

Newsletter for shareholders

AGC Review

Vol. 39

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AGC



Focus

AGC's Material Technology Supporting 5G: Next-Generation High-Speed Communication



Representative Director, President and CEO
Yoshinori Hirai

Looking back on the first half of 2021

In the first half of 2021, there was significant growth in both revenue and earnings compared to the same period of the previous year thanks to factors such as favorable market conditions for architectural glass and chlor-alkali products in Southeast Asia, and increases in the shipments of automobile glass and the number of contracts in the Life Science business. Regarding ordinary dividends, we have revised our interim and year-end dividend forecasts upward in response to the strong performance. We also plan on sending out a special dividend for the temporary earnings from the transfer of the North America architectural glass business.

This year, the AGC Group has started its new medium-term management plan, *AGC plus-2023*, to further pursue "Organizational ambidexterity" that will deepen core businesses and allow an exploration of strategic businesses. Other primary strategies we have set include promoting sustainability management and strengthening competitiveness by accelerating digital transformation (DX).

The AGC Group is aiming to increase corporate value over the medium to long term by steadily implementing the strategies set forth in the medium-term management plan.

Highlights of the Group's Financial Results, First Half of FY2021

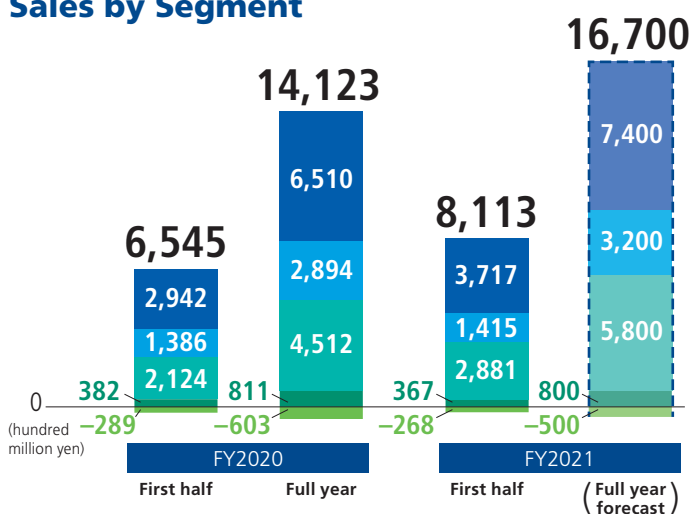
Net sales

811.3 billion yen
(24% YOY increase)

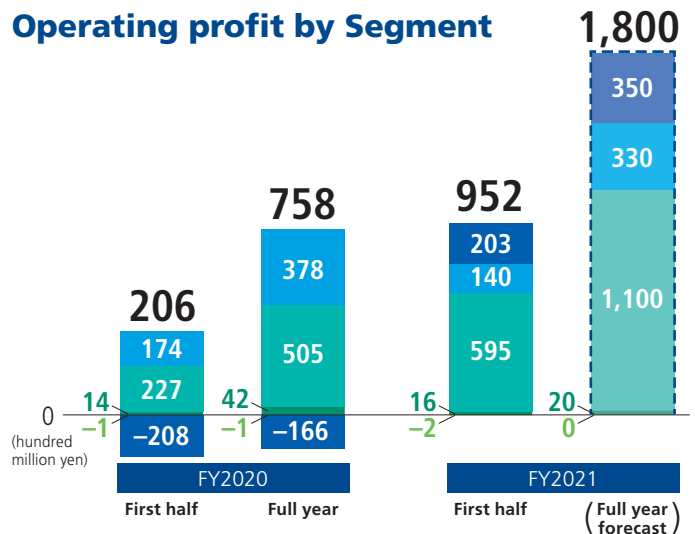
Operating profit

95.2 billion yen
(362% YOY increase)

Sales by Segment



Operating profit by Segment



Segment: Glass, Electronics, Chemicals, Ceramics & Others, Elimination or Corporate

Payment of Dividends

	2019	2020	2021 forecast
Payment of Dividends	120 yen	120 yen	210 yen*

* Interim: Ordinary dividend of 80 yen
Year-end (planned): Ordinary dividend of 80 yen, special dividend of 50 yen
The year-end dividend will be officially decided upon and carried out through a resolution of the General Meeting of Shareholders scheduled for March 2022.

