

Introduction to NSG

September 2024

Nippon Sheet Glass Co Ltd

TSE Code: 5202

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I. NSG Group Today

NSG Group Today

One of the world's largest manufacturers of glass and glazing

- Supplying Architectural and Automotive glass globally and promoting shift to higher added value
- Leading supplier of Technical Glass (Creative Technology) products*

*including thin glass for display etc., lenses for printers and scanners, specialty glass fiber products

Principal operations around the world, with sales in over 100 countries

27 float lines worldwide * 1*2

Approximately 25,300 employees globally (as of March 2024)

Reference: Consolidated Revenue JPY832.5bn (FY2024/3)

*1: Refer to Slide 9 for the location of float lines

*2: Refer to Slide 43 for the float process

History

Globalized with the acquisition of Pilkington in 2006

<u>1918 - 1940s</u> Foundation & Expansion	<u>1918: America Japan Sheet Glass Co Ltd established in Osaka</u> 1931: Company name changed to Nippon Sheet Glass Co Ltd 1936: Yokkaichi site opened
<u>1950s - 1960s</u> Capacity Expansion and Start of Automotive Glass	1950: Listing on stock exchanges in Japan 1952/64: Maizuru / Chiba sites opened 1965: First float glass production in Asia at Maizuru site
<u>1970s - 1990s</u> Overseas Expansion & Diversification	1971: First overseas investment made in Malaysia 1978/79: Ultra Fine Float™ / glass fiber business launched 1995: Overseas investment expanded including China and Vietnam
<u>2000s</u> Acquisition of Pilkington & Globalization	2004: Headquarters moved from Osaka to Tokyo <u>2006: Acquisition of Pilkington, becoming global leader in flat glass</u> 2008: “Company with committees” governance adopted
<u>2010s~</u> Shift to Value-added Business & Focus on Financial Stability	2018: Announcement of “Our Vision” 2020: Float lines for solar energy glass established in the US and expanded in Vietnam 2024: Announcement of Medium-Term Plan, “2030 Vision: Shift the Phase”

Management Principles — “Our Vision”

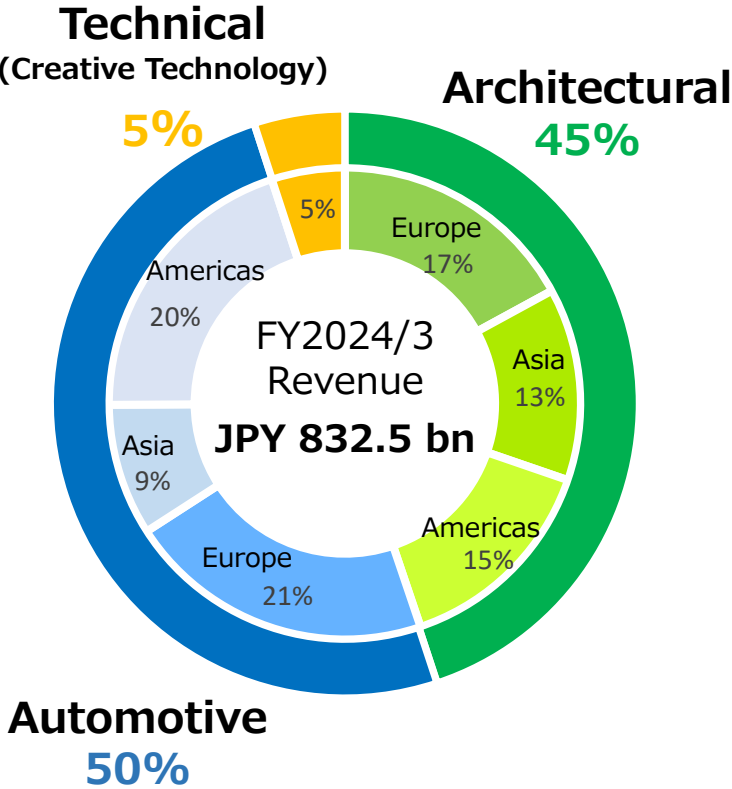
Announced in November 2018, at the Company’s 100th Anniversary



Businesses

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

Revenue by Business & Region



Architectural	
<u>Products</u> <ul style="list-style-type: none"> • Building glass & glazing • Glass for solar panels 	<u>Business</u> <ul style="list-style-type: none"> • 27 float lines operated globally • Leading supplier for thin film solar panels
Automotive	
<u>Products</u> <ul style="list-style-type: none"> • Glazing for new vehicles • Glazing for replacement markets 	<u>Business</u> <ul style="list-style-type: none"> • Key operations in 14 countries • Supplying world's leading vehicle manufacturers • Key player globally in automotive aftermarket (AGR) glazing distribution and wholesale
Technical Glass (Creative Technology)	
<u>Products</u> <ul style="list-style-type: none"> • Thin glass for display etc. • Lenses for printers, telecommunication devices and medical endoscopes • Glass code for car engine timing belt, etc. 	<u>Business</u> <ul style="list-style-type: none"> • Key operations in Asia and Europe • Unique 'Number One' and 'Only One' niche products

Products

Contributing to society with a variety of glass products

Architectural



↑ Thermal Insulation glass
OIT Umeda Tower



↑ AviSafe™



↑ BIPV* © Constantin Meyer



↑ Glass for thin film Solar panels
Courtesy of First Solar Inc.

Automotive

- Windshields with head-up display (HUD)



Courtesy of General Motors



- Infrared reflective solar control coating
- Lightweight laminated glass

- Glass compatible with ADAS*



Technical Glass (Creative Technology)



↑ SELFOC®
Lens Array



↑ Metashine®

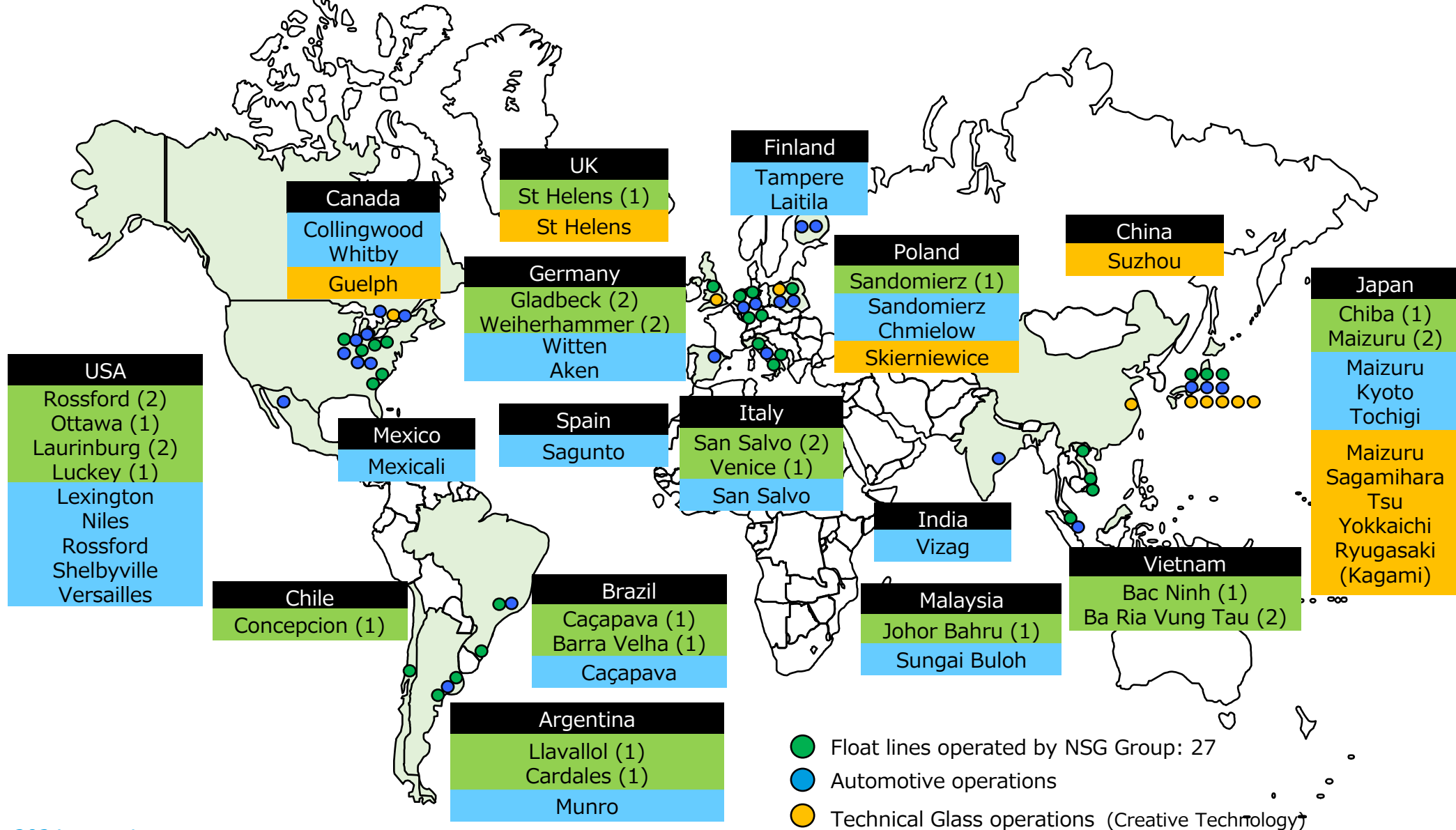


↑ glanova®



↑ Glass cord

Global Footprint

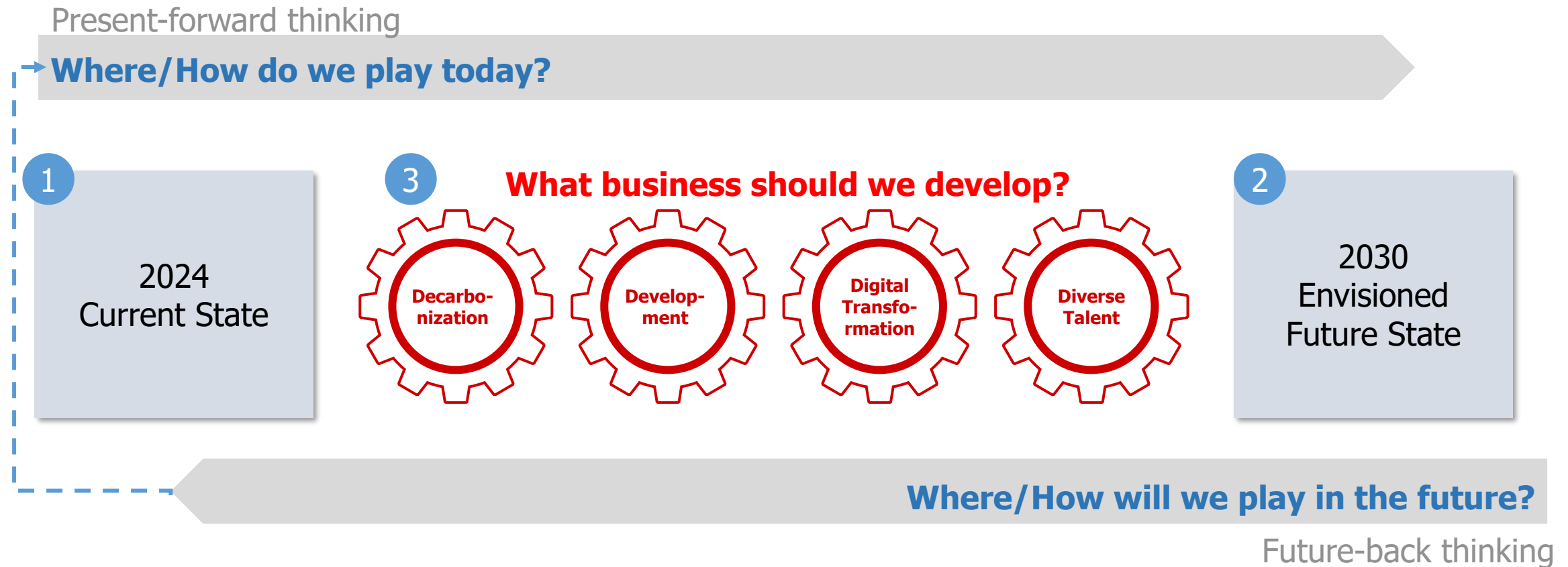


II. Medium Term Plan

“2030 Vision: Shift the Phase”

Our Approach to Formulating the Medium-Term Plan

Backcasting from the envisioned state we aim to achieve by 2030, we developed the strategies and activity plans to become an attractive company for both internal and external stakeholders



2030 Vision: The Envisioned State of NSG Group

After one year of discussions, we formulated our 2030 Vision. 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

Goal

To shift our company's phase and become vital in advancing a sustainable society

Commitment

- We commit to creating value that realizes a sustainable society for all stakeholders and with stakeholders.
- We commit to developing and providing glass and its related technologies and services that play a crucial role in our customers' solutions.
- We commit to deeply understanding our customers' potential needs and delivering solutions that are suitable for them by leveraging both tangible and intangible assets.
- We commit to continuing our investment in our people, taking pride in a global, diverse team passionate about glass and brimming with talent.

