulation, only in Japanese). The regional classification was set to region 6 (Tokyo 23 wards, Osaka City, etc.), and new construction (Grade 4) was selected. Emissions during manufacturing are calculated by referencing "Calculation of Embodied Carbon for Each Type of Glass in Buildings" (General Incorporated Association of Flat Glass Manufacturers, September 2025, presented at the Architectural Institute of Japan).

	Detached houses	Apartment buildings	Non-residential buildings		
Target product	Low-E double glazing Low-E triple glazing (LE3-A12-FL3)	Low-E double glazing (LE6-A12-FL6)	Low-E double glazing (LE10-A12-FL10)		
Comparative product	Clear double glazing (FL3-A12-FL3)	Clear double glazing (FL3-A12-FL3)	Clear single pane glass (FL)		
Glass usage period	20 years	20 years	30 years		

Note: This calculation focuses specifically on the contribution made by the glass. The window frames use the same material (aluminium) for both the target product and the comparison product.



Comparison of  $\rm CO_2$  emissions for manufacturing and  $\rm CO_2$  reductions by using Low-E Insulating Glass Unit (IGU) etc. sold by our company in Japan from April 2024 to March 2025



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#### **Architectural Glass**

Through their superior performance, our glass helps to play a crucial role in supporting these environmental and societal issues by improving the energy efficiency of buildings and helping to reduce  $CO_2$  emissions and we feel this is an important business opportunity for us. To facilitate this activity, we have now launched a new sustainability communications platform, make *change* , which helps us to communicate our passion and commitment for positive change to support the business in sharing our sustainability messages.

Here are some examples of our environmentally friendly products that we offer.

#### NSG Group online coating capacity

The Group successfully completed the conversion of a line at Rossford, Ohio, USA from architectural and automotive float glass production to a solar TCO line in early 2025. The project expands the Group's online coating capacity to meet the growing global demand from First Solar for NSG Transparent Conductive Oxide (TCO) glass and reinforces the Group's commitment to the renewable energy market.

The Rossford project also included the installation of a Pollution Control Plant (PCP) to reduce air pollutants, while protecting our people, our community and our environment.

#### New solar array in USA

The Group also commissioned its newest 2.0 MWp photovoltaic solar array at its Ottawa facility, Illinois USA, this year which will supply about 3.9 GWh's of renewable electricity annually.

The new array, owned and operated by SolAmerica Energy, based out of Atlanta, GA, will provide energy to the facility for the next 15 years under a power purchase agreement.

The build is powered by over 5,000 advanced thin film Series 7 solar modules manufactured by First Solar using NSG Group's solar energy glass products.

NSG Group has several solar energy projects around the world. In North America, in addition to this newest solar array in Ottawa, there is a 0.25 MW solar array in Northwood, Ohio commissioned in February 2011 and a 1.4 MW solar array in Rossford, Ohio commissioned in April 2022. A second solar array is under consideration in Rossford.

#### - Pilkington Suncool™ Q - Where Light Meets Performance

In the race towards sustainable building design, Pilkington

Suncool™ Q stands out as a game-changer. This advanced solar control glass delivers an exceptional combination of high daylight transmission and superior energy efficiency — helping buildings and its occupants stay cool without sacrificing natural light.

By minimizing solar heat gain, Pilkington  $Suncool^{\mathbb{M}} Q$  helps to reduce the demand on HVAC systems. The result? Lower energy consumption, reduced  $CO_2$  emissions, and significant cost savings over the building's lifecycle.

What truly sets Pilkington **Suncool**<sup> $\mathbb{N}$ </sup> Q apart is its ability to push the boundaries of physics: maximum light, minimal heat — all with a beautifully neutral, crystal-clear appearance that meets the highest architectural standards.

The Pilkington **Suncool™** Q range includes three finely balanced variants — Q 50, Q 60, and Q 70 — each offering a different balance of light transmission and solar control. This allows architects the ability to tailor glass performance to suit the orientation and needs of each façade, all while maintaining a consistent, color-neutral appearance across the entire building envelope. By maximizing natural daylight and reducing dependence on artificial heating and cooling, the range also supports lower energy costs — delivering comfort, performance, and visual harmony in equal measure for residents.

For investors, it's a smart choice: a product that aligns with ESG priorities, enhances occupant comfort, and boosts long-term asset value. Pilkington **Suncool™** Q isn't just high-performance glass — it's a clear investment in the future.

Ottawa Solar Array



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#### renew:glass -Giving Glass New Life



Launched under our make*change*™ sustainability platform, renew:glass is a long-term initiative dedicated to increasing glass recycling and promoting circularity across the value chain. With a focus on raising awareness, education, and championing best practices, renew:glass supports the Group's strategic goal to increase cullet usage—recycled glass used in production—which directly reduces CO<sub>2</sub> emissions. Recycling one tonne of end-of-life float glass can save up to 700kg of CO<sub>2</sub>.

Through strategic collaborations, recognition, and educational outreach, renew:glass has already delivered tangible impact. Key achievements include tailored customer communications, onsite recycling guidance, and marketing assets such as certificates, trophies, and social toolkits to help celebrate partner contributions. Joint marketing case studies have also increased visibility, strengthened customer engagement and accelerated adoption by offering partners a platform to celebrate and amplify their own ESG credentials.

The initiative reflects strong cross-functional collaboration across R&D, manufacturing, and commercial teams—an approach that was critical to its successful launch and now plays a key role in helping to secure sustainable raw materials to support wider decarbonization efforts, including the development of next-generation products such as Pilkington **Mirai**™.

#### **Automotive Glass**

Sustainability is now at the forefront of the automotive industry agenda, OEMs are now implementing sustainability targets for Automotive components including glazings as part of their sourcing decisions for new business. Glazing accounts for a non negligeable amount of 5-6% of a vehicle carbon footprint from cradle to gate. These targets although customer dependent will revolve around the main themes of target date to achieve carbon neutrality, intermediate targets for product carbon footprint, use of renewable energy, and recycled content. NSG's Decarbonization Roadmap and activities are very much aligned with our customer's expectations in terms of areas we are investigating, although some OEMs are setting more challenging targets than the NSG Group roadmap. It is therefore critical that we communicate, collaborate with the OEMs for them to understand the challenges faced by the glass industry as a highly energy intensive industry, whilst promoting the vast array of work that we are undertaking and finding areas of collaboration which are financially viable to meet their targets.

#### Sustainability Promotion at Customer

As a consequence of this shift by OEMs, In the last year, NSG have shifted our approach to what we would traditionally call Technology Days at customers where we would promote our new products to "Green Days" where sustainability is at the core of the agenda. We have so far held events at 3 different customers and planning more going forward. Whilst these events are tailored to the customers, they address all the sustainability themes using of mix of formal presentation, exhibits/physical samples demonstrating current achievement and other opportunities for integration of these solutions into Automotive Glazings. We have received excellent engagement from our customers, enabling open discussions and shared experiences about the challenges facing the industry, including the financial constraints. These events along with our other pro-active discussions with the OEMs

demonstrate NSG's commitment to Decarbonization. As a result of this approach various initiatives are now in place to pilot some of the key areas with our customers, which will drive the implementation and potentially the acceleration of adoption.

It is clear that going forward, to increase such engagement with our customers, we have also to increase our internal knowledge on sustainability throughout the automotive commercial organization. To achieve this, we have put in place Sustainability Champions within each Customer Service Team to be the customer contact on Sustainability matters. This involves providing an extensive internal training and education program for our teams globally, which is now underway.



NSG Team: Green Day @customer

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#### High Recycled content materials

NSG has been working closely with suppliers to provide materials with higher recycled content with dual benefits of lower carbon footprint and reducing the amount of virgin materials used. We have now various products on offer such as Encapsulation materials for front/rear quarters and backlite, other components with aesthetic finishes and products to aid the OEMs to assemble the glazing on the vehicle. These materials have recycled content and reduction of carbon footprint up to 75%. Extensive validation has been carried out to ensure that these materials meet the same criteria in terms of functionality, durability and aesthetics as the current materials whilst remaining affordable.

Whilst not all components used in glazing systems can be recycled, the NSG team continue to evaluate every opportunity to decrease our Environmental impact. A recent example is the packaging material used to store the black inks, that previously were supplied to NSG in plastic containers. By working with our suppliers, NSG was able to switch from using plastic containers to recyclable containers, that helps to reduce the amount of waste sent to Landfill.

# Standard finisher after weathering "Green" finisher before weathering "Green" finisher after weathering Post-industrial recycled (PIR)

polypropylene (PP)

#### Collaboration with OEMs and Suppliers for the Next Generation sustainable Products.

In recent years,  $\mathrm{CO}_2$  reduction has become an even more important issue in order to comply with carbon neutrality regulations in each country. For EVs, range extension is a must to increase adoption. In parallel, there is a need for the OEMs to development more advanced products to stay relevant with their customers, whether it is for comfort, safety or connectivity. Whilst such products provide enhanced functionality for the end-customer, they usually require energy and therefore it is critical that they are as energy efficient as possible. As a result, the

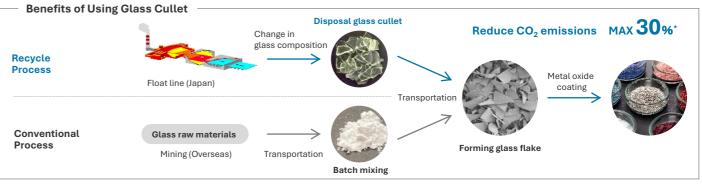
automotive products are becoming more and more complex and reliant on collaboration between the OEMs, various suppliers, start-ups looking at a total system solution. NSG with its knowhow and technology in areas such as coatings is at the forefront of this, actively participating in the development of such ecosystems for various applications such as high performance heated windscreens reducing the power required compared to traditional system and enhanced windscreen display with smaller less energy intensive light source.

#### **Technical Glass**

Glass is an eco-friendly material that is light, strong, fire resistant, electrically insulative and chemically resistant. Raw materials used include silica and soda ash, and the product can be recycled after use. It is possible to enhance performance properties such as strength and heat resistance by formulating the raw material composition. By fully leveraging the properties of glass, Technical Glass business is improving products and production processes. By solving customers' challenges, we contribute to the realization of a sustainable society. Below are examples of fields where our technology is being utilized.

#### Upcycling of Waste Materials

In response to the growing severity of environmental issues, our company is actively engaged in upcycling—breathing new life into discarded materials. This approach is an essential solution to resource depletion and waste problems, and is vital for realizing a sustainable society. Through our proprietary technologies, we transform waste materials into valuable products for markets and customers, contributing to the advancement of a circular economy. For example, we have developed a recycled glitter material called "METASHINE ECO"" for industrial applications by utilizing glass cullet—scrap glass generated during the grade change process of float glass production. This initiative not only reduces waste glass but also cuts down on energy consumption and  $\mathrm{CO}_2$  emissions associated with conventional manufacturing processes such as mining, marine transportation, mixing, and melting.



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#### - Prevention of Marine Pollution

In recent years, marine pollution caused by microplastic beads has become a growing concern, prompting stricter international regulations, particularly in the EU. Microplastic beads are used as ingredients in cosmetics, and there is increasing demand for environmentally friendly alternatives.

Leveraging our long-standing expertise in glass manufacturing and processing, we offer the "MAR'VINA®" series of powders (including SILKYFLAKE® and GLACIA DROPS®) as sustainable alternatives for base makeup applications.

These are made from carefully selected, naturally derived and safe raw materials. Although they are inorganic, they have a soft texture that is gentle on the skin and safe for the environment.





#### - Reduction of CO<sub>2</sub> Emissions

Reducing  $\mathrm{CO}_2$  emissions is an urgent global challenge in the fight against climate change. Utilizing our proprietary glass composition development and manufacturing technologies, we provide glass materials for aircraft, automobiles, and general industrial applications, contributing to weight reduction and, consequently, lower  $\mathrm{CO}_2$  emissions.

For example, our ultra-thin glass "glanova™", with a thickness of 1.1 mm or less, offers exceptional strength and is used in lightweight windshields for sports cars. Additionally, our highelasticity, high-strength fiber "MAGNAVI™" boasts superior impact resistance compared to carbon fiber and is used as a reinforcing material in composite structures.





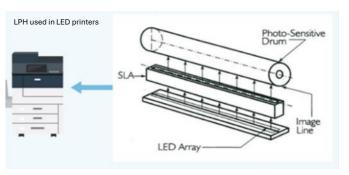
#### Achieving Energy Efficiency

In response to global warming countermeasures and rising electricity costs, energy-saving measures are increasingly in demand. To address this challenge, our company leverages proprietary optical technologies to help reduce power consumption.

Our "SELFOC" series of gradient-index lenses enables simple and compact optical designs. In LED printers, our SLA\*2 is used in the LPH\*1 eliminating the need for complex optical systems and mechanical components, thereby contributing to energy savings.

In addition, server cooling within data centers requires a significant amount of electricity. We have developed ultra-fine lenses (with the same diameter as optical fibers) that can be used with refrigerants for liquid immersion cooling technology\*3, which is an efficient cooling method, and are working with our customers to establish this technology.

- \*1 LPH: LED Print-head \*2 SLA: SELFOC® Lens Array
- $\star^3$  Liquid immersion cooling technology: A cooling technology that immerses entire server equipment in a specially designed insulating liquid



SELFOC® Micro Lens with the same diameter as optical fiber



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# **Energy**

# **Energy Usage**

We work continuously to minimize energy input into all our processes, so that the usage of glass contributes net benefit to sustainability.

Please refer to the "NSG Group Energy Policy".

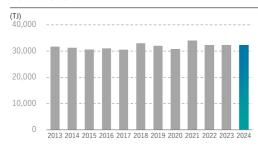


## Our energy usage and carbon emission

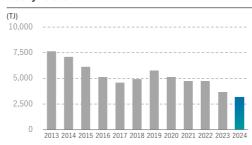
For both environmental and financial reasons, we continue to use natural gas as the fuel of choice for glass melting. Float furnaces continue to be converted from heavy fuel oil to gas. Automotive furnaces are in trend from gas to electrical heating to follow renewable electricity share increase.

Small quantities of diesel and LPG are used for space heating and back up generators. See the graphs for consumption and carbon emission in details.

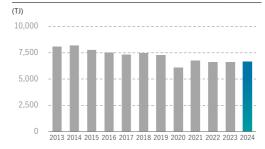
#### Natural Gas



#### Heavy Fuel Oil



#### Electricity



#### **Carbon Emission**



# Initiatives to reduce energy usage & carbon (CO2e) emission

#### **Energy & Carbon Management**

All initiatives are monitored by the Heads of SBUs and Group functions at six-monthly Energy & Carbon management Committee meetings.

#### **Energy & carbon management SBU committees**

The energy pilot plant program was replaced during FY2022/3 with the introduction of management committees at SBU level. The role of these committees is to facilitate focused engagement across the SBU with involvement of the SBU executive team and other key central functions. This gives the opportunity to provide focused identification and dissemination of activities relevant to the SBU as well as general Group level initiatives. Alongside energy efficiency activities, the committee also coordinates progress of decarbonization roadmaps at an SBU level which are derived from regional and local plant level proposals. This 'bottom-up' approach is one of the key aspects for decarbonization target achievement with ownership of the roadmap at a local production site level.

This management approach has facilitated the development of the NSG Group decarbonization roadmap. This roadmap focuses on the implementation of five key activities to support the achievement of the mid term (2030) Science Based Target achievement and long term (2050) carbon neutrality. The five stages run in parallel incorporating existing activities as well as development and implementation of technologies and processes of the future. The program is detailed in the figure below.

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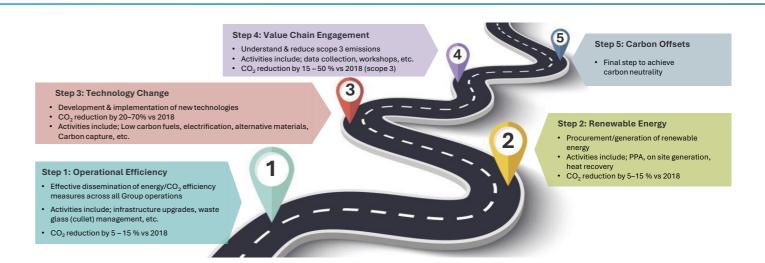
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Progress of this roadmap is coordinated by the Energy & carbon management core multifunctional team, with management committee progress reviews on a six-monthly basis. The first iteration of the roadmap focused on a 'top down' approach to identify at a Group level the opportunities and program actions necessary to implement those opportunities to achieve targets. This roadmap continues to be further developed with the ongoing evaluation of the 'bottom up' activities, leading to the regular revised iterations of the NSG Group action plan for decarbonization. Now into the fifth iteration of development, specific examples of these actions are included in the following sections:



## Operational energy & carbon efficiency projects

The Operational Cost Saving program aims to reduce all operational costs in the areas of prime and overhead costs. One of the largest prime costs for the Group is energy.

As part of the NSG Group medium term plan, energy and carbon efficiency / cost reduction activities are classified according to the financial saving, cost and/or level of technology innovation into one of three categories:

Kaizen	Continuous improvement projects. These projects continue to be r eferred as operational cost saving activities(OCS)
Kaikaku	'Big Change' projects, achieving significant improvements in efficiency / cost reduction
Kakushin	'innovation' projects, which require some level of innovation as we ll as significant improvement in efficiency / cost reduction

To support the cost saving activities across sites, a deep analysis of all energy projects within the 3K OCS database is regularly completed. Multiple projects were identified for rapid dissemination in FY2025/3 to deliver energy consumption, CO<sub>2</sub>e reduction & cost savings. Each manufacturing site within the Group had at least one active 3K OCS energy project in FY2025/3. Led by Manufacturing Excellence and assisted by other Group functions, NSG Group sites identified more than 200 energy and carbon optimization opportunities, resulting in annual energy efficiency improvements in excess of 50GWh and CO<sub>2</sub>e savings in excess of 30kt. The method of dissemination was further enhanced during FY2025/3 with the introduction of bi-monthly regional energy & carbon champion review meetings. These meetings focus on the identification and communication of best practice projects. The site champion that has implemented the project is encouraged to develop a summary of the project and present this during the meeting, allowing other sites to

understand the details of the project and develop a plan for implementation at their responsible site.

Major projects include; furnace fuel combustion optimization, reducing electrical requirements of motors, optimizing compressed air systems, energy sub metering, energy efficient lighting, fuel switching, cogeneration processes, waste heat and energy recovery.

An initiative to engage in Industry 4.0 or Internet of Things (IoT) for energy management continued to be progressed during FY2025/3. This includes analytics of process data including energy metering with the goal of optimization of energy consumption &  $CO_2e$  emission. The analytics also supports the identification and development of new projects, such as identifying energy waste & management of tariffs. This project links directly to the broader aspects of digitalization of NSG operations and activities which is a Group level initiative – Digital Transformation, one of the 4 "D"s of the NSG Group MTP strategy.



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Several other digitalization projects for improved energy efficiency are under development across the organization, with pilot applications implemented in the UK, North America and South America.

A focus on the energy & carbon efficiency of operating furnaces when they are repaired was launched in FY2020/3 and continued to be implemented in FY2025/3. The program continues as a key activity within the specific actions for efficiency improvements in addition to the general efficiency benefits of furnace repairs. This program has now been implemented at several furnace repairs, including 2 repairs in FY2024/3 resulting in significant improvements in efficiency expected across the full life (at least 15 years) of the furnace operation.

## **R&D** activity

Reducing  $\mathrm{CO}_2$  emissions and maintaining the security of energy supply for our furnaces will remain fundamental to our continued business. Implementation of incremental technology changes will be required in the short and mid term to minimize capital expenditure.

During FY2021/3, the original R&D decarbonization project (Project Carbon 2050) was separated into a series of individual project activities to support the delivery of the Group strategic mid term targets (RP24) and longer term Science Based Target goals. In FY2023/3, these individual projects continued with the implementation of several specific project actions to "test" the application of various technologies in supporting delivery of the targets with viable solutions. A key project that continued within FY2023/3 was the application of hydrogen as a low carbon alternative fuel in the float glass manufacturing processes. In August 2021, NSG Group achieved a global first with tests of the use of hydrogen at its Greengate Works in St. Helens, U.K.

The initiative is part of a project managed by HyNet, a consortium of industries in the North West of England, aimed at reducing carbon emissions from industry, homes and transport.

The work is supported by £5.2m of funding from the UK government under the Industrial Fuel Switching Scheme. NSG Group are investigating whether hydrogen can be used to wholly or partly replace the natural gas and oil that are the standard fuels for the glass making industries. If all of the natural gas can be replaced with hydrogen this would reduce emissions of scope 1  $\rm CO_2e$  by around 80%. The float glass produced from this successful trial has an overall carbon footprint of 40% lower than standard float glass.

The development of hydrogen and other alternative, low/zero carbon fuels continued from 2021 into 2024, with another global first achieved by the Group with the production of float glass utilizing a bio derived fuel oil in 2022.

Carbon Capture - System of the small unit for Carbon Capture and storage from waste gas stream installed to float furnaces at Greengate site in St Helens, U.K. The system has successfully been separating  $\mathrm{CO}_2$  from the waste gas stream as part of our carbon capture technology trial with a 3rd party collaboration - C-Capture. This is to follow our decarbonization road map and develop other options to reduce  $\mathrm{CO}_2$  content in our products. The trial forms part of C-Capture's UK government funded national project, "XLR8 CCS – Accelerating the Deployment of a Low-Cost Carbon Capture Solution for Hard-to-Abate Industries". The project aims to demonstrate that a low-cost carbon capture solution is a reality for difficult-to-decarbonize industries in the race to net zero.

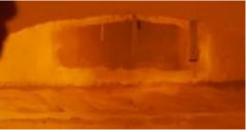


C-Capture test facility installed at Greengate site, UK





Flame appearance inside the furnace using a fuel blend of 80% natural gas and 20% Hydrogen



appearance inside the furnace using a fuel blend of 100% Hydrogen

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## Management systems

We have maintained ISO 50001 certification across all operations in Germany, Italy, Finland and the Automotive engineering function. In addition, the certification has been extended to included operations in South America (Chile) with ongoing plans of further implementation in FY2025/3 across Brazil & Argentina. Investment in sub-metering hardware and software installations allows a high level of transparency in energy consumption and enables a sophisticated energy planning process with improvement activities, target setting and frequent reviews to be established. This is a key component of the ongoing strategy within FY2025/3 to link Digital Transformation and Decarbonization activities, two of the strategic 4"D"s of NSG Group.

## **Energy Savings Opportunity Scheme (ESOS)**

All UK manufacturing sites are continuing to participate in the UK government Energy Savings Opportunity Scheme (ESOS).

Currently, we have just completed phase 3, the scheme is linked to the UK government commitment to the EU Energy Directive article 8. Sites are assessed by certified external auditors with the aim of identifying viable energy saving project activities. The assessment includes verification of energy consumption data and site energy audits which result in a set of published recommendations signed off by a UK senior management representative. A number of initiatives identified within the scheme have been implemented and disseminated across other regions. Similar schemes exist in several EU and other countries either at a mandatory or voluntary level with many sites participating.

## Renewable on-site energy generation and alternative fuels

In 2020 the Group published (via CDP response) a target to increase the proportion of certified renewable electricity (as purchased and/or via on-site generation) to 50% by end of 2024 vs 2018 baseline consumption proportion.

Although the total proportion of renewable electricity achieved was 36% in 2024, this achievement demonstrates the continuous improvement in increasing the proportion of renewable electricity. The affordability and availability of renewable electricity during 2024 affected the opportunity for further improvements.



During FY2025/3, further project initiatives were launched. As one of the results, building on the signing of a power purchase agreement (PPA) with EDP Renewables (EDPR) in 2024, the world's fourth largest renewable energy producer, for the

renewable electricity generated by a wind farm located in Poland. The PPA program was extended to include activities across several regions involving multiple sites. The purchase of certified renewable generation certificates (REC's) in countries across Europe, the America's and Asia regions continues.

The purchased of REC's is a key part of the decarbonization transition activities with the expectation that over a period of the next years, the proportion of REC's purchased will decrease and be substituted with increasing quantities of electricity purchased via PPA's.

In addition, continued investigation and investment (via internal capex or utilizing third party funding approaches) in on-site generation has been made.

Alongside the existing on-site generation facilities at the NSG technical center in the UK (Lathom) which became operational in 2020, the Northwood technical center in 2021 (Ohio, USA), the Rossford fabrication operations facility in 2022 (Ohio, USA), and

the Aken (Germany) automotive fabrication facility in 2023. Further expansion of on site generation projects has been implemented in Maizuru (Japan) and Ottawa, Illinois. Further projects are under evaluation in Europe, North America, Malaysia, Japan and several other locations.



The thin film solar panels in Rossford plant



On-site solar generation facility at Ottawa, IL (USA). The largest focused array solar project in NSG Group

#### <Press releases>

NSG Group Signed a PPA for Solar Power in Maizuru Plant, Japan (3 (28 March 2024) New Solar Array in Ottawa, USA (3 (30 May 2025)

We continue to evaluate and utilize alternative low carbon / renewable fuel sources across the Group operations. As well as the Hydrogen and bio derived fuel trials in the UK, investigations are ongoing to identify viable sources of such fuels in other global locations. A feasibility study of the supply chain for such bio derived fuels was completed during 2024, supported by external experts. The focus of this analysis was to understand the current and future markets for bio derived fuels, primarily within the Asia region. Separate to this study, a review of opportunities within Europe was also completed. The results of these analyses have been integrated into the bottom up roadmaps for float glass manufacturing sites where relevant.

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## Partnership with suppliers

We continue to partner with key suppliers to develop projects to reduce energy consumption in our manufacturing sites. Close collaboration with leaders in specific technologies is enabling us to implement optimum solutions to specific energy management challenges. Collaborative projects undertaken include; utilization of battery storage systems to support reduction in consumption peaks in electricity demand, addressing compressor inefficiency and installation of high efficiency motors and to make better use of waste heat generated in our glass-making processes.



## **Employee energy efficiency awareness**

An energy management training program, designed to help the Group deliver cost savings and reduced  $\mathrm{CO}_2\mathrm{e}$  emissions, has continued to be rolled out globally. Launched in 2016, the program has been implemented across European, South American, Japan, South East Asia and in 2024 USA operations.

The initial program involved local site energy champions in a "back to school" initiative that increased levels of energy awareness and supports the on-going generation of energy and carbon management project activities. The key aspect of the training is to help the delegates understand the approach to energy and carbon management, how they can identify and

implement activities at their sites and encourage others to do so.

Following the successful implementation of remote training solutions developed in FY2023/3, several discrete training sessions were held to both educate new energy champions as well as providing 'refresher' training to previous attendees. This activity was supplemented with the development of various energy management auditing tools to support implementation of best practices. A specific focus during FY2025/3 has been the continues implementation of a back to basics program to ensure continued adoption and development of the existing best practice management activities in place across the Group. To date, the training has directly involved more than 140 champions, with identification and implementation of over 600 projects. Energy savings have exceeded JPY 180 million, and reduced  $\mathrm{CO}_2\mathrm{e}$  emissions by more than 14,000 tonnes.

The initiative comprises three levels of training, with level 1 involving 50 hours in all aspects of energy management. It is designed to support site energy management activities and give formal qualifications to the delegates with the cost of the course being recovered by the delegates identifying and delivering energy cost-saving projects.

The course is organized with the support of local functional teams and was led by David Cast, Environment and Climate Change Director, NSG Group, Grzegorz Kociubowski, NSG Group Energy & Carbon Manager and Zeeshan Qamar, Climate Change Technical manager. In October 2024, they visited the USA to conduct site visit with the site teams and to provide energy management training to the "energy champions" across the Architectural, Automotive and Creative Technology SBU's. This was the first time the program had been conducted in the USA, with positive outcomes seen in terms of increasing capabilities of the local teams and the delivery of discrete energy & carbon management projects by the delegates.

The energy management training and workshops will be continued in FY2026/3 too as they look to carry these out in different regions. This will extend the reach even further of the

training activity to develop the necessary skills across the organization in support of the decarbonization and energy efficiency goals.

Following successful completion of level 1, delegates are encouraged, where appropriate to their role, to continue energy management training with external organizations leading to level 2 and level 3 qualifications. Several delegates across the NSG Group have achieved the level 3 qualification.

