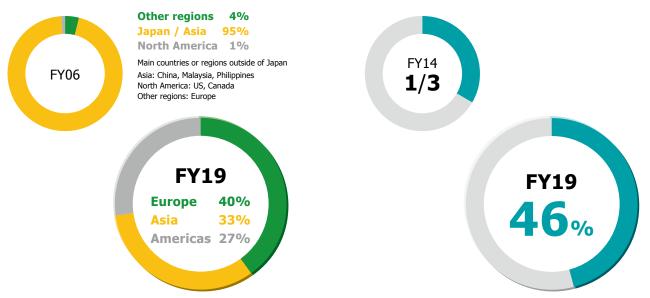
NSG GROUP TIMELINE

-Accelerating globalization and VA transformation-

NSG Group celebrated its 100th anniversary in 2018. Since our founding in 1918, we have continued to embrace the business spirit of the 400-year-old Sumitomo Group and tap into the potential of glass as a material in pursuing the creation of comfortable living spaces. With the 2006 acquisition of the major UK glass manufacturer Pilkington plc, we became one of the world's largest companies in the flat glass industry. After the global financial crisis and the

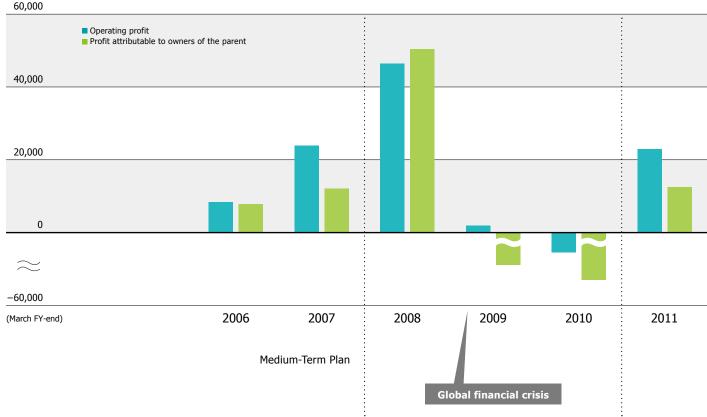
Global sales weightings

Change in VA transformation

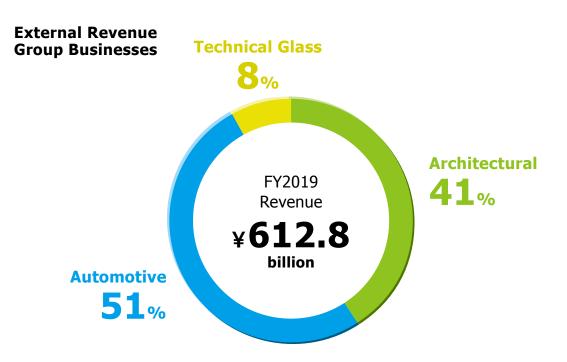


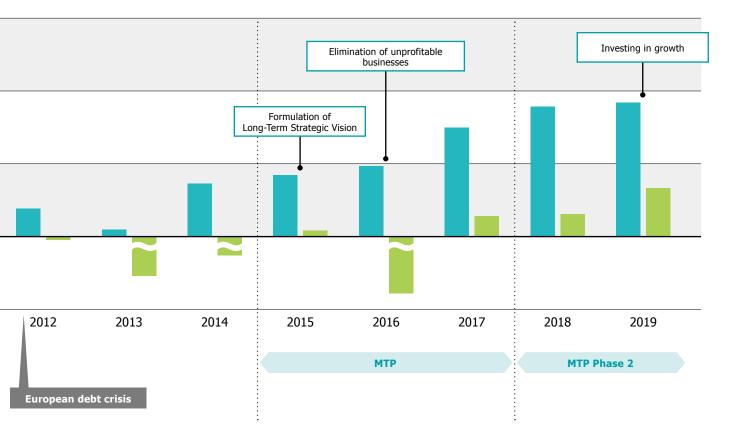
Business Results

(unit: ¥ mn)