Financial Targets

Throughout this medium-term period, NSG Group is focused on enhancing profitability and increasing cash generation to improve its financial status

		FY2024/3	FY2027/3	
Profitability (P/L)	Operating Profit	35.9 billion yen	64.0 billion yen	<ul style="list-style-type: none"> • Clear profit growth targets • Disciplined business strategy and overhead management
	ROS	4.3%	7%	
Cash Generation (C/F)	Free cash flow	15.3 billion yen	27.0 billion yen	<ul style="list-style-type: none"> • Rigorous management of investments and working capital
Stabilization of Financial Status (B/S)	Interest-Bearing Debt	506.5 billion yen	442.0 billion yen	<ul style="list-style-type: none"> • Reduction of interest-bearing debt • Stabilization of our financial status for enhancing our investment for growth
	Shareholders' equity ratio	12.3%	15%	
Capital and Investment Efficiency	ROE	9.6%	20%	<ul style="list-style-type: none"> • Monitoring ROE improvement as a reference indicator, not as a goal

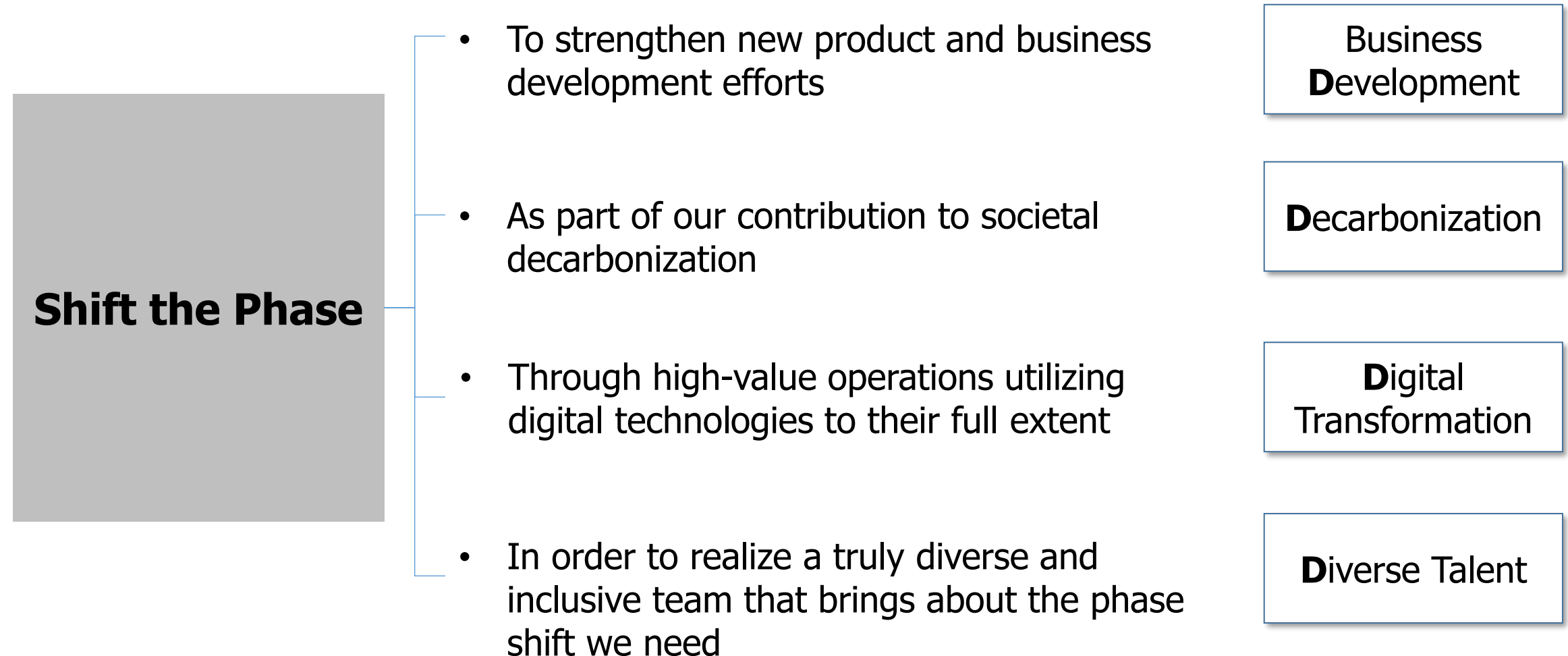
(assumed FX effect in FY2027 financials)

We will make continuous efforts to expand high value-added businesses and reduce market dependence to achieve ROS 10% or more in FY2030/3.

III. Group-Wide Strategic Direction under 2030 Vision

Group-Wide Strategic Direction

Positioning the four Ds as the strategic pillars of the NSG Group, we aim to achieve our strategic goals in each pillar



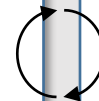
Business Development

Adapting to societal changes, we will develop new solutions and technologies with our customers to create high added value.

We will enhance our business creation capabilities by continuing to invest in R&D and fostering the skills of our personnel in business development within the glass and related areas.

Identifying areas where new value is demanded and creating new solutions together with customers.

- Identifying and focusing on areas of potential new value creation
- Co-creating value with customers
 - Strengthening our relationships with customers who are committed to new value creation
 - Adapting our technology to contribute to customers' technological goals
 - Turning the adapted technologies into business together with customers







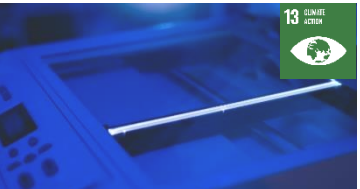



Developing new, valuable technologies and services while taking pride in our history of creating world-first technologies and expertise

- Further evolving our proprietary technologies and expanding their applications
- Developing new technologies in areas that contribute to sustainability, informed by societal trends

We will maintain our focus on capital costs in prioritizing projects and allocating resources, through governance exercised in Management Committee.

Examples of Strategic Products to be Strengthened through Business Development

<div>Architectural</div>	<ul style="list-style-type: none"> • Products that contribute to the decarbonization of buildings • Products that enhance the potential of solar technology 	<ul style="list-style-type: none"> • Solar Panel  <p>Clean energy</p>	<ul style="list-style-type: none"> • Low E (On-line/Off-line/Laminated) • Triple Glass Units • Coated IGU  <p>Energy Saving</p>
<div>Automotive</div>	<ul style="list-style-type: none"> • Products that contribute to the advancement of automobiles 	<ul style="list-style-type: none"> • HUD/AR HUD windshields (WS)  <p>ADAS/Safety</p>	<ul style="list-style-type: none"> • Heated windshields (WS) • Large Area Fixed with Low e Roof Light (RL) • Variable Transmission RL • Higher functional RL • IR Reflective windshields (WS)  <p>EV</p>  <p>Energy Saving</p>
<div>Technical Glass (Creative Technology)</div>	<ul style="list-style-type: none"> • Products that enable the development of high-performance components • Products contributing to environmental conservation such as reduction of microplastics 	<ul style="list-style-type: none"> • AOI (Automated Optical Inspection) • FINEFLAKE/DURA FLAKE • Filler • MAGNAVI® 	<ul style="list-style-type: none"> • LPH (LED Print Head) • Base makeup powder products (MAR'VINA®/GLACIA DROPS™)  

Business Environment Outlook

Architectural

- While near-term demand may see a downturn, 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 FY30. This underscores the importance of developing capabilities to offer decarbonization solutions and securing a leadership role in the market.

Automotive

- The new car 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/EVs into the markets.
- As glass bending and laminate technology requirements grow more complex 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's 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.

Technical Glass (Creative Technology)

- The markets targeted by existing products, e.g. printers, automotive engines, etc., are facing competition from alternative materials. While a sharp decline in these markets is not immediately expected, significant growth is not anticipated either.
- Adjacent market areas are experiencing growth, with opportunities emerging from expanded applications. (For instance, automatic optical inspection systems are projected to grow by approximately 10%, and markets for factory automation and e-bikes are also on the rise. Furthermore, materials for high-performance components, catering to the miniaturization and thinning of IT-related products and high-speed communications, are expected to see high growth.)

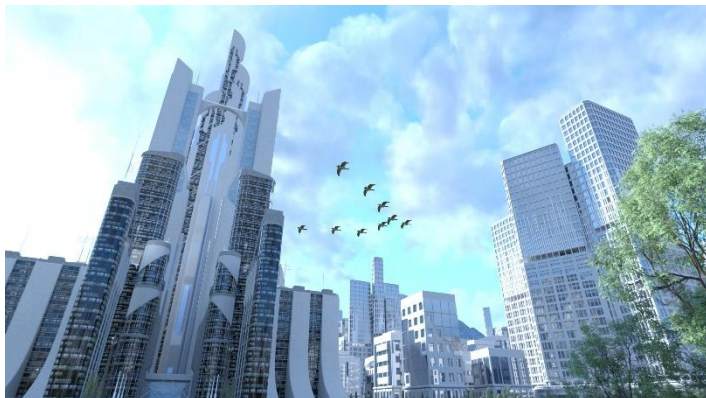
Business Development: Architectural

We will aim to be a leading supplier of architectural glass that contributes to sustainability, with a focus on decarbonization.

Key strategic measures:

Capability Enhancements for the Development of Sustainability Solutions

- Intensive investment in glass coating technology development and equipment
- A development focus that includes not only decarbonization but also wildlife protection, e.g., AviSafe™



Creation of high added value

Decarbonization of Our Products

- Establishing glass manufacturing technology using low- or no-carbon fuels and investing in equipment
- Market launch of low-carbon glass, e.g., Mirai™



Review of resource allocation

Continuous Reviews on Regional Strategies

- Strategically withdrawing and investing within Europe
- Reassessing resource allocation in Southeast Asia to pivot towards the solar business
- Expansion into regions where creation of added-value is expected in the medium to long term.



Business Development: Advanced Coating Technology

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.