Project examples that have been implemented so far include:

LED lighting replacement and controls

Replacement of motors & drives with variable speed devices

Optimizing combustion set up in furnaces and boilers

Reducing compressed air leakages and optimizing compressed air generation efficiency

Staff awareness campaigns including "shut-off" activity and inappropriate energy use

"Back to basics" program for energy management which includes utilization of energy "mini audits" in daily routines (part of 5S activities)

Since the start of 2024, workshops have been held with all of North America and European teams (AG and OE/AGR) to go through their 3K OCS projects and any carbon impact associated with this. The workshop helped improve the understanding on why we need the carbon impact for each 3K OCS project and each participant reviewed all their projects once again. The input process of 3K OCS system has also been changed.

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#### Employee Engagement Program

ACTIVITY LOG: SATURDAY 28TH NOVEMBER - FRIDAY 04TH DECEMBER

Plastic Pledge

O Yes

○ No

O 1 journey

O 2 journeys

O 4 journeys

E THIS FORM TO REPORT YOUR

Have you kept to your Plastic Pledge pledge

How many journeys have you made to or from work by an active method of transport (e.g.

walking, running or cycling) this week?

#### - collaboration with JUMP

In 2021 we launched an energy & carbon awareness program for employees based at the NSG European technical center. This program utilizes a 3rd party software platform (JUMP) called the net zero challenge (NZC). The NZC offers simple ways in which people can be more sustainable, no matter where they are on their sustainability journey. It links activities in the workplace and at home, providing practical ideas and suggestions. Progress is measured against targets with participation encouraged by reward and recognition programs. In 2022 the program was extended across all UK operations. By the end of 2024, through implementation of these simple measures, UK employees have delivered in excess of 21 tonnes of  $CO_2$ e reduction. While this is a very small fraction of the total UK emissions of NSG Group operations, the increase in awareness as a result of participating in the program is very significant and supporting the energy & carbon objectives of the Group.

#### Climate change awareness of Schools

 $-supporting \ local \ colleges \ in \ Science \ Technology \ Engineering \ \& \ Mathematics \ (STEM) \ activities$ 

During FY2025/3, the UK sustainability team members continued various engagements with local schools and colleges. This included sessions at local college "Science" days. Local schools attend these sessions with experts from NSG Group explaining various sustainability initiatives and the importance of their implementation. A particular focus is given on climate change transition and physical impacts and what the attendees can do to mitigate these impacts as well as NSG's activities. The delegates also take part in practical experiments to introduce aspects such as circularity. The program will continue to be implemented within the Group MTP to build on the positive community impacts that such activities make.





#### Your first winner is...

We've completed our first month of the Net Zero. Challenge, which means it's time for our very first voucher winner! Our top points earner was Helen M from Trees for Cities and for their incredible efforts they've received a £20 voucher. Want to be a winner next time? Earn as many Green Points as you can in March - we only took at points earned each month, not overall, so that no matter when you join you've got the same chance to win.



#### NEW: Track Your Impact!

The Net Zero Challenge is all about reducing our carbon emissions, so we've made it easier for you to track the impact of your actions. Our <u>Impact Dashboard</u> shows you the CO2 emissions your actions are avoiding, as wet as other impacts like kilogrammes of waste or litres of water. You've already helped the Net Zero Challenge clock up 1,280kg of CO2 saved through your actions! Check out the dashboard now NSG UK Sustainability and R&D team members presenting sustainability initiatives at local college



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#### **Solar Panel**

It is increasingly recognized that a move from fossil fuel is essential as supplies are finite and global warming is a reality. Solar energy panels offer alternative solutions for a range of energy requirements, from small scale domestic applications to large scale solar power stations, from cloudy northern rooftops to hot sunny deserts. Glass is an integral and important element of these solar panels. Our wide range of high-quality products is used in the three leading solar technologies aimed at converting solar energy into electricity: thin film photovoltaics, crystalline silicon photovoltaics and concentrated solar power applications. In addition to the generation of electricity, our glass products are also used in solar applications that generate hot water.

#### Aken (Germany) Plant solar farm

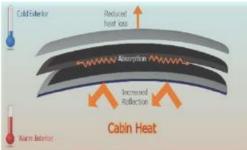


## Solar Control - Rooflight (RL) of Low Emissivity (LE) online coated glass

NSG has launched its first high performance solar control rooflight that provides occupant benefits in both summer and winter conditions. A low emissivity coating laminated with a special solar absorbing interlayer has allowed the customer to remove the internal blind system on the vehicle - providing an energy saving coupled to weight and cost saving benefits. There is further development of this environmentally friendly product as PDLC (Polymer Dispersed Liquid Crystal) glass that is adding to the Low Emissivity glass additional possibility to change Roof light's transparency by electronic

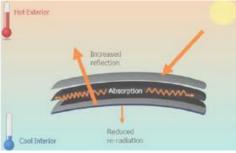
The NSG Group will promote the introduction of alternative energy sources such as hydrogen in the manufacturing process, and will actively promote efforts to decarbonize by providing products for the renewable energy market and developing products that save energy.





Winter → Reflects heat inside the vehicle and suppresses dissipation of heat outside the vehicle.





Summer →Inhibits the release of heat absorbed by the glass into the vehicle.

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# Circular Economy (Waste)

NSG Group is fully committed to reducing adverse environmental impact by maximizing the reuse, recycling or recovery of resources and minimizing the production of waste involved in glass manufacture, processing, packaging, and delivery.

Please refer to the "NSG Group Sustainability Policy" []
and the "NSG Group Environment Policy" []

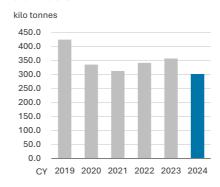


## **Re-use and Recycling of Glass**

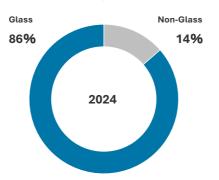
The glass manufacturing process itself produces very little waste material. All trimmed glass from the manufacturing processes of raw float glass plates is reused in the melting process and replaces virgin raw material. Cullet and rejected parts from further glass processing for Automotive or Architectural Glazing parts are reused or recycled at the NSG Group glass melting process or given to external glass recycling partners to be used in other glass melting sectors. Re-melting of glass cullet significantly helps to reduce energy consumption and related  $\mathrm{CO}_2$  emissions. Remelting of one tonne of cullet avoids approximately 400-600 kg of  $\mathrm{CO}_2$  emission.

In light of recent societal trends towards the circular economy, we set a new target for glass recycling last year. The objective is to increase the glass cullet ratio by 3 % points vs FY2019/3 by the end of FY2027/3. For FY2025/3, the glass cullet ratio increased by 0.6 % points vs FY2019/3. We are actively pursuing initiatives, such as collaborating with customers to recycle glass from downstream processing and End-of Life products. For details on these efforts, please also refer to "Sustainability and Products" in the "Environment" section.

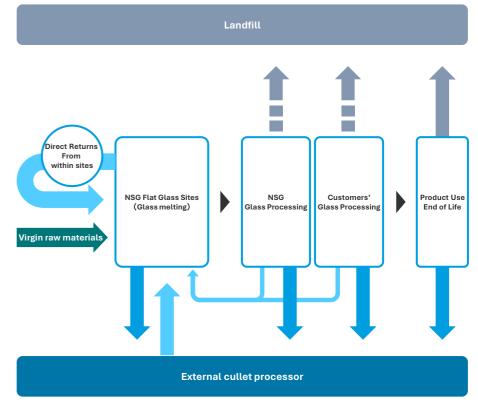
#### Total Waste\*



#### **Breakdown of Recycled Waste**



#### **Cullet flow**



<sup>\*</sup> Total Waste does not include Reused Waste (on-site Reused Glass), which is internal process.

# **Circular Economy (Waste)**

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## Compiling and monitoring of waste data

In 2019, the Group implemented a new and more sophisticated Environmental Reporting and Analysis database. All sites are reporting their waste data into this central database for further aggregation, analysis and monitoring on corporate and site level. If not monitored internally (e.g. re-used internal cullet) - the waste quantity data is based on waste transfer notes.

(kilo tonnes)			CY2019	CY2020	CY2021	CY2022	CY2023	CY2024
Total Waste*	Recycled	Non-Glass	40.5	35.5	34.2	36.0	42.0	37.1
		Glass off-site	357.0					236.0
		Recycled total	397.5	313.5	289.2	316.0	327.0	273.1
	Disposed	Incinerated with energy	2.9	2.5	3.0	3.3	2.7	3.2
		without energy	1.8	1.0	0.89	0.9	1.5	1.3
		Incinerated total	4.8	3.5	3.0	4.1	4.2	4.5
		Landfill Glass	3.5	3.9	2.1	3.3	3.0	3.4
		Non-Glass	18.6	14.5	17.5	18.3	18.6	19.0
		Landfill total	22.1	18.4	19.6	21.6	21.6	22.4
		Disposed total	26.9	21.9	23.5	25.7	25.8	26.9
	Recycled a	nd Disposed total	424.4	335.4	312.7	341.7	357.0	300
On-site Reus	sed Glass		1314.0	1233.0	1512.0	1280.0	1785.0	1314.0

<sup>\*</sup>Total Waste which does not include Reused Waste (on-site Reused Glass,) which is internal process

## Waste sent to Landfill

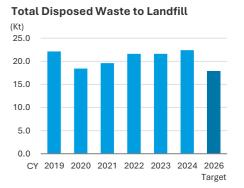
In line with the tradition and commitment of the Sumitomo Group of Companies, NSG Group is setting focus targets to reduce waste to landfill. Thus, because of the potentially significant negative impacts on the environment and human health and because the resources and materials contained in waste that is landfilled are lost to future use, which accelerates their depletion.

In former years the Group reduced the waste sent to landfill by 50 % up to 2013 versus the selected baseline year 2007 - and again by 16 %until end of 2019 versus the baseline year 2014. NSG Group set a new Sustainability target to reduce this environmental impact by an additional 20% vs. FY2024/3 by the end of FY2027/3. A small portion of glass cullet from Glass processing (3.4 kt in 2024 vs. 3.0 kt in

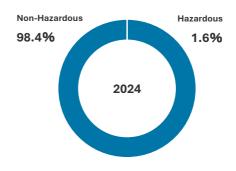
2023) is sent to landfill because of contamination - which is included in our Sustainability improvement target on waste to landfill and related activities.

The total waste to landfill in CY2024 has slightly increased to 22.4 kt (21.6kt in 2023), which was 3.7% increase compared to the previous year.

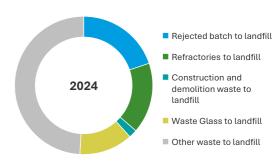
Efforts will continue to reduce this waste sent to landfill globally.



## Breakdown of Waste to Landfill (Non-Glass)



#### Sorts of Waste to landfill



# **Circular Economy (Waste)**

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## Third party waste management

Where possible, glass cullet from the manufacture of flat glass and downstream glass processing is reused back into the melting process under NSG supervision and management. Pre-consumer waste, either diverted from disposal or directed to disposal, is managed by third parties. All contracts with waste management and recycling partners are arranged with the imperative requirement to meet local environmental legislation and NSG Group data reporting requirements.

In this regard - and as a pre-condition of the waste-service contract - the waste and recycling contractors are obliged to accept the NSG Group Supplier Code of Conduct and have to maintain certificates of their environmental and waste management qualification (ISO 14001 or equivalent).

Following a risk approach, additional audits were conducted by internal environmental experts in order to determine whether the waste/recycling contractor manages the waste in line with contractual or legislative obligations.



## Other specific wastes

#### - Grinding sludge

The waste stream from grinding of automotive glass edges and glass drilling cannot be prevented, but we have been actively seeking recycling partners to divert this waste from landfill and provide a raw material for concrete products and other aggregate manufacturers.

#### Float rejected raw material

In 2024, we continued to seek avoidance and/or recycling opportunities for glass dust and rejected batch materials - occasional off-specification raw material that often cannot be blended and some sorts of dust collected by the pollution abatement equipment. Float plants in North America recently found recycling partners for significant amounts of rejected raw materials.

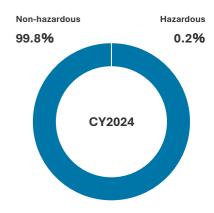
#### - General waste

Focus and support have been given to the highest volume producers to further improve general waste avoidance and segregation. Focus has been given to the avoidance and/or reuse of packaging materials. For the remaining sorts of general waste procurement has been actively involved in finding local recycling partners - rather than sending mixed general waste to landfill or incineration.

#### - Wastes generated upstream or downstream in the value chain

Beside a few trials Post-consumer cullet is not currently used in the flat glass sector because the segregation of the end-of-life product (car/building/PV panel) does not lead to sufficient quality cullet. Its inert properties mean that it is currently used as an aggregate substitute. It does not emit hazardous chemicals or decompose to emit GHG at the end of life. However, NSG Group is committed to engaging with customers, architects and regulators to improve the circular economy of flat glass and ensure that it is sufficiently well segregated at the end of life to be re-melted as a raw material in the glass sector. The environmental impacts of waste from upstream suppliers are included as part of life cycle analysis studies.

# Breakdown of total waste (without internal Glass reuse)



# Water

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# Water utilization and Water management

In glassmaking, most water is used for cooling, and most of our plants operate with closed loop systems and so only require top up. Water is also used for washing glass in plants but there the need is for very high purity, so water is treated and then re-circulated. We seek to minimize our water consumption by working with suppliers to recycle water and to install advanced water treatment facilities. Processes are managed by Manufacturing Excellence's standardization procedures (e.g. turn off washer sprays when not needed, use optimal sized nozzles, install water catchers, implement controls to prevent overflows and maintain to prevent leaks, etc.). This not only reduces the withdrawal of water itself but also the chemicals used in the treatment of the water. Across the Group, water consumption can vary considerably according to process and product demands as well as water quality. Approximately 2.6m<sup>3</sup> are required to manufacture one tonne of float glass and approximately 0.12 m<sup>3</sup> are required to process each square meter of automotive product.

We withdrew a total of 14.3 million cubic meters of water in 2024. This is about 3% less than in 2023 and 2022, and 19% reduction compared to that of FY2019/3.

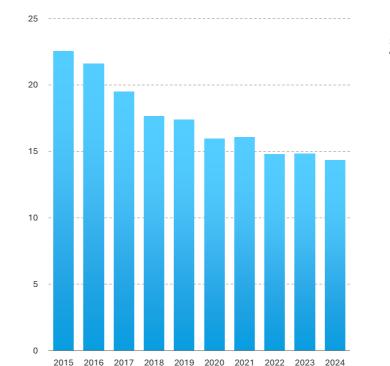
Please refer to the "NSG Group Water Policy".

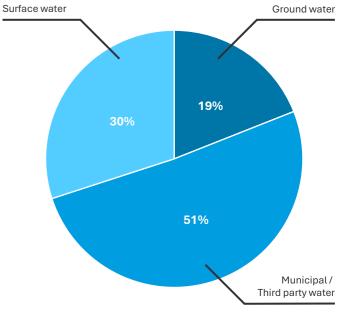


#### NSG Group total water withdrawal 2015-2024

Mm³

NSG Group Water withdrawal by source 2024





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## Water risks

We do not have any current stakeholder concerns regarding water scarcity or wastewater quality. On the other extreme of water risks, flood planning and prevention strategies have been applied where indicated. Water risks do not register as significant in the NSG Group risk assessment process; however, we will continue to assess risks at all facilities . The NSG Group Sustainability Committee reviews risk and performance and discusses related activities on water management. The NSG Group has implemented an extra Water Policy in 2020 to ensure a clear statement of NSG Group's approach to water stewardship and in order to address water quality challenges and the risks of water scarcity in support of the Group Sustainability and Environmental Policies.

In 2019 the NSG Group implemented a new and more sophisticated Environmental Reporting and Analysis database. All sites are reporting their specific information and water data into this central database for further aggregation, analysis and monitoring on corporate and site level. Our up-to-date data reporting and reviews highlights that 10 NSG sites are located in water stressed areas in accordance with the global Aqueduct Water Risk Atlas. The water withdrawal at those sites represents 14% of the total in 2024. Those sites are subject to prioritized water management reviews and improvement activities in order to contribute to the global NSG Group target to reduce the water withdrawal at sites located in potentially water stressed areas by 50% by the end of FY2027/3 versus FY2019/3.

At the Group glass melting and Automotive Glass
Manufacturing site at San Salvo, Italy, the plant management
team is strongly engaged with the Water Council of the local
community in order to manage water use and improvement
activities. The San Salvo plant also implemented an emergency
water supply management system and tested it during 2024.

In the last year, 450,000 cubic meters of water and 198 MWh of electricity were saved, generating an economic saving of 450,000 euros.

This is a virtuous trail, carried out by a cross-functional team, which brings clear benefits not only to the company but also to the local community, especially considering the water paucity that affects the area during the Summer.

This is based on employee awareness, water use efficiency, and a contingency plan in case of water scarcity scenarios. This project won the Environmental Commendation Award of the NSG Group EHS Award in 2024.

And San Salvo plant also received the "Return on Environment Award" from Veolia, a partner company for water management and plant engineering services. The award identifies customers who exceed their environmental and operational goals while balancing productivity needs.







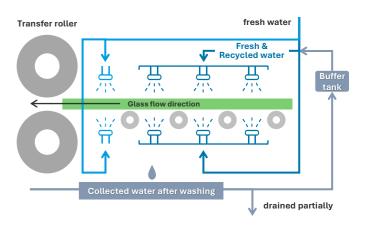
San Salvo team receives the "Return on Environment Award



Water stress map - source: Aqueduct Water Risk Atlas

## **Water saving Projects**

Beside the San Salvo Water projects and amongst other good water saving projects, another significant water saving project got implemented at a Float plant at Hanoi in Vietnam. This includes a system to collect rainwater plus water recycling at a glass washing machine - resulting in a ~17% reduction of the water demand at this plant.



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NSG Group aim to conduct our business activities in harmony with the sustainability of the global environment.

Among various environmental issues, we recognize biodiversity as a fundamental pillar of a healthy society and economy, and as one of the key areas of corporate responsibility.

We are committed to operating our business with consideration for the conservation and restoration of biodiversity, in pursuit of a society that coexists with nature.

Living in Harmony with Nature (Biodiversity

This approach is aligned with our management philosophy and sustainability vision. Alongside addressing climate change and promoting resource circulation—our most material issues—we also regard biodiversity as a critical theme requiring further action.

Our business depends on ecosystem services such as the procurement of raw materials and water supply, while also generating environmental impacts—including greenhouse gas emissions, water use, and waste—that may alter natural systems. We recognize these as sources of both risks and opportunities related to nature in our business operations.

For example, cooling water used in the glass melting process is drawn from and discharged back into the natural environment, which may have potential impacts on the ecosystem. Furthermore, we rely on nature for the supply of silica sand and soda ash, the raw materials for glass, as well as the fuel required for glass melting. Additionally, biofuels may become increasingly important in our decarbonization roadmap going forward.

Conversely, we offer products that prevent bird strikes (Pilkington **AviSafe**™), and providing such products that contribute to biodiversity conservation presents opportunities for our Group.

We are currently investigating our business's dependence on ecosystems and the impact our business has on ecosystems, in line with the TNFD framework. Over the coming years, we plan to publish a preliminary report first, followed by a report covering our global operations.

Going forward, we will continue to reassess our relationship with nature across all aspects of our corporate activities—from raw material sourcing, manufacturing, and product delivery to green space management at our sites and collaboration with local communities—as we work toward a nature-positive future.



## **Products and Biodiversity Conservation**

NSG Group is engaged in developing products that contribute to the conservation of biodiversity.

Pilkington **AviSafe™**, developed at our UK site, is a specially coated glass designed to reduce the risk of bird collisions. It features UV patterns that are visible to birds but virtually invisible to humans, enabling biodiversity conservation without compromising the aesthetics or transparency of buildings.

As regulations requiring the use of bird-friendly glass are advancing in the United States and other regions, this product offers a competitive solution that meets both regulatory requirements and environmental considerations in the architectural market. By combining with other glass products offering insulation and acoustic performance, additional value can be created. Through addressing environmental challenges, we aim to enhance customer trust, increase brand value, and expand revenue opportunities that contribute to sustainable growth. For more information, please refer to our business overview.

# Living in Harmony with Nature (Biodiversity)

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## **Conservation Activities at Our Sites**

Ecosystem Survey at the Maizuru site in Japan The Maizuru site, located in Japan, is NSG Group's largest manufacturing site in the country and values its strong ties with the local community. At NSG, we believe that understanding the impact of land use from our business activities on local ecosystems is essential to promoting biodiversity conservation. Based on this belief, we conducted an ecosystem survey within the plant premises, in collaboration with the Kyoto Prefectural and Maizuru City governments, and with support from

- Sustainability and products osprey (Near Threatened, NT), which is classified as a threatened species, as well as the Japanese red fox and the Japanese rat snake, both listed as Circular Economy (Waste) "species of special concern" in the Kyoto Prefecture Red Data Book, was confirmed. Going

> forward, we will actively promote conservation measures that are in harmony with the local biodiversity, aiming to coexist with these valuable species.

> a local environmental citizen group. As a result of

the survey, the presence of species such as the

A Japanese Green Pheasant captured by an infrared camera installed on the premises of the Maizuru site



Biodiversity survey at the Maizuru site conducted in collaboration with local experts and employees



## **Supporting Native Bees and Local Communities** through Beekeeping at the Lathom Site in UK

For several years, beehives have been maintained near the Postillion Pond at our Lathom, UK site, in collaboration with Phil Reeves and the Ormskirk and Croston Beekeeping Society. These bees contribute to local biodiversity by pollinating a variety of plants and trees on-site and in the surrounding area.

The honey produced by these bees is harvested and sold in the site canteen, with all proceeds donated to Alder Hey Children's Hospital. This initiative not only supports a local charity but also helps to engage employees in biodiversity and community-focused efforts.

Amid growing concerns over the decline of honey bees in the UK and the increasing reliance on imported foreign bees, the hives at Lathom exclusively house native British honey bees. This is part of the National Bee Improvement Programme (NatBIP), an initiative led by the Bee Improvement & Bee Breeders Association (BIBBA), which aims to preserve and improve native bee populations for long-term ecological resilience.

The hives at Lathom Site



## Tree Planting Activities at the Caçapava Plant in Brazil

As part of an initiative to celebrate the continuation of an accident-free period, the team at the Cacapava site began planting saplings in the green space located between two areas within the site. This small first step gradually spread to other teams and eventually developed into a sitewide project.

The activity was named "Our Greener Glass", and it is now conducted regularly with the goal of planting more than 30 saplings each month. A schedule has been set through the end of the fiscal year, ensuring that all employees have the opportunity to participate.

The tree planting is combined with eco-walks, providing employees with a chance to connect with nature and reflect on their responsibility for the future. Most recently, the team planted trees to commemorate achieving 3,500 accident-free days.

To date, approximately 300 saplings have been planted, mainly fruit trees and native species. This initiative also contributes to the restoration of biodiversity in Brazil's Atlantic Forest region.



## TNFD Forum Membership

NSG Group has joined the TNFD Forum, a global stakeholder network that supports and promotes the work of the Taskforce on Naturerelated Financial Disclosures (TNFD), in alignment with its mission and objectives.

The TNFD is an international initiative that supports companies and financial institutions in identifying, assessing, and appropriately disclosing risks and opportunities related to natural capital and biodiversity.

At NSG Group, we endorse the vision and mission of the TNFD and are committed to further advancing sustainability management by integrating our relationship with nature into business decision-making and corporate disclosures.

In addition, our participation in the TNFD Forum marks the starting point for a more structured approach to disclosure. Going forward, we will actively work toward implementing systematic reporting in line with the TNFD recommendations—covering governance, strategy, risk and impact management, and metrics and targets.





\*TNFD Forum

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## **Our Aspiration**

NSG conducts R&D in each of our main regional markets - Japan, USA and Europe and supports all our Strategic Business Units (SBU's). Through close collaboration with our SBU's and our customers we aim to "Drive Sustainable Innovation that Delivers Value". Our R&D activities are aligned with the financial targets of the group as well as internal and external customer requirements, focusing on the pillars of the 4 "D"s



- · Strengthening our global team.
- Developing a truly diverse and inclusive team to drive a phase shift in the organization.



Diverse Talent





- Delivering strong development pipelines in our core technology areas
   Working cross functionally to identify and evaluate new business development opportunities.
- Develop technologies which reliably collect digital data about our processes and products.
   Develop tools to enable data driven

improvements of our high value

Digital

operations

**Business Development** 

The Group has a long and successful history of developing and exploiting our core technologies and is proud to have delivered several world-first technologies and processes. Our business development activities include product and process developments associated with our core technology areas of float glass, coatings on glass, glass fibers, glass flakes and automotive glazing fabrications.

Close collaboration with our businesses and running our development activities through a stage gate process ensures our activities are prioritized to meet our businesses global and regional requirements. Additional input on the overall R&D strategy and direction is achieved through executive level reviews, allowing members of the management committee to ensure alignment with the Group's goals.

To develop our technology pipeline and strengthen our business creation capabilities, we continue evaluating new technology areas by:

- Strengthening our global network of academic collaborations and partnerships - looking at fundamental research and identifying future opportunities
- Investing in our personnel and R&D facilities to foster development of new businesses and technologies
- Working collaboratively with our businesses, customers and partners to deliver new services and creative solutions within the glass industry and related technology areas.

Some examples of current developments:-

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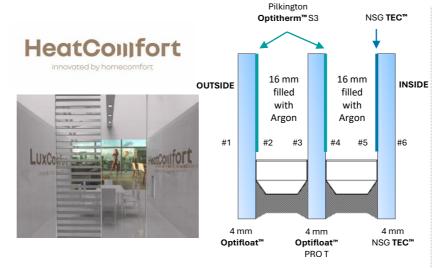
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#### **Architectural Glass Business**

NSG has introduced an innovative glass technology called HeatComfort™ - a heated insulating glass solution featuring the electrically conductive NSG **TEC™** coating.

By combining a heating concept with our advanced thermal retention technologies and superior insulating properties, HeatComfort™ glass acts as a barrier against the cold, effectively maintaining indoor temperatures and offers a sustainable method for heating and insulating homes. Offering the homeowner enhanced comfort whilst boosting a home's energy efficiency and sustainability



Pilkington **OptiWhite™** is a long established value-added product, with a characteristic blue edge color. However, a growing need was identified in the current European market for a more neutral low iron product. Pilkington **Superwhite™** was designed as a crystal-clear glass with outstanding transparency for use in both furniture and high-end interior design. The product offers exceptional transparency and brilliance, neutral color and edges, even in thicker glass, and true color rendering for decorative finishes and printed designs.

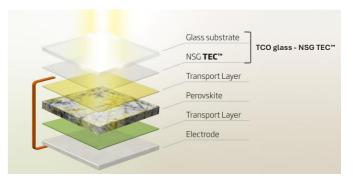
Pilkington **Superwhite**<sup>™</sup> was recognized as the fastest product development in recent years, taking only 6 months from initial concept to the first manufacture. This was accredited to the close collaboration between R&D, the manufacturing site and commercial team. The product was successfully launched in April 2025 and sales are increasing monthly. Although Pilkington **Superwhite**<sup>™</sup> was specifically designed for the European region, the next stage of the project will investigate expansion to the global market.

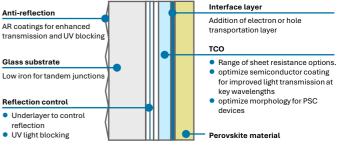
NSG group is active in the Solar PV market, providing our market leading transparent conductive oxide coated glass to established producers of thin film photovoltaic devices. These coatings are continuously evolving as we optimize

them to give further efficiency gains for our customers.

The next generation of photovoltaic technologies such as perovskite and kesterite are developing rapidly. NSG continues to build on the knowledge we have in this sector to address the requirements of these new technologies. Through collaborations with global academic institutions and companies we are accelerating the development of optimized substrates for these exciting new markets. Our goal is to provide solutions which help simplify production requirements, optimizing performance and addressing durability challenges in the solar industry.

To support our decarbonization efforts, work is underway to identify solutions to derisk the use of post-consumer glass in the flat glass industry. This work is key to ensuring access to more streams of recycled glass and to our decarbonization activities.





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#### **Automotive Glass Business**

The trend in Automotive design for the adoption of large area rooflights on battery electric vehicles continues. A recent example being NSG group's development of a laminated construction, where the interlayer contains liquid crystal particles dispersed in a polymeric gel (so-called PDLC), allowing changes to the visible appearance/opacity of the rooflight.

Our R&D activities continue to evaluate the future requirements of the industry. To support the trend for additional functionality in windshields and rooflights, NSG is collaborating with a number of companies to deliver benefits such as enhanced heating and next generation Head up Displays.