Overview by Segment

Glass

YOY growth in both sales and profit

Shipments of architectural glass decreased in Japan compared to the same period of the previous year, but are on a recovery trend in other regions, with particularly large increases in Europe and Indonesia. Additionally, sales prices have increased in South America and Europe. Though there has been an impact due to semiconductor shortages, automotive glass has shown a recovery trend similar to architectural glass, with shipments increasing in all regions. Throughout all glass businesses, manufacturing costs have decreased and the operating rate of manufacturing facilities has improved, primarily in Europe, thanks to the recovery of demand.

Electronics

YOY growth in sales, decrease in profit

In the field of displays, shipments of glass substrates for LCDs remained steady compared to the same period of the previous year, but shipments of special glass for displays increased. For electronic materials, shipments of optoelectronic materials remained steady compared to the same period of the previous year, but shipments of semiconductor-related products increased. However, the electronics business was also impacted by an increase in depreciation costs and foreign exchange due to factors such as the launch of new equipment for glass substrates for LCDs and semiconductor-related products.

Chemicals

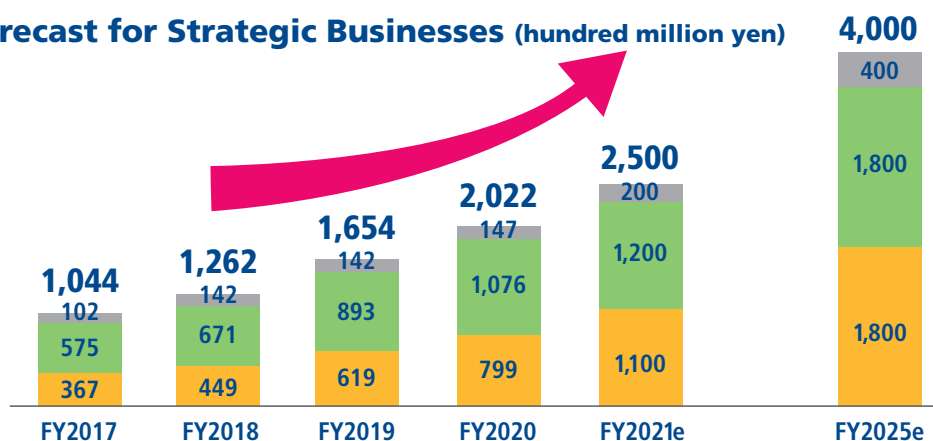
YOY growth in both sales and profit

For chlor-alkali/urethane, sales prices of PVC have increased significantly in Southeast Asia. For the fluorochemicals and specialty, shipments of fluorine-related products for automobiles, etc., have been on a recovery trend. Regarding life science, in addition to an increase in the number of contracts for both synthetic pharmaceuticals/agrochemicals and biopharmaceuticals, we have also gained contracts for biopharmaceutical coronavirus-related products.

Progress in Strategic Businesses

Sales Trend Forecast for Strategic Businesses (hundred million yen)

■ Mobility
■ Electronics
■ Life Science



Strategic Business Operating Profit	FY2017	FY2018	FY2019	FY2020	FY2021e	FY2025e
	142	244	331	444	550	1,000

(hundred million yen)

For our strategic businesses, we have been leveraging our strengths and working to create and expand highly profitable businesses that will become future pillars. As a result, we are seeing our business performance expanding at a pace higher than initially expected and thus have revised upward the business outlook for the current fiscal year.