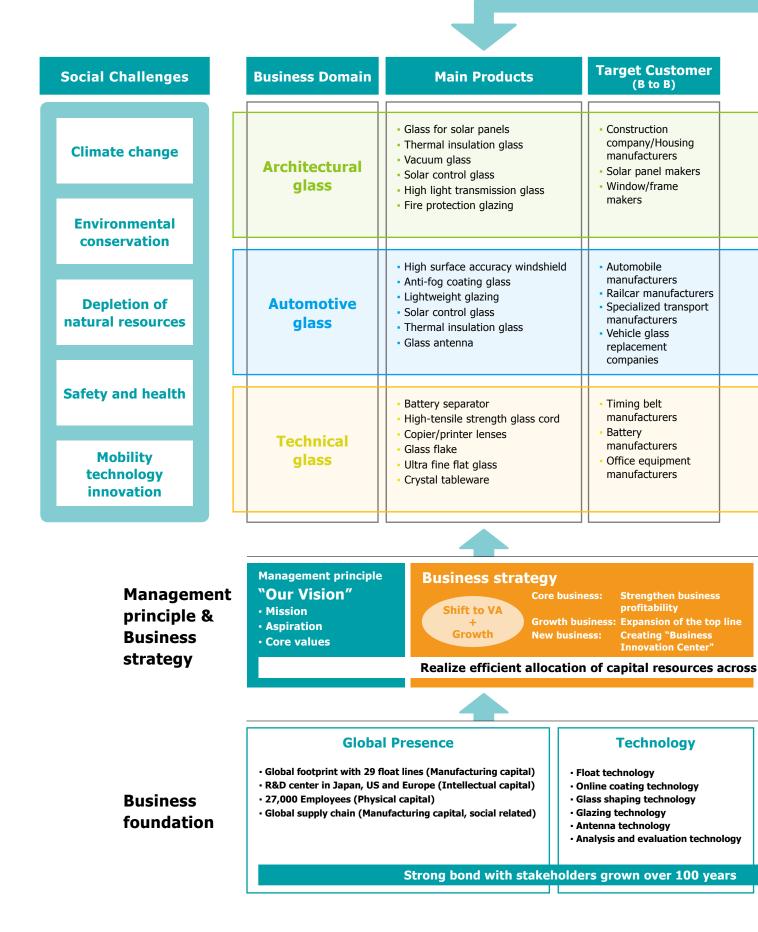


European debt crisis, we launched the Medium-Term Plan (MTP) in FY2015 with the goal of realizing a shift to Value-Added (VA) products based on the Long-Term Strategic Vision of "transforming into a VA glass company". Since the launch of the MTP, earnings have gradually improved owing to efforts to expand VA sales, ongoing efficiency improvements, and cost-cutting measures. As a result, we chalked up six straight years of operating profit growth to FY2019.





VALUE CREATION PROCESS OF NSG GROUP





Outcome MTP phase2 Financial Performance Attain MTP targets 1. Establish financial sustainability 2. Transform into a VA glass company Financial targets 4. Net debt/EBITDA ratio: 3 6. ROS > 8% Guideline

- Shareholders' equity ratio: 20%
- ROE: 10%
- The VA ratio of sales: > 50%
- ¥50-¥60 billion in trading profit

Sustainability strategy

Sustainability Policy Identifying and addressing material issues for NSG Group and stakeholders

the global business structure

Core Values

- Respect others and unleash their potential
- Exemplify trust and integrity
- Ensure efforts to serve society
- Take the initiative
 Embrace challenges and learn
- from failure

Follow through to get results

Corporate Governance

(Company with a committee governance structure, separation of execution and management, and oversight by mostly independent external directors, Corporate Governance Guidelines)

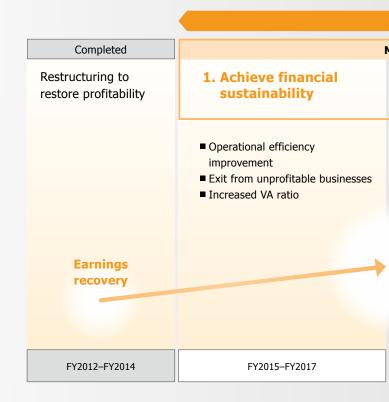
STRATEGY & SUSTAINABILITY

Strategy

Currently executing MTP Phase 2 to achieve the Long-Term Strategic Vision of "transforming into a VA Glass Company"

NSG Group is currently executing Phase 2 of the Medium-Term Plan (MTP), which will end in FY2020 with the goal of achieving the Long-Term Strategic Vision of "transforming into a VA Glass company". Key targets of the MTP are to achieve financial sustainability and start the transformation into a VA glass company.

The targets announced in the FY2020 forecast are not expected to be fully achieved. Key targets of MTP Phase 2 (achieving financial sustainability and starting the transformation into a VA Glass Company) are unchanged and we will continue to do what is required to transform our business structure under the policy of "Shift to VA + Growth".