Key strategic measures:

Acceleration of Business Development with Business Partners

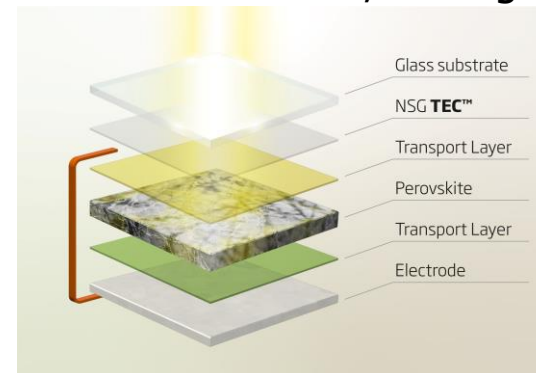
- Conversion of existing furnaces for Architectural into solar applications as our business partners ramp up their production, e.g., in North America and Southeast Asia



Creation of high added value

Development of New Technologies with Long-Term Growth Potential

- Technologically contributing to the development of diverse renewable energy technologies
 - Perovskite solar cell
 - Dye-sensitized solar cell
 - Photovoltaics integrated into building materials, among others



Review of resource allocation

Business Development: Automotive

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

Key strategic measures:

Capability Enhancements to Cater to ADAS and EV

- Developing advanced glass bending technology
- Developing manufacturing technologies for the diversifying applications of laminated glass, among others



Creation of high added value

Strengthening the Aftermarket Business

- Improving inventory management and timely market supply
- Enhancing efficiency by integrated management of new car and aftermarket businesses
- Optimizing sourcing strategies, among others



Review of resource allocation

Thorough Improvement of Profitability

- Continuously reviewing pricing strategy
- Further optimizing footprint
- Operational improvement



Business Development: Technical Glass (Creative Technology)

We will establish a new revenue pillar by developing proprietary materials that play a pivotal role in advancing our customers' product offerings.

Key strategic measures:

Expansion of Business in Adjacent Markets

- Developing new applications and uses for glass flake and fiber technology
- Advancing our SELFOC® optical materials technology, and developing its new applications



Creation of high added value

Commercialization of New Technologies

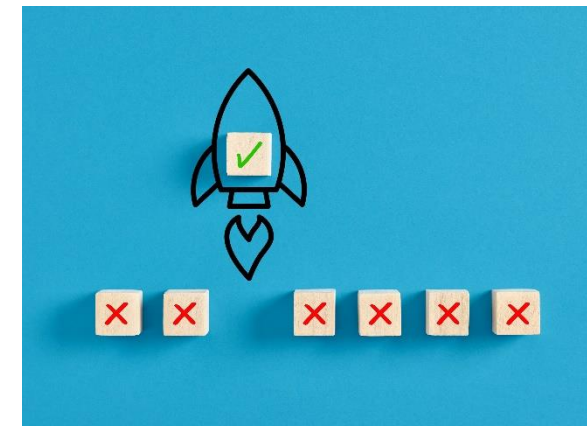
- Expanding sites and staffing in customer markets and regions
- Steadily commercializing product pipelines in the process of co-creation with customers



Review of resource allocation

Selection of Technological or Business Seeds

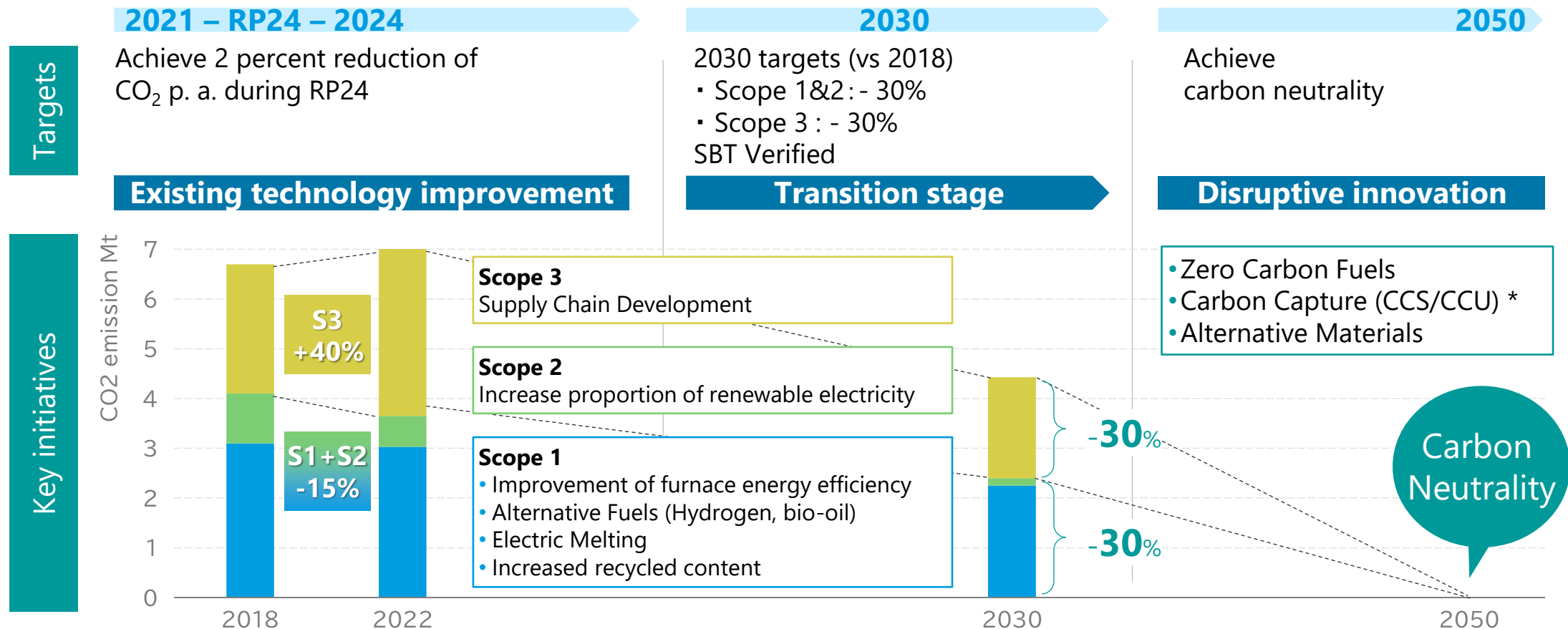
- Continuously identifying needs and seeds both in technology and business
- Assessing commercial viability of seeds, and sifting out those that have no chance



Decarbonization

We are dedicated to driving decarbonization across our entire supply chain, embodying our commitment to sustainable social development.

Roadmap to Carbon Neutrality for 2050



Digital Transformation

By thoroughly standardizing data and processes, we will elevate the level of information integration, thereby accelerating the quality and efficiency of our global management practices.

Groups
Management

- Standardization and Information Integration
 - Standardizing data and processes across businesses and regions
 - Improving information integration and transparency
- Redesigning Shared Services and maximizing its use
 - Improving the consistency and quality of service, Reducing costs
 - Utilizing resources at an optimal level, Reallocating resources to strategic activities

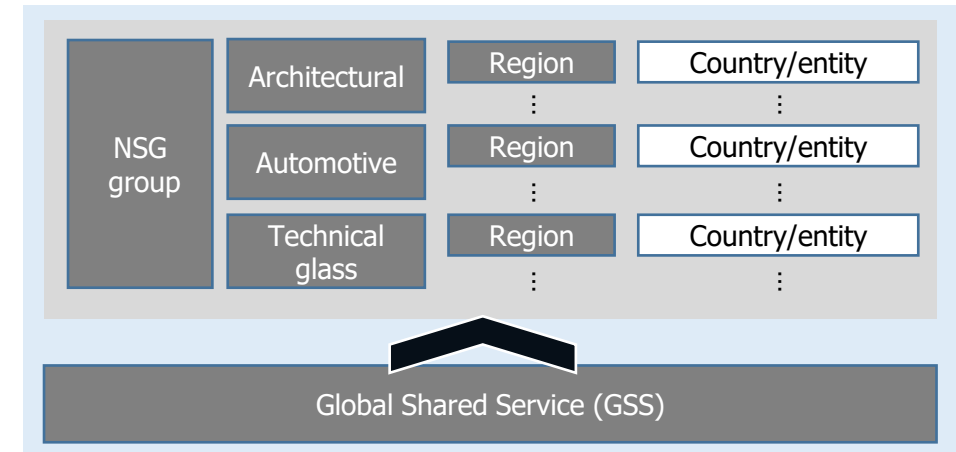
Business/
Functions

- Leveraging digital technology to enhance efficiency, flexibility, and competitiveness
 - Gathering information efficiently for multidisciplinary reviews of safety, quality, costs, etc.
 - Automating analysis and extraction of insights using AI and advanced robotics

Sites/
Plants

- Reducing the burden on individuals and creating a sustainable working environment for both the company and employees.
 - Continuously ensure safe working environment and conditions
 - Thoroughly streamlining operations that involve manually-processed tasks and reducing cost among others
- Promoting quicker, delegated, decision-making based on information

Promoting standardization and information integration globally



Diverse Talent

Building a robust and high-performing workforce and organization is pivotal to our strategy. We will invest based on a well-defined HR strategy, globally demonstrating our attractiveness as a workplace that offers opportunities for professional development for those who work with genuine passion and interest.

The Direction of Our HR Strategy

Leaders & Our Culture

Our leaders, together with employees, embody NSG's values and shape the corporate culture of NSG.

Attract, Develop, Retain

Our leaders attract, develop and retain talent, and lead teams to business success.

Team Strength

We develop people and enhance our team strength to fulfil our mission of innovation.

People Experience

We continuously improve the people experience, empowering our employees to flourish.

Key Actions

HR Digital

Designing, developing, and implementing a globally integrated, user-friendly system for employees that ensures transparency of HR information

Talent Acquisition & Recruitment

Investing in fostering an exceptional workplace that enables career growth for everyone

Value Proposition for Our Employees

Establishing a corporate brand and management that are both genuine and trusted

Diversity, Equity & Inclusion

Fostering an inclusive workforce ecosystem and culture that empowers everyone to perform at their best

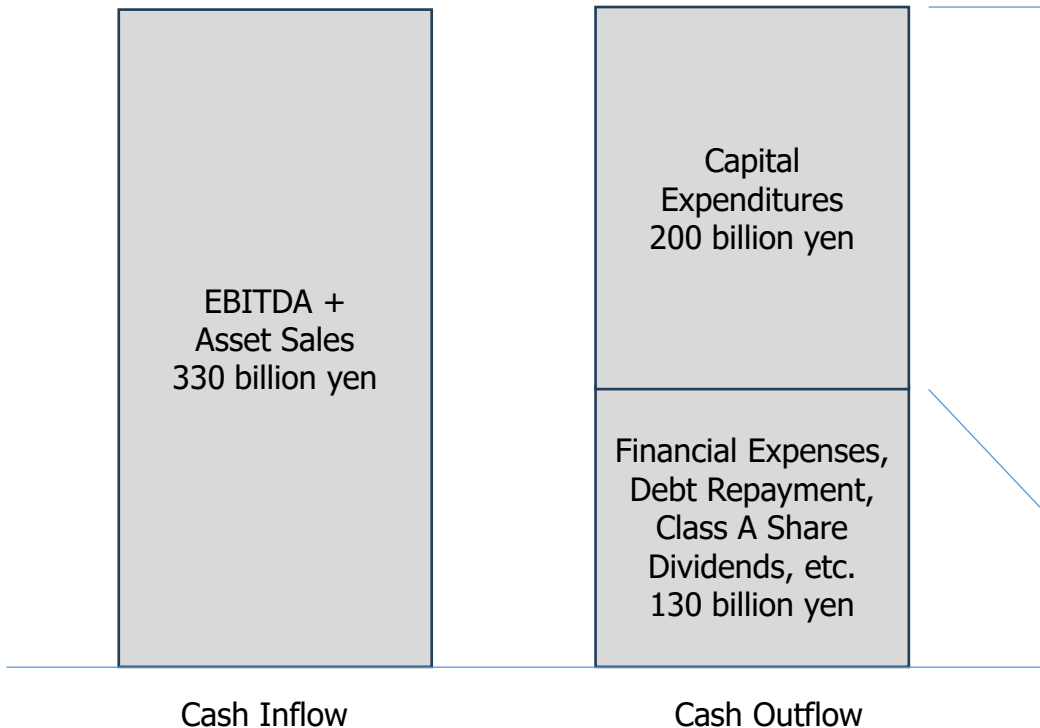
We will promote the four Fs—Flat, Frank, Fast, Fun—of communication within the organization as part of our corporate culture.