NSG continues to engage with the wider industry in the standardization of Advanced Driver Assistance Systems (ADAS) within vehicles to improve safety. R&D has developed new approaches to the detailed design of premium windscreens where multiple functionalities, such as IRR, heating and Head-up-Displays, are combined along with increasingly complex camera systems. R&D activities also support our Manufacturing operations in the development, measurement and quality control of glazings with high-end ADAS equipment.

To support our sustainability vision, work to enable the recycling of end-of-life vehicle glazing through process development to safely and reliably separate the multiple components in these devices has been undertaken.

# Technical Glass Business (Creative Technology)

Technical Glass Business, also known as the Creative Technology Business, is dedicated to creating new market value by developing and supplying unique materials that contribute to the evolution of our customers' products. Our goal is to establish new business as a future pillar of revenue. Leveraging our expertise in glass and

optical technologies cultivated over many years, we are actively engaged in research and development aimed at the commercialization of next-generation technologies.

#### -Development of Glass-Related Technologies

Through innovations in glass composition, we are advancing the development of glass fillers that offer the low dielectric properties



Mirror-finished TGV VIAs developed by NSG

and dimensional stability required for next-generation semiconductors. We are also working on the development of Through Glass Via (TGV), a promising material for next-generation semiconductor packaging. These technologies play

a vital role in enhancing the performance and miniaturization of semiconductor devices.

#### -Development of Optical Technologies

We are developing optical coating technologies using optical design and sol-gel techniques, as well as micro-optical elements. These technologies are essential for responding to key trends such as the proliferation of AR/VR, factory automation, and the advancement of autonomous driving.

In particular, our super low reflection coating materials enable high-resolution, real-time image capture through camera modules, supporting the delivery of high-quality and high-speed optical



Micro optical elements (MLA wafer up to 8 inches)

demands. Additionally, our microoptical elements are being applied to laser light source modules for Time-of-Flight (ToF) cameras, and are gaining attention as key technologies for achieving precise optical control.

solutions that meet customer

#### **Decarbonization**

Decarbonization remains an important focus of R&D supporting our businesses to reduce the energy consumption and carbon emissions associated with glassmaking, and building on the breakthrough trial work we have done in this area over the last five years. In FY2025/3 we made further progress in demonstrating technical feasibility of carbon capture (completing the trial we announced in FY2024/3) and alternative fuel technology, even running these together at one point which we believe to be an industry first. Some of the decarbonization technologies require new infrastructure and supply chains, such as alternative fuel pipelines, carbon transport and storage networks, to enable a full transformation at scale in the countries or regions that we operate. In R&D we continue to study how to derisk making glass with these technologies in preparation for this infrastructure, building in our learning from the trials we complete to ensure we have the right capabilities at our plants when required.

In the immediate term for decarbonization we work with our global operations team and have introduced novel recycled glass sources (cullet) to our production. These new sources support the circular economy, whilst also reducing energy and carbon impact. Successful trials of both end of life solar photovoltaic cullet and end of life automotive glass were completed in FY2025/3, and these cullet types are now being routinely used in production at a number of sites globally. These initiatives are helping to deliver on both our decarbonization and sustainability goals, and also feed into our renew:glass initiative launched by the Group in FY2025/3.

Decarbonization is one of our 4 "D"s at the heart of our medium term plan, and the R&D team remain committed to helping the business deliver our targets.

#### Related Links

Biofuel trial by St Helens glass giant marks new world-first towards decarbonization (28 Feb 2022) Pilkington UK Hosts Europe's First Carbon Capture Trial in

the Flat Glass Industry (21 Dec 2023)

66m project kicks off trials to demonstrate low-cost

£6m project kicks off trials to demonstrate low-cost biofuels have potential to achieve UK net zero targets.] Glass Futures



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## **Digital Transformation**

R&D's Engineers and scientists, with their deep understanding of our processes and materials, are rapidly adopting the latest digital techniques in fields such as materials discovery and advanced process control using Al. Our partnerships with leading Universities continue to flourish whilst our internal data science capability is developing at pace.

Our collaboration with the University of Liverpool on computational Materials Discovery has led to the development of several digital tools which are now being used to help accelerate our product development activities.

In Architectural, several of R&D's Manufacturing Digitalization projects are now at advanced stages of implementation with focus on quality, production efficiency and energy reduction. As examples, Digital Twins developed using machine learning are becoming an important decision support tool in the Float glass melting area and advanced model-based process control tools now incorporating AI, are now routinely used in coated glass production.

In Automotive, the Group continues to supply customers with digital design and validation of on-glass antennas, significantly shortening development time. And Digitalization of our Automotive manufacturing lines is driven not only by internal production metrics but also by an increasing need from our customers for traceability and vehicle glazings with extremely tight surface control and low optical distortion for Head Up Displays and Advanced Driver Assistance Systems.

Such complex products and ever tightening quality specifications mean a heavier reliance on Automatic Inspection Systems in NSG and R&D continue to develop some of the most important and widely used instruments. In addition to final inspection of our products, these are often now used at earlier stages of our processes for process control and to remove defects at source.

Data is at the heart of our Manufacturing Digitalization program

and NSG continues to invest in internal development by R&D of core manufacturing software & databases and introduction of powerful third party software tools for advanced reporting and data analysis. This approach is helping to leverage maximum insight and value from large & complex datasets, driving process improvement in the Group.



### **Diverse Talent**

NSG's Group R&D function operates in North America, Europe and Asia and employs a diverse range of Ph.D's, graduate scientists and engineers from over 15 nations. This ensures that we have a wide mix of skills and cultures within the organization. Close collaboration between these global and intrinsically diverse teams is a key part of the organization's approach to our research activities.

We support continual professional development of our teams and we have scientists who are members of international scientific committees and official institutes of their chosen discipline.

To support STEM (Science, Technology, Engineering, Mathematics) career development more broadly, NSG Group supports local school events to encourage children to follow careers in STEM and undertake multiple collaborations with academic institutes, undertaking foundational research.

## **Intellectual Property Policy**

The generation of Intellectual Property Rights (IPRs) is critical for the Group in terms of pursuing both its business objectives and maintaining a competitive edge in its areas of technical expertise.

The Intellectual Property (IP) team works closely with R&D and the SBUs to align NSG's patent strategy with the Group's business and R&D strategies. The IP team actively manages the Group's IP portfolio of registered IPRs. Particular attention is provided by the IP team to the registration of new patent applications which are closely correlated with NSG's core and strategic businesses and the maintenance and defense of NSG's registered patents.

Intellectual Property Rights for products, processes and technology developments are therefore meticulously secured, maintained, and enforced.

The IP team also continuously monitors third party IPR activity in key business fields. As a result, and where appropriate, the IP team will oppose the grant of third party IPRs and will vigorously defend itself against unfounded allegations of IPR infringement.

Going forward, the IP team is seeking to improve the strength of the Group's Intellectual Property portfolio by supporting the development of targeted IP roadmaps for new projects in each technology area, to facilitate the capture and generation of intellectual property rights that will best serve the interest of NSG's businesses.

Finally, as R&D enters into ever more collaborative research programs with third parties, the Intellectual Property team plays a key role in ensuring robust collaboration agreements are in place to protect NSG's efforts and interests.

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Our safety programs emphasize the importance of our vision and values, that people are our most important asset and the safety of our employees and the communities in which we operate is a core part of our ethical business philosophy.

Please refer to the "NSG Group Health and Safety Policy".

## **NSG Group Health and Safety Policy**

Reflecting its commitment to excellence in Health and Safety, the NSG group requires all operations to establish safety as the core of all activities. We will operate our businesses in a socially responsible manner, with Health and Safety being integral to all NSG . We will consult with our employees, our contractors and business processes, planning and decision making.

- We will strive to achieve the highest international standards of health and safety throughout the Group, complying with Group Policies and legal requirements
- . All accidents are preventable and we work to protect the health and safety of our fellow employees, visitors and others affected by our operations, through a continuous mprovement in Health and Safety performance.
- . We require that all incidents are promptly reported. investigated, as appropriate to the potential severity of the event, taking actions to prevent reoccurrence, NSG will use effective systems, metrics and goals in the management of all of our Health and Safety activities.
- · Contractors will be required to comply with all NSG and local legal requirements.
- . We will work to protect the health and safety of all who may be affected by our activities through safe workplace equipment and design, reducing risks of acute injuries and chronic injuries or illnesses as a result of repeated exposures or motions; implementing safe working practices and planning for the prevention and protection from foreseeable emergencies such as fire, severe weather and more.
- We recognise that safety does not end at work so we will encourage our people to apply the principles of good health and safety management to our non-working lives for the benefit of our families and communities
- All NSG operations will ensure effective management of high-risk areas and emergency preparedness and controls

- . The NSG Group will continually develop the behavioral leadership tool NABIS to improve safety leadership across all its operations and group functions; with a goal for all employees to be part of the NABIS process
- others on matters affecting health and safety and will provide and maintain the necessary resources, instruction training and supervision to enable them to work in safe

The NSG Chief Executive Officer is responsible for approving this policy. The Group Sustainability Director is responsible for reviewing this policy on a regular basis and developing procedures. The Head of the Strategic Business Units and Group Functions are responsible for ensuring the policy is implemented. The NSG Group Health & Safety Committee is their global forum to review the performance and discuss related activities. Line managers are responsible for



## Safety organization and strategy

The NSG Group Sustainability Director reports to the President and CEO Munehiro Hosonuma.

Monthly safety updates are provided to the Operational Performance Review meetings while more in-depth management reviews are completed every six months with the senior operations team comprising the heads of the four SBUs and the heads of the Group functions.

All injuries at work are regarded as avoidable. We require full reporting of all incidents, no matter how minor, and appropriate investigation to ensure we learn from all such events. The Group has a focused site approach that provides additional support and more regular reviews for sites that have more than a defined number of significant injuries.

Improving our root cause analysis is a fundamental part of the group's improvement strategy, it is only by identification of the underlying causes of accidents and incidents that the group operations will improve in the longer term.

To make these improvements, the NSG Group introduced EcoOnline's new reporting and survey tool, AVA, in 2020. This system will improve functionality in stages. As the next step for AVA, we're getting ready to introduce a behavioral observation and audit system to further support the NABIS program, and we plan to have AVA 2.0 with new features up and running by the end of this fiscal year.

## Safety performance FY2025/3

On 29 July 2024, at our Chiba Plant in Japan, a tragic accident occurred in the equipment used to treat exhaust gas from a Float furnace. High-temperature sodium sulphate powder collapsed, burying three employees, one of whom tragically lost their life. We extend our deepest condolences to the family and loved ones of the deceased employee. In response to this serious workplace accident, the NSG Group has initiated efforts to identify all highrisk operations involving entry into confined spaces, conduct risk assessments, and prepare appropriate risk mitigation measures, including emergency rescue procedures, as part of its contingency response plan. Furthermore, with the firm resolve to prevent any fatal accidents from occurring again, we have re-examined all high-risk operations. To ensure that all necessary measures and improvements identified for these high-risk areas are implemented without omission or inconsistency, we have created clear guidelines for each operation and commenced efforts to implement equivalent risk reduction activities across all facilities.

Safety activity for vehicles and pedestrians, which began in FY2023/3, have mainly focused on physically separating vehicles and pedestrians and introducing collision avoidance systems such as vehicle-mounted camera systems and TAG systems. We will continue to accelerate the introduction of these measures.

The significant injury rate (SIR) records injuries requiring specialized medical treatment or the injuries where the same work cannot be continued and there is a loss of work, expressed as a rate per 200,000 hours worked. The SIR for FY2025/3 was 0.31, marking a 3% decline from FY2024/3. We will continue to reduce unsafe behavior by strengthening leadership guidance and communication centered on GEMBA\* walks, while prioritizing efforts to enhance education and training for less experienced workers and emphasizing compliance with rules in the FY2026/3.

Additionally, in the second half of the FY2025/3, we have begun installing CCTV cameras high-risk areas and introducing Artificial Intelligence (AI) into existing CCTV system to automatically detect hazardous actions and conditions. This system is already operational and will support employees in executing safe behaviors and leaders in managing the workplace.

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## **NSG Group's initiatives for safety**

NABIS = NSG Anzen Bunka Improvement Strategy

(Safety) (Culture)

NSG Group is continuing to drive proactive safety through a measure called NABIS (NSG Anzen Bunka Improvement Strategy) this process has three main areas reflecting our focus points. NABIS consists of five components: Leadership, Responsibility and Accountability, Communication, Training, and Involvement.

Category	Senior & Middle Managers	First Line Manager	Everyone			
Visible & Demonstrated Leadership	Spend time coaching on the shop floor	Act and speaks about safety	Encourage cooperative safety			
Responsibility & Accountability	Set high standards	Expect safety excellence	Follow rules			
Two Way Communication	Communicate openly	Talk to / listen to employees about safety	Speak up			
Continuous Training	Ensure available training resources	Identify shop floor training opportunities	Assist in training & actively learn			
Involvement	Support & encourage involvement	Create involvement opportunities	Get involved			
Building a Safety Culture on our Current NSG Safety Tools (4Ways , Project Tracking)						

#### 1. Leadership

Leaders at all levels of the business are being asked to make their leadership visible and actionable by, for example, using processes such as GEMBA walks to spend more time talking with field leaders and employees about various improvement opportunities.

To further improve the GEMBA-walk process the group is starting to measure the numbers of GEMBA walks completed and reviewing information derived from the process.

We continue to ensure all our leaders assess themselves against our 10 key leadership behaviors, asking them to lead by example and to review their teams against a set of principles, such as never walking past an unsafe act without talking to the individual.

## 2. Responsibility and accountability

Leadership teams must ensure that people follow the procedures and safety rules for the tasks we ask them to complete. This area continues to ask leaders to consistently review the ability of their colleagues to competently complete the tasks. This also forms part of the GEMBA process in that leaders observe how individuals are working and identify learning opportunities. We also promote the identification of risks and quantitative assessment of risks in all areas of our business.

#### 3. Communication

Improving the way in which we communicate safety through regular opportunities for two-way briefings and more formal safety meetings with employees and their representatives is an important way of

providing clear information on both reactive and proactive safety initiatives. Leadership teams are required to ensure this communication process is effective.

In FY2023/3 the NSG Group will introduce a safety culture survey to be completed at its larger manufacturing facilities in Architectural, Automotive and Creative Technology and have implemented second survey in February 2025. This survey will provide leadership teams with feedback on the current level of safety culture in their plants; in addition, it will also allow employees to provide anonymous comments and suggestions to help plants improve.

In certain regions and countries, the group has formal communication and discussion with employees' unions, for example, in Europe the business holds a forum with unions from the Germany, Spain, Italy, Finland the UK etc. This is held on a six-monthly basis.

### 4. Training

N

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S

Ensuring our employees have the tools and ability to deliver our commitments in a safe and ethical manner requires a continual review and update on training needs and competences. Leaders are required through NABIS to ensure that, from a safety point of view, people have the correct knowledge to complete this task.

#### 5. Involvement

Asking people to become proactively involved in safety in our plants is part of the leader's responsibility and in NABIS we ask our leadership teams to look for opportunities to involve teams and individuals in

safety projects, with the implementation of suggestion schemes and participation in Kaizen processes across many of our larger manufacturing plant being a part of this process.



+hink safety

In addition, as an opportunity of Involvement for all employees, NSG Group Safety Day is held every October, a day for all Group employees to think about safety. Last year, related events were held on 10th October at sites around the world. Last year's common theme was "Engagement (returning to basics)." In order to reaffirm our commitment to mutual enlightenment, which is our desired safety culture, safety activities were carried out with the

participation of all employees at each of our business sites.



Germany Gelsenkirchen



Itami, Japan

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NABIS requires our leadership teams to manage our high-risk activities.

As mentioned above, the NSG Group creates standard guidelines for all high-risk work to ensure a consistent level of commitment across the entire group. In addition, we continue to focus on the following high-risk work that we have already been working on.

Working where there is a risk of falling

- Vehicle and pedestrian safety
- Machinery safety: guarding, FASS\* and complete isolation
- Contractor control, including permits
- Materials handling: moving glass, load security, grabs, trolleys and pallets
- Driving in connection with work

The Groups commitment to NABIS for larger sites has been reinforced around the globe with a verification process. This ensures Health and Safety professionals within the group review the self-assessment scores submitted by the larger operational plants. This process forms part of plant leadership team's performance reviews.

\*FASS (Frequent Access Safety System) is a system that partially stops equipment by interlocking, etc.

## Moving safety to the next level

The safety strategy within the group remains, it will continue to focus on improving the effectiveness of our safety tools and programs. The goal is to achieve a high level of safety culture by continuing to focus on NABIS.

At the same time, the following priority measures will promote the reduction of potential high risks on site:

#### priority measure - 1

Further improvements will be made regarding vehicle and pedestrian safety, building on the risk identification carried out to date. Particular focus will be given to the increased implementation of TAG and camera systems.







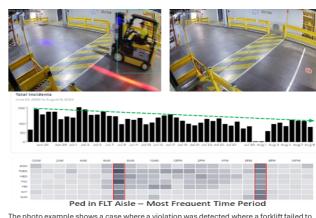




#### priority measure - 2

Focusing on Very High Potential Severity (VHPS) events from the Significant Injury (SI) that have occurred, the system completes risk reduction measures that are common to all sites in the Group.

#### priority measure - 3



The photo example shows a case where a violation was detected where a forklift failed to

It displays the number of violations decreasing over the number of days of continuous observation, as well as the time periods when violations occur most frequently.

The introduction of CCTV cameras and AI supports the identification of on-site risks, unsafe conditions, and behaviors, enabling risk reduction activities and the reduction of unsafe actions. The CCTV camera + AI system has already begun priority implementation starting with high-risk sites. We will accelerate progress further and proceed with company-wide deployment.

\* CCTV cameras and AI: AI analyses CCTV camera images in real time, automatically detects and records unsafe behavior that has been set in advance.

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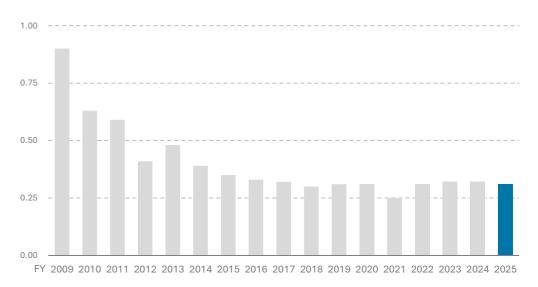
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## Significant Injury (SI), Lost Time Injury (LTI) and Facilities

		FY2018/3	FY2019/3	FY2020/3	FY2021/3	FY2022/3	FY2023/3	FY2024/3	FY2025/3
	NSG employee	76	88	81	64	71	78	76	67
Number of SI* *SI includes LTI & Fatality	Contractor	17	11	19	7	15	13	18	23
	Total	93	99	100	71	86	91	94	90
	NSG employee	26	36	32	16	19	25	30	33
Number of LTI	Contractor	8	6	6	4	6	3	9	9
	Total	34	42	38	20	25	28	39	42
	NSG employee	0	0	0	0	0	0	0	1
Number of Fatality	Contractor	0	0	0	1	2	0	0	0
	Total	0	0	0	1	2	0	0	1
	NSG employee	0.27	0.31	0.29	0.25	0.28	0.31	0.29	0.26
Rate of SI (SIR)	Contractor	0.56	0.36	0.45	0.24	0.51	0.40	0.51	0.79
	Total	0.30	0.31	0.31	0.25	0.31	0.32	0.32	0.31
	NSG employee	0.09	0.13	0.12	0.06	0.08	0.10	0.12	0.13
Rate of LTI (LTIR)	Contractor	0.26	0.20	0.14	0.14	0.20	0.09	0.26	0.31
	Total	0.11	0.13	0.12	0.07	0.09	0.10	0.13	0.15
	NSG employee							1,850	1,234
Lost days	Contractor							495	427
	Total							2,345	1,661

## Significant Injury Rate (SIR)



### Significant Injuries (Cases)

	FY2015/3	FY2016/3	FY2017/3	FY2018/3	FY2019/3	FY2020/3	FY2021/3	FY2022/3	FY2023/3	FY2024/3	FY2025/3
Glass handling	37	33	33	42	31	36	21	22	21	24	19
Manual work	24	24	24	26	39	29	16	37	31	35	30
Slips/trips/ falls	11	14	13	9	13	14	11	5	9	19	10
Machinery	7	13	13	5	4	4	11	6	12	4	9
Blade	4	9	7	3	6	3	7	4	5	6	4
Fall from height	11	1	3	5	2	7	0	4	3	1	3
others	18	18	11	3	4	6	5	8	10	5	15

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### **Our Aspiration**

"Delivering safe and high quality products and services, which add value for our customers. Reducing continuously direct and indirect quality cost through a structured "Right First Time" approach in all stages of the product cycle, supported by full use of digital tools, analytic methods and a high level of automation."

This is our vision for the delivery of safe and high-quality products and services as part of the medium-term plan.

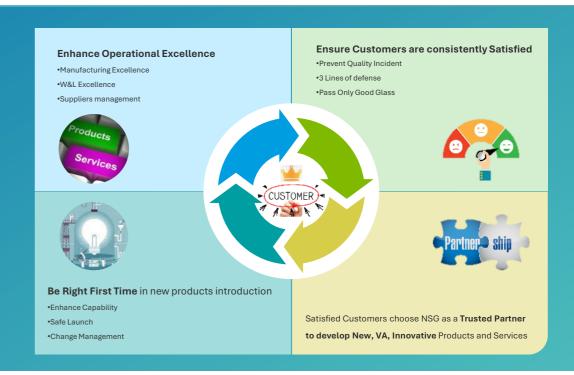
Our supporting programs focus on three key areas:

**Consistent Customer Satisfaction** 

**Right First Time Product Introduction** 

(see article on page 120)

**Operational Excellence** 



#### **Consistent Customer Satisfaction**

As a foundation for achieving consistent customer satisfaction the NSG Group operates with management systems certified according to ISO9001: 2015 and IATF 16949 in all Strategic Business Units.

The Group Quality Incident Rate (QIR) was stable in 2024 and the medium term target remains to achieve further reductions in QIR and zero major quality spikes by FY2030/3.\*

Building on the foundation of our Pass Only Good Glass initiative a continuous improvement (CI) philosophy helps NSG to deliver customer satisfaction and in 2024 an internal 7-step process was defined to standardize the approach to continuous improvement in all areas of

manufacturing. This provides detailed guidance on both reactive problems solving and the proactive identification and harnessing of opportunities.

A training package for all process engineers has been provided to supplement the effective application of the procedure. As part of the Quality Improvement strategy the CI cycle together with Lesson Learnt process will make our production processes more robust and drive a reduction in costs.

## 



\*QIR is a measure of the occurrence of quality incidents affecting external customers with financial impact > JPY 0.01 bn as a ratio of sales. Major quality incidents are those with cost > JPY 1.0 bn.

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## **Operational Excellence**

Our global Manufacturing Excellence focus drives improvement in our operations and the products and services we supply, guided by identification of the risks within our internal and external environment. The key supporting programs remain unchanged with a clear focus on achieving a high level of consistency in performance across all regions in order to deliver reliable and sustainable results and withstand current and future challenges in the external environment.

Achieving an even greater level of harmonization and standardization of our manufacturing processes with full integration of digital tools will be needed to reach the next level of excellence. As a consequence, a review of the Group Manufacturing Management System – NSG Way to Manufacturing Excellence – has been launched. A new NSG Manufacturing Management System will be based on a dynamic set of required systems and capabilities, delivered by specific tools and business

processes. This entire Management System will be governed by three basic principles: Organizational Alignment, Developing Culture and Continuous Improvement.

With the revised approach we will work to achieve a step change of operational and quality performance.

The effective use of digital manufacturing tools and applications will be a key part of this journey. Through the combined work of a

range of Group functions and governed by the Manufacturing Digitalization Committee an effective global process has been established to roll-out proven solutions. One important example is the use of Artificial Intelligence (AI) supported tools like CCTV cameras to identify Health and Safety risk areas due to incorrect behavior but also helping to provide process engineers with early warning about the risk of non-standard operating conditions.





## **Quality Culture**

A strong culture ensures informed and engaged employees, who actively participate in improving performance. NSG is running a number of initiatives to reach out to employees through direct communication of information to all levels of the organization. Alongside the Global Quality Week held each year, a new Manufacturing Excellence Newsletter has been introduced. This internal newsletter has a large number of global followers and is used to inform employees about Group, regional or local initiatives in the NSG manufacturing world.



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#### **Expectations of Suppliers to NSG Group**

NSG Group has two levels of hierarchy regarding expectations of suppliers, The Supplier Code of Conduct and The Sustainable Supply Chain Charter. The Supplier Code of Conduct sets out the minimum standards and behaviors we expect from our suppliers of Goods & Services in respect to ESG. We expect all new and existing suppliers to have signed agreement to the Code.

Launched in September 2023 the Sustainable Supply Chain Charter was developed in line with ISO 20400 methodology to enhance and accelerate actions beyond the Code of Conduct to deliver the Group's sustainability objectives. The Charter clearly outlines NSG Group's current and future ambitions in regard to 8 selected key sustainability impact areas in our supply chain. We want to work with our diverse global suppliers to make a positive impact for our customers, investors, employees and the communities we work within. To become a supply partner to NSG we expect you to work with us for continuous improvement across 8 priority areas:



## Supplier engagement in 2024

They help us to be competitive not only in terms of cost but also in other critical aspects such as quality, supply chain resilience, sustainability, innovation, risk mitigation, ethics and diversity. The importance of suppliers to our success is enshrined in our Procurement mission statement "Leveraging our Supply Chains, Improving our World". We seek to leverage the full capability of our entire supply chain for the benefit not only of NSG but all stakeholders including our suppliers, our customers, our investors, our employees and the communities in which we operate. We seek to expand business with supply partners who share our core values and beliefs.

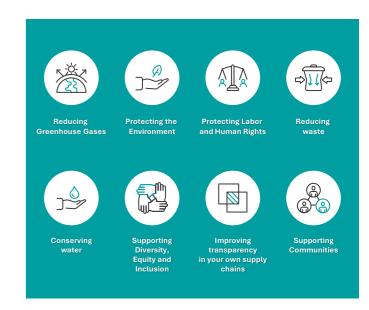
Our supply partners are critical to the success of NSG Group.

We also aim to increase opportunities for small diverse companies and plan to launch a formal policy for this in 2025. Contractual arrangements with suppliers, while important, must be underpinned by a strong ethical foundation based on conducting business in harmony with people and planet, supporting both to flourish and thrive.

In FY2024/3 NSG Group launched its Sustainable Supply Chain Charter. This Charter sets out the eight areas that we have identified as most critical in terms of environmental and social impact.

This Charter can be seen as a "North Star" to help our supply partners navigate their way towards meaningful actions and achievements on sustainability. We expect suppliers to embrace the principles outlined in this Charter and meet its requirements. Suppliers who do so will be well positioned to develop further business opportunities with NSG. FY2024/3 was focused on the launch of the Charter and initial communications with suppliers. In FY2025/3 we launched the formal acceptance of the Charter by suppliers and the next level of dialog related to the eight areas identified above as most relevant for them. In the first year we achieved a 34% coverage in spend and we aim to progress focusing on partners. We will work together with suppliers to reduce risk and increase resilience, to prioritize the areas with the most significant impact for their individual business. NSG also

supports suppliers with access to training resources from the Supply Chain Sustainability School.



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#### **Decarbonization**

For over a decade NSG Group has committed to energy efficiency programs globally. Since 2021 Procurement has focused on Scope 3 emissions and engaged with key suppliers to better understand supply chain  $\mathrm{CO}_2$  emissions and to identify and share best practice with partners. NSG Group is committed through SBTi to a 30% reduction in Scope 3 by 2030. Details of Scope 3 emissions in 2024 are shown in the chart to the right.

Reduction will not be linear as every decarbonization plan includes investment and time to implement actions. NSG is working with the suppliers to map their plans and ensure they are aligned and implemented.

Working within key material categories with supply partners NSG Group has undertaken a number of initiatives. For raw materials, which account for around 15% of the Group's total CO<sub>2</sub> emissions, we have worked with key suppliers to identify low-carbon raw materials. For example, handling, processing and successful glass manufacturing has been demonstrated using Dolime (CaOMgO). Together with process optimization the use of

Dolime (CaOMgO) delivers  $\mathrm{CO}_2$  reduction which is further improved by a 50% volume reduction to the low iron batch additive.  $\mathrm{CO}_2$  reduction will be further enhanced by transport savings driven by lower volumes.