Sustainability

Building a favorable relationship with key stakeholders, including shareholders, investors, customers, employees, suppliers and local communities, is critical to our sustainable business activities.

The ongoing efforts to realize sustainability are integral to reducing costs and expanding market opportunities. At NSG Group, sustainability targets are set by the Sustainability Committee which determines the material issues based on the input by key stakeholders and the impact of corporate activities on the economy, environment and society. By achieving the sustainability targets, the Group aims to build a favorable relationship with key stakeholders, including shareholders, investors, customers, employees, suppliers and local communities.





Sustainability targets (See pages 48-49 for target details)

Safety

Waste

Energy and CO₂

Sustainable Value-Added Products

Responsible Sourcing

Employees

Ethics and Compliance

VA Glass Company

Less susceptible to economic cycles

More profitable

VA = Value-Added

PROGRESS ON KEY MEASURES

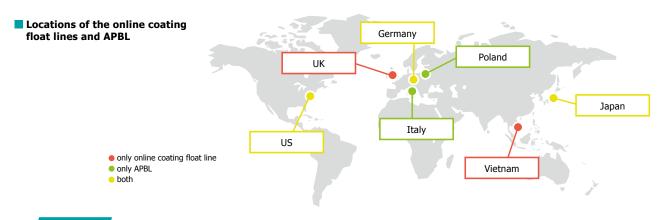
Drive VA No. 1 Strategy

 Achieving competitive advantages with focus on growth areas and technology

NSG Group is focused on the production of VA products by developing a wide range of proprietary technologies. The online coating process for depositing a transparent conductive oxide (TCO) on the surface of high-temperature glass during or immediately after fabrication is well-suited to volume production of highly durable TCO glass used in solar panels and other applications.

The high-precision press method for automotive glass not only expands the possibilities of design when molding complex shapes such as windshields, but also contributes to the manufacturing of high surface accuracy glass required for use with driver-assistance systems such as Head-Up Displays or collision-avoidance cameras.

NSG Group is also building a VA No.1 position in various other fields; For example, with Optiwhite[™], a highly transparent new composition glass, and in the domain of technical glass used in precision equipment.



Establish Growth Drivers

Smart windows to improve energy efficiency in buildings

In the US, more and more office buildings and airport terminals are installing smart windows that employ electrochromic materials to control the tint and opacity of glass when an electric current is applied. Smart windows help conserve energy use and improve indoor environments without the use of blinds by automatically adjusting the contrast of the glass based on the amount of sunlight.



The Boston Logan Airport installation, Electrochromic windows by View, Inc. with NSG Group TEC™ glass

8

Creating renewable energy with BIPVs

NSG Group agreed to jointly develop architectural window glass capable of generating solar power by harnessing the ClearView Power™ technology of US-based Ubiquitous Energy, a leader in transparent solar power technology. The company's coating technology allows renewable energy to be generated from Building-Integrated Photovoltaics (BIPVs).



Pilkington Sunplus™ BIPV Vision

Sales launch of PicoGene[®] PCR1100

The PicoGene® PCR1100 is a portable gene testing device that can be used anywhere, not just in the lab. It was developed for the purpose of enabling convenient and fast on-site primary screening of pathogenic bacteria in food, such as E. coli or the norovirus.



PicoGene® PCR1100



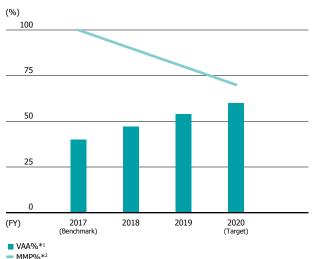
Business Culture Innovation

 —Improving productivity of automotive glass processes by enhancing manufacturing excellence

Finding ways to enhance manufacturing excellence forms part of NSG Group's business culture innovation. One example of this is how we enhanced production efficiency by drastically reducing inefficiencies at our automotive glass manufacturing sites and improving the ratio of Value-Added activities performed by all workers. We have improved in both indicators that measure efficiency: VAA^{*1} is the percentage of a person's Value-Added work hours and MMP^{*2} is the number of person-hours required to produce one piece of glass.



Glass production efficiency indicators



*1 The percentage of working hours accounted for by Value-Added labor. Calculated as Value-Added Operation divided by total work time. A higher value indicates

greater efficiency.
*2 The time required to produce one piece of glass. Calculated as total person-hours divided by number of sheets manufactured. A lower value indicates greater efficiency. The FY2017 data serves as the benchmark (100) in the index graph.