IV. 2030 Vision Financial Policy

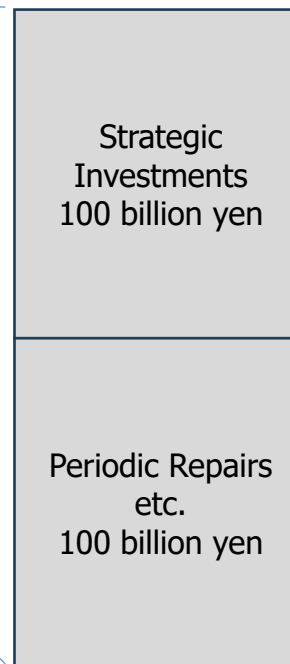
Resource Allocation for Normalizing Capital Flow

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)



Breakdown of Capital Expenditures



- Investments for advancing the 4D strategy
 - Development of value-added technologies and products
 - 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

Managing with Focus on Capital Cost and Share Price (PBR > 1)

Throughout this medium-term plan period, we focus on optimizing financial leverage and enhancing valuation multiples through improved asset efficiency and reduced interest-bearing liabilities



V. Sustainability for Creating Value

Contribution Opportunities for NSG Products

Wide range of solutions to support the evolution of society, including smart buildings, ZEB & ZEH and electric vehicles

Low-E and vacuum glass for solar control and heat insulation



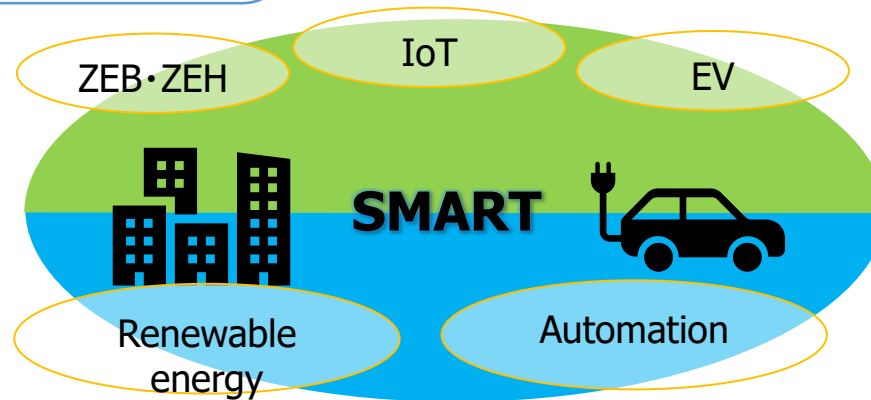
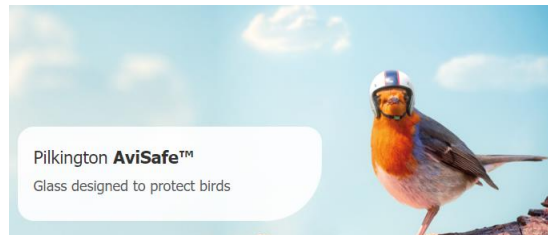
Transparent BIPV joint development



Heated WS to save energy



Conservation and Promotion of Biodiversity – Bird friendly glass



Automotive Low-E glass to reduce air conditioner usage



Innovation through "Powered by NSG TEC™"

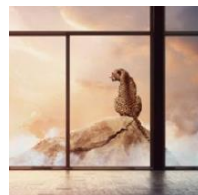


Powered by

NSG TEC™



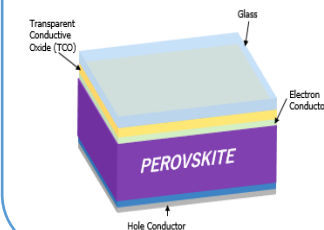
Low carbon glass



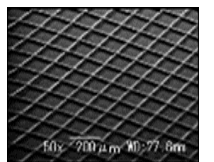
Glass for solar farms to supply renewable energy



Next Gen solar Perovskite

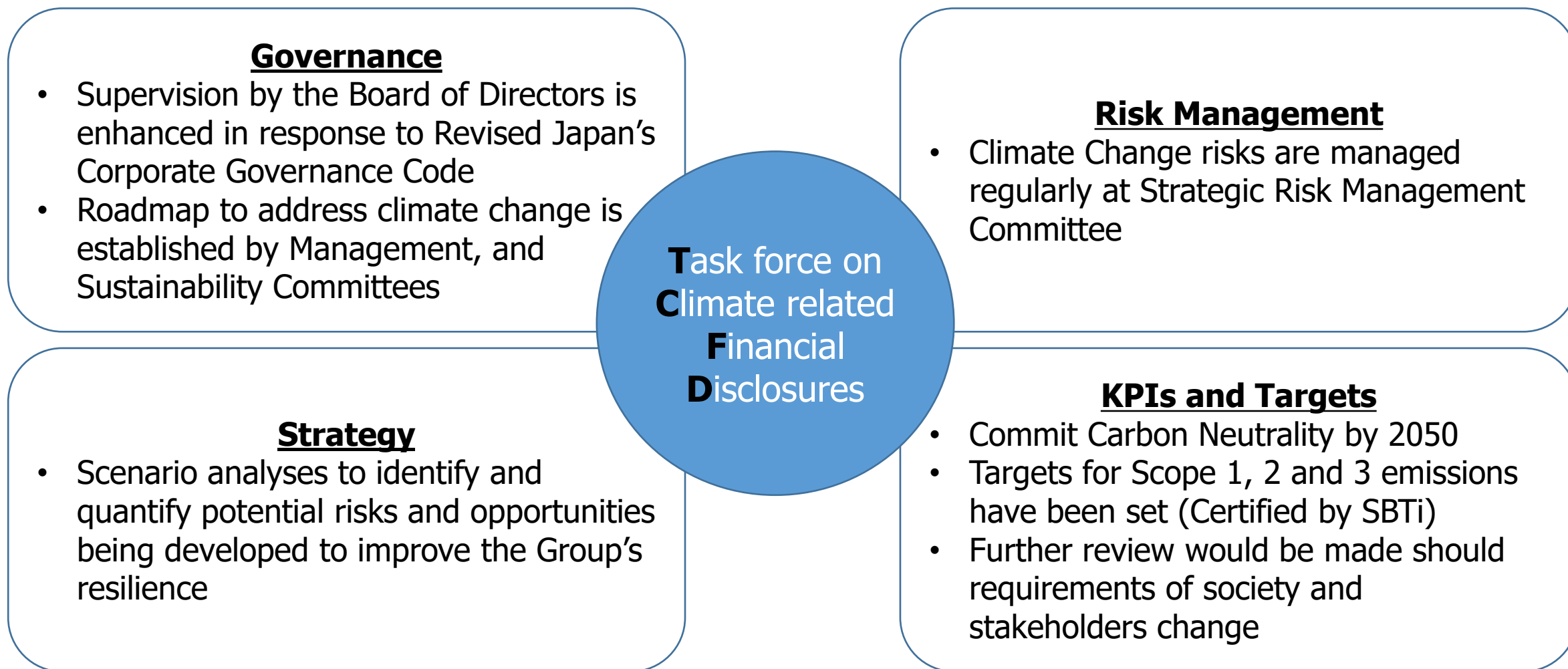


Sensors for automation



Approach to TCFD

The Group has announced its support for TCFD recommendations in Nov. 2021
Planning to enhance the disclosure content



- CO₂ emissions of NSG Group:
- <https://www.nsg.com/en/sustainability/environment/air-emissions>
- <https://www.nsg.com/en/sustainability/data/environment>

Contribution to Society

Mission and responsibility as good corporate citizen

Employees

- In 2023, Diversity, Equity & Inclusion (DEI) Policy was formulated to enhance and accelerate the Group's I&D
- Promoting DEI and investments for human resources under "Diverse Talent" of the Group-wide strategic "Four Ds"

Ethics and Compliance

- A group-wide ethics and compliance hotline that can be used by anyone inside or outside the company is available (certified as Whistleblowing Compliance Management System (WCMS))
- A compliance system for high-risk areas such as competition law compliance, ABAC* and conflict of interest is in place
- Ethics and compliance education and communication are conducted at the group and regional level

NSG Foundation

- NSG Foundation aim to contributing to the promotion of R&D activities on inorganic materials through research grants, which amounts above JPY1,880 million for 1,485 projects cumulatively (As of May 2024)

Sustainability Targets and Progresses

Quantitative targets and KPIs set based on identified materiality

Materiality	FY30 Aspirations	FY27 New Targets		FY27 KPIs
Health and Safety	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 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.	Fatality	Fatality and life-changing disability	0
		Significant injury ratio (SIR)		Reduce SIR from 0.32 to 0.20
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 substantiated E&C hotline reports		45%
		Cases of retaliation reported to E&C		0
		Fines associated with Competition or Bribery/Corruption violations		0
		Ethics and Compliance (E&C) Annual Education		100% completion with achievement or improvement of any above KPIs
Safe and High-quality Products and Services	To implement a Sustainable Supply Chain strategy to minimize negative environmental and societal impact, increase innovation, reduce waste and risk and enhance NSG's brand	Compliance Program Score and Effectiveness		90% agreement/favorability
		Supply Chain	Scope3	2.6 MT
		Supplier collaboration	Supplier spend signing up to Supply Chain Charter	63%
			Supplier spend with recognized ESG assessment	74%
			A weighted average score for all assessed suppliers	Over 60
	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.	Supplier spend with Diverse Suppliers		2%
		Quality	Major quality spike	0