Furthermore, NSG continues to investigate the use of Sodium Hydroxide as a source of low carbon flux to support glass melting as well as making significant progress to increase use of recycled glass (Cullet) which reduces volume of carbonate raw materials and therefore  $CO_2$ .

We continue to increase the proportion of Group electricity coming from renewable sources from 35% in FY2024/3 to 36% in FY2025/3.

For Scope 3 we are focusing our effort on Category 1 and 9, where we can have the most impact from Procurement sourcing decisions. With the support and the innovation coming from our partners we will promote impactful business decisions and support our decarbonization plan.

Category	CY2024 (kilo tonnes
1. Purchased Goods & Services	1,760
2. Capital goods	72
3. Fuel & Energy related materials	572
4. Upstream transportation & distribution	61
5. Waste Generated in Operations	2
6. Business Travel	3
7. Employee Commuting	15
8. Upstream leased assets	-
9. Downstream transportation & distribution	241
0. Processing of sold products	714
1. Use of sold products	-
2. End of life treatment of sold products	6
3. Downstream leased assets	-
4. Franchises	-
5. Investments	261
Total all 15 categories(Kt)	3,707

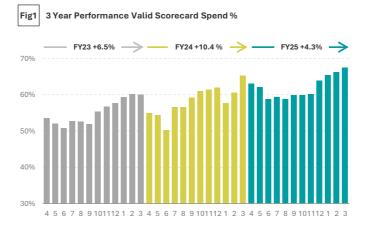
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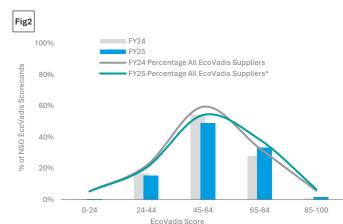
## Sustainable supply chain

#### Supplier development

NSG Group monitors its suppliers' ESG rating indicators (KPIs) through EcoVadis (an external organization that assesses supply chain ESG performance) to continuously improve the sustainability of its supply chain. The EcoVadis rating coverage of our key suppliers (based on weighted average purchase value) has steadily increased over the past three years, as shown in Figure 1: We increased spend coverage to 67.4% versus our FY2025/3 MTP target of 68% in FY2025/3. We continued to focus on suppliers with low EcoVadis scores and worked towards improving their scores through corrective action plans. As shown in Figure 2, the overall average score was maintained at target level of 60. The number of low-scoring suppliers decreased and at the same time

we increased the number of suppliers assessed by EcoVadis assessment with 1,341 (+30%).





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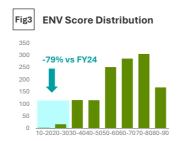
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Figure 3 shows the scores by category for the key EcoVadis themes: environment (ENV), labor and human rights (LHR), ethics (ETH) and sustainable sourcing (SUS). Our consistent focus is delivering positive trends in all themes. EcoVadis spend coverage plus average score is a KPI in our 1st Sustainability Linked Loan in UK. CY24 performance has been externally verified by recognized by 3rd party UK based auditors.







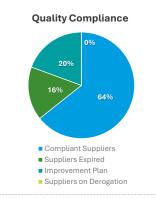


## **Supplier Quality & Environmental Compliance**

Special attention is paid to suppliers with a potentially significant impact on the environment (HEI: High Environmental Impact). Suppliers in the HEI categories such as wood packaging, chemicals, etc. are required to sign and comply with a Supplier Code of Conduct, obtain ISO 14001 or equivalent national environmental certification and/or EcoVadis assessment. Also, for wood, paper and corrugated packaging materials we strive to minimize the negative environmental impact of these suppliers by

requiring them to obtain Chain of Custody (CoC) certification from the Forest Stewardship Council (FSC) or PEFC forest certification programs for their raw material suppliers, for example. Supplier compliance status in terms of environmental aspects, such as ISO 14001, forest certification and EcoVadis scores, and in terms of quality, such as IATF 16949 and ISO 9001, is shown in Figure 4.





## Strategic approach to sustainable supply chains

In 2022 NSG established a new Procurement mission fully aligned with the Group's mission "Changing our Surroundings, Improving our World". The Procurement mission "Leveraging our Supply Chains, Improving our World" recognizes the vital contribution that our supply partners can make to the planet and society and also to NSG's own goals in the area of Sustainability. This section of our Integrated Report will set out NSG's ambitions in this area and provide some examples of the initiatives we are working on in partnership with our suppliers.

As a first step we have published in September 2023 a Sustainable Supply Chain Charter outlining our long-term aspirations and commitments as part of establishing and developing a fully sustainable Supply Chain. The Supply Chain Charter will also list the corresponding commitments expected of our suppliers and the KPIs we will use to measure their progress.

As a second step in 2024 we have rolled out the Charter with our key Partners and we will promote it further within our supply base as a key instrument to increase resilience and reduce risk.

The Supply Chain Charter identified the following eight key sustainability impact themes as having the greatest impact on the supply chain.

#### We will;

- Align the supply chain sustainability strategy with the NSG Group's sustainability objectives
- Ensure that NSG is recognized as a leader in sustainability in the supply chain
- Assist in attracting and retaining diverse talent
- Follow international standard, ISO 20400: Principles of sustainable procurement.

Reducing Greenhouse Gases

Protecting the Environment

Protecting Labor and Human Rights

Reducing waste

Conserving water

Supporting Diversity, Equity and Inclusion Improving transparency in your own supply chains

**Supporting Communities** 

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## **Sustainability prioritization heat maps**

We strive to improve the sustainability performance of our supply chain in these eight priority areas. However, all our suppliers are impacting social and environmental values differently, depending on the materials or services they supply, their operational activities, and their geographical location.

To help us prioritize our Charter efforts most effectively, we created risk prioritization heat maps embedded in The Charter.

The heat maps will give us confidence that we are focusing our efforts for the greatest positive impact on our shared goals.

Figure 6 illustrate our use of heatmap prioritization to assess and monitor risks related to Labor and Human Rights (L&HR) across our procurement categories.

The Heat map identifies the categories risk level, with red indicating high-risk areas that require closer scrutiny.

To address these risks, we utilize tools such as EcoVadis reporting platform to conduct in-depth assessments of suppliers within high-risk categories. In heatmap example Fig 6.1, the categories circled in black are related to "Technical Glass business (Creative Technology)" high risk for L&HR.



A red cell indicates that the category of spend in that priority area is a high priority for action in this Charter.

An amber cell indicates that it is a medium priority. A green cell indicates that the category of spend in that priority area is a low priority.

A blue cell indicates that in that category of spend there are opportunities for improvement related to that priority area inspired by good practices and supply base.

Greenhouse gas		Labor and					
emissions	Environmental protection	Human Rights	Waste	Water	Transparency	Diversity, Equity & Inclusion	Communities
		Fig6.1					
6							
		emissions protection	emissions protection Rights  Fig6.1	emissions protection Rights Waste	emissions protection Rights Waste Water  Fig6.1	emissions protection Rights Waste Water Transparency  Fig. 1  Fig. 1	emissions protection Rights waste water transparency Equity & Inclusion  Fig. 1  Fig. 1  Fig. 1  Fig. 1  Fig. 1  Fig. 2  Fig. 3  Fig. 3  Fig. 4  Fig. 5  Fig. 6  Fig. 6  Fig. 6  Fig. 7  Fig.

Fig7.1

Score Target

55

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Figure 7.1 shows 84% of supplier spend in this "Technical Glass business" category is covered with EcoVadis assessment, a significant achievement that reflects our commitment to responsible sourcing. Furthermore, Figure 7.2 highlights a 26% improvement in supplier L&HR scores within this category over the 12 months. This positive trend highlights the effectiveness of our risk-based approach and the impact of targeted supplier engagement and improvement initiatives.

**Creative Technology** 

Spend Target %

65%

# ESG targets and training

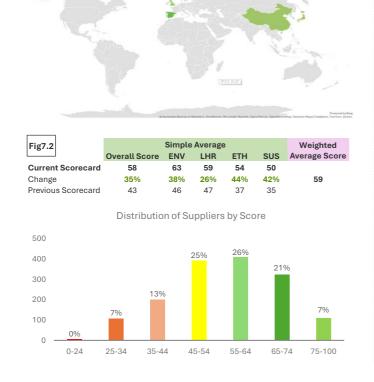
NSG's Procurement Team, from Executive Directors through all levels, have S.M.A.R.T objectives (Specific, Measurable, Achievable, Realistic, Timely) related to the sustainability activities described above. They are also required to attend various training courses on ESG items such as NSG Code of Ethics, Anti-Bribery and Anti-Corruption (ABAC), Competition Compliance and, more recently, Fraud and IS Security. In addition, with the support of our long-term partner EcoVadis, we are conducting formal ESG awareness training sessions, including practical assistance on platform functions.

For each theme, we have set four key elements: commitment; expectations of suppliers; joint aspirations, (which is what we and our suppliers aim to achieve together) and KPIs to measure and track progress. We also conduct risk heatmap analysis to establish priority themes by procurement category and region.

In parallel we are accelerating our efforts to reduce our Scope 3 carbon emissions in line with the publicly announced 30% target as shown in Figure 8. The maturity of Procurement ESG objectives is illustrated in Figure 8. This activity has a strong cross functional governance in place, reporting directly into the Group's overall Sustainability Committee, chaired by the CEO.







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#### External evaluation in FY2025/3

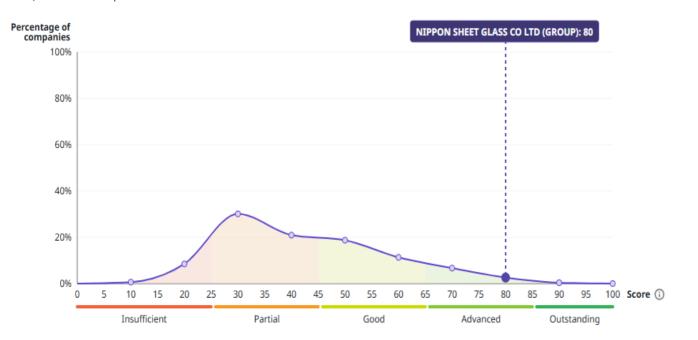
We are very pleased to announce that as in FY2025/3 we were again recognized that our efforts in working with our suppliers to improve in areas of ESG have been endorsed by an external assessment. We have been recognized by CDP in their most recent evaluation for CY2024 as a Leader in Supplier Engagement. This places us among the top 500 companies worldwide (out of a total of more than 13,000+ companies assessed), including 105 from Japan.

CDP is a non-profit organization that manages a global disclosure system for investors, companies, cities, states and regions to manage their environmental impact on climate change, water security and deforestation.

We use EcoVadis to cover and assess not only our procurement base, but also the requirements of our customers and investors.

On the theme of 'sustainable procurement', we have managed to improve our score from 70 to 80 out of 100 points. This places us in the top 3% of the glass industry.







NSG Group has also taken the step in FY2023/3 to join the League of Champions within the Sustainable Procurement Pledge (SPP) organization. This network of individuals and companies is driving the agenda on Sustainable Procurement and Supply Chains. NSG is proud to join this group to help drive the program for Sustainable Procurement forward with even greater speed. In 2023 NSG contributed important materials for the SPP "Guide" document which supports organizations to improve on their ESG agenda and targets. In 2024 NSG actively participated to a pilot group on Carbon pricing with the aim to define the correct methodology to include sustainability in our sourcing decision process.

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Ethics, Safety and Quality are essential for NSG Group to be sustainable.

NSG Group has in place the Group Ethics and Compliance (E&C) function and implements ethics and compliance programs in accordance with "Fundamental Policies of the Company on creation of effective internal control system of the Group" established by the Board of Directors.

The Group E&C function supports the Group in achieving its goals by assessing and analyzing ethics and compliance risks and establishing ethics and compliance programs that align with the Group's strategic goals to ensure the success of our business.

Ethics & Compliance is positioned as the Group's Materiality along with Safety and Quality in the medium-term plan released in FY2025/3. As the FY2030/3 aspiration, we are committed to partnering with stakeholders and gaining trust from them by regularly improving the ethics and compliance programs to address Group risks. We, therefore, have established targets for FY2027/3. Please see the following chapters for the specific KPIs.



#### **Code of Ethics and Education**

The NSG Group Code of Ethics broadly covers the ethical behavior expected of our employees in the workplace, including compliance with all laws and all major Group policies, procedures and guidelines. The Code is available in all 19 Group languages.

The Group's new employee education is to cover not only the Code of Ethics, but also conflict of interest, fraud and IS security. Even for other existing Group employees, the IS security education is mandatory. Key Roles\* for competition law compliance (CC) and anti-bribery and anti-corruption (ABAC) are also required to complete the relevant online education. The education modules will be assigned to the Group employees accordingly through the education interface "NSG Learn". We will continuously monitor its effectiveness as well as the completion rate of the educations.

The annual education campaign in FY2025/3 achieved 100 percent completion rate of the relevant trainings. One of the KPIs for FY2027/3 is 100 percent completion of ethics and compliance education. We will continuously make our best effort to keep the 100 percent training completion rate.

\*Employees who meet the Group's criteria regarding risks of competition law compliance (CC) and anti-bribery and anti-corruption (ABAC)

**852** 

New starters completed the training packages at their onboarding FY2025/3

4,332

Key Roles completed the CC and/or ABAC trainings accordingly FY2025/3

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## **Ethics and Compliance Development Structure**

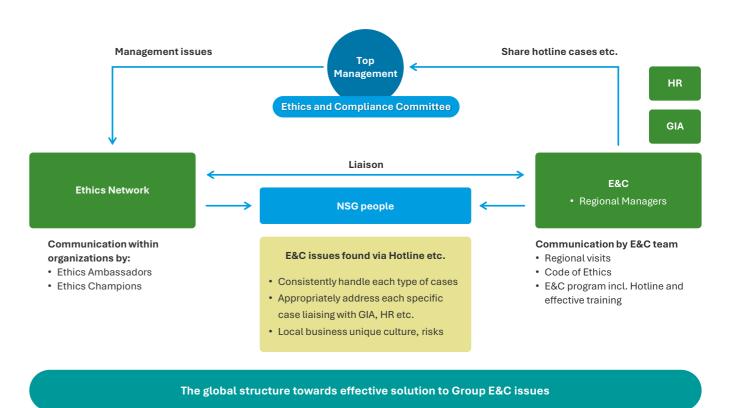
Group E&C has a direct reporting line to NSG Group Audit Committee. Its responsibilities include the development, implementation and maintenance of an integrated internal ethics and compliance management and control system, as well as the creation and review of relevant Group policies and procedures. In FY2024/3, NSG Group appointed Chief Ethics and Compliance Officer (CE&CO) who is an Executive Officer. Under the CE&CO's leadership, E&C Director is responsible for managing the whole E&C program and E&C regional managers in Europe, North America, South America and Asia to embed E&C culture into the whole organization as well as cover risks in each region.

The Ethics and Compliance Committee, chaired by CE&CO and consisting of CEO and other executive members, was established in FY2025/3 to oversee the ethics and compliance programs and improve further its effectiveness. The Committee meeting was held twice in FY2025/3.

A Global Ethics Network is aimed to enhance the ethical culture and monitor compliance risks throughout the Group. The Ethics Network consists of senior managers who have been appointed Regional Ethics Ambassadors and Ethics Champions. Both roles will play a vital part in the communication and promotion of the Code of Ethics by leading and championing ethics and compliance in their local region or function which in turn will help embed ethics into the business. Group E&C puts importance on local communications to reach out to local business/function people, liaising with the relevant Ethics Ambassadors and Champions.

Under the development structure mentioned above, NSG Group establishes, implements and improves the ethics and compliance programs. Moreover, we believe it is important to understand employees' awareness of the programs for further improvement. The KPI for FY2024/3 is, therefore, 90 percent or more agreement/favorability from employees as the evaluation of the ethics and compliance programs.

Ethics Ambassadors across SBUs and Functions all over the world



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### **Communication on Ethics and Compliance**

The Group has set Ethics and Compliance Week every year since FY2022/3, which reconfirms our commitment to ethics and compliance, raising awareness of its significance for the Group business. Various events are held throughout the Group organizations such as message videos from the executive officers and senior managers including C-suite, daily communications, regional activities and relevant online educations during the Week. The theme of the last fiscal year's E&C Week was "Transparency In All That We Do." We focused on what transparency means for the Group and think of how we should make transparency take root in the organization and put it into practice according to the Group's core values and action plans.

The theme for this fiscal year is "Code of Ethics." We plan to raise awareness of the revised Code of Ethics, and discuss how

we put into practice ethics throughout the organization, maintaining the reputation of NSG Group, thus ensuring the success of our business.

Additionally, each E&C regional manager visited major production sites in their regions in FY2025/3 to reach out to the shop-floor workers there trying to make more direct and better communication with them about ethics and compliance.

Group E&C periodically issues Group Ethics and Compliance Briefings to employees. The Group's communications team translates the briefing into multiple languages and distributes to all NSG Group locations, which is also made available on the Group's Intranet. In addition, each regional E&C manager issues regional E&C newsletter to the relevant local employees.

Group E&C shares with the heads of Strategic Business Units

and HR the case details reported via the E&C Hotline system to help improve the workplace environment and even business performance while taking care of its confidentiality.

## **Respect for Human Rights**

NSG Group is an International Company operating in many countries around the World.

NSG recognizes business cultures and practices around the world are diverse. The NSG

Group's commitment to respecting human rights is reflected in the way we run and operate our business as well as in our polices and guidelines. We respect human rights in accordance with the United Nations (UN) Universal Declaration of Human Rights, the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work, the United Nations Guiding Principles on Business and Human Rights (UNGPs) and, the UN Global Compact including any related conventions.

In FY2024/3, the Group formulated Human Rights Policy where we identified the most relevant human rights areas for the Group with our commitment in each.



Scheduling SSP

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In FY2026/3, Ethics and Compliance Committee identified
gender equality, equal treatment, and harassment as most
salient human rights concerns for the Group. We fulfill our
responsibilities by taking the following measures to address these
and other human rights areas.

NSG Group believes that respecting human rights is not just a legal obligation but a moral imperative. We are committed to making a positive impact on the lives of our employees, customers, and communities, and we hold ourselves accountable to the highest standards of ethical conduct.

Training and Awareness	We provide regular training to our employees on human rights issues and our policies, ensuring awareness and understanding at all levels of the organization.
Monitoring and Reporting	We continuously monitor our operations and supply chains to ensure compliance with our human rights commitments. We encourage reporting of any human rights concerns including through our confidential Ethics and Compliance Hotline. Compliance Hotline.
Collaboration	We collaborate with stakeholders, including governments, NGOs, and industry peers, to promote and uphold human rights standards.
Continuous Improvement	We are committed to continuous improvement, regularly reviewing and updating our policies and practices to align with evolving human rights standards.

#### **Conflict of Interest Disclosure**

Under our Code of Ethics, all employees are responsible for acting in the best interest of the Group. Employees are required to disclose any interest, activity or investment which actually or potentially could cause conflict against that of the Group. Group E&C reviews all reported disclosures and discusses certain matters with the relevant business or function managers if necessary. Feedback is provided to all reporters and in some cases, possible plans to mitigate exposure are also provided.

# Activities for Competition Law Compliance and Anti-Bribery/Anti-Corruption

Regarding certain high-risk areas in the Group business such as competition law compliance (CC) and anti-bribery and anti-corruption (ABAC), NSG Group establishes and controls relevant policies, procedures and manuals. These internal rules stipulate a wide range of matters accordingly such as specific types of prohibited actions, the necessity and importance of compliance,

and the impact of any violations to ensure that the Group conducts business in compliance with relevant laws of all countries where we operate.

There were no violations of competition law and anti-bribery and anti-corruption law in FY2025/3. The ethics and compliance KPI for FY2027/3 also includes the target of zero case being fined associated with CC or ABAC violations.

As mentioned in "Code of Ethics and Education" above, employees who meet the Group's criteria for CC and/or ABAC risks are appointed Key Roles accordingly and required to complete the relevant online educations at onboarding and annually, which includes explanations of the applicable laws and regulations and internal policies and requirements under the ethics and compliance programs as well.

Further, to ensure transparency of employees' actions, NSG Group Policies provide reporting requirements about CC and ABAC. Group E&C centrally manages an online reporting system where employees are required to document or obtain prior permission from Group E&C whenever they contact our competitors, join a trade association, (CC risk controls), make charitable contributions, give or receive certain amount of gifts

and entertainment, do businesses with third parties, and interact with public officials (ABAC risk controls). E&C regional managers confirm or approve the specific requests and notifications considering their regional or countries' risks.

NSG Group is monitoring around 500 third parties such as agents, consultants and joint venture partners that meet certain risk criteria of ABAC. This process includes due diligence, assessment and reputational screening.

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### **Reporting of Concerns – Ethics and Compliance Hotline**

NSG Group is committed to maintaining an environment in which employees can report, without fear of retaliation, any conduct they know of or suspect to be in violation of law, Group Code of Ethics, Policies/Procedures or Guidelines.

For this purpose, the Ethics and Compliance Hotline system provides an easy and simple way to report concerns, while employees are encouraged to speak to line management, HR or other relevant functions first.

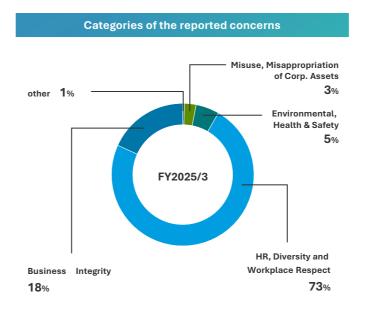
This Hotline system is also available for any stakeholders outside the Group.

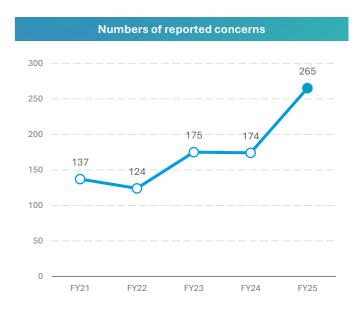
Managers who received the report from their colleagues must file the designated reporting form (Manager's Report Form) or report it directly to Group E&C if they believe that it has a potential adverse or negative legal, financial or reputational impact on NSG Group.

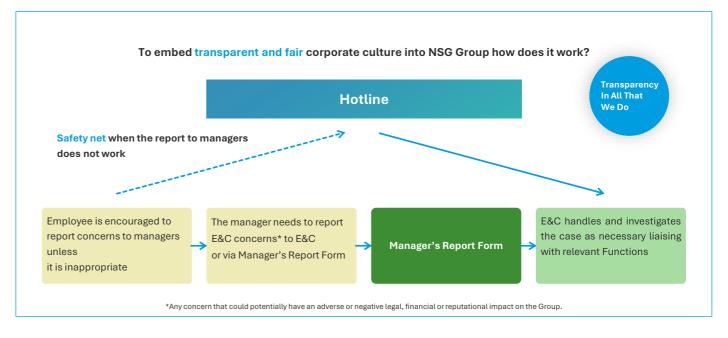
Since inception in FY2013/3 there had been 1252 reported concerns managed via the Ethics and Compliance Hotline system as of the end of March 2025. FY2025/3 experienced 265 allegations reported via the Ethics and Compliance Hotline and Manager's Report Form.

NSG Group constantly measures the effectiveness of the system by using the metrics against the benchmark region by region.

## Hotline Open to third parties Anonymous report is acceptable unless prohibited by law 7/24/365/Multiple languages Toll free Anyone can ask questions. Operated by a qualified third party with a data privacy module







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You can see the general trend of increasing numbers for the last few years. We understand that the recent actions have contributed to such increase of the reported cases; such as creation of or revisions to the relevant Policies and our constant and continuous communications regarding the Reporting of Concerns System including Hotline through various channels like the aforementioned newsletters and online educations. NSG Group has set a KPI for FY2027/3 of raising the ratio of substantiated reports to 45 percent or more. While seeing consistent numbers of reports ("quantity") as a result of our efforts mentioned above, we are now trying to analyze "quality" of the

reports. For FY2025/3, the substantiated reports rate was 37

percent with 16 percent partially substantiated. Even if a report is

not substantiated, it is of course still important as being reported. Our aim is to create a work environment in the organization that will enable us to address concerns more effectively by focusing on the ratio of substantiated reports as well.

The Group Policies on Ethics and Compliance and Reporting of Concerns which were revised in FY2021/3 more clearly define the managers' reporting requirement and the process of the case investigation and its follow-up. We established the Group Anti-Retaliation and Reporter Protection Policy which more explicitly provides that the Group never tolerate any form of retaliation against those who report concerns in good faith. The KPI for FY2027/3 is zero retaliation case. We regrettably identified one case of retaliation in FY2025/3. We will keep implementing

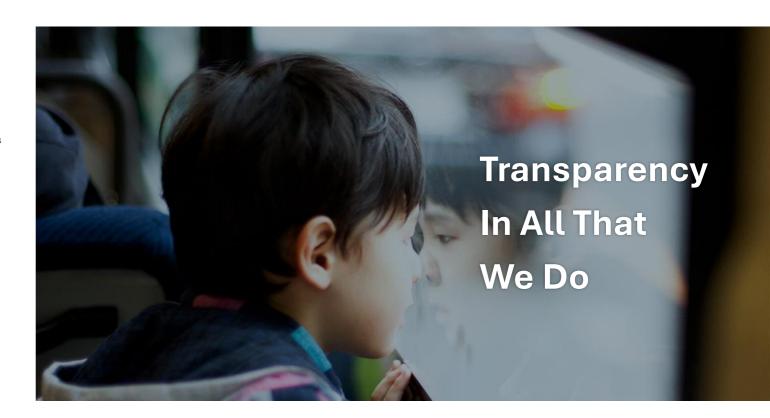
measures to ensure that employees and stakeholders of the Group can report in good faith any concern without fear of retaliation.

This global Hotline would be also deemed as "Internal Whistleblowing System" for NSG and its consolidated subsidiaries in Japan in the context of the revised Whistleblower Protection Act of Japan coming into effect on June 1, 2022.

We will continuously strive to embed "Transparency In All That We Do" committing to more open corporate culture.

## **Reports to Management Committee** and Audit Committee

Group E&C reports to not only Management Committee but also Audit Committee which consists of Independent External Directors, periodically or on as-needed basis, on status, progress and issues of the above-mentioned ethics and compliance programs.



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NSG Group addresses "Human Capital" as one of the material issues (materiality) based on Our Vision, the management principles set out in 2018 to achieve the sustainable growth of the Group and contribute to a sustainable society in the medium to long term. People are the "capital" and are essential to the business, both to sustain our business and to achieve growth. NSG Group believes that a strong corporate culture, an effective human resources system, and a work environment that provides opportunities for employees to develop and grow are essential. In short, this is the goal of "Human Capital Investment" and the role of the CHRO and the HR teams around the world is to enhance the effectiveness and efficiency of this investment and to continue to drive the growth required to meet our business objectives.



### **Our HR Strategy**

We recognize our employees as a core driver of sustainable value. Building a robust and high-performing workforce and organization is pivotal to our strategy. Our HR strategy is aligned with our Medium-Term Plan "2030 Vision: Shift the Phase", and is designed to foster inclusion, attract talent, and create opportunities to develop our people. We have identified key focus areas that will be pivotal in delivering our strategy and will drive value in alignment with our strategic objectives which are detailed later in this report. At the end of this section, we have highlighted key operational and performance metrics which illustrate improvements we have made over time, including the increase in the percentage of female managers from 16.8% to 18.0%, and achieving parity in the annual attrition rates between male and female employees, with the variance now reduced to 0%.

#### **Strategic Objectives:**

- Cultivate a culture anchored in our core values
- Attract, develop and retain talent
- Strengthen team capabilities to drive innovation forward
- Continuously improve the people experience

## **Human Rights, Employee-Wellbeing and Health Management**

Our approach to Human Rights and Wellbeing forms the foundation of our HR strategy, shaping our MTP and reinforcing our commitment to sustainable and responsible growth. At the heart of NSG Group's corporate philosophy are six Core Values that guide our operations and behavior. Foremost among these is our commitment to "Respecting Others and Unleashing Their Potential", reflecting our long-standing belief—rooted in the Sumitomo tradition since 1918—that people are our most important asset. Complementing this is our second Core Value: "Exemplifying Trust and Integrity".

These principles are embedded in the NSG Group Code of Ethics, which outlines the expected standards of conduct for all employees. The Code affirms our dedication to safety, respect for human rights, personal accountability, and open, inclusive communication. It explicitly acknowledges internationally recognized human rights and reinforces our commitment to ethical and responsible business practices. We recognize that a safe and healthy work environment is not only essential, but a reflection of our respect and care for every individual within our

organization. Our commitment to this can be seen in the continuous improvement of health and safety management and our strong safety culture across all sites.