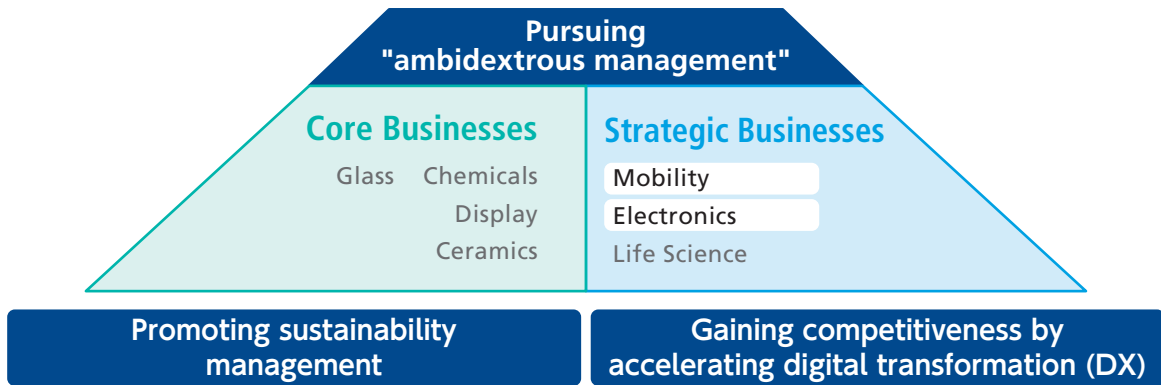
Regarding initiatives for expanding our strategic businesses, in the Life Science business we started operation of a biopharmaceutical active ingredient manufacturing plant in Colorado, US, which we acquired from AstraZeneca last year. In the Mobility business, in China we established and began operation of a new manufacturing plant for cover glass for car-mounted displays with large 3D and complex shapes.

Medium-Term Management Plan *AGC plus-2023*

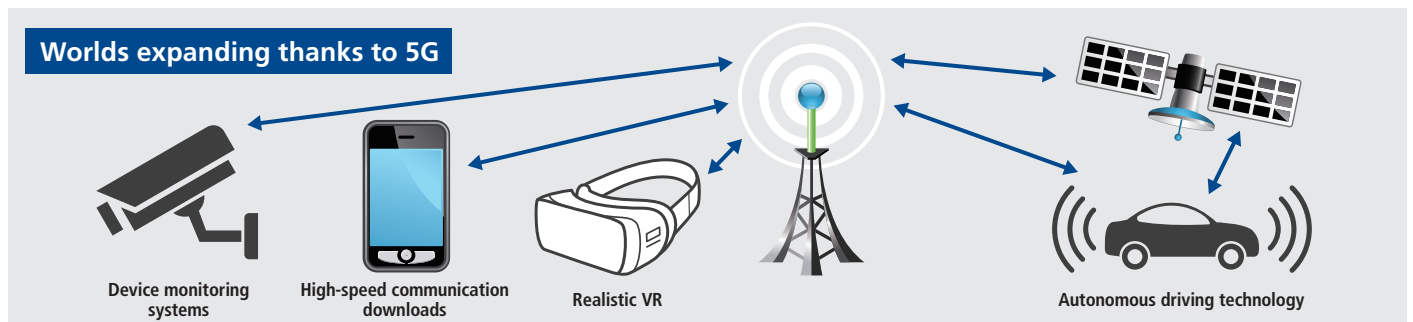
The AGC Group is promoting the medium-term management plan *AGC plus-2023* in an effort to realize "Vision 2030".

This time, we will be focusing on 5G technology, which is closely related to our Mobility and Electronics strategic businesses.

AGC plus-2023 Strategy



What is 5G?