Sustainability Targets and Progresses

Quantitative targets and KPIs set based on identified materiality

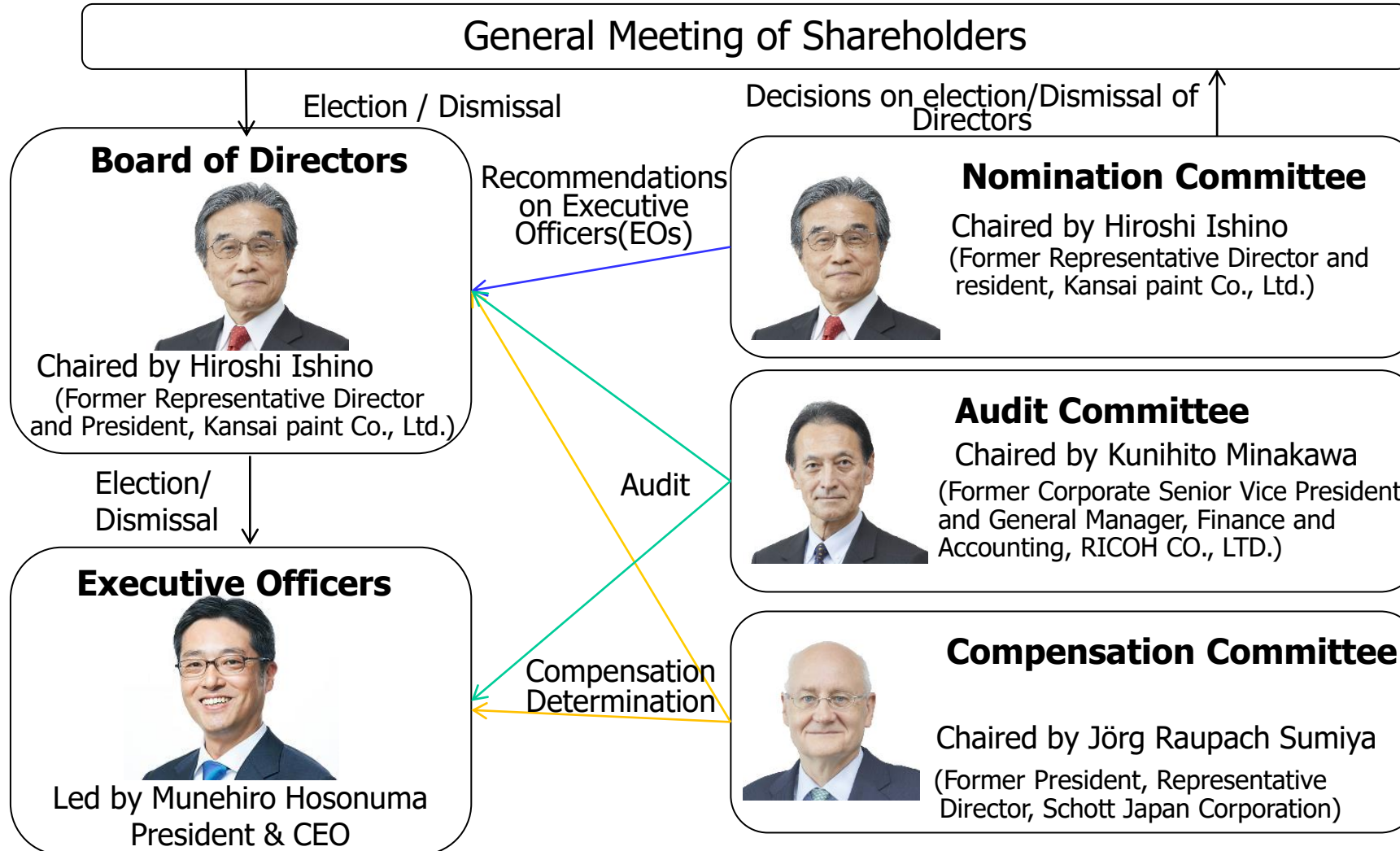
Materiality	FY30 Aspirations	FY27 New Targets		FY27 KPIs
Environment	To exceed stakeholder expectations by implementing sustainable processes to produce environmentally positive products and actively contribute to a decarbonized and a circular based society.	Carbon emission	CO ₂ intensity	3% YoY reduction
			Renewable energy electricity ratio	65%
			Absolute Scope1+2	Reduction
		Waste to landfill		20% reduction (vs FY24)
		Cullet ratio		3% point increase vs FY19
		Water withdraw		50% decrease vs FY19 in water stressed areas
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 strategic products		From 23% to 29%
Human Capital	<u>Employee Value Proposition</u> : 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. <u>DE&I</u> : Inclusive organization where everyone can be their best (#BeYourselfAtWork activity). Recognized as a leader and winner of awards	Employee Engagement	% agreement for NPS question from "Your Voice" survey	80%
		DE&I	Female manager ratio	24% (FY24 result: 16%)

VI. Corporate Governance

Corporate Governance Structure

The Board & Committees all chaired by Independent External Director

(as of 27 June 2024)









Nomination Committee
Hiroshi Ishino (Chairperson) Jörg Raupach Sumiya Kunihiro Minakawa Shinji Asatsuma Eriko Sakurai Munehiro Hosonuma
Audit Committee
Kunihiro Minakawa (Chairperson) Jörg Raupach Sumiya Shinji Asatsuma
Compensation Committee
Jörg Raupach Sumiya (Chairperson) Kunihiro Minakawa Shinji Asatsuma Eriko Sakurai Munehiro Hosonuma

Board of Directors

Board of Directors with a majority being independent and a well-balanced professional skills and diversity

(as of 27 June 2024)

	Independent External Director	Independent External Director	Independent External Director	Independent External Director	Independent External Director	Director
						
	Hiroshi Ishino Chairperson of Nomination Committee	Jörg Raupach Sumiya Chairperson of Compensation Committee	Kunihiro Minakawa Chairperson of Audit Committee	Shinji Asatsuma	Eriko Sakurai	Munehiro Hosonuma President Chief Executive Officer
<Skill Set>						
Global Company Management Experience	●	●	●	●	●	
Financial Expertise			●	●		
Risk Management			●	●		
ESG/ Sustainability		●			●	
Portfolio management/ New Business Development		●			●	●
DX/Operational Excellence	●					●
Marketing/Commercial	●					●

Executive Officers

Executive team with diverse background in terms of a well-balanced international experience, gender and age etc

(as of 27 June 2024)

Representative Executive Officer



Munehiro Hosonuma
Director, Representative Executive Officer
President and Chief Executive Officer

Executive Officer, Chairperson of the Company



Shigeki Mori
Executive Officer,
Chairperson of the Company

Senior Executive Officers



Leopoldo Garces Castiella
Head of
Architectural Glass



Koichi Hiyoshi
CAO, Group Internal
Governance & Risk, and
Company Secretary



Hisashi Okamoto
Head of Creative
Technology



Akihito Okochi
Chief Financial
Officer



Rob Purcell
Head of Automotive

Executive Officers



Mike Greenall
Chief Technology
Officer



Denise Haylor
Chief Human
Resources Officer



Masaki Kambayashi
Chief Risk Officer (CRO)
and Assistant CFO



Michael Kiefer
Chief Legal Officer,
Chief Ethics &
Compliance Officer



Shiro Kobayashi
Sustainability
Director



Yohei Nakatsuji
Chief Strategy
Officer



Iain Smith
Finance Director

Corporate Governance

Framework to bolster sustainable growth

Diversity & independence of Board– decision making & supervision of executives, representing shareholders

- Clear separation of roles between Board chairperson and CEO; robust succession plan
- Adequate pay incentives aligned with interests of shareholders

Key developments

2008: “Company with Committees”; 4 Independent External Directors

2012: All 3 Committees chaired by Independent External Director

2013: The Board chaired by Independent External Director

2014: Share purchase element in LTIP; shareholding targets for EOs

2015: Publication of NSG Group Corporate Governance Guidelines

2016: 1st Effectiveness Evaluation; compliance with all the principles of CGC

2021: Disclosure of board members’ skill set

Corporate Governance

Board Effectiveness Evaluation

◆ The Company started an annual evaluation process for the Board effectiveness since FY2016/3

■ Initiatives for the Priority Implementation Items for the fiscal 2024 (Review)

• As for the Priority Implementation Items for the fiscal 2024, we believe that certain progress has been made through various initiatives and discussions at meetings of Independent External Directors, Board, Nomination Committee, etc.

FY2024 Priority Implementation Items
(1) In order to further improve supervisory functions, deepen discussions on the roles that the Board and Independent External Directors should play and foster common understanding among Directors using meetings of Independent External Directors and offline mtgs.
(2) Discuss an ideal form/method of monitoring by the Board, and after sufficiently coordinating with the Executive Team, perform monitoring in a way that will support speedy execution of initiatives by the Execs.
(3) Mainly at the Nomination Committee meetings, deepen discussions on the skills/experiences and diversity necessary for the Board, and work to improve the appointment process of Directors.
(4) In order to further improve supervisory functions, deepen discussions on the roles that the Board and Independent External Directors should play and foster common understanding among Directors using meetings of Independent External Directors and offline mtgs.
(5) Discuss an ideal form/method of monitoring by the Board, and after sufficiently coordinating with the Executive Team, perform monitoring in a way that will support speedy execution of initiatives by the Execs.

Initiatives Undertaken
<ul style="list-style-type: none"> Multiple discussions among External Directors were held at the Independent External Directors Meeting with the cooperation of Board Advisors, Inc., the External organization <ul style="list-style-type: none"> Drew up the "Board of Directors Charter" for each Director to perform oversight based on common understanding. The "Board of Directors Charter" can be found here reviewed the Board operation (The Board of Directors Meeting is positioned as meetings to identify and focus discussion on "Key management issues") External Directors identified "key management issues" and requested the Executive members to present monitoring items. At the meetings of Nomination Committee, <ul style="list-style-type: none"> skills/experiences and diversity necessary for the Board were discussed. Discussion was held based on widely shared candidate information aiming to increase transparency of the appointment process in the succession of External Directors. In preparation for the new medium-term management plan, discussions were held multiple times at Board (6 times) and Offline meetings that are distinct from formal Board (hereafter referred to as "Directors Offline Meetings")
<ul style="list-style-type: none"> Initiatives were undertaken to improve the Board operation.

Corporate Governance

Board Effectiveness Evaluation

■ Board Priority Implementation Items in the fiscal 2025

- The Board of Directors have confirmed the following Board Priority Implementation Items in the fiscal 2025.
 - For the annual evaluation for the fiscal 2024, all Directors were evaluated through Questionnaire survey (four-grade evaluation and open-ended questions) and Individual follow-up interviews conducted by the Board of Directors Secretariat.

- 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 (enhance decision-making, make suggestions, etc.)
- Further enhancement of the Board meeting operation to contribute to invigoration of discussions at the Board meetings.
- Implementation of initiatives contributing to the enhancement of the Executive succession and the candidate recommendation process.
- Continued and more in-depth discussions with a view to more appropriate Management Incentive Plan in terms of incentivization.

- Through these efforts, the NSG Group will continue to strive to further improve the effectiveness of the Board of Directors.

Notice

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.