Our Equal Opportunities and Diversity Policy prohibits discrimination on any grounds, including but not limited to their personal background, race, color, creed, nationality, age, marital/partnership status, pregnancy and maternity, gender, gender reassignment, sexual orientation, religion, or other beliefs, ethnic or national origins, disability, union membership, political affiliation, other status protected by law. This policy underpins our efforts to foster a diverse and inclusive workplace where all individuals are treated with dignity and fairness. Further detail relating to DEI are discussed as part of our Key Actions below.

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### Health Management and Wellbeing (Japan)

Building on our belief that "People are our most important asset", NSG Group recognizes that promoting employee health is essential to enabling individuals to perform at their best. This, in turn, drives the sustainable enhancement of the company's overall value. Reflecting this commitment, we issued a "Health Management Declaration" in Japan in January 2020.

Based on this Health Management Declaration, we are considering health management activities from a management perspective to create an environment where employees can thrive, promote employee health, increase engagement, and strategically implement and promote a variety of initiatives. Under the leadership of the President and CEO, we have put in place an organizational framework that enables the strategic implementation and promotion of various company-wide initiatives.

#### Health Management Declaration

In order to improve the sustainable value of the Group and contribute to society, we believe that the health of employees and their families is the foundation.

Since its establishment in 1918, Sumitomo's philosophy of "People are our most important asset" has been valued, and "Respect others and unleash their potential" has been set as the first core value in the current corporate principles of "Our Vision".

Based on the idea, the Group is working on promoting the health of each and every employee and advancing the health management so that employees can maximize their abilities.

#### **Main Initiatives**

### Improving health literacy (health awareness) and promoting health among employees and their families.

Each fiscal year, company-wide policies, initiatives, and progress related to health and productivity management are discussed at meetings attended by the CEO and the Strategic Business Unit (SBU) Heads. Additionally, efforts are made to foster a sense of unity through employee briefings at all-hands meetings held at each manufacturing site, as well as through committee activities involving employee representatives. We aim to raise health awareness by offering educational seminars on a variety of health promotion topics, while also sharing relevant health information.

#### 2. Medical checkup

We identify and support individuals with abnormal findings through regular medical checkups conducted twice a year, along with specific health guidance. In collaboration with the health insurance association, we follow up on various medical checkups and health guidance activity, and the results of the scoring report indicate improvements in health scores. Furthermore, by leveraging health checkup data and promoting digital transformation (DX), we aim to enhance the visibility of employee health conditions and improve the accuracy of health data analysis. These activities are not limited to a single fiscal year, but rather are carried out with a mediumterm perspective, in consultation with medical professionals, labor unions, and health insurance associations.

### 3. Measures against lifestyle diseases

In the employee cafeteria, we offer menus with reduced salt and ensure alignment with a healthy calorie intake. We also improve nutritional balance, provide nutritional guidance and set up consultation desks and provide information. To encourage healthier exercise habits, we are enhancing our training facilities, partnering with external institutions, and holding a variety of events. For smoking reduction measures, we hold in-house events such as seminars, provide ongoing health guidance to employees who wish to quit smoking, and subsidize outpatient smoking cessation treatment costs. We are aiming to achieve a complete smoking ban during working hours by the end of March 2027.

# 4. Improved mental health and employee engagement

Stress Check Program has been conducted in Japan since 2016. While the Group results are available, since employees' stress levels actually vary by organization and job role, we provide feedback to each organization in order to improve employees' stress at work. We aim to enhance employees' satisfaction and engagement with their work and the company, as these are closely linked to employee well-being – encompassing physical, mental, and social health – which in turn fosters greater enthusiasm and motivation at work. We also believe it is important to hold a variety of events to strengthen unity, foster a sense of connection within the Group, and improve workplace communication. To support this, we provide training for managers and supervisors.

### 5. Work style reforms

We believe that empowering a diverse workforce to choose diverse working styles – such as creating an environment where employees with childcare or eldercare responsibilities can work comfortably, strengthening the management of working hours, reducing total working hours, and increasing the rate of paid leave taken – will contribute to the vitality of the company. We are advancing these initiatives through ongoing discussions between labor and management.

We have been recognized as a Certified Health and Productivity Management Organization for five consecutive years since 2021. The NSG Group is working to improve the environment to support diverse working styles. We are reviewing the way both organizations and individuals can work most effectively and aim to shift to a new work style that maximizes both productivity and performance.

Our people are our source of competitive advantage, and we will continue to have our people at the center of what we do.

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The key indicators of Nippon Sheet Glass related to health management are as follows:

Health Indicators (Japan Only)	Measurement method	FY2023/3	FY2024/3	FY2025/3
Absenteeism	Percentage of employees on sick or injury leave out of total employees.	0.8%	0.9%	1.1%
Presenteeism	WHO-HPQ	-	34.6	34.5
Work Engagement	Engagement measurement through employee stress checks	-	48.0	48.0

Work Life Balance	FY2023/3	FY2024/3	FY2025/3	
Annual paid leave utilization rate Formula: Number of annual paid leave days taken / Nur annual paid leave days granted x 100	76.0%	79.7%	83.5%	
Average monthly overtime hours per person	10	11	10	
Parental leave utilization rate	Female	100%	100%	100%
Ma		23.1%	38.1%	41.0%
Turnover rate	3.0%	1.5%	1.3%	

## **Key Strategic HR Actions**

To further turn our Global HR Strategy into meaningful action, we have identified several key initiatives. These have been carefully designed and are aimed to create real value. We have already made significant progress in FY2025/3 and will continue to accelerate over the next three years.



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## **Diversity, Equity & Inclusion (DEI)**



In FY2025/3, we began working with a small, female owned expert partner to develop our strategy and approach. This enabled us to draw upon best practice and drive actions in line with our aspirations. We set ambitious targets at a Group level and improved data visibility in co-creating metrics and developing scorecards. Other key FY2025/3 activity includes updating global policies and improving the diversity in Board of Director searches. We are passionate about working closely with our senior leaders and empowering our DEI Committee and local teams to ensure that DEI is embedded across NSG and driven by everyone. Each SBU and Function has recently developed their own DEI action plan following attendance at the global workshops led by our DEI partner. We are currently working with Senior Leaders and HR teams to review the plans and identify the common actions and develop global workstreams which will form part of our targets for FY2026/3. Our aim is to promote greater workplace diversity and foster an inclusive culture with equitable opportunities for all.

Our commitment to Diversity, Equity, and Inclusion (DEI) is reflected in the many initiatives led by our team across the globe. We have focused on family-friendly open days that build connection and pride, completed many activities to advance gender equality, and championed underrepresented groups.

Key examples include initiatives like Gender Equality Week and family-friendly open days in Poland. NGF has partnered with Amazon Web Services and Skill City to help build a more diverse

digital workforce—mentoring over 170 students and hiring graduates from underrepresented backgrounds. In Germany, the HR team addressed local labor shortages by welcoming apprentices from Tunisia, providing them with practical support to succeed. In the UK, there has been a Women in Leadership course, the expansion of the women's network, and the rollout of a Menopause Policy, alongside broader engagement in Pride and STEM outreach.

The Lexington plant in the U.S. is home to a workforce that represents 22 different nationalities and the Whitby site in Canada represents 36 different nationalities. The teams take pride in their diversity and regularly recognize and celebrate employee contributions. The Mexicali plant has greatly increased the number of females in Manufacturing roles. Teams in South America have focused on wellbeing and family engagement, and Brazil has taken steps to refresh its learning systems, making training more accessible and inclusive.

In Japan, our Automotive business unit launched a DEI initiative aimed at breaking the persistent stereotype that manufacturing is "men's work." Recognizing cultural barriers such as a preference for internally promoted talent and the underrepresentation of women in both shop floor and office roles, the team has begun to challenge these norms. The initiative promotes inclusive hiring, supports cross-functional development, and seeks to foster a culture where all employees—regardless of gender or background—can thrive and be recognized.

Through activities like this we aim to embed DEI into the everyday culture of NSG, and create an environment where everyone feels valued and supported.

#### — Value we will create

#### **Talent attraction**

- Able to attract a broader talent pool as our efforts signal that NSG welcomes individuals from all backgrounds, encouraging more diverse candidates to apply.
- Demonstrates social responsibility, enhancing reputation with customers, investors, and future employees.
- Inclusive hiring practices create a fairer and more welcoming candidate journey, increasing the likelihood of offer acceptance.

#### **Employee engagement**

Inclusive environments promote open communication and build a sense of belonging, psychological safety, and trust leading to higher employee satisfaction and engagement.

#### Innovation

- Bringing a wider range of perspectives, experiences, and backgrounds together leads to more diverse idea creation, and greater inclusion encourages people to share these ideas.
- Diverse teams solve problems faster and more effectively due to varied viewpoints and approaches. When diverse teams are also inclusive, they avoid groupthink.

#### Retention

- When employees feel seen, heard, and valued for who they are, they're less likely to get feeling of isolation and exclusion and more likely to stay at an organization.
- Fair access to development, promotions, and rewards improves retention and career progression for underrepresented groups.

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### **HR Digital**



In FY2025/3, we worked with an expert partner to undertake Phase 0 of our HR Digital Transformation. We agreed key principles for the future and developed a business case and plan for a Global solution. We also conducted an activity analysis with 98% completion rate across Global HR to understand where their time is being spent. This has given us a wealth of data to understand our current state, including highest areas of cost and where we ought to prioritize when digitalizing HR processes and improving how we operate.

In addition, we will continue to explore the use of digital solutions in HR that are future proof and can scale to add

global value. In Japan, we are piloting Al-powered tools as part of our HR Digital transformation. This includes the introduction of an internal HR chatbot (generative AI) to provide employees with timely and accurate responses to common HR-related questions, improving service speed and accessibility. Additionally, we are leveraging AI technology to generate automated summaries of meeting transcripts, allowing for more efficient knowledge sharing and better follow-through on actions. These innovations are enhancing the employee experience while also reducing administrative workload.

### The key focus for FY2026/3 will be:

Establish a global data framework, creating a single source of the truth

Define our HR Target Operating Model and taking steps to move towards this

#### **Outcomes**

- Centralized data and analytics with improved data quality and reporting capabilities
- Aligning people, processes and technology more effectively
- Better use of Shared Service Centers
- Improved and more streamlined processes with the introduction of supporting digital tools

#### — Value we will create

#### **Employee experience and engagement**

- Aligned operations delivering a consistent customer-focused service
- Better and simpler experience for leaders managing global teams
- Improved trust from our stakeholders due to greater data integrity

#### Efficiency and cost saving

- Reduced administrative overhead as a result of fewer manual processes
- Saving time and resources due to less need for data cleaning and re-work
- Increased productivity and cost optimization through streamlined workflows, reduced duplication and better resource allocation

#### Speed and agility

- Improved decision making as a result of better data visibility, enabling leaders to make informed, timely and confident decisions with data
- Faster decision making through clearer HR roles and responsibilities
- Easier to scale HR Operations, as the organization grows, our digital systems and operating model can handle increased volume without proportional increase in HR headcount
- Greater agility allowing for faster response to market changes or customer needs, and easier adaptation to new technologies or business models

#### **Governance and controls**

Greater governance and controls ensuring consistent execution and compliance and reduced operational risk through improved oversight. Supports compliance with legal and industry standards reducing the risk of fines or reputational damage

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### **Employee Value Proposition (EVP)**



In FY2025/3, we identified an expert partner to undertake research and develop a proposition. The internal research consisted of a Global Survey which received 12,707 responses and 77 focus groups across 15 countries with a mix of age, gender and tenure. In Japan, focus group feedback revealed a strong sense of pride in working for NSG and a desire to contribute to creating new value through challenge and innovation. These insights have informed the local EVP messaging, which emphasizes personal growth, meaningful

work, and long-term contribution to the company's future. We had, and continue to have, incredible support from Project Champions across our HR Global Community who have been fundamental in the success of our survey and focus groups and will be key advocates for us as the project continues. We have now created our proposition and the next key milestone will be launching the new Employer Brand.

## The key focus for FY2026/3 will be:

Finalize Creative content and Employer brand guide

Educate all stakeholders ahead of launch

Launch and activate brand internally

Launch brand externally

#### Outcomes

- A clear articulation of what employees can expect from NSG, no matter where they are in the world
- A consistent global story across internal and external platforms, including NSG.com, ensuring alignment between internal culture and external messaging

#### — Value we will create

#### Talent attraction

- Attracts top talent by clearly communicating what makes NSG unique, differentiating us in a competitive talent market and enhancing our reputation as an employer of choice
- Increased quantity of applicants, particularly direct candidates, reducing spending on external agencies and advertising
- Improved applicant quality and offer acceptance through stronger alignment with our culture, reducing hiring cycle repetition
- Enhances candidate experience with engaging content and early cultural insight, enabling faster, more confident decision-making which could reduce time-to-hire

#### **Employee engagement**

Stronger alignment of employee expectations with organizational culture, ensuring employees clearly understand and resonate with NSG Cultivates a strong sense of value, recognition, and belonging, strengthening the emotional connection employees have to the organization. This increased sense of purpose fuels higher morale, motivation, and overall performance

#### Global mobility

Helping employees to stay connected as they progress and develop their career at NSG. This sense of continuity and belonging accelerates integration of employees transitioning into new roles and increases the likelihood of success

#### Retention

- Reduced turnover, and associated rehiring and retraining costs, by reinforcing why employees choose to stay at NSG.
- Continues to build loyalty and long-term commitment

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### **Future Outlook**

We will continue to invest in our people to ensure we remain agile and competitive. Our focus will continue to be on DEI, Digital and EVP, as outlined above. As part of the Digital initiative, once we've set the foundations, we will have set ourselves up for success when it comes to selecting and implementing a Global HR system.

In addition to these three core focus areas, we also intend to increase our efforts in Talent Acquisition with the aspiration to be seen in the external market as a great employer and a great place to work. The key actions above have demonstrated the value we will create in relation to attracting talent and we intend to do more in this space to drive even greater value in the future.

## **Key HR Metrics** Workforce Size As at end of March 2025 **Creative Technology** Other 1,671 939 **Total Permanent Employee Headcount** 25,406 0.2% Variance vs March 2024 **Automotive Architectural** 8,598 14,198

#### **Recruitment & Attrition**

Based on 2024 full calendar year.

Starters	2,579
_eavers	3,479
Voluntary	2,069
Involuntary	1,410
Attrition Rate	13.0%
vs PY	-1.2%
Voluntary	7.8%
Involuntary	5.3%
*日本板硝子単体の離職率は1.4%	

Regional Attrition Rates

Asia	<b>5.5</b> %	
vs PY	-1.0%	Off-the-jok
Europe	9.3%	
vs PY	-0.3%	On-the-job
North America	34.9%	Total inves
vs PY	-6.0%	training da
South America	8.3%	Average ho per year pe employee*
vs PY	-0.1%	*Targeted at HF

### **Employee Engagement**

Survey Results for FY2024/3

**Participation Engagement** 

80%

**78**% Favorable

Business Area Engagement % Favorable

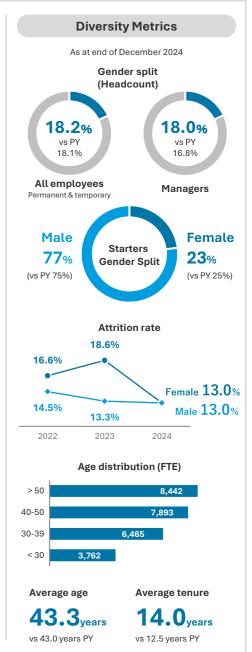
Architectural		<b>75</b> %
Ata maatii	AGR	86%
Automotive	OE	77%
Functions	81%	
Creative Technolog	74%	

## **Training & Development**

As at end of December 2024

Off-the-job	<b>29,010</b> Days
On-the-job	<b>53,022</b> Days
Total investment in training days	<b>82,037</b> Days
Average hours of training per year per permanent	24.6Hours

<sup>\*</sup>Targeted at HR-related topics, Ethics & Compliance, Safety Training, and other related areas



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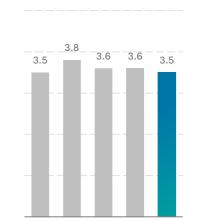
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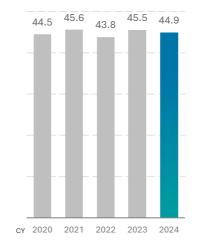




CY 2020 2021 2022 2023 2024

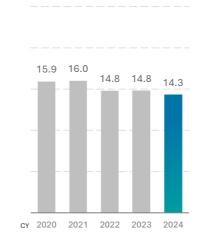
### Energy Usage

(PJ)



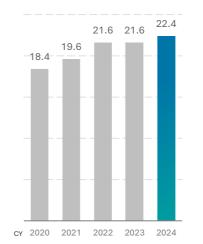
#### Water Usage

(Mm<sup>3)</sup>



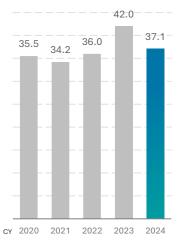
#### Operational waste to landfill\*2

(Kt)

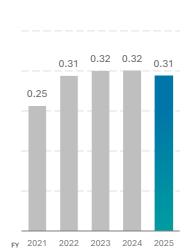


### Recycling (not glass)

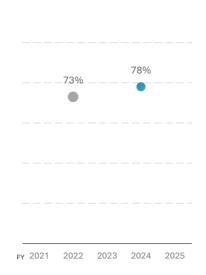
(Kt)



#### Significant injury rate (SIR)



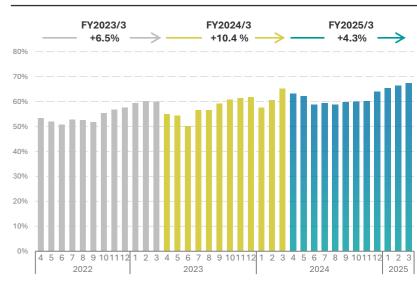
#### Employee engagement \*3



#### Female manager ratio



#### 3 Year Performance of Supplier Spend Assessed by Eco Vadis\*4



<sup>\*1</sup> Total CO<sub>2</sub> emissions of Scope 1 and Scope 2 Location \*2 Indicates total amount of glass and non-glass landfill waste

<sup>\*3</sup> Employee engagement survey is conducted every two years \*4 Procurement spend basis

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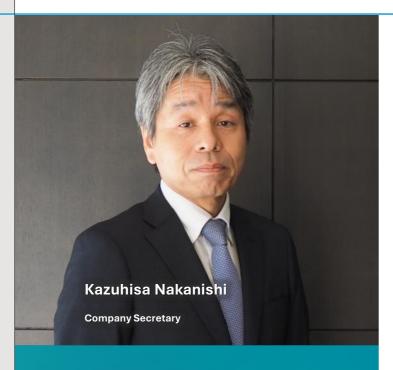
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The Group believes that achieving and maintaining an advanced level of corporate governance is a key management agenda. We have created and adopted "NSG Group Corporate Governance Guidelines", supporting and endorsing the spirits and principles of Corporate Governance Code provided by the Tokyo Stock **Exchange. These Guidelines are intended to define** and embed the basic principles and framework of our corporate governance in the organization. To further secure such purposes, the Group has also adopted a self-disciplinary approach for the Guidelines which, among others, requires us to give a reasonable account to our shareholders if the Group should proceed with any actions deviating from these Guidelines.

## **Basic Principles of "NSG Group Corporate Governance Guidelines"**

The Group considers achievement of an advanced level of corporate governance a key management objective and will implement the following.

### Organizational Structure

- a. The Group's ultimate parent company, Nippon Sheet Glass Company, Limited will adopt a Company with Three-Committee structure and the Company hence will establish and maintain the Board of Directors (the "Board"), the Nomination Committee, the Audit Committee, the Compensation Committee (individually referred to as the "Committee") and Executive Officers.
- b. The Board will authorize the Executive Officers to make decisions on the execution of business for the Company within the scope as permitted by law, thereby facilitating separation between business execution and oversight, enhancing the transparency of the management processes and strengthening the Board supervisory function over the executive management.
- c. The Company will establish and maintain an internal control system operating on a Group-wide basis including in relation to financial reporting (J-SOX).

### **Stakeholders Communication**

- a. The Group aims to be judged as best in class by our many stakeholder groups in a variety of settings across the whole group (including shareholders, customers, employees, suppliers, and local communities) from their own perspectives and also will develop, maintain and enhance good relationship with any of such groups.
- b. In relation to the matter of disclosure of corporate information, whether or not it is to be made according to legal requirements, the Group always aims to act in a timely and appropriate manner both in terms of the substance and form, with a view to maintaining and invariably enhancing the transparency of management of the Group.

#### **Overview of Corporate Governance Structure**

(as of 27 June 2025)

Type of governance structure	Company with Three Committees					
Number of Directors / term of office	8 / 1 year	8 / 1 year				
Number of Independent External Directors	6					
Chair of the Board	Hiroshi Ishino (In	dependent External Director)				
Chair of Three Committees	Nomination Hiroshi Ishino (Independent External Direc					
Tillee Committees	Audit	Kunihito Minakawa (Independent External Director)				
	Compensation	Shinji Asatsuma (Independent External Director)				
Number of Executive Officers (Representative Executive Officers) / term of office	13 (1) / 1 year					
Compensation system	Executive Officer (including those who concurrentl serve as Director	(2) Performance-linked compensation i. Management Incentive Plan (annual				
	External Director	s The level of compensation set at the appropriate level based on comparisons with other companies using benchmark data provided by specialist external advisers (fixed salary)				
Accounting Auditor	Ernst & Young ShinNihon LLC					

### Code of Conduct

The Group will create the "NSG Group Code of Ethics" which all entities and employees etc. of the Group must comply with and will be regularly reviewed in light of the status of implementation/embedding within the Group and the contents.

"NSG Group Corporate Governance Guidelines"

### **Corporate Governance Report**

For details of the "NSG Group Corporate Governance Guidelines", please refer to the NSG website.

Corporate Governance Report (as of July 2025)

Disclosure based on the principles of the Corporate Governance Code (nsg.com)

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### **Corporate Governance Structure**

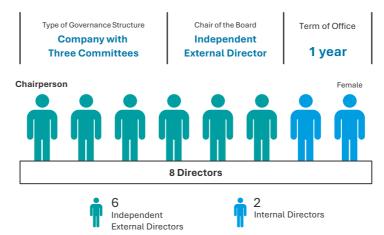
NSG Group adopts a "Company with Three Committees" governance structure, and has in place, as statutory corporate organizations, a Board of Directors, Nomination, Audit, and Compensation Committees, and Executive Officers. Currently, the Chairperson of the Board as well as the Chairpersons of all three Committees are all appointed from among the Independent External Directors.

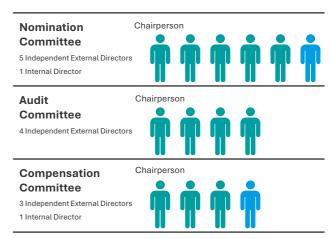
Various steps have been taken to date so that NSG Group has enhanced management transparency by further separation of functions between business execution and its supervision and strengthened role of Independent External Directors.

For example, according to the NSG Group Corporate Governance Guidelines, the majority of the members of the Board of Directors are Independent External Directors. Also, the roles of the Chairperson of the Board and CEO are clearly distinguished. In the event that the Chairperson of the Board is not an Independent External Director, an Independent External Director who is entrusted to perform specified tasks such as making of contribution to communication, coordination and cooperation between the Independent External Directors and the Executive Divisions, and rendering of support to the Chairperson of the Board in relation to any issues of corporate governance, shall be appointed from among Independent External Directors. Independent External Directors meet on an as-needed basis, even without the presence of executives, for discussion concerning matters such as corporate governance and businesses. In addition, the Board appoints the Company Secretary who is responsible for promoting initiatives for efficient functioning of the Board and each Board Committee.

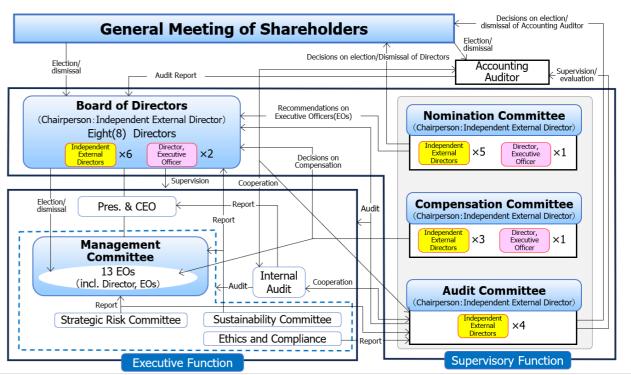
As regards the executive function, the Group also has Management Committee, Sustainability Committee, and Strategic Risk Committee. Currently, thirteen (13) Executive Officers are responsible for the business execution. One (1) of them is Representative Executive Officer performing the duties of CEO.

### Overview of Corporate Governance Structure (as of 27 June 2025)





Corporate Governance Mechanism (as of 27 June 2025)



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### Hiroshi Ishino

**Independent External Director** Chairperson of the Board **Chairperson of Nomination Committee** 

Number of the Company's common shares owned: 11,353 Number of attendance during FY2025/3 Board of Directors 100% (7/7) Nomination Committee 100% (8/8) 100% (3/3) Audit Committee Compensation Committee 100% (1/1)

Length of incumbency as Director: 5 years



	Brief career history						
	Joined Mitsubishi Corporation Joined Kansai Paint Co., Ltd.		Affairs and Procurement, Kansai Paint Co., Ltd.				
lun 2006	Director, Deputy General Manager, International Affairs, Kansai Paint Co., Ltd.	Apr 2013	Representative Director and President, Kansai Paint Co., Ltd.				
lun 2008	Managing Director, Sales, Coatings Business, Kansai Paint Co., Ltd.	Jun 2019	Senior Corporate Advisor, Kansai Paint Co. Ltd.				
Apr 2010	Senior Managing Director, Sales, Kansai Paint Co., Ltd.	Jul 2020 Jun 2023	Director, the Company (Incumbent) Honorary Advisor, Kansai Paint Co., Ltd.				
lun 2011	Director, Senior Managing Executive Officer, Sales, International Affairs and Procurement. Kansai Paint Co., Ltd.	Jun 2025	(Incumbent) External Director, LIXIL Corporation (Incumbent)				
lun 2012	Representative Director, Senior Managing Executive Office, Sales, International	Jun 2025	External Director, Olympus Corporation (Incumbent)				

#### Reasons for recommendation and expected roles to be fulfilled

Hiroshi Ishino has served as an External Director of the Company since July 2020. He previously held responsibility for overseas operations at a major trading company and later served as Representative Director and President of a major international manufacturer, where he led that corporate group's global strategy and business development across diverse areas.

It is expected that he will continue to contribute to the enhancement of our corporate value by advising the executive team and overseeing the performance of Executive Officers from an independent and objective standpoint, drawing from his extensive executive experience in a global company at the top management level and his broad expertise in business transformation and operations from manufacturing to sales

### **Kunihito Minakawa**

Independent External Director **Chairperson of Audit Committee** 

Length of incumbency as Director: 5 years Number of the Company's common shares owned: 5,673 Number of attendance during FY2025/3 Board of Directors 100% (7/7)

Nomination Committee 100% (8/8) 100% (11/11) Audit Committee Compensation Committee 100% (5/5)



	brief career flistory						
	Joined RICOH CO., LTD. SVP and CFO, Ricoh Americas Corporation	Jun 2013	Corporate Auditor (Full-time), RICHO CO., LTD.				
Jan 2008	Business Planning Manager and Business Management Manager, Business	Jun 2017	External Director, Sony Corporation (Currently Sony Group Corporation)				
	Management Center, Overseas Division, RICOH CO., LTD.	Jun 2018	External Director, Santen Pharmaceutical Co., Ltd.				
Apr 2010	Corporate Vice President and General	Apr 2019	Commissioner, Certified Public				

Manager, Finance and Accounting, RICOH CO., LTD. Apr 2012 Corporate Senior Vice President and

RICOH CO., LTD.

Accountants and Auditing Oversight Board. Financial Services Agency Jul 2020 Director, the Company (Incumbent) General Manager, Finance and Accounting, Jun 2024 External Director, Mitsubishi Electric

Corporation (Incumbent)

#### Reasons for recommendation and expected roles to be fulfilled

Kunihito Minakawa has served as an External Director of the Company since July 2020. He possesses broad knowledge and practical experience in finance and auditing. At a major international manufacturer, he served as Corporate Senior Vice President overseeing Finance and Accounting, and as an Audit & Supervisory Board Member. In addition, He served as a Commissioner on the Certified Public Accountants and Auditing Oversight Board of the Financial Services Agency.

