The AGC Group New Medium-term Management Plan

AGC plus-2023



AGC Inc.

February 5, 2021



Moving into the 2nd Phase of Vision 2025

Evolve AGC's ambidextrous management and accelerate the transformation of its business portfolio.

Your Dreams, Our Challenge

The AGC Group strives to ensure that it's unique materials and solutions will continue providing value to its customers and society as a whole.

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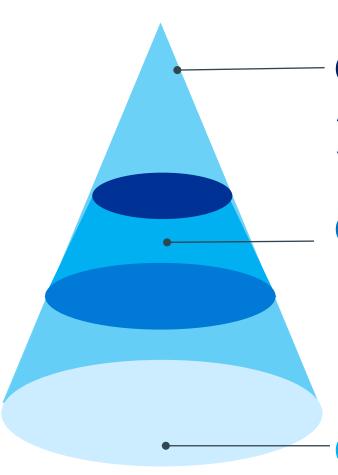
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Vision 2030

AGC Group Vision "Look Beyond"





Our Mission

AGC, an everyday essential part of our world AGC's unique materials and solutions make people's lives better around the world every day.

Our Shared Values

- **◆ Innovation & Operational Excellence**
- Diversity
- Environment
- Integrity

Our Spirit

Never take the easy way out, but confront difficulties.

New Management Policy, AGC plus 2.0



The AGC Group adds a "plus" by

- Providing safety, security, and comfort to society,
- Creating new value and functions for customers and business partners and building trust with them,
- Enhancing job satisfaction among employees,
- Increasing the Group's corporate value for investors, and
- Building a better future for coming generations.

Long-term Social Issues



- AGC views social issues as follows, which have remained unchanged since the launch of Vision 2025.
- Greater importance is placed on climate change and other sustainability issues as well as response to a rapid DX shift.

Long-term social issues

- Developing social infrastructure
- Achieving a safe and comfortable mobility
- Addressing food crises
- Building an info-intensive and IoT society
- Facilitating better health and longevity

- Addressing climate change
- Effective use of resources

- Creating a socially and environmental-conscious supply chain
- Ensuring fair and equal employment and workplace safety
- Considering relationships with local communities and the environment

Long-term Management Strategy Vision 2030 AGC

Vision 2030

By providing differentiated materials and solutions, AGC strives to help realize a sustainable society and become an excellent company that grows and evolves continuously.

Concept for Realizing Vision 2030



■ While the basic strategy remains the same as the previous longterm strategy, we will place more focus on social value creation.

Group-wide Strategy

With both core and strategic businesses as drivers, AGC will keep optimizing business portfolio and create economic and social value continuously.

Core Businesses

Heighten the competitiveness of each business and build robust profit foundations that have long-term stability

Strategic Businesses

Focusing on high-growth fields, utilize our strengths to create and expand high-profit businesses that will become our future pillars

AGC Group Strength: we can provide differentiated materials to growth industries that will underpin future society.

Relationships with and trust of clients throughout society and across a broad range of industries

Differentiated materials and technologies

Production technology and process development capabilities

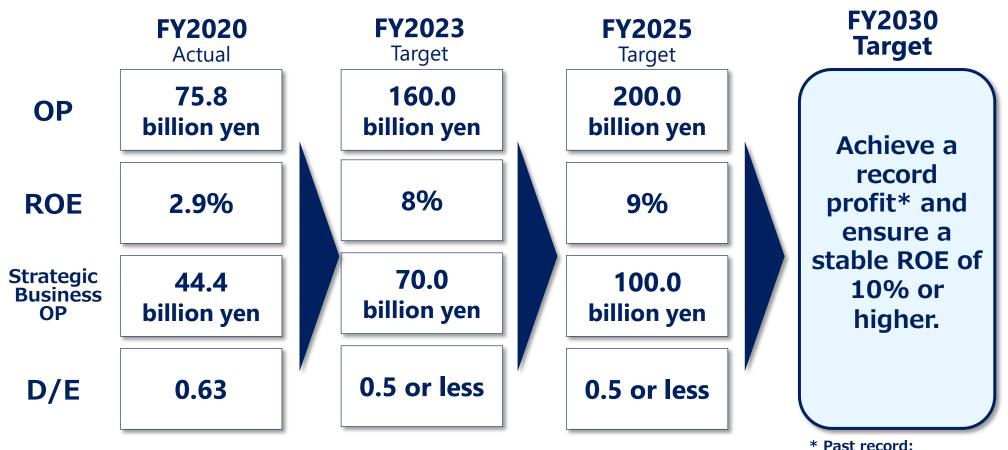
Globally integrated management that unites diverse personnel

Corporate culture that encourages ambitious initiatives

Financial Targets under Vision 2030



■ By 2030, AGC will achieve a record profit and ensure a stable ROE of 10% or higher.



* Past record: OP 229.2 billion yen in2010

Social Value the AGC Group Wants to Create



■ Through its business activities, AGC will create social value in the following five areas to help solve social issues.