Enhance Global Management

 Four shared service centers around the world consolidate our global business processing

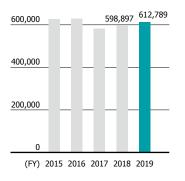
We have established shared service centers in Poland, Japan, China and Brazil for the purpose of streamlining business processing and other operations at our main manufacturing sites located in roughly 30 countries. The shared service centers contribute to more efficient operations by delivering accounting, procurement, information systems, personnel, and strategic business unit services, at each site.



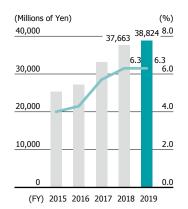
FINANCIAL HIGHLIGHTS

Revenue

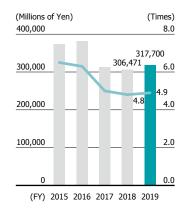
(Millions of Yen) 800,000



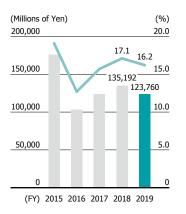
Trading profit^{*1} Return on sales^{*2}

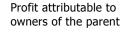


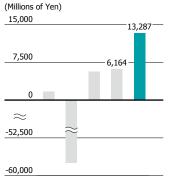
Net debt Net debt / EBITDA



Shareholders' equity Shareholders' equity ratio

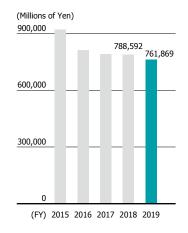


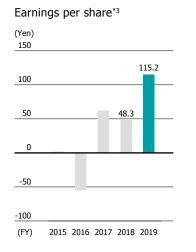


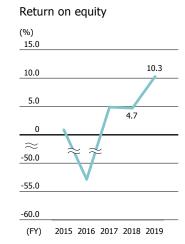


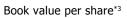
(FY) 2015 2016 2017 2018 2019

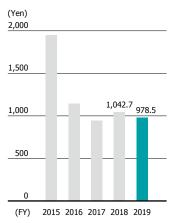
Total assets











*1 Operating profit before the amortization of intangible assets arising on the acquisition of Pilkington plc

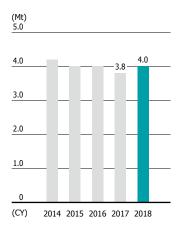
*2 Trading profit

*3 Effective October 1, 2016, the Company conducted a share consolidation in which every ten common shares were consolidated into one share. The per-share data has been adjusted retrospectively to reflect the share consolidation for all periods presented.

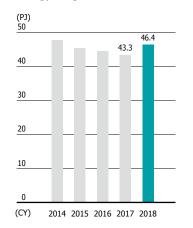
The data for FY2018 and past years are restated as a result of adopting IFRS 15 'Revenue from Contracts with Customers.'

NON-FINANCIAL HIGHLIGHTS

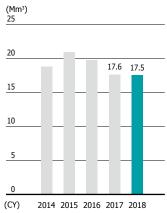
CO₂ emissions



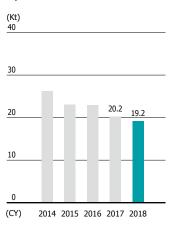
Energy usage

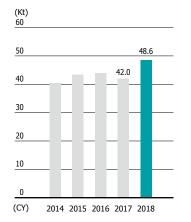


Water usage

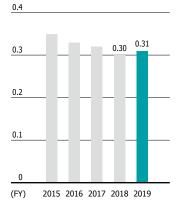


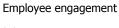
Operational waste to landfill*4 Recycling (not glass)

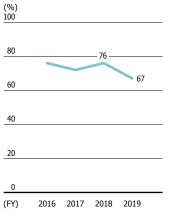




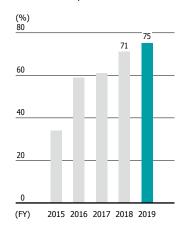
Significant injury rate (SIR)



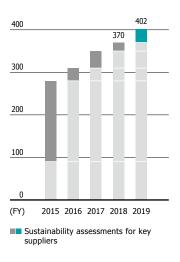




SCoC*5 acceptance rate



Supplier sustainable assessment



*4 Indicates total amount of glass and non-glass landfill waste *5 Supplier Code of Conduct

Value Creation Story