It is expected that he will continue to contribute to the enhancement of our corporate value by advising the executive team and overseeing the performance of Executive Officers from an independent and objective standpoint, drawing from his extensive executive management experience in a global company and his professional expertise in finance and accounting.

## Shinji Asatsuma

**Independent External Director Chairperson of Compensation Committee** 

Number of the Company's common shares owned: 3,256 Number of attendance during FY2025/3 100% (7/7) Board of Directors Nomination Committee 100% (8/8)

Length of incumbency as Director: 3 years

Audit Committee 100% (11/11) Compensation Committee 100% (5/5)



#### Brief career history

Apr 1984 Joined Kansai Paint Co., Ltd. Jun 2019 External Director, Kyushu Railway Company Apr 2012 Executive Officer, General Manager, Jun 2022 Director, the Company (Incumbent) Corporate Planning Office, Kansai Paint Co.,

International Div., Kansai Paint Co., Ltd. Jun 2016 Director, Senior Executive Officer, General Manager, Administration Div., Kansai Paint Co., Ltd.

Apr 2015 Senior Executive Officer, General Manager,

Apr 2018 Director, Senior Executive Officer, in charge of Business Management, Corporate Planning, IS, Human Resources Planning, General Manager, Administration Div., Kansai Paint Co. Ltd.

Finance Division, NEC Corporation May 2014 Vice President, NEC Corporation

Jun 2021 External Audit & Supervisory Board Member.

Jun 2014 Audit & Supervisory Board Member.

Jun 2018 Executive Consultant, NEC Capital

JVCKENWOOD Corporation

**NEC Corporation** 

Solutions Limited

#### Reasons for recommendation and expected roles to be fulfilled

Shinji Asatsuma has served as an External Director of the Company since June 2022. He was previously responsible for accounting, finance, business strategy, and overseas operations at a major international manufacturer. He later served as Director and Senior Executive Officer, overseeing Administration and leading the development of business strategies and overseas business expansion for that corporate group.

It is expected that he will continue to contribute to the enhancement of our corporate value by advising the executive team and overseeing the performance of Executive Officers from an independent and objective standpoint, drawing from his extensive executive management experience in global companies and his broad expertise in finance, accounting, and risk management.

## Tetsuva Fuiioka

Independent External Director



Apr 1981 Joined NEC Corporation Jun 2025 External Director, JVCKENWOOD Corporation (Incumbent) Jun 2007 CFO, NEC Europe Ltd. Jun 2025 Director, the Company (Incumbent) Apr 2010 General Manager, Corporate Finance Division, NEC Corporation Apr 2013 Vice President, General Manager, Corporate

#### Reasons for recommendation and expected roles to be fulfilled

Tetsuya Fujioka possesses extensive experience in finance and auditing. He served as General Manager of the Corporate Finance Division at a major international manufacturer and as CFO of its European subsidiary, where he led structural reforms across that corporate group. He later held the position of Internal Auditor at the parent company and currently serves as an External Auditor at another major manufacturing

It is expected that he will contribute to the enhancement of our corporate value by advising the executive team and overseeing the performance of Executive Officers from an independent and objective standpoint, drawing from his extensive executive management experience in global companies and his professional expertise in finance and accounting.

<sup>\*</sup> As Hiroshi Ishino retired from the Audit Committee and the Compensation Committee on 26 June 2024, the above indicates the number of meetings held and his attendance prior to his retirement.

<sup>\*</sup> Tetsuya Fujioka was newly appointed as a Director at the 159th Ordinary General Meeting of Shareholders held on 26 June 2025.

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## Takehiro Kamigama

Independent External Director



	Brief career history					
pr 1981	Joined Tokyo Denki Kagaku Kogyo K.K. (Currently TDK Corporation)		External Director, Yamaha Motor Co., Ltd. External Director, SoftBank Corporation			
un 2002	Corporate Officer, TDK Corporation	Jun 2018	Mission Executive, TDK Corporation			
un 2003 un 2004	Senior Vice President, TDK Corporation Director, Executive Vice President, TDK	Mar 2021	External Director, KOKUYO Co., Ltd. (Incumbent)			
	Corporation	Jul 2021	Chief Consultant, Contemporary Amperex			
un 2006	Representative Director & President, TDK		Technology Japan KK (Incumbent)			
	Corporation	Aug 2021	Representative Director, Gama Expert, Inc			
un 2016	Chairperson & Representative Director,		(Incumbent)			
	TDK Corporation	Jun 2025	Director, the Company (Incumbent)			

#### Reasons for recommendation and expected roles to be fulfilled

Takehiro Kamigama previously led global business expansion as the head of a business unit at a major international manufacturer. He later served for many years as a Representative Director, where he drove structural reforms and growth strategies across that corporate group. He currently serves as an External Director at major manufacturers and a leading telecommunications company, contributing to the oversight of corporate management.

It is expected that he will contribute to the enhancement of our corporate value by advising the executive team and overseeing the performance of Executive Officers from an independent and objective standpoint, drawing from his extensive executive management experience—including leadership roles in global companies—and his broad expertise in the field of technology.

## Hideki Miyazaki

**Independent External Director** 



Brief career history							
		Joined Nomura Securities Co., Ltd. Joined Japan Tabacco Inc.	Jun 2025	External Director, Mizuho Securities Co., Ltd. (Incumbent)			
	Jun 2008	Senior Vice President, and CFO, Japan Tobacco Inc.	Jun 2025	Director, the Company (Incumbent)			
	Jun 2010	Executive Vice President, and CFO, Japan					

External Director, OMRON Corporation

Tobacco Inc.

Mar 2018 Joined JSR Corporation

Japan Tobacco Inc.

Jan 2018 Director, Japan Tobacco Inc.

JSR Corporation

Jun 2012 Director and Executive Vice President.

Jun 2018 Director and Managing Officer, and CFO

Apr 2017 General Manager, Infection Prevention

Senior Corporate Officer, Chief Corporate

Division, 3M Japan Limited

Jun 2014 Joined Royal Philips as Chief Human

Executive Committee

Resources Officer and member of the

Aug 2018 Joined the Company

Planning Officer

#### Reasons for recommendation and expected roles to be fulfilled

Hideki Miyazaki held key positions at a major securities firm, primarily within its overseas operations. He later served as CFO at a leading international manufacturer, where he spearheaded structural reforms. Subsequently, he served as Director and Vice President, overseeing the management of that corporate group. He then assumed the role of CFO at another prominent global manufacturing company, where he continued to lead business structural reforms.

It is expected that he will contribute to the enhancement of our corporate value by advising the executive team and overseeing the performance of Executive Officers from an independent and objective standpoint, drawing from his extensive executive management experience at global companies and his broad expertise in finance, capital, and business structural reform.

#### Munehiro Hosonuma

Director Representative Executive Officer

Length of incumbency as Director: 3 years Number of the Company's common shares owned: 91,690 Number of attendance during FY2025/3 Board of Directors 100% (7/7) Nomination Committee 100% (8/8) Compensation Committee 100% (5/5)



	5,10,1 00,10		
	Joined Nikken Sekkei Ltd.	Jan 2021	Senior Executive Officer, Head of Architectural Glass SBU
Jul 2005	Joined Boston Consulting Group		
Oct 2010	Joined Sumitomo 3M Limited (Currently 3M	Apr 2022	Representative Executive Officer, Vice
	Japan Limited)		President and Chief Operating Officer
	Business Development Senior Manager,	Jun 2022	Director (Incumbent)
	Display and Graphics Business Group	Apr 2023	Representative Executive Officer, President
Sep 2013	General Manager, Cleaning and Workplace		and CEO (Incumbent)
	Safety Division, Sumitomo 3M Japan		

#### Reasons for recommendation and expected roles to be fulfilled

After working for a leading Japanese design office and a major international management consulting firm, Munehiro Hosonuma joined a major international manufacturer, where he held key positions within the business division. He joined NSG in August 2018 and served in senior roles within the Group, specifically as Chief Corporate Planning Officer and Head of Architectural Glass SBU. In April 2022, he was appointed Representative Executive Officer, Vice President and Chief Operating Officer, where he gained experience leading the Group's overall operations. Building on a wealth of experience and a strong track record in business execution, he was appointed Representative Executive Officer, President and CEO in April 2023, assuming leadership of the Group management. He was elected as a Director in June 2022.

It is expected that he will continue to make a valuable contribution to the Board's decision-making, drawing from his extensive experience and accomplishments in business strategy and operations.

## **Denise Haylor**

Director Senior Executive Officer Chief Human Resources Officer (CHRO)



#### Brief career history

	Joined Siemens Joined Motorola Limited	Apr 2017	Joined Boston Consulting Group as Partne and Managing Director
Jan 2003	Joined Motorola Inc	Jun 2023	Joined the Company
Jan 2007	Corporate Vice President Human		Executive Officer, Chief Human Resources Officer
Jul 2010	Resources, Motorola Inc Corporate Vice President and Deputy Head	Jun 2025	Director, Senior Executive Officer,
Jul 2010	of Human Resources, Motorola Inc		Chief Human Resources Officer
Feb 2011	Joined Flextronics as Chief Human		(Incumbent)

#### Reasons for recommendation and expected roles to be fulfilled

Denise Haylor held key positions in Human Resources at a major international electronics manufacturer, a leading telecommunications equipment company, and a prominent medical equipment manufacturer. Following her tenure at a leading management consulting firm, she joined NSG in June 2023 and was appointed Executive Officer and Chief Human Resources Officer. She has since led the Group's HR function and contributed to the overall management of the Group.

It is expected that she will make a valuable contribution to the Board's decisionmaking, drawing from her extensive executive management experience at European and American companies—including leading business transformation initiatives—and her professional expertise in HR strategy, talent management, and DEI (Diversity, Equity, and Inclusion).

<sup>\*</sup> Takehiro Kamigama, Hideki Miyazaki and Denise Haylor were newly appointed as Directors at the 159th Ordinary General Meeting of Shareholders held on 26 June 2025.

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Policies and procedures for the nomination of Director candidates and the appointment and dismissal of Executive Management

#### The nomination of Director candidates

The Company determines Director candidates at the Nomination Committee, which is chaired by an Independent External Director and composed of six (6) Directors including the Chairperson, five (5) of whom are Independent External Directors, and submits the details to the Ordinary General Meeting of Shareholders as a proposal. For such appointments, in particular for Independent External Directors, the Company finds candidates from a broad talent pool with the cooperation of executive search companies and others. The standards for the appointments are as follows. Through the appointments of Directors based on the standards, the Company aims to ensure a well-balanced level of expertise as defined in Clause 7 in the Board of Directors as a whole, and diversity in terms of gender, internationality, work experience, and age.

#### The standards for the appointment of Director candidates

Personality, insight, leadership	1. Being a person of good character and high ethical standards. 2. Upholding and promoting compliance with laws and regulations. 3. Being fit to hold office and able to fulfil the duties required. 4. Possessing excellent business acumen and the ability to make judgements objectively. 5. Having abundant leadership experience and being team orientated.
No material interest	Having no personal interest or business relationship that might affect management decisions in our Group's business areas. ("Criteria for Independence for External Directors" is defined separately as shown on the right.)
Skill/ Expertise	7. Having broad business experience globally or multi-nationally and/or such specialized knowledge in market, technology, accounting, law, talent development, or other specific fields that are necessary or desirable for Directors based on the current situation of the Group, strategies, etc.
Commitment	8. Being the person who agrees with the philosophy and basic stance set forth in "NSG Group Corporate Governance Guidelines" and "Board of Directors Charter" and can be expected to perform his/her duties accordingly.  9. Having sufficient time to participate in meetings of the Board and the Committees of which he/she would be a member, and being qualified to fulfil the duties as a member of any one of the three committees on which he/she would sit: the Nomination Committee, Audit Committee or Compensation Committee.

### Criteria for Independence for External Directors at NSG

An External Director is a Director who has never been a Director, Executive Officer, or employee of the Company or its subsidiaries.

To enhance the transparency of business management, the Company has appointed six (6) External Directors out of the eight (8) Directors, all six of whom are designated as Independent Directors under the TSE.

In addition to the criteria for independence defined by the TSE, the Group has established its own criteria for independence for External Directors, taking into consideration their relationships with the Group, including those with its officers and major shareholders. All six External Directors satisfy the Group's criteria for independence.

Please refer to the Group's Criteria for Independence for External Directors.

the Group's Criteria of independency for External Directors



## The appointment and dismissal of Executive Management

The Board of Directors will, on the basis of recommendation rendered by the Nomination Committee in advance, appoint or dismiss "Executive Management Member of the Group" such as Executive Officers. "Executive Management Member of the Group" stands for aggregate references to (i) Executive President, Representative Executive Officers and Executive Officers, and (ii) CEO, COO, CFO and any such other office or role of the Group as is close or only next to those officers in its significance and requires a resolution of the Board of Directors in relation to any such appointment or dismissal. Prior to the appointment and/or assignment and/or dismissal of each candidate, a comprehensive review of the candidate's proven performance to date, potential caliber as a leader, and commitment to the Group's future direction, "Our Vision", the principles for Stakeholder Communication, code of conduct and Competencies is completed.

The Nomination Committee clarifies the qualifications for a top managing officer and required personality or character as a part of the Chief Executive Officer's succession plan. Further, the Company formulates and operates training programs and leadership development plans for management development

The process of the Chief Executive Officer's succession plan

needs. In case the incumbent CEO is also a member of the Nomination Committee, he/she will not be involved in any decision or discussion as to his/ her own succession plan, except only where he/she expresses his/her opinion in response to a specific request if any, from the Nomination Committee to do so.



Please refer to the Policy and Procedure on Appointment and Dismissal of Executive Management

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#### **Director Skills Matrix**

In order to develop and enhance the enterprise value of the Group in a sustainable manner on a medium to long term basis, the Board is required to effectively supervise the execution of duties by executive officers, etc., while preparing for a corporate environment which would enable the executive management to take proper degree of risks associated with business. Based on the company situation and the issues to

be solved in the execution of the medium-term plan "2030 Vision: Shift the Phase" starting from FY2025/3, the areas of experiences and specialized knowledge, which the Nomination Committee considers to be particularly important for the directors, are defined as follows, and the composition of directors would be well-balanced as a whole in consideration of diversity.

#### **Global Company Management Experience**

The area of experience and/or expertise required from the perspective of supervising the management of the Group which is operating globally based on the management experiences in a global or multinational business environment.

#### **Financial Expertise**

The area of experience and/or expertise required from the perspective of supervising the execution of the financial targets, "Increasing cash generation" and "Improving the financial status" in the medium-term plan.

### **Risk Management**

The area of experience and/or expertise required from the perspective of effective and efficient supervision in identifying and evaluating critical risks that the Group should manage.

#### **ESG / Sustainability**

The area of experience and/or expertise required from the perspective of effective and efficient supervision for the initiatives to attain sustainable growth of the Group and contribute to a sustainable society in the medium to long-term such as climate change issues and initiatives to ensure a highly independent and transparent Corporate Governance system for that purpose.

#### Portfolio management / New Business Development

The area of experience and/or expertise required from the perspective of effective and efficient supervision for the initiatives against "Business structure reform" such as new business development and Portfolio transformation to highly profitable business.

#### **DX / Operational Excellence**

The area of experience and/or expertise required from the perspective of effective and efficient supervision for the initiatives utilizing digital technology to quickly execute strategies based on globally integrated information and carry out reform measures for high value-added operations that transcend the boundaries of each function, from procurement and manufacturing to logistics.

#### **Marketing / Commercial**

Strategic marketing is needed to develop the business, and this area of experience and/or expertise should be required from the perspective of effective and efficient supervision in implementing the initiatives for "Business structure reform" and customer-oriented "Corporate culture reform".

	Composition of Committees (⊚ = Chairperson, ○ = member)		Global Company	Figure 141 Forestee	B: 1.M	ESG /	Portfolio Management /	DX / Operational	Marketing/	
	Nomination Committee	Audit Committee	Compensation Committee	- Management Experience	Financial Expertise	Risk Management	Sustainability	New Business Development	Excellence	Commercial
H. Ishino	0	-	_	•			 		•	•
K. Minakawa	0	0	0	•			 			
S. Asatsuma	0	0	0	•			 		 	
T. Fujioka	_	0	_	•						
T. Kamigama	0	_	0		     	 	 	 	 	
H. Miyazaki	0	0	_				 		 	
M. Hosonuma	0	_	0						•	
D. Haylor	_	_	_		     				 	

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**Supervisory Function** The status of activities of the Board of Directors and each committee in the FY2025/3 is as follows.

	Board of Directors	Nomination Committee	Audit Committee
Role	Board of Directors is responsible for deciding the basic policies for business management and internal control, the segregation of duties among Executive Officers and other important management decisions, and supervising the execution of duties by Executive Officers.	Nomination Committee is responsible for deciding the details of proposals concerning the appointment or removal of Directors to be submitted to the General Meeting of Shareholders. It also oversees the succession plans for the President and CEO and other key executives and provides recommendations or advice with regard to candidates for Executive Officers.	Audit Committee is responsible for auditing the execution of duties by Directors and Executive Officers, preparing audit reports, and deciding the details of proposals concerning the appointment, removal or non- reappointment of the Accounting Auditor to be submitted to the General Meeting of Shareholders.
Composition as of 27 June 2025	<ul> <li>6 Independent External Directors and 2 Directors who concurrently serve as an Executive Officer</li> <li>Chaired by Hiroshi Ishino, Independent External Director</li> </ul>	5 Independent External Directors and 1 Director who concurrently serves as a Representative Executive Officer     Chaired by Hiroshi Ishino, Independent External Director	4 Independent External Directors     Chaired by Kunihito Minakawa, Independent External Director     *As "Company with Three Committees", the Audit Committee takes the lead in conducting     systematic audits through cooperation with the Group Internal Audit, other departments in     charge of internal control, and the Accounting Auditor. Furthermore, two dedicated Support     Staffs for the Audit Committee are appointed. These individuals report to and provide     necessary information to the Audit Committee.
Number of meetings held	Seven (7) times	• Eight (8) times	Eleven (11) times
Main items for discussion, consideration and deliberation	<ul> <li>To ensure that Directors exercise their supervisory functions with a shared understanding, the Board developed, deliberated and approved the "Board of Directors Charter".</li> <li>In alignment with the "Board of Directors Charter", the Board conducted ongoing monitoring regarding the Executive initiatives aimed at addressing the "Key Management Issues" identified, including those related to cash generation and organization/talent enhancement.</li> <li>To support the realization of "proactive oversight" as defined in the "Board of Directors Charter" from an operational perspective, the Board deliberated and approved revisions to the "Criteria for Agenda Items of</li> </ul>	Proposal to the shareholders' meeting on the election of Directors  Candidates for Executive Officers.  Future Composition of Directors in view of the term of External Directors  External Director Candidates Search  Succession plans for CEO and other Executive Officers  Enhancement of the candidate recommendation process for Executive Officers	<ul> <li>Key Management Issue &gt;</li> <li>The Audit Committee reviewed and verified the Executive Officers' understanding and actions on key management issues, including challenges in implementing the medium-term plan (2030 Vision: Shift the Phase). Through interviews, the committee assessed risks and opportunities in business operations.</li> <li>In the area of "Decarbonization," a key focus of the new mid-term plan, the Audit Committee has been closely monitoring sustainability discussions at the Board of Directors and other meetings. The committee has focused on compliance with international disclosure frameworks such as the European CSRD. It has conducted hearings with relevant departments to confirm data reporting processes and identify any issues.</li> </ul>
	Board of Directors".  • The Board reviewed materiality targets set forth in the Medium-term Management Plan as well as their progress, and key sustainability issues.  • To enhance the internal control system, the Board  – deliberated and approved revisions to the "Fundamental Policy on Creation of Effective Internal Control System of the Group"  – received and reviewed reports on the implementation status of the internal control system and the management status of material Group entities.	Discussion schedule	
		Month and Year of Main Items for Discussion Meeting  - Succession plans for Executive Officers  Appointment/Dismissal process of Executive Officers  (Held twice) - Criteria for the appointment of Director candidates	<ul> <li>Internal Control System&gt;</li> <li>The Audit Committee confirmed and verified the status of the design and operation of internal control systems, including ethics and compliance, risk management, and internal control over financial reporting, through reports from the department in charge of internal control and site visits.</li> <li>The Audit Committee requested the Executive Officers and other senior leaders to further strengthen their efforts in governance and Group internal control over</li> </ul>
		Future Composition of Directors	subsidiaries, considering the situation of the Group, which has numerous subsidiaries, joint ventures, and affiliates, as well as risks of fraud or other irregularities.
		June 2024 • Key Senior Management succession planning  August 2024 • External Director Candidates Search  September 2024 • CEO Succession planning	Following verification of audit target area/scope, the Audit Committee identified risks and implemented efficient and effective audit through three-way audit in a further collaborative manner.
		Succession planning for key Executive Officers  November 2024    Enhancement of Succession plans for Executive Officers and the candidate recommendation process	Key Issues in Financial Reporting and Audit> <ul> <li>The Audit Committee confirmed and verified, through reports from and discussions with</li> </ul>
		February 2025  • Executive Organization Structure for FY2026/3  • Proposal for Election of Directors to be Submitted to the General Meeting of Shareholders  • Recommendation to the Board for Appointment of Executive Officers  • CEO Leadership Feedback  • Personnel information including performance appraisals of Executive Officers	the Finance function and the Accounting Auditor, that they had appropriately examined and responded to important issues in the financial statements and conducted necessary audit procedures for each quarterly and annual financial statement.  The Audit Committee verified the relevance of accounting treatments for the accounting events that were the subjects of Key Audit Matters (KAM), including consideration of the sensitivity analysis of future performance and calculation of fair value less cost to sell.  The Audit Committee confirmed and verified the appropriateness of audit procedures
		Citions	and KAM text preparation by the Accounting Auditor.
Secretariat	Company Secretary Department	Company Secretary Department	Audit Committee Office
Internal experts		Human Resources Department	

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# **Supervisory**

The status of activities of the Board of Directors and each

Function	committee in the FY2025/3 is as follows.					
	Compensation Committee					
Role	<ul> <li>Compensation Committee is responsible for making decisions on a compensation policy for Directors and Executive Officers as well as individual elements of compensation for Directors and Executive Officers.</li> </ul>					
Composition as of 27 June 2025	<ul> <li>3 Independent External Directors and 1 Director who concurrently serves as Representative Executive Officer</li> <li>Chaired by Shinji Asatsuma, Independent External Director</li> </ul>					
Number of meetings held	Five (5) times					
Main items for discussion, consideration and deliberation	The individual basic salary for Directors and Executive Officers  The indicators related to the incentive compensation (performance-linked compensation) for Executive Officers, the method for determining the amount to be paid, and the amount to be paid based on the achievement of the indicators in the previous fiscal year.  The number of restricted shares allocated to each of Executive Officers (Executive Officers who are appointed pursuant to the terms and conditions of services in Japan shall be granted restricted shares as retirement benefit In-depth discussions on the performance-related compensation system for Executive Officers to make it more incentivizing and proper structure based on comparison with and analysis of market data.  Discussion schedule  Month and Year of Items for Discussion					
	Annual Bonus for Executive Officers FY2024/3 Outcome     Annual Bonus for Executive Officers FY2025/3 Plan     Long Term Incentive Plan 2021-2024 Outcome					
	Reward Review for External Directors  June 2024     The Number of Restricted Shares to be Allotted     2024-2027 Long Term Incentive Plan for Executive Officers					
	September 2024     Review of Executive performance-related compensation     Structure					
	January 2025 • Voluntary Pay Return by Executive Officers					
	Pay Review for Executive Officers     Annual Bonus for Executive Officers FY2026/3 Design					
Secretariat	Company Secretary Department					
Internal experts	Human Resources Department					

## **Executive Function**

Thirteen (13) Executive Officers (as of 27 June 2025), a professional group with diverse backgrounds, are responsible for the business execution of NSG Group.

i diletion		
	Executive Officer	Management Committee
Role	Business execution of NSG Group	Management Committee leads the Group's business operation and oversees the execution of business in order to realize the policies and targets set forth by the Board of Directors efficiently and appropriately.
Composition	1 Representative Executive Officer (Chief Executive Officer (CEO)) and 12 Executive Officers	Management Committee is composed of Executive Officers with specific titles and with the rank of Senior Executive Officers or higher, and other Executive Officers who oversee key businesses and functions, as permanent members.
Number of meetings held in FY2025/3	_	14

	Sustainability Committee	Strategic Risk Committee
Role	Sustainability Committee builds the sustainability strategies, presides over the Group's sustainability related activities, and ensures effective communication with various stakeholders.	Strategic Risk Committee periodically reviews policies, strategies, and frameworks concerning risk management throughout the Group, and integrates the results of such reviews into the organization's strategies and goals in order to promote efficient business management and enhance the Group's medium and long-term corporate value.
Composition	Sustainability Committee is chaired by CEO or a person nominated by CEO. It is composed of CEO and other Executive Officers, the Heads of relevant Group Functions, and the Heads of Strategic Business Units.	Strategic Risk Committee is chaired by CRO and composed of CEO and other Executive Officers, the Heads of relevant Group Functions and the Heads of Strategic Business Units.
Number of meetings held in FY2025/3	3	3

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#### **Board Effectiveness Evaluation**

The Company started an annual evaluation process for the Board effectiveness since FY2016/3, in order to further and constantly improve performance and effectiveness of the Board of Directors and Nomination, Audit and Compensation Committees.

Through this process, the Board oversees the progress of priority implementation items and updates the priority items as necessary as a new issue is found. The Board continuously aims to enhance the effectiveness of the Board as a whole by regularly monitoring their progress. The entire process is led and supervised by Independent External Directors under the leadership of the Chairperson of the Board to ensure the adequacy and independence of the process.

## Initiatives for the Priority Implementation Items for FY2025/3 (Review)

As for the Priority Implementation Items for FY2025/3, we believe that certain progress has been made through various initiatives and discussions at BOD's regular meetings, informal offline meetings, and each Committee. The "Board of Directors Charter" was developed and adopted by the Board of Directors in May 2024, setting forth the basic stance and expectations which are necessary for the Board of Directors to address the current situation of the Group, with the aim that each Director will exercise his/her supervisory function based on a common understanding.

The "Board of Directors Charter" and how to use it can be found on page 110.

FY2025/3 Priority Implementation Items	Initiatives Undertaken
Further improvement of the supervisory function of BOD as a monitoring board through implementation of "Basic Stance" and "Expected Conduct" by each Director as provided by the "BOD Charter".  Monitoring (oversight) and focused discussion of identified "key management issues" and providing appropriate support to the management team as the situation requires (to enhance decision-making, make suggestions, etc.)	Reorganized agenda items between the Board regular meetings and informal offline meetings with more focus on "key management issues" at the former. Monitoring at the Board regular meetings based on the regular reports presented by the executive side. Revised the Criteria for Agenda Items of the Board based on the BOD Charter.  Board proceedings conducted by the BOD Chairperson in alignment with the BOD Charter.
Further enhancement of the Board operation to contribute to invigoration of discussions at the Board meetings.	<ul> <li>To enhance the quality of Board discussions, agenda items were set based on the distinct purposes of regular meetings and informal offline meetings, papers and presentations were made more concise.</li> </ul>
Implementation of initiatives contributing to the enhancement of the Executive succession and the candidate recommendation process.	<ul> <li>Increased sharing of personnel information of Executive Officers with the Nomination Committee.</li> <li>Created opportunities for communication with potential Executive Officer candidates through informal offline meetings, etc.</li> </ul>
Continued and more in-depth discussions with a view to more appropriate Management Incentive Plan in terms of incentivization.	Continuously discussed the Management Incentive Plan at the Compensation Committee.

#### Effectiveness Review Process in FY2025/3

process.

For the FY2025/3 annual evaluation, a questionnaire survey (featuring a four-point scale and openended questions) and Individual follow-up interviews were conducted for all Directors by the Board of Directors Secretariat. The evaluation covered topics such as the composition of the Board of Directors and its Committees, meeting operations, agenda setting, the status of deliberations, the execution of oversight functions by the Board and individual Directors in alignment with the Board of Directors Charter, communication with the Executive team, and key issues requiring further in-depth deliberation. Based on the responses and feedback from each Director, Independent External Directors held discussions, and the Board evaluated the effectiveness of the Board of Directors and its Committees.