Contributing to the realization of safe and comfortable urban infrastructure

Contributing to the realization of safe and healthy lifestyles

Contributing to the realization of a sustainable global environment

Contributing to the maintenance of a healthy and secure society

Contributing to the creation of fair and safe workplaces

Work toward the sustainability goals in all business activities

Major Opportunities

- Developing social infrastructure
- Achieving a safe and comfortable mobility
- Addressing food crises
- Building an info-intensive and IoT society
- Facilitating better health and longevity

- Addressing climate change
- Effective use of resources

Major Risks

- Creating a socially and environmental-conscious supply chain
- Ensuring fair and equal employment and workplace safety
- Considering relationships with local communities and the environment



Review of Medium-term Management Plan *AGC plus-2020*

AGC plus-2020 Key Issue and Outcome



Key issue

A portfolio reform was needed for ROE improvement as a high % of businesses were of low asset efficiency or affected by market fluctuations.

Major strategies

Strengthen high-value-added businesses that are resilient to market fluctuations

Promote growth strategies of strategic businesses

Concentrate management resources in growing and winnable regions

Achieve sustainable growth through strategic M&A

Outcome



Growth was seen in strategic businesses but not enough for the group as a whole.



Electronics and Life Science grew beyond the expectation



Chlor-alkali business steadily expanded in S.E. Asia



A number of issues remained to be solved in the glass business



M&A of Chemicals (Life Science/SE Asia) produced results.



PCB materials severely affected by US-China trade friction

AGC plus-2020 Summary by Segment



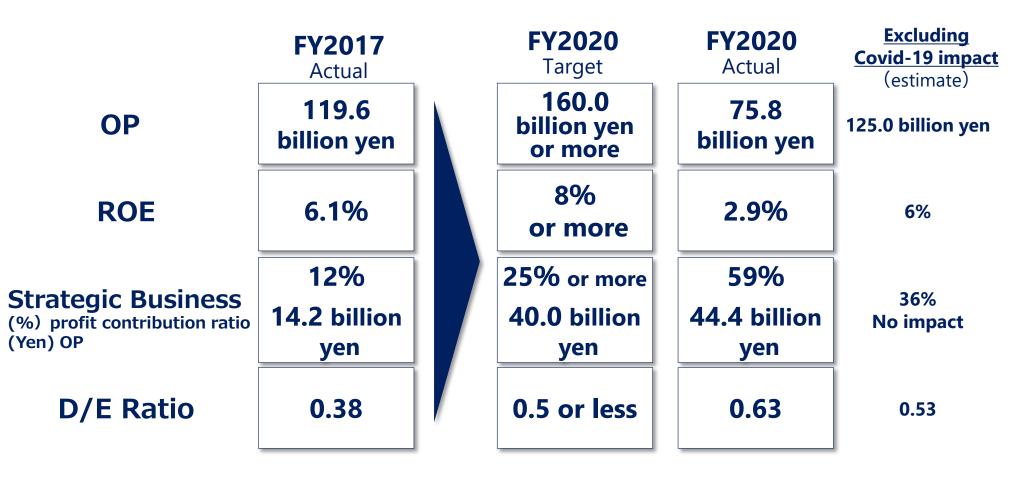
- Strategic businesses, not affected by Covid19, grew beyond the expectation.
- Architectural glass & automotive glass, affected by Covid-19, left major issues to be solved.

Strategic Business	Electronics Life Science	 No major impact from Covid-19 Businesses expanded faster than expected, and maintained high asset efficiency at the same time
	Mobility	·Growth speed was slower than expected due to Covid-19 impacts
	Display	•Built a stable business foundation by capturing the growing demand in China
	Chlor-Alkali/ Urethane	 While caustic soda severely affected by Covid-19 and market deterioration, PVC remained robust Steadily captured growing demand in S.E. Asia and maintained the high margin though affected by Covid-19
Core Business	Fluorochemicals & Specialty	 Maintained the high margin except for Covid-19 impact Expanded the capacity of existing facilities for future growth
	Architectural glass Automotive glass	 Asset efficiency continued to be below the cost of capital partly because of Covid-19 impacts In addition to the plant relocation in Indonesia and new facility development in Morocco, facility repairs and other investments hindered cash generation and asset efficiency improvement

AGC plus-2020 Financial Targets



Although strategic businesses exceeded the expectation, the financial targets were unachieved.





New Medium-term Management Plan

AGC plus-2023

Strategies under AGC plus-2023



■ AGC will accelerate the following strategies toward Vision 2030.

Pursuing ambidextrous management

- •We will accelerate the growth in the strategic business area, and at the same time explore new business areas including those related to energy.
- In the core business, we will conduct a structural reform in the architectural glass and automotive glass businesses that need improvements in profitability and asset efficiency.
- •For other businesses in the core business area, we will strengthen their profit foundation and cash generation.