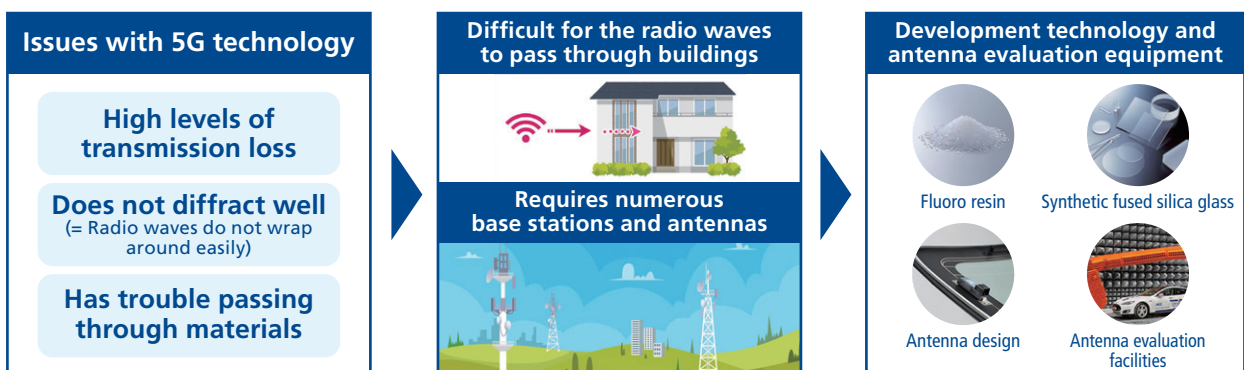


5G is the 5th Generation Mobile Communication System, which is a communication standard used for communication of mobile phones, etc.

Compared to 4G, which has been used up to this point, large-capacity communication, reduced communication delays, and multiple, simultaneous connections are possible, and there are high expectations for use in IoT fields such as device monitoring and smart cities, as well as in autonomous driving control and VR/AR.

Why are AGC materials and technology useful?

5G radio waves use a high frequency band, which has the characteristics of high levels of transmission loss, high levels of straightness, difficulty diffracting, and difficulty passing through buildings. For these reasons, it is said that the radio waves have a short range and that numerous base stations and antennas are required. AGC handles materials with extremely low transmission loss that can solve the issues with 5G, and these materials are attracting attention as materials for 5G antennas. Additionally, we have the development technology and antenna evaluation facilities for automobile glass antennas that have been cultivated over many years, and can provide not only the antennas themselves, but also AGC's materials and technologies that take into consideration the space in which they are applied.



Example Applications of AGC's 5G Technology

By combining special materials suitable for 5G with its exceptional antenna design technology, AGC will contribute to the construction of 5G networks in various ways.

We are currently developing space-saving antennas that blend into the space they are in, as well as antennas for automobiles and smartphones, and peripheral materials, some of which are already available for purchase. The day in which our lives change forever might have arrived.

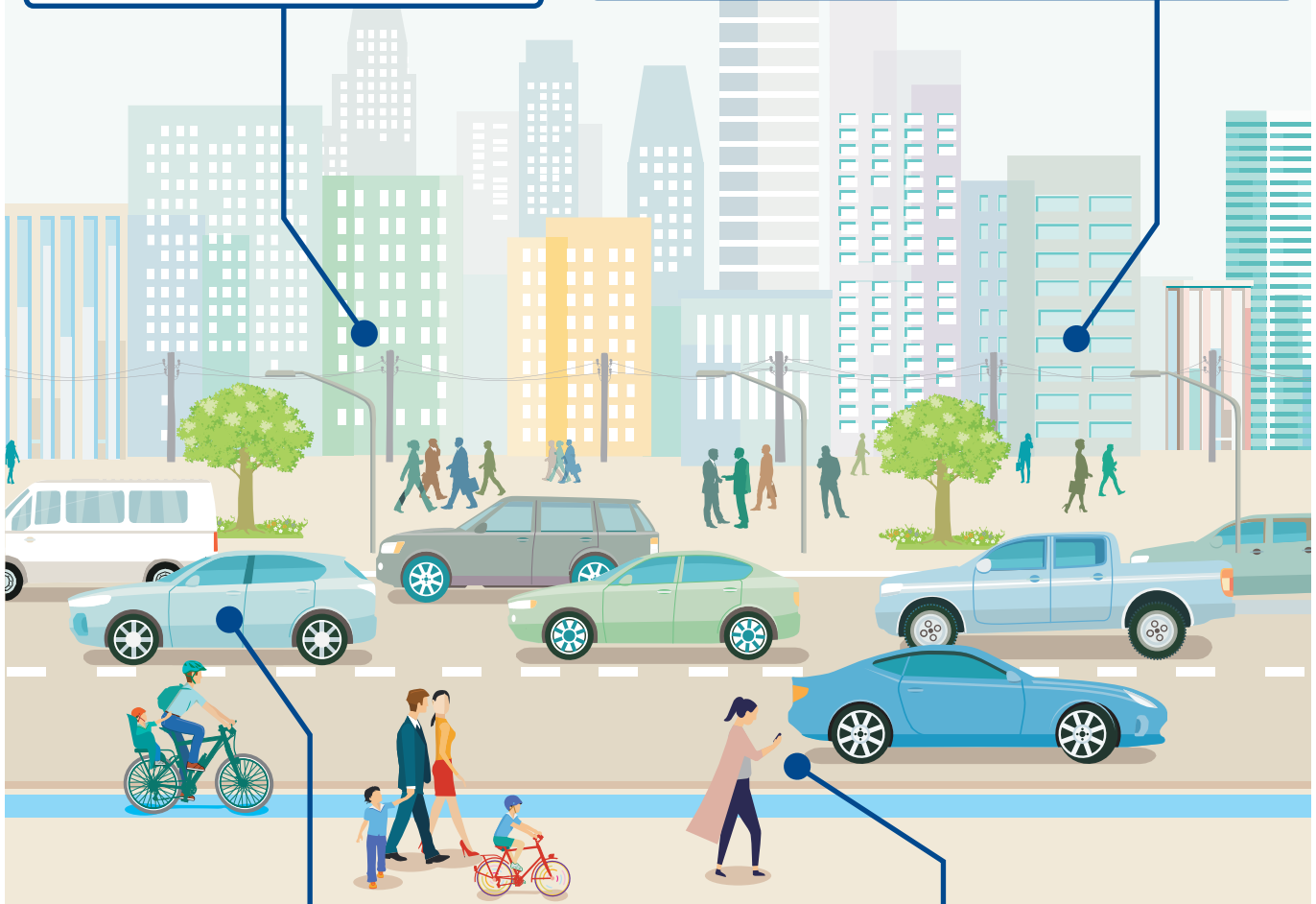
Flexible antennas installed on utility poles and walls