Nippon Sheet Glass Company, Limited

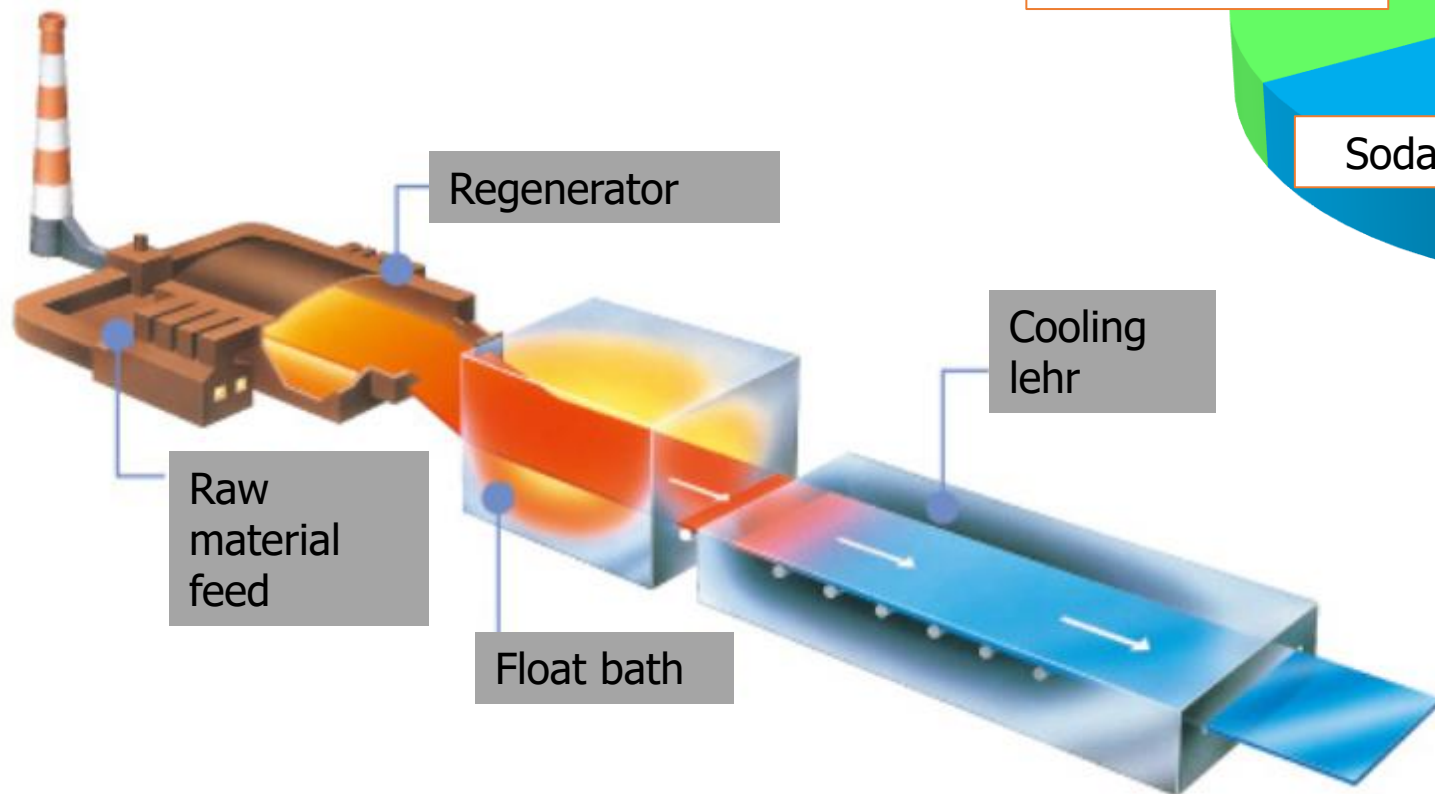
VII. Appendices

- Manufacturing Process P.44~P49
- Solar Panels & Glass P.50
- Energy-saving Regulations P.51
- Shares Information P.52~P54
- Financial Data P.55~P58

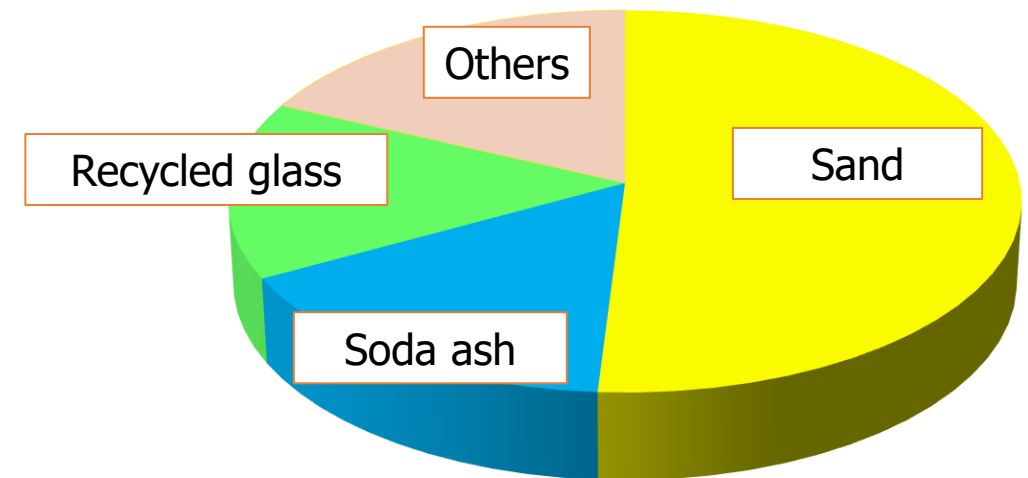
Float Process

Float glass:

Molten glass is poured continuously from a furnace onto a shallow bath of molten tin. It floats on the tin, spreads out and forms a level surface. This method was introduced to the world as the float process in 1959.



Raw material



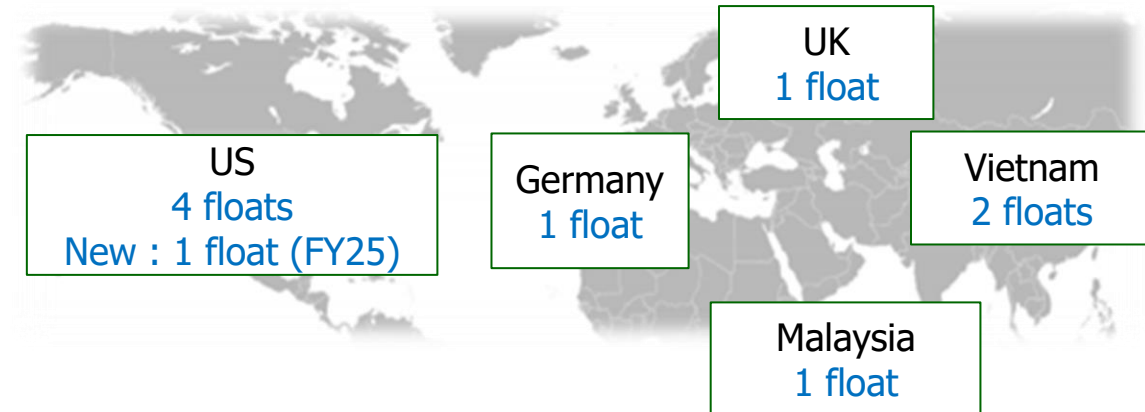
Online Coating

Strengths and Functions of Online Coating

- NSG's proprietary technology
- Nine float lines with online coaters globally
- Thin, uniform metallic oxide film deposited over glass while being formed inside the float bath
 - Cost competitive, available in large size
 - Durable and versatile, suitable for further processing and various applications

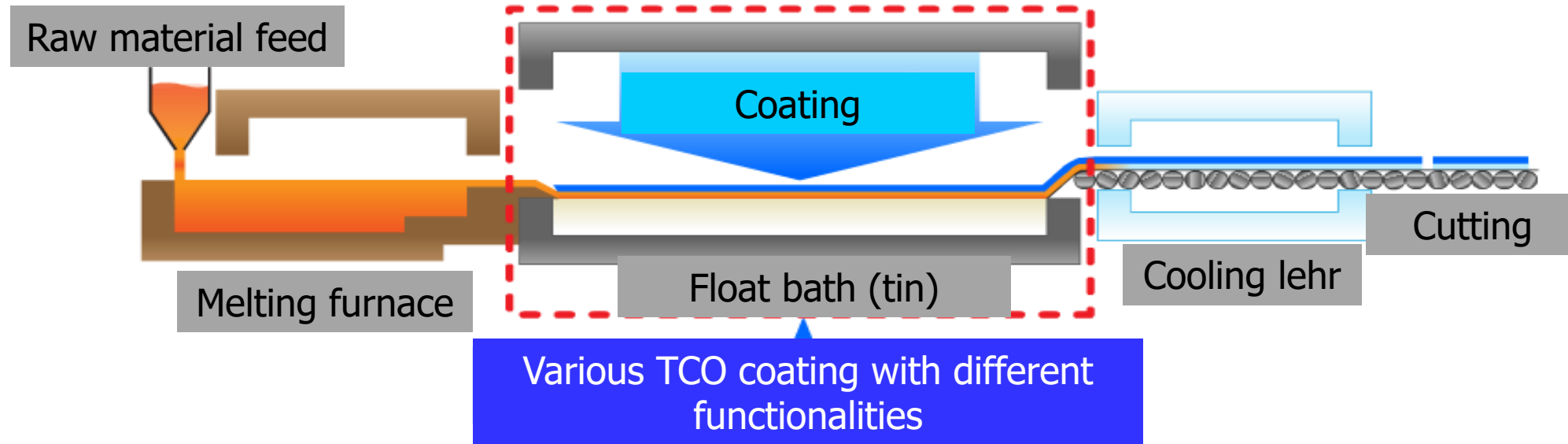
Function	Use
Conductivity	Heating glass
	Transparent conductive film for touch panels
	Transparent conductive film for thin film solar panels
Infrared reflection	Heat insulation glass
	Heat blocking glass
	Low e glass

Float lines with Online Coaters



↑ Glass for thin film Solar panels
Rossford Solar Array, USA

Online Coating



- Thin, uniform metallic oxide film deposited over glass while being formed inside the float bath
- Cost competitive, available in large size
- Durable: suitable for further processing & for use as an external glass pane
- Versatile: architectural, solar & automotive applications
 - Technical applications include thin or curved displays, OLED lighting and thin-film sensors

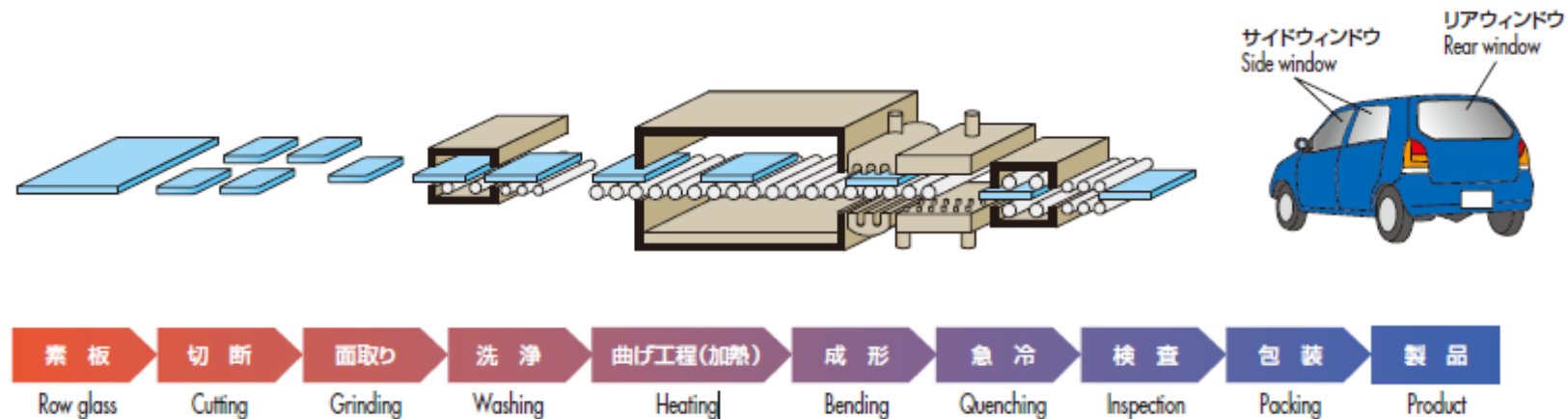
Automotive Glazing – Toughening

Toughened Glass:

Flat glass is placed in a tempering oven, and heated to between 650 and 700°C, which is near the glass softening temperature.

Then the glass is quenched by blowing air evenly on both sides, causing the surface to harden first, with the inside cooling and shrinking later. The result is the formation of a stable compressive stress layer at the surface, and the glass is 3 to 5 times more resistant to impact than ordinary glass.

This glass is mainly used for the side and rear windows of automobiles.