Promotion of sustainability management

- Propelling materials innovation to help solve social issues
- Aiming for net-zero carbon in 2050
- Strengthening human resources and group-wide governance



Gaining competitiveness by accelerating digital transformation

- Taking a transformation of the business model itself into consideration, leverage digital technologies to improve the process from product development to sales activities
- Use digital technologies to provide value to customers and society and gain competitiveness

AGC plus-2023 Financial Targets





OP

75.8 billion yen

ROE

2.9%

Strategic Business OP

44.4 billion yen

D/E Ratio

0.63

FY2023 Target

160.0 billion yen

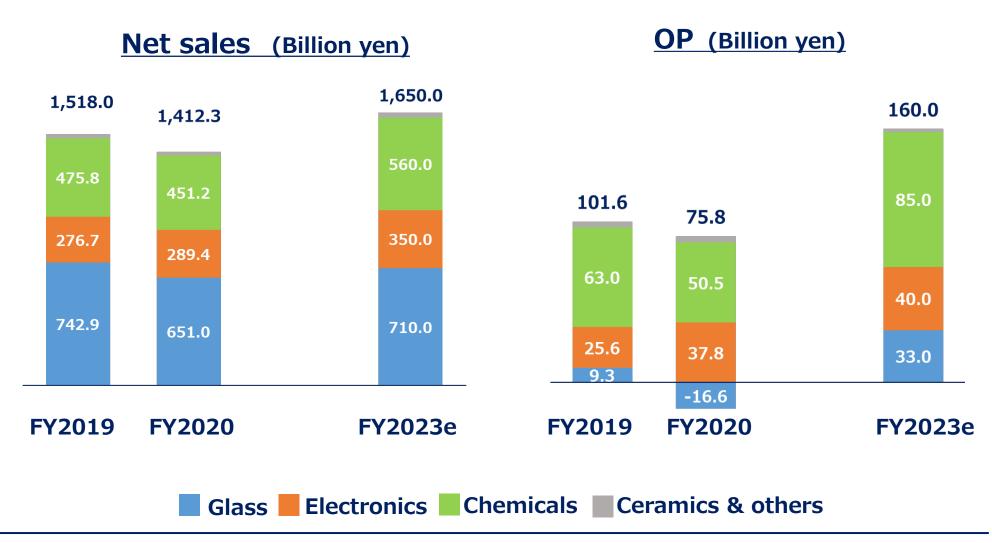
8%

70.0 billion yen

0.5 or less

AGC plus-2023 Performance by Segment







New Medium-term Management Plan

AGC plus-2023

- Pursuing ambidextrous management
- Promotion of sustainability management
- Gaining competitiveness by accelerating digital transformation

AGC plus-2023 Key Issues by Segment



		<u>Business</u>	<u>Key issues</u>		Directi
		Electronics	Expand value-added products including EUV photomask blanksConstantly generate new businesses		Furthe accelera growth
	Strategic Business	Life Science	•Expand business through timely investments •Achieve high growth based on its global operation		
		Mobility	•Steadily capture business opportunities amid market changes in the CASE era •Starting mass production of car mounted display glass in China to contribute to profit increase.		
E		Display	•Respond to the continuing demand increase in the Chinese market to build a long-term stable business foundation		Unchang from th previou basic
		Chlor-Alkali	•Further strengthen the business foundation in S.E. Asia through capacity enhancement in Thailand and Indonesia		
	Core Business	Fluorochemi cals & Specialty	 Capture the demand in global niche markets by adding value to products and domain expansion Change environmental problems to business opportunities 	1	strategi
		Architectural glass Automotive glass	 Minimize investments and increase asset efficiency Steadily pursuing productivity improvement and cost reduction to improve profitability and capability for cash generation 		Accelera structui reforn

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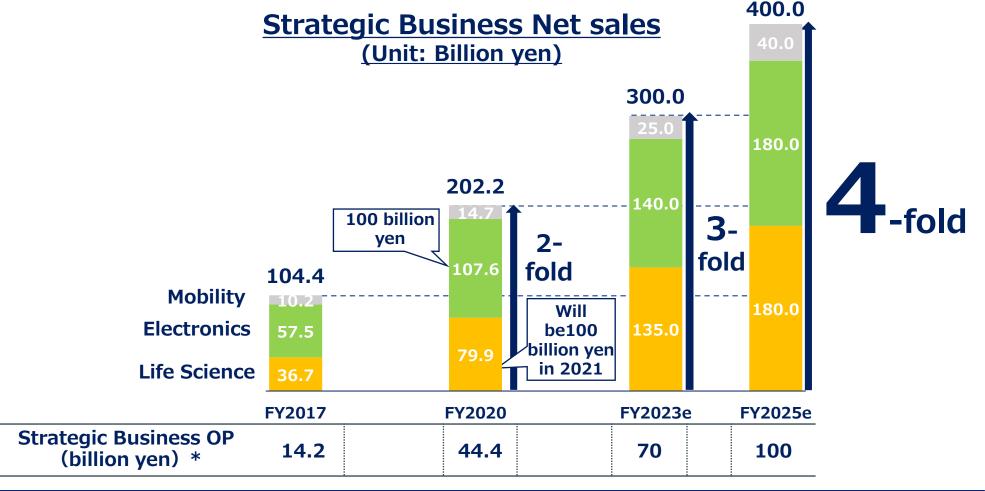
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Accelerate Growth of Strategic Businesses



- Electronics: Achieved net sales of 100 billion yen in 2020
- Life Science: Expected to achieve net sales of 100 billion yen in 2021
- OP: Expected to achieve 100 billion yen in 2025



^{*} Following the expansion of Strategic Businesses, the allocation standard for common expenses changed from OP ratio to budget sales ratio (retrospectively applied for 2020 and before)

Structural Reform in Architectural/Automotive Glass Businesses



■ AGC will promote a structural reform of the architectural glass and automotive glass businesses to improve the profitability.