- By combining our materials with our antenna design technology, we can realize ultra-low transmission loss characteristics, light weight, and flexibility
- Contributes to design and a reduced use of space regarding base station antennas



Glass antennas installed on windows

- The world's first glass antenna capable of transmitting and receiving radio waves. Can turn a window into a base station simply by attaching it to the window glass of a building
- By taking advantage of the transparency of glass, it does not spoil the landscape or interior design



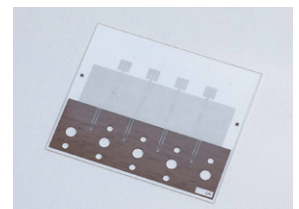
Antennas for connected vehicles

- Realizes 5G high-speed communication up to 8 Gbps when driving at speeds of approx. 100 km/h and 11 Gbps when driving at speeds of approx. 30 km/h
- Difficult to see from the outside, so it does not spoil the design of the vehicle



Transparent antennas used for smartphones, etc.

- 5G high-frequency transparent antennas that do not spoil the display quality of high-definition displays
- Made possible by combining antenna design technology and material evaluation technology, which can provide sufficient performance even with minute wiring that is difficult to see



Here we talk about the AGC Group's commitment to sustainability.

Topic

Adding an energy creation function to glass, contributing to a carbon-zero reality

Photovoltaic glass Sunjoule™ adopted by the Global Zero Emission Research Center

Sunjoule™ has been adopted for the entrance canopy of the Global Zero Emission Research Center, which was established to create epoch-making environmental innovations. Sunjoule™ is an integrated photovoltaic module in which photovoltaic cells are enclosed between laminated glass. The sense of openness combined with heat-shielding performance makes the best use of the characteristics of glass, and the ability to freely arrange cells allows for high levels of design. Recently, environmental considerations are being demanded in a variety of settings, and Sunjoule™ is helping contribute to the realization of a carbon-free society.