## Board Priority Issues and Board Priority Implementation Items in FY2026/3

FY2026/3 Board Priority Issues	FY2026/3 Board Priority Implementation Items
BOD as a whole is still halfway in terms of fully realizing its oversight functions as outlined in the BOD Charter and each Director should engage in BOD activities with this goal in mind.	Initiatives to have the BOD Charter embedded further     Effective leadership by the BOD Chairperson and review among Independent External Directors.     Share the BOD Charter with new Directors thoroughly in terms of its significance and background.
Improve qualities of BOD monitoring and discussions on the key management issues.  Improve the effectiveness of Executive Officers (EOs)' initiatives to address various challenges further.	Initiatives for monitoring and enhancing discussion on the "key management issues"  Demonstrate appropriate initiatives and set KPIs/milestones that are monitorable.  Clarify Executive ownership of the key management issues.  Establish effective agenda for the BOD meetings.
Discuss BOD composition and diversity in light of the current structure and state of the Company's businesses.	Discussion on the Company's BOD composition/diversity Discuss the Company's BOD composition/diversity, including the terms of Independent External Directors, in light of business structure and current state.
Improve quality of BOD materials and presentation, timing of materials distribution, and pre-briefing by the Secretariat.	Initiatives to enhance the functions of the Secretariat to contribute to facilitating more effective BOD meetings  Improve the quality of BOD materials and presentation.  Study and implement more effective ways of prior briefing to Directors.
Provide more information about EOs and candidates, including their performance appraisals, to facilitate discussions on the appointment/dismissal of EOs and their compensation, and enhance EO selection	More effective discussions on the appointment/dismissal of EOs, succession planning, and compensation.  Provide more detailed information on EOs (candidates) from HR Function including their performance appraisal.  Continued discussions aiming to enhance the EO selection process.

As "key management issues" for FY2026/3, issues related to cash generation and strengthening of the executive organization were identified through discussions among Independent External Directors.

Through these efforts, the NSG Group will continue to strive to further improve the effectiveness of the Board of Directors.

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#### **Board of Directors Charter**

Based on the priority issues identified in the Board Effectiveness Evaluation, the Company established the "Board of Directors Charter" in May 2024, following discussions at the Independent External Directors meeting. The "Board of Directors Charter" defines the basic stance and expectations which are necessary for the Board of Directors to address to the current situation of the Group, with the aim that each Director will exercise his/her supervisory function based on a common understanding.

Going forward, the Board of Directors will strive to ensure that each Director fully fulfill their expected supervisory functions and roles in accordance with the "Board of Directors Charter". The Charter will also be effectively utilized in the nomination process for Director candidates and in the evaluation of the effectiveness of the Board, including the assessment of candidates' alignment with the Charter's principles and their level of commitment.

# Board of Directors Charter

#### **Basic stance**

• Oversight by the Board of Directors of the Group is not limited to checking the progress of management targets prepared by the management team ("monitoring"), but also involves proactively identifying material management issues on the basis of mutual trust with the management team, setting direction for resolving such issues in full cooperation with the management team, and providing appropriate support while being mindful of the separation of execution from supervision ("proactive oversight").

#### **Expectations of Board of Directors**

- Identify issues that have a critical impact on the Group's medium-to long-term corporate value and sustainable growth and set direction for resolving such issues.
- Quantitatively monitor the status of initiatives to address the issues identified as material management issues on a regular basis.
- Support or control the Executive team's decisive decision-making for creating value for the future, by taking into account the overall picture of management risks and opportunities as well as changes in their conditions in a timely and appropriate manner.

#### **Expectations of Directors**

- In order to fulfil the purpose of the Charter, each Director is expected to exercise his/her oversight function in accordance with the basic stance and expectations of the Board of Directors described above, and to perform his/her duties with full awareness of the following points:
- Actively and interactively engage in discussions by providing constructive opinions with respect, while making the most of his/her expertise and experience and taking a bird's-eye view of the Group's material issues and other management issues.
- Always strive to improve their ability to appropriately assess management risks and opportunities as well as changes in society, and encourage risk-taking by the Executive team when appropriate while being fully mindful of the balance between support and control functions of supervision.
- Make efforts to foster an appropriate relationship of trust with the management team based on the spirit of mutual respect while maintaining tension in accordance with the separation of execution from supervision, by taking advantage of communication opportunities both inside and outside the meetings of the Board of Directors.

#### **Ideal Board Culture**

- Create a forum for making decisions to resolve management issues that will lead to medium-to long-term improvements in the Group's corporate value, and carrying out discussions from a broad perspective with a view to contributing to the expansion of the shared value of the stakeholders, in accordance with the Group's guiding principles ("Our Vision").
- Based upon the understanding that sound corporate governance is built on mutual trust between the supervisory and executive functions, maintain a milieu in which uninhibited, open and constructive discissions take place by actively utilizing communication opportunities both inside and outside the meetings of the Board of Directors.
- Continue to disseminate the above expectations and ideal culture of the Board of Directors by taking advantage of such opportunities as the annual Board effectiveness evaluation.

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## **Compensation for Directors and Executive Officers**

### **Compensation Policy for Executive Officers**

**Compensation System and Compensation Composition** Ratio

Compensation packages for the Executive Officers principally consist of basic salary, Management Incentive Plan (annual bonus) and Long-term Incentive plan.

The Group operates a global grading structure across the Group, and management grade is determined based on job evaluation by the Group common scale using the Korn Ferry/HAY management grade methodology, a globally recognized job evaluation methodology. Management grade determines the maximum quantum levels for participants in both the annual and long-term incentive structures.

a. Compensation System

Objectives

- To ensure that packages of employment terms and conditions are market competitive and designed in such a way as to attract, retain and motivate Executive Officers of the highest caliber on a worldwide basis in an international business environment.
- To ensure that each individual's basic salary and incentives are aligned with the performance of the Group and the interests of shareholders, as well as reflecting the commitment and achievements of the individuals concerned.

#### Compensation structure

#### Fixed salary

- Salaries are reviewed annually and are broadly aligned with market medians for a global business.
- Basic salary
- In determining what are the appropriate market rates, account is taken of turnover, number of employees and the complexity and breadth of internationalization.
- In reviewing salaries, account is also taken of the scope and responsibilities of the role, the performance of the individual, the progress the Company is making against its targets and pay increase rate in market medians.

#### Performance-related compensation

Management Incentive Plan (annual bonus)

- Assessed against the achievement of annual performance indicators which are mainly financial.
- Aligned to NSG Group's Medium-Term Plan
- Payment Maximum levels: Ranging between 40% and 125% against each individual's basic salary dependent upon the management grade
- Payment Level = Maximum payment amount x Payment rate of Performance measures
- A Gate mechanism operates for the plan, which is based on a minimum level of Net Income that must be reached, as an affordability threshold before considering payment based on achievement against the different performance measures.
- For each performance measure, a scale is set consisting of a minimum performance level ("Entry") for ensuring that the business is meeting the minimum standard of financial performance, "Target" and a maximum value for stipulating the upper limit of annual bonus payments "Max". These scales are based around the annual budget for the financial year.



Performance

Payment rate

120%

100%

80%

60%

40%

20%

- Long- term incentive plan Assessed against the achievement of long-term performance indicators over a three-year period
  - Issued annually
  - Payment Maximum levels: Ranging between 50% and 150% against each individual's basic salary dependent upon the management
  - LTIP Payment = Maximum payment amount Payment rate of Performance measures x Share price movement rate
  - For each measure, "Entry" is set in such a way to ensure that the business is meeting the minimum required performance level and the "Maximum" point on the scale has appropriate stretch.
  - Require the purchase of NSG Shares by using part of the cash award from the plan to lead to further alignment of the Executive Officers with shareholders, allowing Executive Officers to continue to be motivated to help build shareholder value (Equivalent to 50% of the net amount received)
  - Shareholding targets set for Executives (25% to 100% of the basic salary, depending on the management grade)
  - Plans contain Malus (ability for the Value of award to be reduced after it has been granted but before it has vested) and Clawback clauses (ability for the Group to require the participants to repay the value they received after the award has vested). The Group can exercise these provisions if one of a list of trigger events occurs. Trigger events include the Misstatement of results, an error that causes an award to be paid at too high a level, a serious illegal act, or a material breach of the Group Code of Ethics.

#### **Stock Compensation**

- Restricted shares are issued annually to some Executive Officers under Japanese employment terms as a retirement saving plan.

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## **Compensation Policy for Executive Officers**

b. Compensation ratio

The ratio between basic salary and incentives is determined based on each individual's management grade rather than applied uniformly.

Note: For clarification, the right diagram includes only base salary plus annual and Long-Term Incentive Plan compensation, no additional benefits are included. In addition, the impact of the share price movement element of the Long-Term Incentive Plan is not taken into account.

CEO's compensation ratio Fixed salary -When none of the performance-linked Basic salary compensation criteria has been met. 100% Fixed salary Variable compensation When all performance-linked **Management incentive Plan** Long-term incentive plan Basic salary compensation criteria have been met at (annual bonus) Half of net LTIP proceeds is their maximum levels. 27% 33% used to purchase NSG shares

## ■ Targets of performance measures for performance-linked compensation

#### [1] FY2026/3 Management Incentive Plan (annual bonus)

a. Performance measures, weight, and reasons

	CEO, CFO, CHRO	Executive Officers other than CEO, CFO, CHRO and	Executive Officers other than CEO, CFO, CHRO and		
Category	and Chairperson of	Chairperson of the Company, who are mainly	Chairperson of the Company, who are mainly responsible	Reasons for selecting the measures	
	the Company	responsible for specific Global SBUs	for specific group functions		
Group Management Operating Profit	50%	35%	35%	To ensure alignment with delivery of the target numbers assigned t	
Group Free Cash Flow	50%	35%	35%	Group operating profit and cash flow, which are the financial performance indicators especially important in the annual budget	
Global SBU Management Operating Profit	_	In relation to the results of specific SBUs they are responsible for, constituting 15% in total	In relation to the results of every SBU of the Group, constituting 15% in total	To ensure that Executive Officers, who are mainly responsible for specific SBU or Group Function exercise leadership within each SBU/Function to deliver their annual target numbers respectively,	
Global SBU Cash Flow from Operations	_	In relation to the results of specific SBUs they are responsible for, constituting 15% in total	In relation to the results for every SBU of the Group, constituting 15% in total	while working together to achieve the target numbers of the entire group.	

Notes: SBU means each "Strategic Business Unit" of the Group

Group Free Cash Flow used in the above table represents the net debt movement arising as a consequence of the operating and investing activities in the period. It includes transactions that have impacted the Group's net debt even where there has been no cash movement through the NSG Group's bank account, and is therefore different from the Free Cash Flow as derived from the sum of operating and investing activities included within the Group's consolidated statement of cash flows. Group Operating Profit shown in the above table is defined as operating profit after amortization and before exceptional items on a consolidated basis, plus the share of profit from the Cebrace JV.

b. Determination of Management Incentive Plan (annual bonus) Payment Level

Payment Level

=

Maximum payment amount

Payment rate of Performance measures

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## **Compensation for Director and Executive Officers**

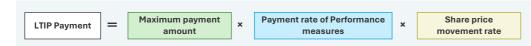
## **Compensation Policy for Executive Officers**

#### [2] Long-term Incentive plan

- a. Plans currently in operation and their performance measures, weight, and reasons
  - . The Plan commencing in FY2024/3 (Target period: FY2024/3, FY2025/3 and FY2026/3)
  - ii. The Plan commencing in FY2025/3 (Target period: FY2025/3, FY2026/3 and FY2027/3)

Performance Measures	Ratio	Reasons for selecting the measures
EPS	60%	To ensure a clear link with the Medium-Term Plan, and to incentivize the
Free Cash Flow	40%	Management to improve financial stability and enhance shareholder value.

b. Determination of LTIP Payment Level



The share price movement rate is a coefficient that is linked to the price movement of the Company's share price for the three-year period covered by each plan, and is adjusted based on the change between the monthly average share price in the month right before the start of the plan and in the last month of the plan. The share price movement rate is subject to an upper and lower limit of 20%.

#### **Compensation Policy for Independent External Directors**

#### **Objectives**

- To ensure that independent external directors can adequately and effectively fulfill their supervisory roles
- To ensure that they have the capability and experience required to fulfill this role

#### Compensation level

 Set at the appropriate level based on comparisons with other companies using benchmark data provided by specialist external advisers.

#### Compensation Structure

- Only basic salary
- Not eligible for Management Incentive Plan (annual bonus) and Long-Term Incentive Plan
- Independent External Directors receive additional reward if they act as Chair at either the Board or any of the Committees.

#### Amount of Compensation for Directors and Executive Officers for FY2025/3

Category		Amount of Compensation (million yen)							
	Headcount	Basic	Performance-linked compensation		Non-monetary compensation				
		Salary	Annual Bonus	Long-Term Incentive Pay	Total	Stock-based Compensation	Others Benefits	Total	Total
Directors who do not concurrently serve as executive officers (External Directors)	5	76	-	-	-	-	-	-	76
Executive Officers	16	598	8	139	147	48	20	68	814

#### Notes

- 1. The amounts of compensation for Executive Officers include compensation paid to them by the Company's subsidiaries.
- 2. The amounts shown correspond to the periods during which Directors and Executive Officers held their respective positions.
- 3. Directors and Executive Officers include those who retired or assumed office during FY2025/3.
- 4. The amounts shown as Performance-linked compensation are the payments associated with the annual bonus for FY2025/3 and with the Long-Term Incentive Plan covering the three financial years from April 2022 to March 2025.
- 5. Stock-based compensation relates to the cost of allocating a total of 110,500 restricted shares to Executive Officers under Japanese employment terms.
- 6. Other benefits include pension contributions, medical and health-insurance costs, and automobile-related expenses and so forth.

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# Hiroshi Ishino

Independent External Director
Chairperson of the Board
Chairperson of Nomination Committee



# **Kunihito Minakawa**

Independent External Director
Chairperson of Audit Committee

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1. To ensure that all Directors carry out their supervisory responsibilities based on a common understanding, the "Board of Directors Charter" was formulated in May 2024 following discussions among Independent External Directors. Could you tell us about the current initiatives aimed at enhancing the effectiveness of the Board of Directors?

**Ishino** NSG is a Company with a Three-Committee structure and the Board of Directors is primarily composed of Independent External Directors, thereby ensuring a robust corporate governance framework. Also, a culture of open and candid dialogue between the Board and the executive team has been fostered. On the other hand, the results of the Board effectiveness evaluation have revealed several issues to be addressed in order to further enhance the effectiveness of the Board, including perception gaps between the Board and the management, as well as among individual Directors regarding the extent of the Board's involvement in executive matters, and concerns that discussions at Board meetings are taking too long. In response to such findings and following extensive discussions led by Independent External Directors, we established the "Board of Directors Charter," which defines the Board's fundamental stance, roles, and expectations. To focus on key management issues identified by the Board of



Directors according to the principle of "proactive oversight" as clearly stated in the Charter, we have clarified the role of the Board of Directors' informal offline meetings as a forum for information sharing and exchanges of opinions, and structured and coordinated agenda items between the Board of Directors' regular meetings and informal offline meetings. In addition, we revised the Criteria for Agenda Items of the Board and further advanced the delegation of decision-making authority for business execution to the executive team within the scope permitted by laws and regulations. We believe that these initiatives have progressed steadily throughout FY2025/3.

Minakawa The recent revision of the Criteria for Agenda Items of the Board was made in accordance with the matters that may be delegated from the Board of Directors to the executive team under the Companies Act for Companies with a Three-Committee structure. We consider this to be a well-grounded and appropriate revision from the standpoint of the Company's institutional design. The Criteria for Agenda Items of the Board clearly define matters that require the Board resolution and those that are to be reported by the executive team. While the matters requiring the Board resolution have been properly organized as items to be resolved by the Board, there is room for improvement in the matters to be reported by the executive team particularly from the perspective of effective monitoring by the Board. In FY2025/3, the Company revised its earnings forecast downward due to the impact of the economic slowdown in Europe, ultimately recording a net loss. Under the Medium-Term Plan launched in the same fiscal year, we strived to improve profitability, generate cash, and stabilize our financial base. However, there was a significant gap between the financial targets in the MTP and the actual results. Looking back, although the Company resumed dividend payments in FY2018/3 and FY2019/3, its performance subsequently declined again and

has been unable to pay dividends on common shares since then. Since FY2020/3, the executive team has strenuously worked to improve profitability and strengthen the financial base. However, regrettably, these efforts have not yielded sufficient results, and time has continued to pass. The Board of Directors needs to further enhance the effectiveness of monitoring of the executive team's initiatives.

**Ishino** It goes without saying that securing returns for the shareholders remains a key priority for the Board of Directors as well. To that end, it is imperative that we urgently address the improvement and enhancement of the Group's corporate value. In the Medium-Term Plan, as discussed and approved by the Board, we defined our vision for 2030: the envisioned state of NSG Group and formulated strategies for value creation together with financial targets. To ensure the effective execution of initiatives and contribute to the achievement of these goals, the Board recognizes the need to further strengthen its supervisory function. In light of this, as a framework for monitoring the executive team's initiatives from a broader perspective, the Board has decided to jointly review roadmaps for addressing key issues with the executive team. The key management issues identified by the Board of Directors for FY2026/3 include improving business operations to generate cash - the financial target also set forth in the MTP - and reinforcing the executive organization to achieve this target. The Board of Directors works in close alignment with the executive team and monitors their efforts to improve performance for FY2026/3. To facilitate in-depth discussions at the Board level on the Group's desired future state, including its business portfolio, financial strategy and capital policy, from a medium- to long-term perspective, such considerations are reflected in the agenda setting.

Minakawa I believe that an excellent framework has been established, in which key management issues to be closely monitored by the Board are selected by Independent External Directors and discussed with the President and CEO. On the other hand, gaps remain between the expectations of Independent External Directors regarding the executive team's initiatives and

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the speed of their implementation, and the actual progress achieved. To close these gaps, we are actively working to reinforce alignment between the Board and the executive team in FY2026/3. With the establishment of the Board of Directors Charter and our ongoing efforts to align Board operation with the Charter, we are beginning to see tangible outcomes that contribute to enhancing the effectiveness of the Board, such as a shared understanding among Directors of their role as a monitoring board, and the identification of issues and themes that warrant deeper exploration. Corporate governance is a continuous journey with no final destination. We need to remain committed to elevating the governance standards further as we move forward.

Ishino The "Board of Directors Charter" was not formulated to define the Board's role in abstract or general terms. Instead, it was developed through extensive discussions to articulate the Board's collective view on the roles and stance it should adopt in effectively addressing the Company's current challenges and contributing to the enhancement of corporate value. As a Company with a Three-Committee structure, we aim to further advance the transparency of our corporate governance framework by clearly separating execution and oversight. The Board of Directors - led primarily by Independent Directors - will proactively engage in and oversee key management issues, which is the core concept of our approach. Through this approach, we intend to further enhance the effectiveness of the Board's role in responding to the Company's current situation and the management challenges it faces.

2. At the Shareholders Meeting in June 2025, four new Directors were appointed. Could you share with us the discussions held and initiatives taken by the Nomination Committee, including the selection process of Executive Officers responsible for business execution?

Ishino Our Nomination Committee is primarily composed of Independent External Directors, including the Chair. When considering the composition of the Board of Directors, the Committee endeavors to ensure that it functions effectively by taking into account the Company's current situation and mediumto long-term challenges. Specifically, it takes a forward-looking, multi-year perspective in identifying skills matrix required for the Board and aligns Director appointments accordingly. In addition, by incorporating diversity factors such as gender, nationality, professional background, and age, the Committee discusses to determine the appropriate timing for appointing Directors with specific qualifications. A proposal for the nomination of Directors to be submitted to the Shareholders Meeting in June 2025 was decided by the Nomination Committee following extensive discussions on the future composition of the Board of Directors. In light of the planned retirement of several incumbent Directors, four new Directors were nominated. As these nominations were based on prior deliberations on the skills and diversity required for the Board, the qualifications sought for each candidate along with their expected roles on various Committees after appointment were clearly defined, enabling a smooth selection process. We believe that the resulting composition of the Board of Directors reflects a well-balanced mix of skills and diversity.

Minakawa In the process of selecting new Independent External Directors, the Nomination Committee first shares a long list of qualified candidates (profiles of approximately 10 candidates), and through discussion, this list is narrowed down to a short list of several candidates. Then, interviews with those candidates are arranged to be participated by all the Nomination Committee members, and final decisions are made through further deliberation within the Committee. The selection process, in which the Nomination Committee is substantively involved, is functioning effectively and viewed positively.

Ishino In appointing Executive Officers—internal officers responsible for business execution—it is essential to approach the process as one that encompasses succession planning for incumbents, identification of potential successors, and the development of internal talent. The Group's Nomination Committee is responsible for making recommendations on candidates for Executive Officer positions. In this role, we review succession plans for each Executive Officer, assess the progress of development plans for potential successors, and also oversee the effectiveness of the overall process. Furthermore, for senior management—the tier immediately below the Executive Officers—the Nomination Committee receives regular updates on succession planning and reviews the status of the talent pool as well as initiatives for talent development.

Minakawa Although Executive Officer candidates are sometimes secured through external hiring, developing and investing in internal talent is crucial. This helps build a sustainable and robust talent pool and enables individuals to fully realize their potential, thereby enhancing the Company's competitiveness and corporate value over the medium to long term. As the Nomination Committee, we closely monitor talent-related initiatives undertaken by the Executive Function and regularly follow up on their progress.

Regarding the appointment of Executive Officers, the selection and succession planning for the President and CEO is the Committee's highest priority. Succession planning for the President and CEO is fully integrated into our annual agenda, ensuring a clearly outlined process which includes defining candidate requirements, identifying potential successors, creating development plans, and conducting assessments with external experts.

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Ishino As the Nomination Committee is primarily composed of Independent External Directors, access to internal HR information and opportunities for direct communication with candidates are key to enhancing the effectiveness of the Executive Officer appointment process. The Committee is regularly updated by the HR function on current Executive Officers and their successor candidates. In addition, prior to appointing new Executive Officers, we arrange opportunities for Independent External Directors to engage with candidates—for example, by inviting the candidates to participate in Executive Function reporting to the Board, as well as conducting interviews with all Nomination Committee members present. We remain committed to continuously enhancing the process to improve the effectiveness of the Nomination Committee in selecting candidates for Director and Executive Officer positions.



# 3. The Audit Committee consists solely of Independent External Directors. Could you share the Committee's approach to overseeing the Group's global operations, including any specific issues or themes that are currently being focused on?

Minakawa The Group's Audit Committee is composed of four Independent External Directors. Although there are no internal, full-time Committee members, this composition ensures the Committee's independence. To support the Committee, the Group has in place the Audit Committee Office staffed by dedicated personnel who are not part of the Executive Function and provide relevant information to the Committee. The Group has established a structured audit framework centered on the Audit Committee, which coordinates with internal control functions such as Risk Management and Ethics and Compliance, as well as with Group Internal Audit, and with the external accounting auditors.

**Ishino** The Group operates globally and maintains a complex corporate structure that includes subsidiaries, reflecting its history of acquiring Pilkington plc. Despite this complexity, we assess that Group Internal Audit functions effectively as a team. This serves as a strong example of how the global internal audit

framework originally developed by Pilkington plc has been successfully inherited and integrated into the current Group structure. Risk management framework has also been firmly established. However, when we extend the scope of risk management to include the governance of individual entities—including relatively small subsidiaries located in remote regions—we recognize that there is room for further improvement, particularly in the penetration of internal policies and the monitoring of their implementation.

Minakawa The Audit Committee regularly receives reports from Group Internal Audit, and the Audit Committee Office maintains close communication with the function as well. Our focus is on ensuring the effectiveness of Group Internal Audit activities, including audit coverage of smaller subsidiaries and the identification of any processes that may lack substantive impact and exist solely for formality. In November 2024, the Board of Directors approved revisions to "Fundamental Policies of the

Company on Creation of Internal Control System". Among other updates, the revisions clarified the process for obtaining the Audit Committee's consent regarding the Group's internal audit charter which includes the audit plans of Group Internal Audit. In terms of the collaboration with the accounting auditors, we have been promoting "audit coverage" activities in recent years. These activities involve reviewing the detailed audit plans provided by the audit firm to understand the depth of audits conducted across Group companies. We then compare these plans with past audit records from Group Internal Audit to visualize and assess the completeness of audits and identify areas to be addressed. This enables us to consider audit scopes in light of risk levels and to allocate audit resources more effectively.

Ishino The role of the Audit Committee is not limited to coordinating with Group Internal Audit; it also includes enhancing audit alignment and complementarity by working closely with the external accounting auditors. In addition, the Committee assumes the oversight responsibility for the operations of Group Internal Audit.

Minakawa Exactly. We are transitioning to a structure centered on the Audit Committee, where the Committee, together with its dedicated office, engages in discussions and collaborates with Group Internal Audit on audit activities while maintaining an appropriate level of tension. Another key focus area for the Committee is risk management. In this area, we work closely with the Chief Risk Officer's team to identify any systemic or process-related issues that could lead to unexpected situations and assess the effectiveness of the Executive team's risk management practices. In addition to its role in defensive governance, the Committee also strives to promote offensive governance by evaluating the effectiveness of risk management in bold decision-making aimed at resolving management issues and enhancing medium-to long-term corporate value.

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NSG Group is a global enterprise distinguished by its rich heritage, diverse talent base, and inclusive community. This legacy and international presence, however, also expose the Group to a broad spectrum of risks that transcend both geographical boundaries and time. Risk is defined as the effect of uncertainty on business objectives.

We recognize that the proactive identification, mitigation, and management of risks are essential to the successful realization of our medium-term plan, "2030 Vision: Shift the Phase." Accordingly, we have established a comprehensive and systematic risk management framework that is implemented across the Group. This framework is continuously refined to adapt to the evolving external environment and to ensure the long-term resilience and sustainability of our organization.

# **Basic Policy**

Consistent with the management principles, "Our Vision," NSG Group aims to enhance corporate value by sustainable growth in line with the Medium-term Plan "2030 Vision: Shift the Phase." That said, the business environment enveloping the Group has become increasingly complex and is continuing to dynamically transform. We see risks in the uncertainties that stem from internal and external factors, which threaten to affect the Group's ability to achieve its business targets. We therefore position risk management, which is tasked with identifying, assessing, and properly managing major risks, as an important part of our management foundation in order to minimize the negative effects and maximize positive results. By systematically and methodically implementing appropriate risk management across the entire

Group, we can not only achieve our short-term business targets, but also reliably execute business strategies.

NSG Group's risk management is carried out in accordance with our Fundamental Policy on Internal Control Systems, which was resolved by the Board of Directors in accordance with the Companies Act and Corporate Governance Code. Specific measures for addressing risks that arise in connection with our corporate activities are prescribed in our NSG Group Risk Management Policy and are consistent with ISO 31000 (principles and guidelines on risk management) as well as the COSO Enterprise Risk Management model.

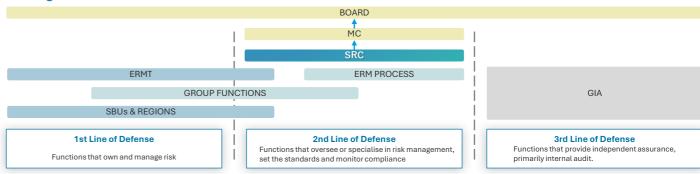
We are looking to continuously improve our systems in line with developing standards and the evolving risk landscape.

#### Framework

NSG's risk management systems are effectively utilized so that they are fully embedded within the Group's day-to-day operations and operate as "three lines of defense". The first line of defense is established within the business SBU's and Group Functions who operate controls and mitigations to identify, assess and manage risks across all the activities of the Group as part of its the day-today operations. The second line of defense is made up of the Group Functions and management forums who not only set the operating and risk management policies and standards for the operations, but also monitor the effective operation of the controls. The third line of defense is provided by the Group Internal Audit (GIA) Function who make an independent evaluation of the effectiveness of the controls and the risk management processes.

At the heart of its enterprise risk management system – mainly the second line of defense – NSG Group employs a two-tiered "hybrid" risk management framework comprising the Strategic Risk Committee (SRC) as a top-down approach and the Enterprise Risk Management Team (ERMT) as a bottom-up approach, both of which are under the supervision of the Management Committee, and report onwards to the Board of Directors.