Architectural glass

- •Structural reform that responds to the situation in each region
- Manufacturing system that correspond to demands
- ·Closed a furnace in Boussois (FRA)

Automotive glass

- High-efficient facilities for intensive manufacturing
- Focus on high-value added products
- Streamlining in Chuderice (CZE) and Seneffe (BEL)
- Streamlining in Europe and other regions to reduce general and administrative expenses
- •Investments to be kept at 80% of its depreciation costs or less

By 2023, we will reduce 15 billion yen*, mainly fixed costs, by promoting a structural improvement measures.

Project on Architectural Glass Structural Reform



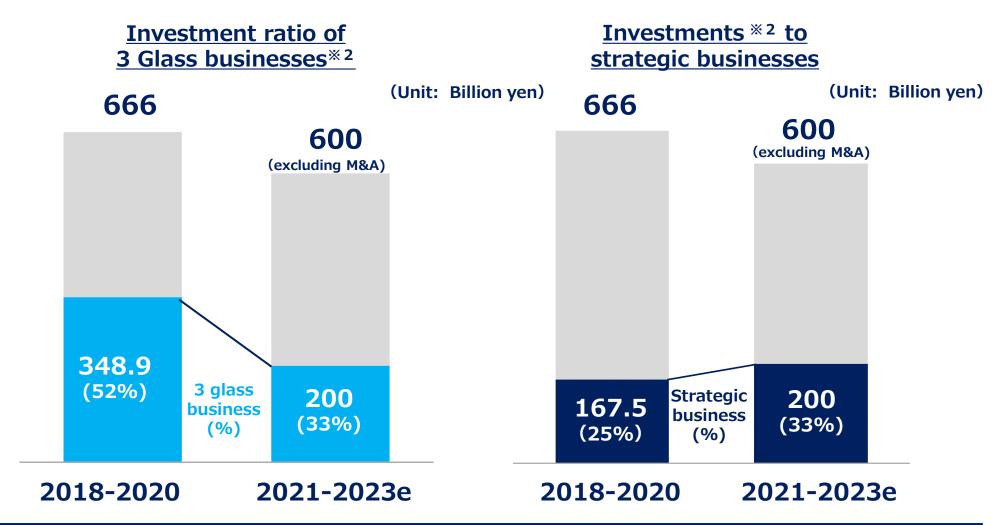
■ AGC will launch a project headed by the CFO to swiftly carry out structural reform.

Aim of the Project

Headed by its top management, AGC will swiftly implement structural reforms in a view of industrial realignment as an industry leader.

AGC plus-2023 Investment Resources Allocation AGC

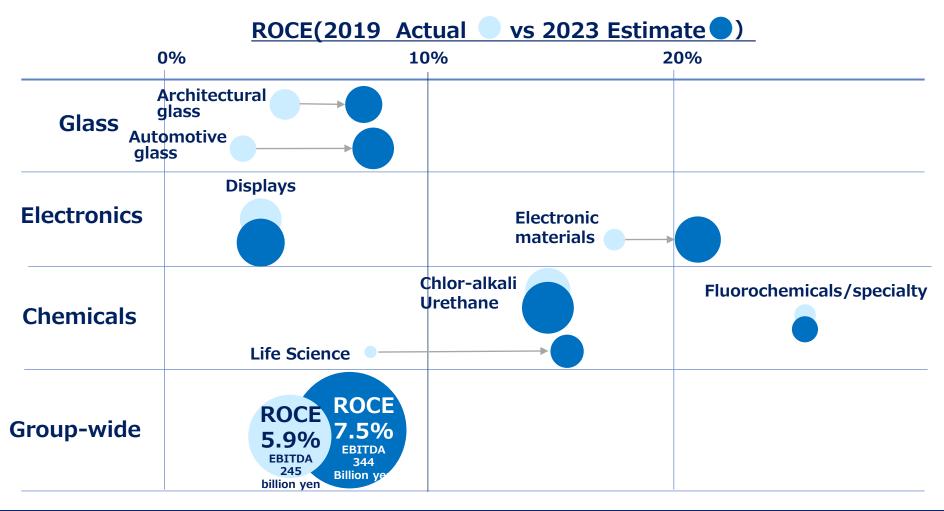
■ Strengthen investments in growth areas such as strategic businesses and reduce the investment ratio in the three glass businesses.**1



Business Portfolio Reform (ROCE) To-be Image



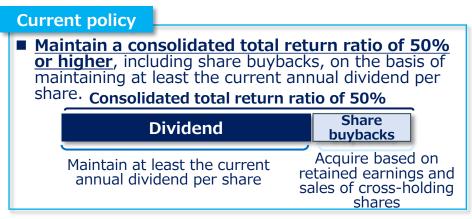
■ Improve ROCE to 7.5% from 5.9%, and EBITDA by approx. 100 billion yen (245 billion yen to 344 billion yen).