Topic

Responding to increasing demand for pharmaceuticals, contributing to the realization of healthy societies all around the world

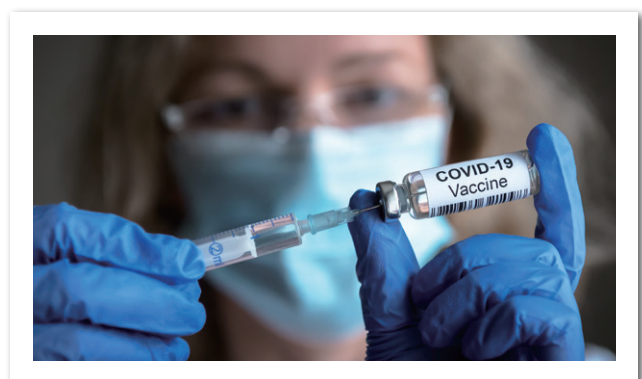
Contract manufacturing of plasmid DNA for coronavirus vaccines

AGC Biologics, a subsidiary of AGC, has been commissioned by BioNTech to manufacture the Pfizer-BioNTech COVID-19 vaccine. This plasmid DNA*1 order being undertaken by AGC Biologics will be a raw material for BioNTech's mRNA-based vaccine*2. The Pfizer-BioNTech COVID-19 vaccine has been approved through a fast-track process in numerous countries, including Japan, and the vaccine rollout is progressing.

The AGC Group takes responsibility for manufacturing active ingredients and raw materials for therapeutics and vaccines for the coronavirus, and we will continue contributing to prevent the spread of COVID-19 and end the epidemic.

*1 Plasmid DNA: DNA that is used to carry a target gene into cells. Also used for mRNA production.

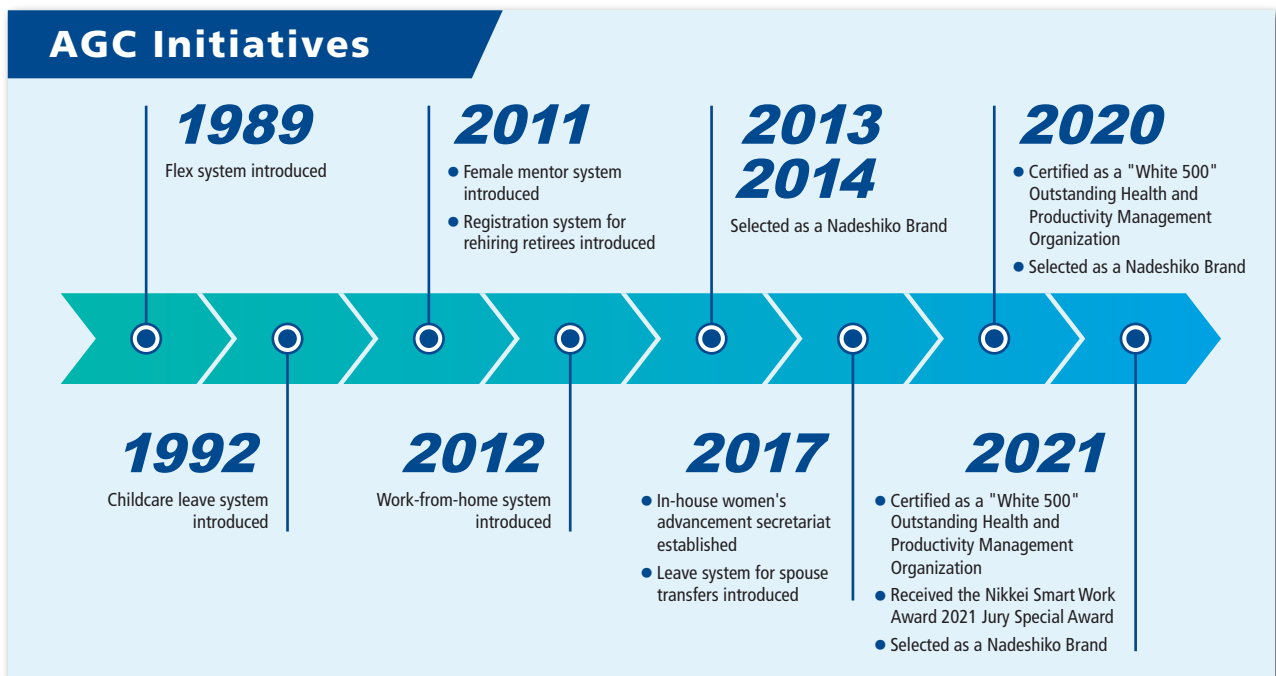
*2 mRNA vaccine: A vaccine that induces immunity by administering mRNA, which is a design schematic of a portion of the proteins of a virus.