Automotive Glazing – Laminating

Laminated Glass:

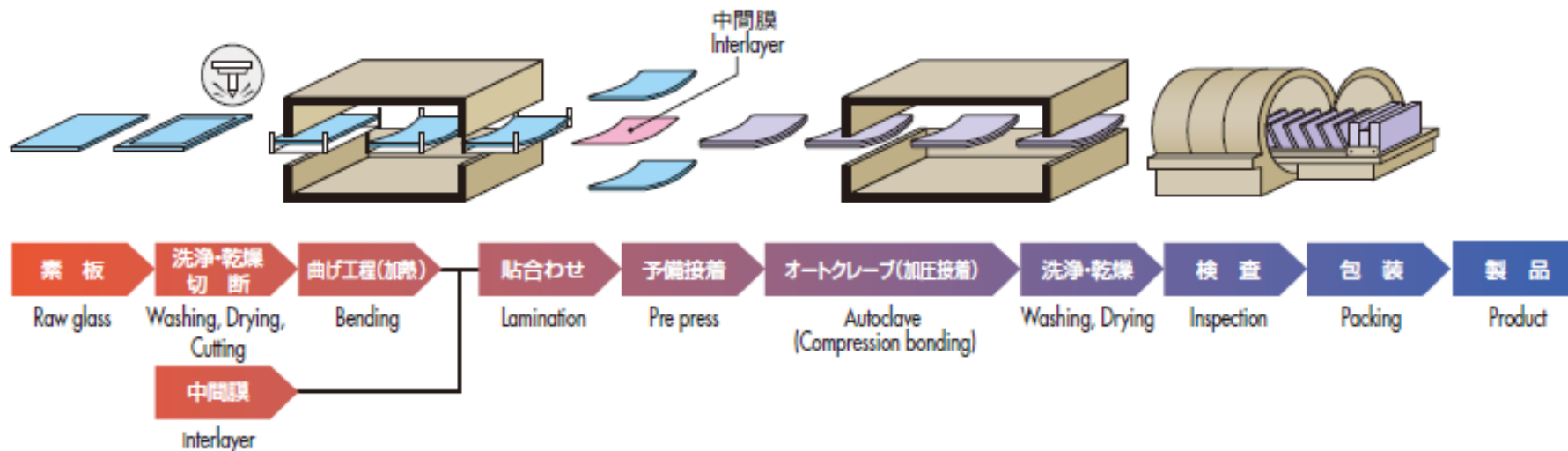
Laminated glass consists of two pieces of glass with a sandwich of transparent plastic interlayer.

This is then placed into an air-pressure autoclave, and treated at high temperature and pressure.

Some special products are made with 3 or more sheets of glass.

This glass is mainly used for the front windows of automobiles.

フロントウィンドウ
Front window



Automotive Technology – APBL

Providing value-added glass for advancing automotive industry, leveraging the Group's technical strengths

 **Environment: Heated WS**

 **Safety & Security: ADAS*2**

 **Connectivity: Next-gen antennas, HUD*3**

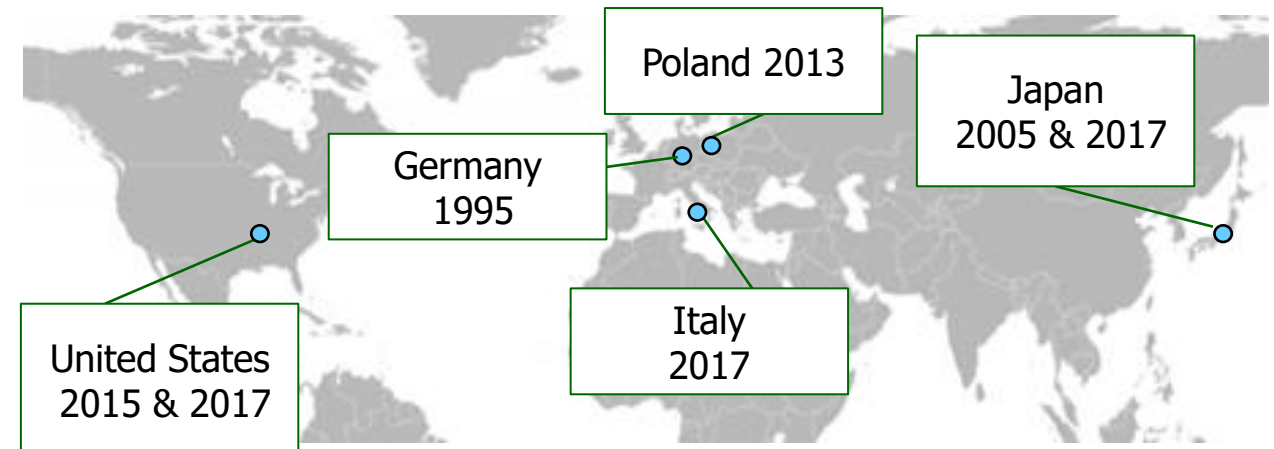
 **Comfort & Convenience:**
Low e coating

 **Style: Complex shaping**

Technology for advanced windshields

- Press bending equipment, APBL*¹ developed in house, started production ahead of competitors
- With the advancement of automotive technology such as ADAS*² and HUD*³, build global production base for advanced windshields whose needs increase

Installation of APBL

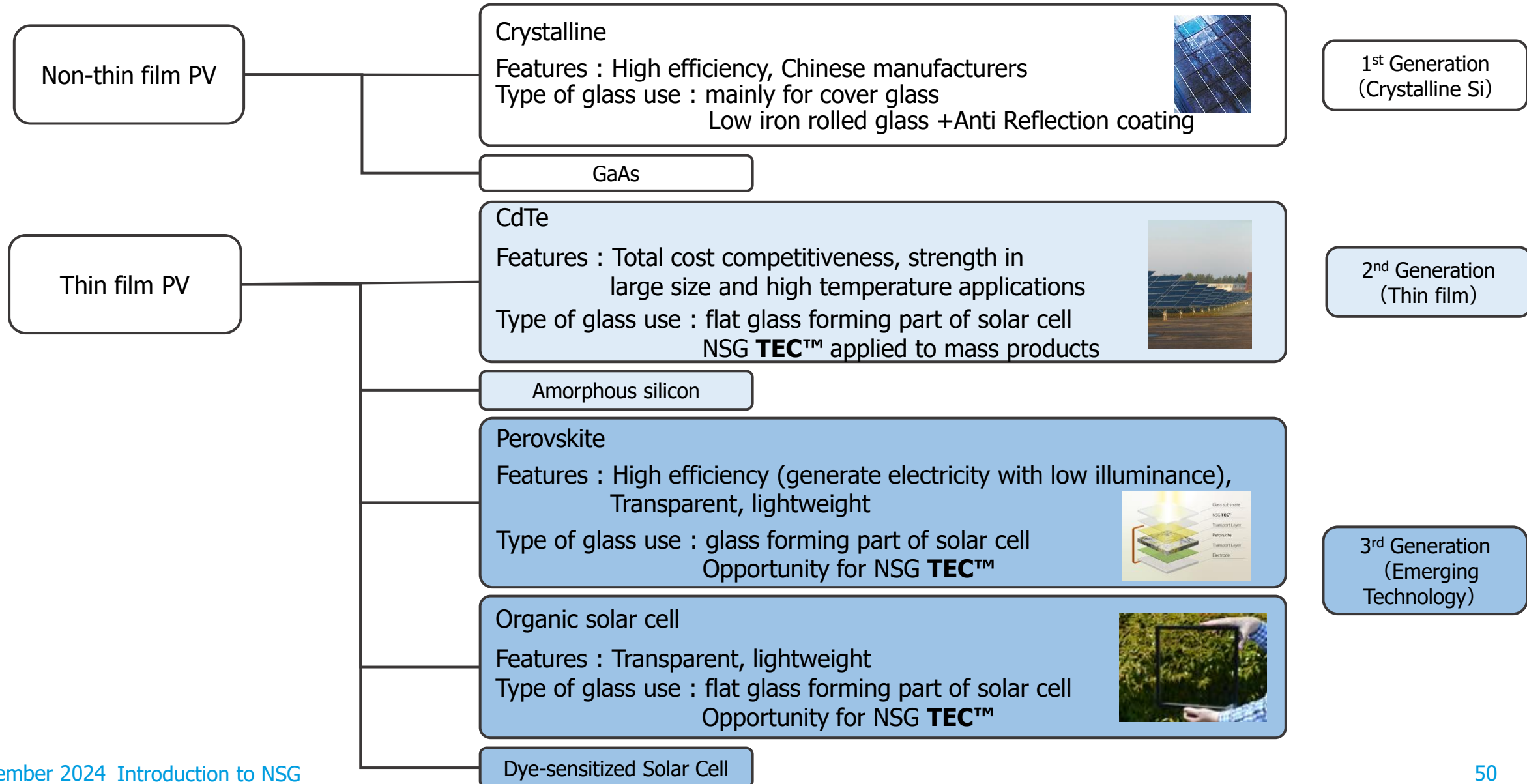


*1 APBL: Advanced Press Bending for Laminated Glass

*2 ADAS: Advanced Driver Assistance System

*3 HUD: Head Up Display

Solar Panels & Glass



Energy-saving Regulations

Growth opportunities with stricter energy-saving regulations

- In response to heightening calls for CO2 emission reduction, governments across the globe have been tightening building energy-saving regulations and introducing zero-emission building targets.
- Behind in energy saving, the private sector including offices and houses are now adopting more functional windows such as triple glazing with low e coating instead of double glazing or single pane windows. Windows equipped with photovoltaics (BIPV) may pave its way into buildings soon.

<Zero Energy Building Targets>

Japan (Commercial buildings)

- 2030: All new buildings
- 2050: Net zero of total of all buildings

Japan (Houses)

- 2030: Solar power generation equipment installation for 60% of new houses
All new houses
- 2050: Net zero of total of all houses

USA

- 2030: All new commercial buildings
- 2050: All commercial buildings

EU

- 2050: All buildings



BIPV (Building Integrated Photovoltaics)



Spacia™
(Vacuum glazing)

Shares Information

History Data

		FY2015/3	FY2016/3	FY2017/3	FY2018/3	FY2019/3	FY2020/3	FY2021/3	FY2022/3	FY2023/3	FY2024/3
Numbers of shares outstanding (common on stock*)	K	903,551	903,551	90,366	90,487	90,594	90,642	90,811	91,000	91,167	91,401
Earnings per share *1	¥	1.9	-55.2	62.0	48.3	115.2	-236.0	-208.3	24.1	-393.1	95.4
Book value per share *1	¥	194.6	114.1	941.8	1,042.7	978.5	470.9	349.7	1,256.0	723.8	1,021.3
Cash dividends Yen*1	¥	-	-	-	20	30	-	-	-	-	-
Stock price (High)	¥	149	142	951	1,080	1,315	965	613	785	761	882
Stock price (Low)	¥	94	64	600	743	767	282	257	362	360	492

*1: Effective as from 1 October 2016, the Company conducted a share consolidation in which every ten common shares

Dividend Policy

- Recognizing the distribution of profit to shareholders as one of its important management objectives, the Group has upheld a stable basic policy of declaring dividend payments on ordinary shares based on sustainable business results.
- Dividend payments by the Group will be determined in view of the enhancement of its financial status and accumulation of the appropriate level of retained earnings for future business growth.