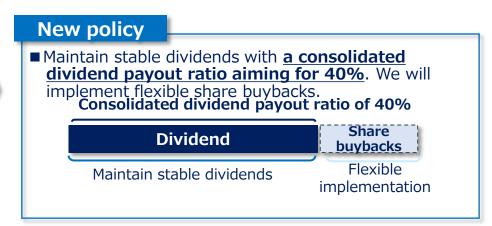


Change in Shareholder Return Policy

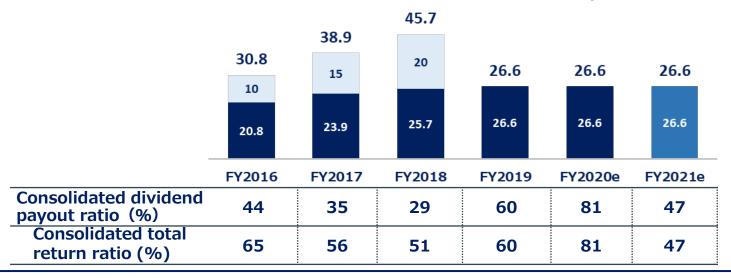


We will change our shareholder return policy to secure investment opportunities in growth businesses while maintaining mid/long-term financial soundness.





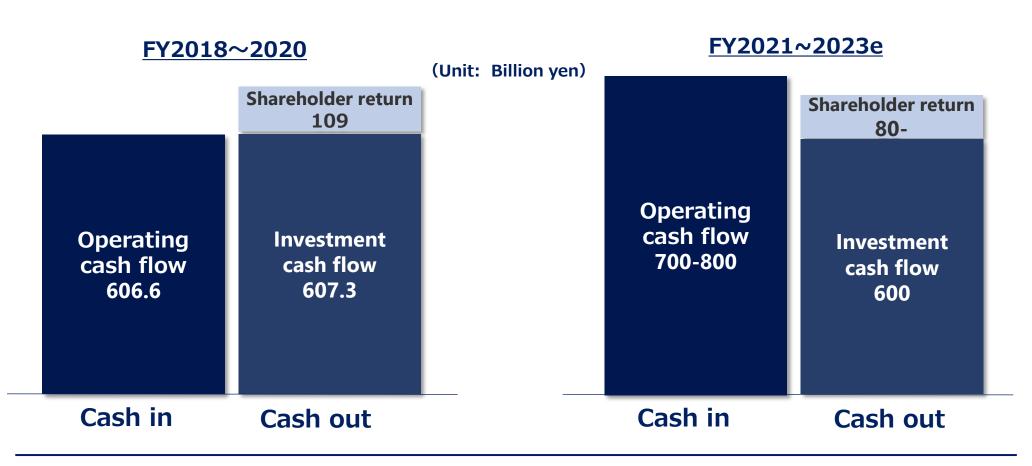
Shareholder return (Unit: Billion yen)



AGC plus-2023 Cash Flow Plan



- We will allocate cash mainly to businesses with high asset efficiency and growth business while securing financial soundness.
- We reduced cross-holding shares by approx. 110 billion yen in the past five years, with 85 billion yen during the previous medium-term plan. We will continue to achieve further reduction.





New Medium-term Management Plan

AGC plus-2023

- Pursuing ambidextrous management
- Promotion of sustainability management
- Gaining competitiveness by accelerating digital transformation

AGC Group's Sustainability Management



Propelling innovation in materials to help solve social issues

Since its foundation, AGC has been working to solve social issues in response to the demands of the times through long-term R&D and taking on the challenges of commercialization based on a relationship of trust with customers.



Through our unique materials and solutions, we will continue to fulfill Our Mission (Purpose) of "AGC, an everyday essential part of our world" and contribute to the realization of global and social sustainability.

Create social value through AGC's products, technologies and corporate activities



■ AGC and its various businesses conducted on the global scale create a wide range of social value.

Contributing to the realization of safe and comfortable urban infrastructure

Contributing to the realization of safe and healthy lifestyles

Contributing to the maintenance of a healthy and secure society

Contributing to the creation of fair and safe workplaces

Contributing to the realization of a sustainable global environment



Low-E glass for building



Pharmaceuticals(intermediate /active ingredients)



Relationship with local communities



Workplace safety





Agrochemicals (intermediate/ active ingredients)



Consideration for local environment



Diversity



Employee engagement



ETFE film for agricultural areen-houses



Human rights in supply chains

Continue to **Next slide**

Move on to the next stage for the realization of a sustainable global environment



- Expected to achieve the CO₂ reduction target set in 2014
- Aim to achieve net zero carbon in 2050

2014 2020 2030 2050

Reduce CO₂ emission six-fold in 2020*

2019 Actual:

5.6-fold reduction

AGC CO₂ emissions: 11,369k tons CO₂ emission reduction contribution : 63,700k tons





Next-generation low GWP fluorinated refrigerant

Net zero carbon in 2050

(Scope 1+2)

2030 milestone (from the 2019 figure)

- GHG emissions 30% reduction (Scope 1+2 emission)
- **GHG** emissions per unit of sales

50% reduction

(Scope 1+2emission/sales)

Initiatives to Achieve Net Zero Carbon



■ AGC strives for net zero carbon both in its business activities and in society.