Selected as a "Nadeshiko Brand" and "'White 500' Outstanding Health and Productivity Management Organization"

The AGC Group is undertaking various initiatives with the aim of creating systems and an environment in which a diverse range of personnel can work comfortably. In recognition of these activities, we have been selected as both a Nadeshiko Brand and a "White 500" Outstanding Health and Productivity Management Organization in Japan.

AGC Initiatives



What is a Nadeshiko Brand?

Stock brands selected by the Ministry of Economy, Trade and Industry (METI) of Japan for their promotion of the advancement of women. The purpose is to introduce listed companies that excel at promoting the advancement of women as stocks that are attractive to investors, promoting investment in said companies and accelerating the efforts of those companies.



What is a "White 500" Outstanding Health and Productivity Management Organization?

A system for recognizing companies that are practicing good health management, based on the health promotion efforts promoted by METI and the Nippon Kenko Kaigi*.



* Nippon Kenko Kaigi: An active organization based around extending the healthy life expectancy of each and every citizen and implementing effective activities regarding appropriate medical care.

Corporate Outline

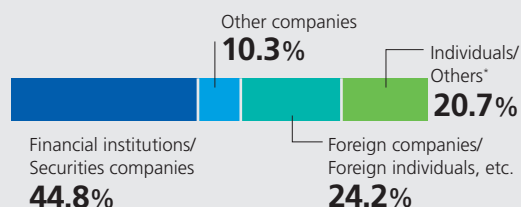
Company name: AGC Inc.
Founded: September 8, 1907
Incorporated: June 1, 1950
Capital: ¥90,873,373,264
Head office: Shin-Marunouchi Building, 1-5-1 Marunouchi,
 Chiyoda-ku, Tokyo 100-8405
Phone: +81-3-3218-5096
Number of consolidated subsidiaries: 207
 (including 170 companies overseas)

State of Shares

Number of shares outstanding: 227,441,381
Number of shareholders: 78,225
Shareholders who own shares of one unit or more: 68,967

Shareholder Composition

(Shareholders who own one unit or more)



*Including 2.5% treasury shares

Information about Shares

Fiscal year: January 1 to December 31
Ordinary general shareholders' meeting: March
Shareholder registration date for entitlement to exercise:
 Voting rights at ordinary general shareholders' meeting: December 31
 Rights to receive annual dividend payment: December 31
 Rights to receive interim dividend payment: June 30
Public notice: Electronic public notices
<https://www.agc.com/en/>
Shareholder Registrar/Special Account Administrator:
 Securities Agency Division, Mitsubishi UFJ Trust and Banking Corporation
 Contact:
 Phone: 0120-232-711 (toll free within Japan)
 Mailing address:
 P.O. Box 29, Shin Tokyo Post Office, Tokyo 137-8081
 Securities Agency Division, Mitsubishi UFJ Trust and Banking Corporation

Payment of dividends:

As stated in the Articles of Incorporation, dividends not claimed within five years from the starting date of payment are no longer payable. We therefore urge shareholders to claim all payable dividends at the earliest convenient date. Dividends that the shareholder has not received will be paid at the Mitsubishi UFJ Trust and Banking Corporation.

To shareholders owning shares constituting less than one unit:

Shareholders owning shares constituting less than one unit (1-99 shares) of AGC may request AGC to purchase such shares/sell additional shares. For the details of such procedures, including requests for necessary forms, please notify the following place of contact.

Contact Information for Inquiries Regarding Shares

Shareholders who have an account with securities companies, etc.	Shareholders who have a special account
Securities companies or other entities with which you have an account	Mitsubishi UFJ Trust and Banking Corporation (our Special Account Administrator) Phone: 0120-232-711 (toll free within Japan)

(As of June 30, 2021)

Note concerning information about the future

Please note that statements made in this document concerning projected figures, future measures, and other information about the future involve uncertainties.