Record date for dividend

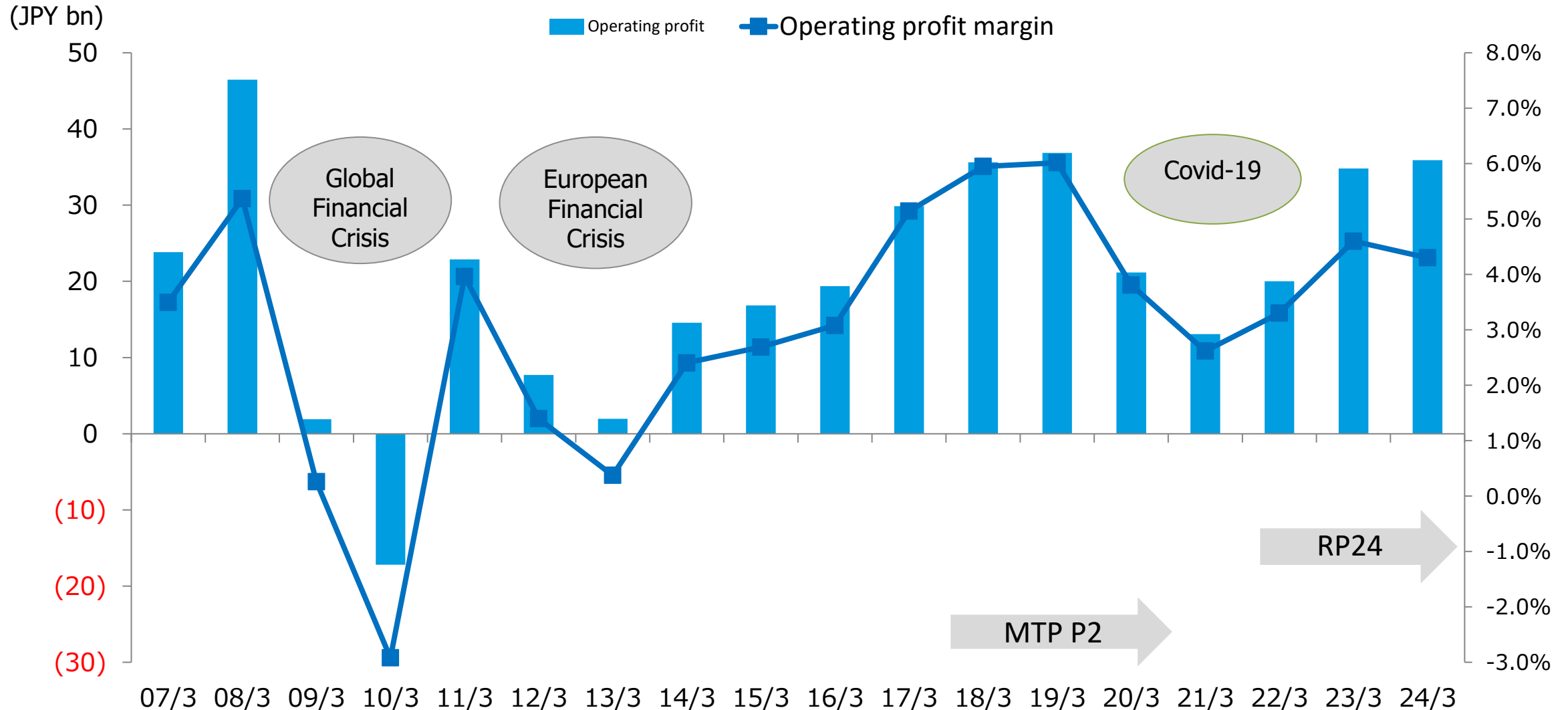
- 30 September, 31 March

Class A Shares Detail

Redeem Class A Shares at the earliest possible timing, while maintaining financial stability

Amount (No of Shares)		JPY40 billion (40,000 shares) *Number of outstanding shares after redemption as of March 2024: 30,000 (Issued value: JPY30,000m)				
Planned Allottees (Amount & No of shares)		Japan Industrial Solutions Fund II		JPY20 billion (20,000 shares)		
		UDS III Corporate Mezzanine Limited Partnership		JPY10 billion (9,000 shares)		
		UDS IV Corporate Mezzanine Limited Partnership		JPY10 billion (11,000 shares)		
Voting Rights		None				
Preferred dividend rate (Cumulative)		31 March 2017 ~ 31 March 2018		4.5%		
		1 April 2018 ~ 31 March 2020		5.5%		
		1 April 2020 ~		6.5%		
Call option (Comp- any's option)	Consi- deration	Cash	Put option (Planned Allottees' option)	Consi- deration	Ordinary Shares	
	Redemp- tion	1 April 2018 or later		Redemp- tion	1 July 2020 or later, unless conversion restriction removal reason exists *A conversion restriction removal reason occurred on 22 May 2020	
	Redemp-tion Amount per share	Paying-in amount per share + cumulative accrued dividend amount + daily prorated accrued preferred dividend amount + redemption premium		No. of Ordinary Shares to be Issued per Class A Share	(Paying-in amount per share X ordinary share redemption premium) / acquisition price	
		<Redemption premium>			<Ordinary share redemption premium>	
		1 April 2017 ~ 30 June 2017			: 1.05	
		1 July 2017 ~ 30 June 2018			: 1.08	
		1 July 2018 ~ 30 June 2019			: 1.15	
		1 July 2019 ~ 30 June 2020			: 1.22	
		1 July 2020 ~ 30 June 2021			: 1.29	
		1 July 2021 ~ 30 June 2022			: 1.36	
1 July 2022 ~	: 1.43					
Design		• The Planned Allottees may exercise their put option for 4,000 or less Class A Shares, when the Company notifies the exercise of its call option for the entire outstanding Class A Shares.				

Operating Profit & Operating Profit Margin



Financial Data (1)

(JPY, x, %)

		FY2015/3	FY2016/3	FY2017/3	FY2018/3	FY2019/3	FY2020/3	FY2021/3	FY2022/3	FY2023/3	FY2024/3
Revenue	¥ bn	626.7	629.2	580.8	598.9	612.8	556.2	499.2	600.6	763.5	832.5
Architectural		252.9	262.6	237.7	238.0	247.3	233.7	215.5	281.8	365.9	371.8
Automotive		314.0	316.3	296.6	314.4	314.6	281.0	245.2	276.2	354.7	417.6
Technical Glass (Creative Technology)		58.7	49.5	46.1	48.4	49.1	40.1	36.8	39.8	38.8	39.9
Others		1.1	0.8	0.4	1.1	1.7	1.4	1.7	2.7	4.1	3.3
Operating profit	¥ bn	16.8	19.4	29.9	35.6	36.9	21.2	13.1	20.0	34.8	36.1
Architectural		17.0	24.6	27.0	26.2	25.8	17.3	15.7	28.1	33.6	29.1
Automotive		9.4	9.8	12.7	14.2	15.1	6.1	1.8	-7.9	4.1	11.3
Technical Glass (Creative Technology)		4.9	0.3	1.8	5.4	8.1	7.1	6.7	9.9	8.7	7.1
Others		-14.5	-15.3	-11.6	-10.2	-12.1	-9.4	-11.1	-10.1	-11.5	-11.5
Operating profit ratio to revenue	%	2.7%	3.1%	5.1%	5.9%	6.0%	3.8%	2.6%	3.3%	4.6%	4.3%
Architectural		6.7%	9.4%	11.4%	11.0%	10.4%	7.4%	7.3%	10.0%	9.2%	7.8%
Automotive		3.0%	3.1%	4.3%	4.6%	4.8%	2.2%	0.7%	-2.9%	1.1%	2.7%
Technical Glass (Creative Technology)		8.4%	0.5%	3.8%	11.2%	16.4%	17.7%	18.2%	24.9%	22.5%	17.9%
Exceptional items	¥ bn	5.5	-35.1	2.9	-1.3	-7.1	-24.0	-22.0	3.6	-45.2	0.1
Financial expenses (net)		-17.9	-18.2	-19.2	-14.6	-13.3	-11.8	-11.0	-12.5	-17.4	-36.7
Share of JVs associates		0.4	-3.4	1.1	2.4	6.2	1.1	2.7	7.5	7.3	9.9
Income before income taxes/Profit before taxation		4.8	-37.4	14.8	22.1	22.7	-13.5	-17.2	11.9	-21.9	17.6
Net income/Profit attributable to owners of the parent	¥ bn	1.7	-49.8	5.6	6.2	13.3	-18.9	-16.9	4.1	-33.8	10.6

Financial Data (2)

(JPY, x, %)

		FY2015/3	FY2016/3	FY2017/3	FY2018/3	FY2019/3	FY2020/3	FY2021/3	FY2022/3	FY2023/3	FY2024/3
Assets	¥ bn	920.1	812.1	790.2	788.6	761.9	765.2	825.0	939.3	951.4	1,007.6
Interest-bearing debt		442.7	437.0	399.4	372.7	371.5	435.0	471.7	467.9	495.1	506.5
Shareholders' equity		175.7	103.1	124.1	135.2	123.8	73.6	62.9	145.3	97.0	124.3
Called up share capital		116.4	116.4	116.5	116.5	116.6	116.6	116.6	116.7	116.8	116.9
Net debt		374.1	381.0	313.3	306.5	317.7	390.2	411.8	365.2	407.9	447.5
EBITDA		57.8	60.3	62.1	63.6	64.7	55.0	46.8	56.7	75.0	75.0
Net debt/EBITDA		6.5x	6.3x	5.0x	4.8x	4.9x	7.1x	8.8x	6.5x	6.5x	6.5x
Net debt/Equity ratio		2.0x	3.4x	2.3x	2.1x	2.4x	4.4x	5.2x	2.2x	2.2x	2.2x
Shareholders' equity ratio	%	19.1%	12.7%	15.7%	17.1%	16.2%	9.6%	7.6%	15.5%	15.5%	15.5%
Net cash flows from operating activities	¥ bn	24.6	21.8	30.4	34.7	29.0	30.4	21.1	45.1	48.5	58.8
Net cash flows from investing activities		-23.2	-26.4	-10.2	-17.9	-28.1	-56.9	-25.6	-22.8	-34.6	-43.5
Cash flow before financing activities		1.4	-4.6	20.3	16.8	0.9	-26.4	-4.5	22.3	13.9	15.3
Capital expenditures		36.6	28.2	28.0	30.6	32.2	67.0	43.3	28.6	40.9	58.2
R&D costs		8.2	9.8	8.5	9.1	9.4	9.0	8.3	7.7	9.1	9.9
Depreciation and amortization		41.7	40.9	32.2	29.4	27.9	34.8	35.8	36.7	40.2	45.9

Financial Data (3) – Exchange rate trend -

Average rates used

(JPY)

	FY2015/3	FY2016/3	FY2017/3	FY2018/3	FY2019/3	FY2020/3	FY2021/3	FY2022/3	FY2023/3	FY2024/3
GBP	177	181	142	147	146	138	139	153	163	182
EUR	139	132	119	130	129	121	124	130	141	157
USD	110	120	108	111	111	109	106	112	135	144
BRR	44.5	33.5	32.8	34.4	29.4	26.4	19.7	21.0	26.3	29.4
ARS	13.10	11.35	7.22	6.30	-	-	-	-	-	-

※ Closing rates are applied – hyperinflation for ARS from 19/3

Closing rates used

	FY2015/3	FY2016/3	FY2017/3	FY2018/3	FY2019/3	FY2020/3	FY2021/3	FY2022/3	FY2023/3	FY2024/3
GBP	178	161	139	150	144	133	152	160	165	191
EUR	130	127	119	132	124	119	130	136	145	163
USD	120	113	111	106	111	108	111	122	133	152
BRR	37.3	31.1	35.3	32.1	28.3	20.8	19.1	25.5	26.2	30.4
ARS	13.66	7.69	7.24	5.30	2.53	1.68	1.20	1.10	0.64	0.18

FX Sensitivity

Increase (decrease) if the value of the yen depreciates by 1%
(all other things being equal):

	FY2024/3
Equity	JPY 3.8 bn
Loss for the period	Improve by JPY 1.0 bn

Revenue & Operating Profit – Quarterly Trend