Innovation in manufacturing process

Reduce emissions through technological innovation

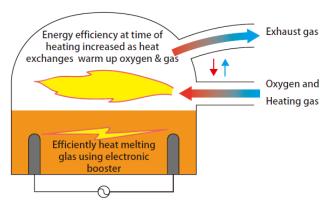
Contribution to CO₂reduction

Development and dissemination of products contributing to CO₂ reduction

Next-generation energy

Development and dissemination of products contributing to hydrogen/renewable energy

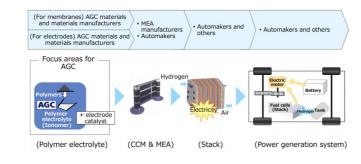
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■ Glass melting process

- Introduce energy-efficient oxygen combustion methods and electric melting boosters that will lead to reduced fuel consumption in the glass melting process
- · Accelerate the electrification of melting heat sources

- Vacuum glazing
- With Panasonic Corporation, developed vacuum insulated glass with the industry's highest class of insulation performance*.
- •Contributing to improved living environment in Europe that is the largest insulation glass market
- <u>Fluorine-based electrolyte polymers</u> for fuel cell membranes
- Used in the power generating system for FCV
- Overwhelming No.1 position with its high power generation and durability



New Medium-term Management Plan

AGC plus-2023

- Pursuing ambidextrous management
- Promotion of sustainability management
- Gaining competitiveness by accelerating digital transformation

Gaining competitiveness by accelerating digital transformation



■ We will advance and deepen our initiatives for each business process and promote digitalization of complex business processes towards the full realization of DX.

Expand and deepen initiatives for each business process



Latest DX

HR development

DX of complex business process based on customers and markets



Standardization and increased efficiency in any place including back office



2020

2023 target

2025 target

40 people

70 people



100 people

Advance Data science to solve problems of own team

Acquire methods and programing language

Elementary

General knowledge on data science

Develop personnel with both business knowledge (materials development, production, sales, distribution, etc.) and advance data analysis skills

1,600 people



3,500 people



5,000 people

Transform business models to gain competitiveness and provide new value to customers and society



Today's Summary

Mid/Long-term Management Strategies and Financial Targets



2021

Long-term strategy

Mid-term strategy

Financial Targets

Mid-/long-term

2023

2025

2030

2050

Group vision "Look Beyond"

Formulate a vision towards 2050 to solve climate change issues

Long-term management strategy Vision 2030

Management policy AGC plus 2.0

Transform to optimize business portfolio

Enhance non-financial capital (R&D, governance, HR)

Mid-term plan AGC plus-2023

Pursuing ambidextrous management

Promotion of sustainability management

Gaining competitiveness by accelerating digital transformation

OP	160 billion yen	
ROE	8%	
EBITDA	344 billion yen	
Strategic Business OP	70 billion yen	
D/E Ratio	0.5 or less	
GHG related targets		

200	bill	ion	yen

9%

450 billion yen

100 billion yen

0.5 or less

Stable at 10% or more

GHG emission
30% reduction
GHG emission/sales
50% reduction

Aim for net zero carbon



Reference

AGC plus-2023 Premise



Risk factors	Impact on OP	Rate used	Supplementary info
Dubai crude oil	300 million yen * loss if increased by 1 dollar per barrel	50USD	*excluding impact of oil hedging
Chemicals market	 Caustic soda: \$1 M loss if the international market down by \$1 PVC spread: \$1.2 M loss* if decreased by \$1 	_	*PVC spread: PVC market - (ethylene market×0.5)
Exchange rate	200 million yen*loss if yen appreciated by 1%	1USD =105 yen	*Impact when all currencies fluctuate at the same proportion against JPY