**ERM Organization - Three Lines of Defense** 



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## **SRC Structure and Purpose**

#### Top-down Risk Review

SRC is chaired by the Chief Risk Officer (CRO) and its members are mostly Executive Officers including CEO. SRC determines the companywide risk management policy and framework, based upon which it identifies and classifies: (a) high level risks thought to have a serious impact on the Group; and (b) operational risks that ought to be managed by SBUs or Group functions. It then monitors how those risks are being addressed and requests that additional measures be taken if required. For high level risks, SRC appoints "risk owners" to manage the collection of risk information and the progress of countermeasures.

CRO presides over all SRC meetings and as representative of the committee, periodically reports to and receives feedback from the Management Committee and the Audit Committee regarding the effectiveness of the Group's basic internal control system and risk management structure.

On an annual basis the SRC members formally review the current risk universe and the results of the ERMT Bottom-Up Risk Review as explained below, to identify if the risks being monitored by SRC need to be amended.

In FY2025, SRC convened three meetings and reported once each to the Management Committee and the Audit Committee.

## Bottom-up Risk Review

ERMT is chaired by CFO and its members comprise heads / Risk Champions of SBUs with relevant senior managers. Every year this team identifies, assesses, and prioritizes the key risks pertaining to business execution and endeavors to improve the effectiveness of risk management by formulating necessary measures to mitigate risks. Those risks and mitigation measures are reviewed as necessary according to the circumstances from time to time, among others, material risks are escalated to, and monitored by SRC. ERMT periodically, or whenever requested, reports on its activities to SRC.

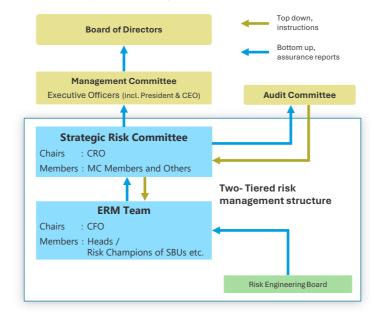
## **Independent Assurance**

The internal audit department's role is to provide assurance from an independent standpoint, regarding the companywide efficiency of risk management, and the effectiveness of specific risk mitigations.

## **Global Insurance Program**

To transfer or share risks, we have established an NSG Group Insurance Program. The program identifies the key insurable risks, including property losses caused by natural disasters, and endeavors to transfer them by placing cost effective insurance. Every year, under the supervision of SRC, we review the Group's comprehensive insurance coverage under the global insurance program.

## NSG Group Risk Management Structure



#### Major Risks for NSG Group

In FY2025 SRC identified, assessed and monitored the high level risks as High Velocity Risks and Enduring Risks as shown in the following charts. For each risk, an owner has been appointed from among the executive officers or senior managers, to take responsibility for appropriately managing it.

For each of the key risks being monitored, SRC has determined that sufficient mitigations are in place, or are being progressed, to manage the risk within the Group's appetite.

#### **High Velocity Risks**

Risk Category	Risk	Owner
Lack of Funding	Balance Sheet & Liquidity risk	CFO
Foreign Exchange	Translational risk	CFO
Economy & Market	Cyclical & Volatile Market Risk (inc Pandemic) Resilience & Competitiveness of Business Portfolio	CSO
Cyber Incident	Cyber incident impacting confidentially, integrity, & availability of systems & Info	CDIO
Business	Natural Disaster/Fire/Machinery Breakdown/ Pandemic	The Head of SBU
Interruption & Asset Loss	Breakdown in Supply Chain	СРО
Climate Change & ESG	Failure to manage and report the risks & opportunities associated with Climate Change	Sustainability Director
Technology & Systems	Failure to Adopt / Exploit Current Technology	CDIO
Product Quality Failures	Defective Products & Product Recall	Head of ME
Political / Fiscal Regime	Unstable geopolitical situation globally ( US tariffs + wider global tensions )	-

#### **Enduring Strategic Risks**

Risk Category	Risk	Owner	
Failure to Deliver Key Contracts	Breaching key customer contract specification	The Head of SBU	
Lack of Adequate	Management talent shortage - Ageing workforce, recruitment & retention difficulties	CHRO	
raterit	Top management talent shortage		
Loss of Market	Loss of traditional markets through emergence of disruptive technology	The Head of SBU /	
	Aggressive competition or emerging market maker		
Compliance Risk	Failure to maintain product competitiveness  – R&D and Regulations such as competition law	The Head of SBU / E&C Director	
Failure to Adequately Resource Product & Process Development	Failure to maintain product competitiveness – R&D	сто	
Intellectual property	IP Constraints – Failure to Patent / Patent infringement	СТО	
Fraud	Financial statement fraud and ESG fraud	The Head of SBU CFO	
Efficiency & Cost base	High SG&A costs and poor recognition of costs in our pricing strategies	The Head of SBU CFO	

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# Risk Focuses < New Model Quality >



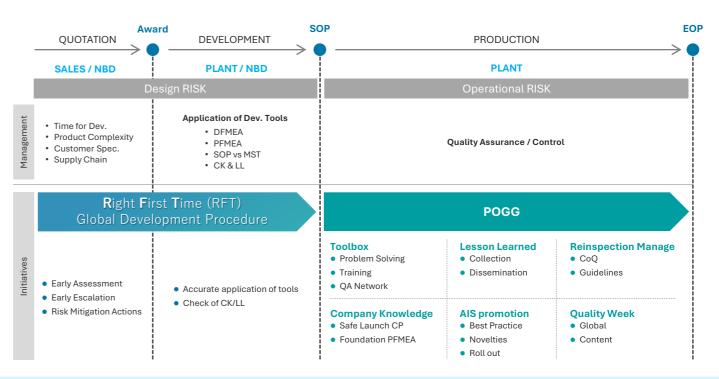
Head of Manufacturing Excellence and Global Head of Automotive Manufacturing

## Stephan Rosebrock

**NSG "Right First Time" Quality Approach for New Product Development** 

Part of our Business Development focus is meeting the customer expectation that we will safely and successfully introduce new products. In many cases the introduction of a new product also involves the introduction of new technologies and innovation stretching existing manufacturing capabilities. The Group has decided to emphasize the risk management related to such product launches from a very early point of the product life cycle.

The existing POGG (Pass Only Good Glass) process, which was introduced many years ago, focused primarily on Quality assurance and performance improvement during the process stage "MAKE". The new process "Right First Time", which has been designed and globally launched in 2024 puts the focus on all the stages before starting production of the new product.



A Key element of this new approach is to understand, assess and mitigate risks even before a contract for a new product is awarded to NSG. While not all risks can be mitigated before award, it is even more important to constantly work on risk mitigation during the phase of product development. The early involvement of the Development Team, Manufacturing Excellence Team and R&D Team is essential to support a successful product launch by our production and quality teams.

In a global exercise a procedure has been developed, which describes in detail the accountabilities and responsibilities of all involved parties and provides tools and business processes to manage product development until product launch. The procedure has been fully embedded into the NSG Business Management System and is fully compliant to the latest IATF

Audit requirements.

The new process will highlight at an early stage and in a fully transparent way to all levels and functions of the organization what risks are identified for a new product. This will allow suitable plans to be developed and in close co-operation between our customers and the NSG organization the product launch will be successfully managed. This will finally significantly reduce the risk of a product defect at the customer during launch and the risk of a product recall at a later stage.

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## Risk Focuses < Tariff Policies >



Ethics & Compliance Director

#### **Lisa Watterson**

Like many companies, NSG Group has complex supply chains and relies on imported raw materials and components. The tariff increases announced by the current US Administration and ongoing trade policies have created global economic uncertainty and NSG remains cautious due to the unpredictable nature of the tariff regulations. NSG Group continues to monitor the situation closely by reviewing the various tariff and retaliatory tariff impacts on the business and remains focused on mitigating the tariff impacts whenever and however possible.

The effects of these tariffs will not be uniform across the globe. Different countries and regions will experience carrying levels of impact.

			Impact on NSG				
		Positive/Negative (Estimate) Potential Effect on NSG		Customer Trends	Competitor Trend	Key Trends to Watch	
NA	OE	1	Cost increases driven by imported components, partially offset by cost recovery from customers  Negative revenue impact from reduced OEM exports to the U.S. from Canada	OEMs attempting to maximize U.S. assembly capacity utilization, shifting production primarily from Mexico	Biggest impact on competitors with highest market share in Mexico	US-Canada tariff policy     OEM plans to expand U.S.     capacity	
	AGR	1	Higher prices in U.S. market, combined with improved cost position in Mexicali vs. Chinese imports	Prices significantly higher YoY, but wholesale volumes becoming more sensitive to further price movement.	Chinese suppliers increasing prices, but not passing through full cost of tariffs	US-Mexico tariff policy     US-China tariff policy	
Europe	OE		Negative revenue impact from reduced OEM exports to the U.S.	OEMs reducing exports to U.S. and slimming U.S. product lines, focusing on high-margin models	Similar impact as NSG	US-EU tariff policy     EU OEM export plans     following trade agreement     (still being negotiated)	
Japan	anan ∣ ()⊦ ∣		Negative revenue impact from reduced OEM exports to the U.S.	No significant changes so far, but monitoring OEM reaction to US-Japan trade agreement	Similar impact as NSG	Japanese OEM export plans following US-Japan trade agreement (15% auto tariff rate)	
Overall	Auto		Higher prices/margins in AGR business offset lower sales and higher costs in OE.				

Both positive and negative impacts are expected for the Group, mostly within the Automotive SBU. For Automotive OE, cost increases and reduced demand are expected. For Automotive AGR, there is an improvement of competitive position due to relative lack of dependence on imports to USA from China and only modest volume decline from increased prices. On the Architectural side, potential decline in demand arising from investment restraint due to economic uncertainty in USA. On the positive side, solar energy glass is being produced in USA and Chinese competitors are subject to higher tariffs. Overall, the impact of the increase in input costs will be mitigated with price pass-through.

NSG Group will continue to monitor any future tariff policies as well as the upcoming US/Mexico/Canada free trade program negotiations.

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# Architectural Glass business



#### FY2025/3 Results

The Architectural business recorded cumulative revenues of ¥ 363,025 million (FY2024/3: ¥ 371,777 million) and an operating profit of ¥ 13,574 million (FY2024/3: ¥ 29,087 million). Architectural revenues and profits decreased from the previous year due to reduced volumes and prices across most markets, especially in Europe.

In Europe, revenues were below the previous year, with subdued demand leading to a surplus of glass availability and a weak pricing environment. The impact of the weaker market conditions was mitigated somewhat by a decline in input costs. The fourth quarter saw signs of improvement with margins benefitting from an improvement in price levels combined with falling energy costs. To address the low market volumes, the Group has closed two float lines in Germany during the year.

In Asia, revenues and profits were above the previous year. Profits declined in Japan with continued challenging market conditions. Markets also remain difficult elsewhere across South-East Asia. Volumes of glass for solar energy were positive with a full-year contribution of a facility in Malaysia which started production from November 2023.

In the Americas, revenues and profits were below the previous year. In North America, results declined in line with lackluster commercial markets. On 16 January 2025, the Group announced the warm-up of a float glass production line in Rossford, Ohio, U.S.A, that will be dedicated to the production of glass for solar energy. Previously this line manufactured glass for architectural markets. Demand in South America was negative, with results reflecting difficult market conditions in Argentina.

# FY2026/3 Assumption

The Group expects gradual markets improvement during second half of the year in FY2026/3 while its results were largely affected by European economy in FY2025/3. Glass for solar energy is expected to continue favorable performance.

In Europe, cost reduction and sales price increase arising from float line cessations are expected to contribute to our performance together with gradual market recovery during the second half of the year.

Regarding Asia, in Japan, stable sales price is expected. In North America, demand may decrease with refrains in investments due to uncertain economic outlook. Close watch on the economic trends including US tariff policy is necessary. In South America, cost increases from hyperinflation in Argentina continue, but absorbing its impact by increase in price.

On the other hand, continuous strong demand for solar energy glass is assumed. A new facility in Rossford, Ohio which started operation during the fourth quarter of FY2025/3 contributes for the full year. Due to US tariff policy, there are some possibilities that higher tariff may be imposed on competitive products.

#### Revenue (JPY bn)



## Operating Profits (JPY bn)



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# **Automotive Glass business**



#### FY2025/3 Results

The Automotive business recorded cumulative revenues of ¥ 429,444 million (FY2024/3: ¥ 417,558 million) and an operating profit of ¥ 7,667 million (FY2024/3: ¥ 11,343 million). Exchange factors, reflecting a reduced average value of JPY from the previous year, contributed to the increased revenues, with underlying sales being similar to the previous year across most

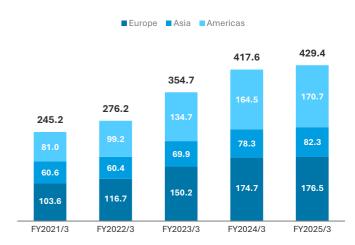
In Europe, local currency revenues were slightly reduced, although revenues were improved on consolidation due to exchange factors. Profitability was below the previous year due to cost increasing mainly. On 24 January 2025, the Group announced the adjustment of production in Germany following a review of the

weak demand situation and continuous cost pressure within the European market.

In Asia, revenues and profits improved from the previous year. Volumes in Japan strengthened during the fourth quarter, after reflecting disruption to production activity at some customers during earlier quarters.

In the Americas, revenues increased from the previous year, although profits fell. Volumes in North America reflected disruptions to production at some customers, against a stable market background overall. Compared to the previous year, volumes in Brazil were positive, although volumes fell in Argentina.

#### Revenue (JPY bn)



## Operating Profits (JPY bn)

FY2021/3

FY2022/3

# 11.3 4.1 1.8 (7.9)

FY2023/3

FY2024/3

FY2025/3

# FY2026/3 Assumption

The Group expects that vehicle production will recover modestly with continued its strong demand but at a slower pace. We continue negotiating sales prices improvements with customers to mitigate the expected increase in other costs including labor.

Vehicle build volume in Europe and Japan for USA exports may be affected by the US tariff policy, while potential relative improvement in US aftermarket glass replacement position following increased tariffs on competitors.

Cost reduction arising from production schedules adjustments

in Europe and shipment of value-added products scheduled in the second half of the year are expected to contribute to the improvement.

We aim to enhance profitability further with continuous cost reduction efforts, expansion of value-added products, and sales price increases.

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# **Technical Glass business** (Creative Technology)



#### FY2025/3 Results

The Technical Glass business recorded cumulative revenues of ¥ 46,584 million (FY2024/3: ¥ 39,945 million) and an operating profit of ¥ 7,568 million (FY2024/3: ¥ 7,146 million).

Technical Glass revenues and profits were improved from the previous year, with positive demand across most business areas.

In the Fine Glass business, revenues improved from the previous year. Operating profit slightly increased despite other costs rise.

In the Information Devices business, volumes were boosted by recovering demand for printers and scanners. In the glass cord used in engine timing belts, high demand has continued in automotive replacement markets. METASHINE® sales increased for cosmetic applications.

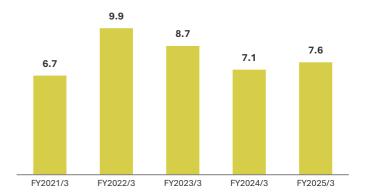
## FY2026/3 Assumption

We expect generally positive markets, and the Group will absorb cost increase with sales volumes and prices improvement. Improvements in sales mix are expected particularly in the fine glass business.

## Revenue (JPY bn)



### Operating Profits (JPY bn)



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#### **CDP Rating**

SG Group has participated in annual CDP\* Climate Change and Water reporting.

For two consecutive years, including 2024, the Group received an A- CDP Climate Change leadership score. This score improvement recognizes the Group's continuous and proactive climate change actions and commitment to transparency.

NSG Group has set a target of reducing greenhouse gas emissions by 30% by 2030 compared to 2018 levels and has been certified as a Science Based Targets Initiative (SBTi). At the same time, we aim to achieve carbon neutrality by 2050.

Rating on Climate Change (Excerpt from the CDP report)

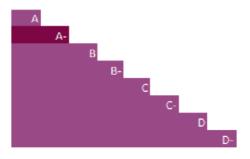
embodied impacts in products.

NSG Group's CDP Water 2024 score was B management rating. NSG Group uses CDP's global environmental disclosure system to transparently respond to multiple stakeholder requests in a consistent way. CDP reporting allows investors and customers to understand how emerging risks and opportunities on climate change and water security are managed in the value chain and quantify

In addition, as a result of our collaborative efforts with our suppliers in the area of ESG, we were recognized as a leader in supplier engagement in the 2024 CDP assessment. This ranks us in the top 500 companies worldwide, including 105 Japanese companies, out of a total of more than 13,000 companies evaluated, placing us in the top 3% of the glass industry.

CDP reporting has guided NSG Group to develop a data driven strategy, prepare for environmental regulation, set challenging Science Based Targets, introduce internal carbon pricing and align to best practice TCFD recommendations.

Annual feedback scores allow NSG Group to track progress and benchmark its environmental performance against industry peers.



Nippon Sheet Glass Company, Ltd received an A- which is in the Leadership band. This is higher than the Asia regional average of C, and higher than the Other materials sector average of B.

Leadership (A/A-): Implementing current best practices Management (B/B-): Taking coordinated action on climate issues Awareness (C/C-): Knowledge of impacts on, and of, climate

Disclosure (D/D-): Transparent about climate issues

\*CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts on climate change, water security and deforestation.



## **EcoVadis CSR Rating**

EcoVadis operates an independent, external platform allowing companies to assess and benchmark their environmental and social performance on a global basis.

The process assesses company policies, implemented procedures and published reports with regards to environmental, labor practices & human rights, fair business practices and sustainable procurement issues. The assessment is conducted by CSR experts of EcoVadis on the basis of company answers to a survey which is dynamically adapted to country, sector and size, using scorecards covering 150 industry categories and 21 CSR criteria. The rating is based on supporting documentation, public and stakeholder (NGOs, trade unions, press) information.

We used this assessment tool to gain a picture of our CSR performance and to understand areas for improvement. We were rated as Bronze\* regarding our approach to CSR management.

\*Referring to latest scorecard published on October 3rd 2024 and valid until October 3rd 2025.

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## **Inclusion in FTSE Blossom Japan Index**

As in the previous year, Nippon Sheet Glass Co., Ltd. has been selected as a constituent of the FTSE Blossom Japan Index, an index of Japanese companies that demonstrate outstanding Environmental, Social and Governance (ESG) performance.



# **Certification as LGBT-Friendly Declaration Company**

Nippon Sheet Glass Co., Ltd. was certified as an "LGBT-Friendly Declaration Company" (effective August 6, 2025) by the Human

Rights Division, Bureau of the General Affairs, Tokyo Metropolitan Government for its efforts to create a workplace environment where sexual minorities can work comfortably.

It is a framework for certifying companies that are working to create an environment where sexual minorities can work with peace of mind through the "LGBT-Friendly Business Support Program," which is part of the Tokyo Metropolitan Government's measures to spread understanding of gender identity and sexual orientation throughout society.

Based on "Diverse Talent", one of our 4 "D"s in our medium-term plan "2030 Vision: Shift the Phase," NSG Group is committed to realizing a truly diverse and inclusive team that enables us to Shift the Phase by fostering a work environment where everyone can do their best.



# **External Evaluation of Health Management** (METI Health Management Survey)

Nippon Sheet Glass Co., Ltd. has been certified by the Japan Health Council as a 2025 Excellent Health Management Corporation (Large Corporation Division) in 2025 as a result of its continuous efforts to address employee health issues based on its Declaration of Health Management.

This certification will continue for four years from 2021.

## **Evaluation by financial institutions**

Please refer to the news releases.

In 2018, NSG Group has received the highest rating as "especially progressive environmental initiatives" by Development Bank of Japan, Inc. (DBJ) under its "DBJ Environmentally Rated Loan Program". Also, NSG Group scored highly in the "commitment line syndication based on an ESG/SDGs evaluation" arranged by Sumitomo Mitsui Banking Corporation in 2021.

NSG Received High Scores in the Commitment Line Syndication based on ESG/SDGs Evaluation by SMBC (November 25, 2021)

NSG Receives Highest Mark in Environmentally Rated Loan by Development Bank of Japan (October 1, 2018)



# Certification as a **Company Supporting Childrearing**

Nippon Sheet Glass Co., Ltd. was certified by the Tokyo Labor Bureau of the Ministry of Health, Labor and Welfare on December 4, 2015 as a "Child Rearing Support Company" under the Act on Advancement of Measures to Support Raising Next-Generation Children, and acquired the "Kurumin" next-generation certification mark. Furthermore, on December 5, 2019, we acquired the "Platinum Kurumin" certification as an excellent company with a high level of commitment among "Kurumin" certified companies.

We have been actively supporting childcare and continuing our efforts to become a company where everyone can work more comfortably. Specifically, we have improved the work-life balance by promoting diverse work styles through the creation and distribution of childcare guidebooks, encouraging male employees to take childcare leave, making childcare leave partially paid, introducing telework throughout the company, expanding flextime, interviewing employees about taking planned annual leave, and revising employee nursing care leave regulations. We are also working to improve the work-life balance by promoting a variety of work styles. In addition, efforts to promote the advancement of women include building a women's network, holding women's career workshops, mentoring program for female managers candidates, unconscious bias training for managers, and reviewing the personnel system to make it more conducive to diverse work styles and careers. We will continue to promote diversity, equity & inclusion, aiming to be a company where each and every employee can play an active role.

For more information, please see the press release.

<Release in Japanese>

Obtained "Platinum Kurumin" certification as a childcare support company (December 24, 2019)

"Kurumin" Certification for Childcare Support Company (December 21, 2015)

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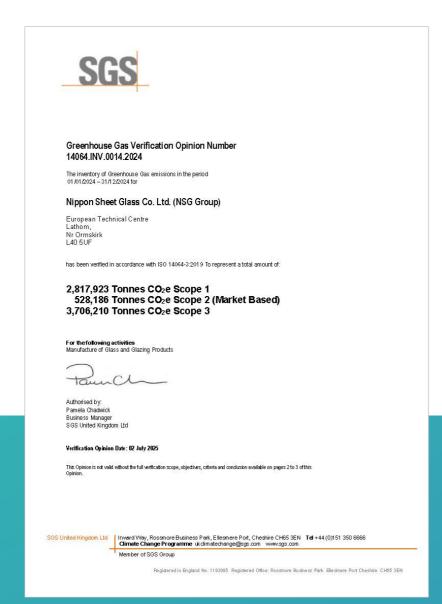
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NSG Group has received assurance from an independent third party (SGS United Kingdom) in accordance with ISO 14064-3:2019 for the data on Scope 1, Scope 2, and Scope 3 of its greenhouse gas emissions as below to ensure objectivity and accuracy of information.

Please refer to Independent Assurance Report at our website.

Independent Assurance Report (nsg.com)





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1910s -1940s

Foundation and expansion.



Futajima Plant in Fukuoka, Japan

1918 America Japan Sheet Glass Co., Ltd. was established

1920 New capacity added at Kitakyushu

1931 Company name changed to Nippon Sheet Glass Co Ltd

1936 Operation started at Yokkaichi



1950s -1960s

**Business expansion** and coming of float glass age

1950 Company shares listed in Tokyo and other stock exchanges in Japan

1952 Operation started at Maizuru

1964 Operation started at Chiba

1965 Float glass production commenced first in Asia with technology licensed from Pilkington

1968 Established Research Center at Itami, Hyogo

SELFOC™ developed

1970s -1980s

## Globalization of Architectural and **Automotive Glass businesses.**

1970 Manufacturing footprints expanded in Kyoto and Kanagawa

1971 Joint venture established in Malaysia

1975 Automotive joint venture established in Mexico

1978 Thin glass UFF™ (Ultra Fine Flat Glass) production start

1979 Launch of the glass fiber business

NSG Foundation established to commemorate the 60th anniversary of the Company

1980 Operation started at Sagamihara

1986 Automotive joint venture established in the US

**Build a foundation of Technical Glass with** new products and technologies.



The SELFOC is still core technology in NSG

# 1990s-**Today**



Vietnam Float Glass Co Ltd

# Further business globalization and contribution to a sustainable society.

1990	A 20 per cent stake of Libbey-Owens-Ford Company (Current
	Pilkington North America, Inc.) acquired

Automotive and Technical Glass joint ventures established in China and an Architectural joint venture in Vietnam

Manufacturing footprints expanded in Tsu 1999

2000 Shares of Pilkington acquired

Increase in Pilkington shareholding to 20 per cent to become 2001 an affiliate of the Company

Company headquarters moved to Tokyo 2004

Acquisition of Pilkington plc 2006

Adopted "Company with Committees (Current Company with a

Nomination Committee)" system

2011 Adoption of IFRS

Production of solar energy glass started in Vietnam

100th Anniversary

Float lines for solar energy glass established in the US and

expanded in Vietnam

Medium Term Vision and Medium Term Management Plan, "Revival Plan 24 (RP24)" launched

2022 Operation started in the second float furnace in Argentina

2023 Production of solar energy glass started with converted float

furnace in Malavsia

2024 Medium-Term Plan,

"2030 Vision: Shift the Phase" launched

Completion and start production at a new solar energy glass facility converted from an existing float line in the US



First piece of float glass ever made in Asia

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## Corporate Data As of March 31, 2025

5202

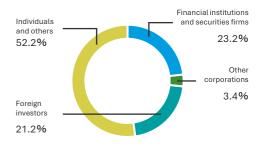
**Securities Code** 

Authorized Shares	177,500,000					
Issued Shares	96,566,022 (Common Shares) (Updated on September 1, 2025)					
Number of shareholders	48,245 (Common Shares)					
Trading unit of shares	100 (Common Shares)					
Stock Listing	Tokyo Stock Exchange, Prime Market					
Fiscal Year end	March 31					
Annual Meeting of Shareholders	June					
	Ordinary General Meeting of Shareholders					
Record Dates	Dividend					
	If necessary, a public notice is given and a record date is set					
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited. Stock Transfer Agency Division 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan					
Operating office	Stock Transfer Agency Department, Sumitomo Mitsui Trust Bank, Limited 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan  (Mail Address) Stock Transfer Agency Department, Sumitomo Mitsui Trust Bank, Limited 8-4, Izumi 2-chome, Suginami-ku, Tokyo 168-0063, Japan					
	(Telephone Number) 0120-782-031 (toll free in Japan)					
Public Notice	https://www.nsg.com/					
Accounting auditor	Ernst & Young ShinNihon LLC					
Shareholder benefit program	No					

Note: Effective as from 1 October 2016, the Company conducted a share consolidation in which every ten common shares were consolidated into one share.

## Share ratio in status of shareholders (Common Shares)

	2021 March	2022 March	2023 March	2024 March	2025 March
Financial institutions and securities firms	27.3%	25.1%	31.1%	28.2%	23.2%
Other corporations	3.7%	3.5%	3.3%	3.1%	3.4%
Foreign investors	21.1%	23.6%	25.4%	19.7%	21.2%
Individuals and others	47.9%	47.7%	40.2%	49.0%	52.2%



## Numbers of shares and shareholders (Common Shares)

	2021 March	2022 March	2023 March	2024 March	2025 March
Numbers of issued shares excluding own shares (1000units)	90,787	90,974	91,136	91,368	91,503
Numbers of shareholders (people)	52,157	50,618	45,718	49,878	48,245



Major Shareholders (Common Shares)	Number of shares (1000units)	Percentage of shares
The Master Trust Bank of Japan, Ltd. (Trust Account)	14,252	15.57
MSIP CLIENT SECURITIES	2,534	2.76
BBH CO FOR ARCUS JAPAN VALUE FUND	2,009	2.19
MLI FOR CLIENT GENERAL OMNI NON COLLATERAL NON TREATY- PB	1,942	2.12
Client stock ownership of Nippon Sheet Glass	1,638	1.79
J.P. MORGAN SECURITIES PLC	1,577	1.72
JP MORGAN CHASE BANK 385781	1,278	1.39
Custody Bank of Japan, Ltd. (Trust Account)	1,263	1.38
SBI SECURITIES Co., Ltd.	1,142	1.24
SUMITOMO LIFE INSUARANCE COMPANY	914	0.99

Note1: Numbers of shares held is rounded down to the nearest thousand.

Note2: Where the percentage of shares is calculated, treasury shares are excluded from the total number of issued shares and it has been rounded down to the second decimal.

#### Stock indices

Stock indices that include Nippon Sheet Glass Co., Ltd (As of July 4, 2025)

TOPIX
TOPIX Small
TOPIX 1000
S&P/JPX Carbon Efficient Index
FTSE Blossom Japan Index
FTSE Blossom Japan Sector Relative Index

#### Other related links

Please visit our website ocheck past integrated reports and other financial information.