AGC plus-2023 Major investments and timeline for profit generation

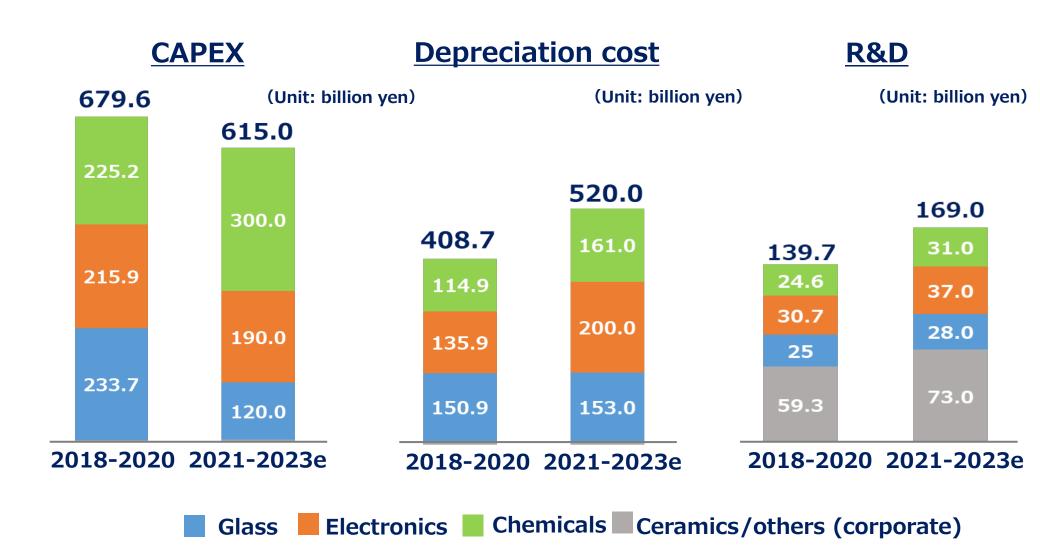


■ Major investments and profit generation

- Hajor investments and profit generation					
	2020	2021	2022	2023	2024~
Glass			China: New facility 1	or car-mounted displa	ay cover glass
	China: Relocate furnace for 11th generation TFT LCD glass substrates				
Electronics		China: Capacity enh	ancement for 11th gene	eration TFT LCD glass	substrates
			Japan: Drastic capaci	ty enhancement for E	UV photomask blanks
		Indonesia: PVC capa	city enhancement		
Chemicals			Thailand: Capacity er facilities	nhancement of Chlor-a	alkali electrolytic
		Japan: Capacity enh	ancement for fluorine p	products	
		U.S.A.(Seattle): Capa	acity enhancement for	bio pharmaceuticals	
		U.S.A.(Colorado): Ac	quired bio pharmaceut	cicals active ingredient	t plant of AstraZeneca
			Spain: Capacity enha	ncement for synthesis	s pharmaceuticals
				Denmark: Capacity e pharmace	
	Italy: Acquired Mole	ecular Medicine S.p.A,	a developer of gene/ce	ell therapy	

AGC plus-2023 Capex/Depreciation/R&D





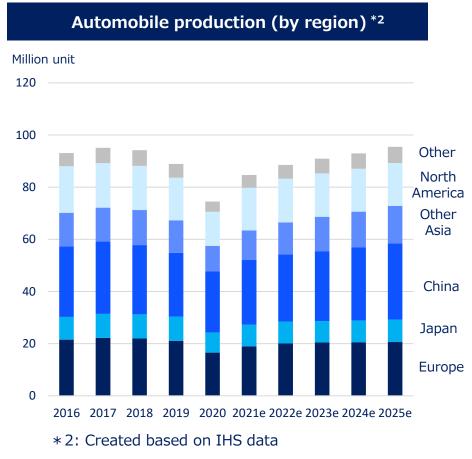
AGC plus-2023 Glass (market environment)



■ Demand for architectural/automotive glass will be back to the 2019 level in 2022.



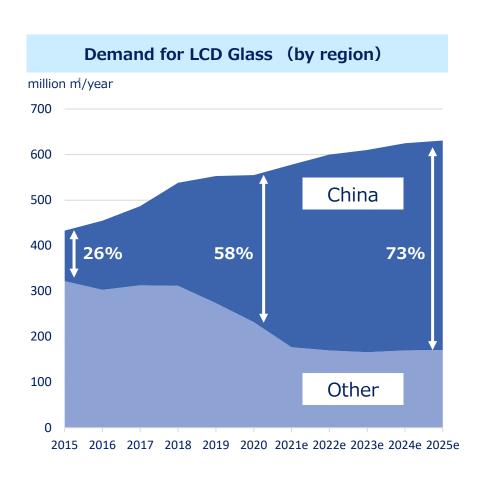


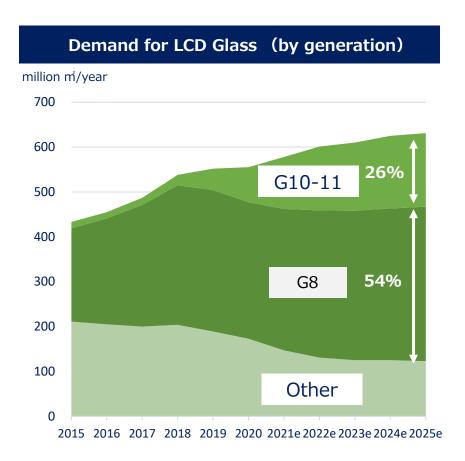


AGC plus-2023 Display (market environment)



- Demand in China will continue to expand until 2025
- Enhance capacity to respond to growing demand for G11 in China





Source: AGC's estimate

AGC plus-2023 Electronics

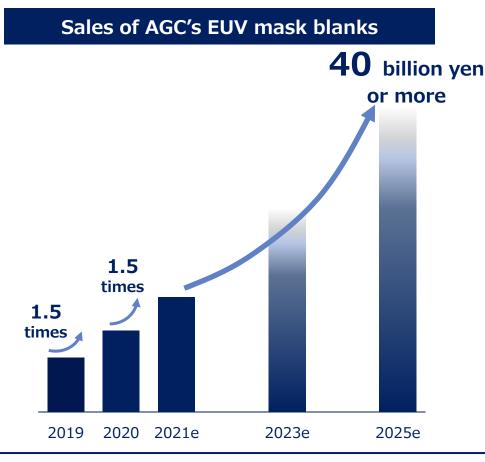


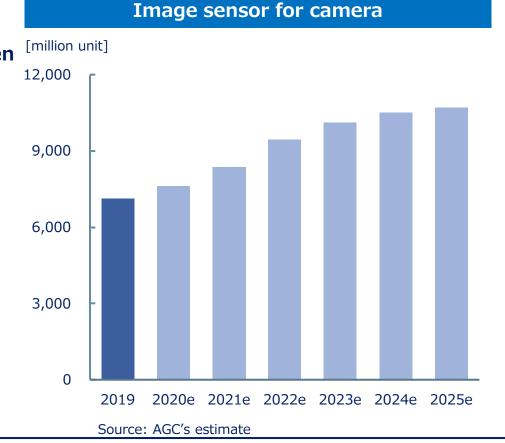
EUV Mask Blanks

EUV lithography disseminated rapidly by miniaturization of circuit patterns on semiconductor chips

Optoelectronics materials

While the growth of smartphones will slow, the number of cameras used will continue to grow as smartphones will be equipped with more camera lenses.





AGC plus-2023 Life Science

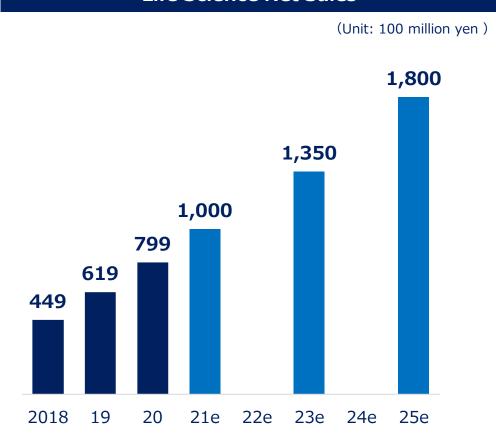


- Synthetic pharmaceuticals & agrochemicals will expand business based its development technologies
- Biopharmaceuticals will achieve a high growth in specific regions/technologies

Pharmaceuticals CDMO Market Outlook

Unit: Billion \$ 50 Gene and cell therapies (CAGAR +31%) Conventional biopharmaceuticals (CAGAR +10% (microbial/mammalian) Synthetic pharmaceuticals (CAGAR +7%) 40 30 10 20e 21e 22e 23e 24e 25e 26e

Life Science Net Sales



AGC plus-2023 5G-related Solutions



Examples of AGC's 5G-related solutions (based on press releases)

	2019	2020	2021 -
Glass antenna WAVEATTOCH™	Developed glass antenna for 5G(Sub6)	Started 5G (sub 6) glass antenna service in Japan	Glass antenna testing with T-Mobile in Europe
Car-mounted Antenna	Succeeded 5G in-city communication using 28GHz glass antenna		Practical application expected in 2021-2025
High-end PCB material (CCL)	Acquired Taconic's CCL business		
New R&D	Developed design technology for low transmission loss, flexible antenna for 28GHz	Developed transparent glass, WAVETRAP, for shielding/absorbing electromagnetic waves	Developed metasurface lens to enhance radio signal reception indoors
5G solutions for overseas offices			Consortium for providing 5G solutions to global companies

Sustainability: Products and technologies to create social value



Material opportunities

AGC Group's materials and solutions

Social value **Related SDGs**

Addressing climate change

Architectural glass, Green refrigerant, automotive infrared cut glass, refractories for biomass boiler, etc.

Contributing to the realization of a sustainable global environment

Contributing to the

realization of safe and

comfortable urban

infrastructure



Effective use of resources

Fuel cell materials, products for recycled raw materials (glass, refractories, etc.)

Developing social infrastructure

Architectural glass, caustic soda, sodium hypochlorite, sodium bicarbonate, PVC, etc.

3 すべての人に 健康と福祉を

Achieving a safe and comfortable mobility

Automotive glass antennae, components for automotive sensing radar, HuD components, etc.



Building an infointensive and IoT society

Antenna for building windows, materials for semiconductor production, Display glass,



Addressing food crises

Agrochemical active ingredients/intermediates, film for agricultural green houses

high-speed communication parts, etc.

Contributing to the realization of safe and healthy lifestyles

Facilitating better health and longevity

Pharmaceuticals active ingredients/intermediates, high-speed communication parts, high-performance membrane for water treatment







Sustainability: create social value through healthy corporate activities



Material risks

Addressing climate change

Effective use of resources

Creating a socially and environmentalconscious supply chain

Ensuring fair and equal employment and workplace safety

Considering relationships with local communities and the environment

AGC Group corporate activities

Continuous energy-saving, development of production technology/facilities to reduce GHG emissions, etc.

Use of recycled raw materials/materials, Reduction of land, etc.

Supplier selection based on respect for human rights/environmental protection

Reduce water usage, protect biodiversity, prevent environment accidents, supporter-making, etc.

Increase employee engagement, prevention of serious disaster/ accidents requiring a leave, etc.

Social value

Related SDGs

Contributing to the realization of a sustainable global environment





Contributing to the maintenance of a healthy and secure society









Contributing to the creation of fair and safe workplaces





External evaluations



FTSE4Good Index Series



FTSE Blossom Japan Index



Nadeshiko Brand

as a company that excels in promoting the advancement of women



DX Brand 2020

in recognition of digital transformation efforts



"White 500" Company

in recognition of initiatives to promote strategic health management for its employees



Brand Statement



Never take the easy way out, but confront difficulties
Trust is the best way to inspire people
Strive to develop technologies that will change the world
A sense of mission leads us to advance

For more than a century, AGC has been guided by these founding spirits. Our unique materials, solutions and reliable partnerships have facilitated leading innovations across diverse industries and markets.

Today, by working with others to combine knowledge and advanced technology, we help make ever greater achievements possible, and bring bolder ideas to life.

Your Dreams, Our Challenge

50



END

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